

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

list and description of courses which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Index

| SI. | Particulars | Page No. |
|-----|--|----------|
| No. | | |
| 1. | Summary on Crosscutting Institution integrates crosscutting | |
| | issues relevant to Professional Ethics, Gender, Human Values, | 6-10 |
| | Environment and Sustainability into the Curriculum Upload a | |
| | description in maximum of 500 words | |
| | 2016 – 17 | |
| 2. | Institution Curriculum Committee Minutes - | 11-14 |
| a. | Dept. of Computer Science & Engineering | 15-20 |
| b. | Dept. of Information Science & Engineering | 21-25 |
| с. | Dept. of Electronics & Communication Engineering | 26-33 |
| d. | Dept. of Electrical & Electronics Engineering | 34-40 |
| e. | Dept. of Mechanical Engineering | 41 -46 |
| f. | Dept. of Biotechnology | 47-50 |
| g. | Dept. of Civil Engineering | 51-55 |
| h. | Dept. of Automobile Engineering | 56-61 |
| i. | Dept. of Mechatronics | 62-65 |
| j. | Dept. of Master of Business Administration | 65-69 |
| k. | Dept. of Master of Computer Applications | 70-75 |
| 3. | List and Description of courses (1) Subject, (2) Subject Code, | 76 |
| | (3) Curriculum Objective, (4) Delivery Methodology with | |
| | Number of hours, (5) PO, PSO, CO Mapping, (6) Crosscutting | |
| | Issues Integrated which address the Professional Ethics, | |
| | Gender, Human Values, Environment and Sustainability into | |
| | the Curriculum | |
| 4. | Curriculum Highlighting Cross cutting Issues - UG | |
| ١. | B.E Computer Science & Engineering | 76-81 |
| m. | B.E Information Science & Engineering | 82 -87 |

Later 1974

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi.

Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

| | e man, engprincipal@riteoxford.edu web, www.treoxford | lengglorg |
|----|--|-----------|
| n. | B.E Electronics & Communication Engineering | 88 - 93 |
| 0. | B.E Electrical & Electronics Engineering | 94 - 111 |
| p. | B.E Mechanical Engineering | 112-120 |
| q. | B.E Biotechnology | 121- 127 |
| r. | B.E Civil Engineering | 128-135 |
| s. | B.E Automobile Engineering | 136 -140 |
| t. | B.E Mechatronics | 141-145 |
| 5. | Curriculum Highlighting Cross Cutting Issues - PG | |
| a. | MBA | 146 -152 |
| b. | MCA | 153 -159 |
| | 2017-18 | |
| 6. | Institution Curriculum Committee Minutes - | 161-164 |
| a. | Dept. of Computer Science & Engineering | 165-170 |
| b. | Dept. of Information Science & Engineering | 171 -176 |
| C. | Dept. of Electronics & Communication Engineering | 177 -183 |
| d. | Dept. of Electrical & Electronics Engineering | 184 -189 |
| e. | Dept. of Mechanical Engineering | 190 - 195 |
| f. | Dept. of Biotechnology | 196 - 199 |
| g. | Dept. of Civil Engineering | 200 - 203 |
| h. | Dept. of Automobile Engineering | 204 - 209 |
| i. | Dept. of Mechatronics | 210 - 213 |
| j. | Dept. of Master of Business Administration | 214 - 217 |
| k. | Dept. of Master of Computer Applications | 218 -222 |
| 7. | List and Description of courses (1) Subject, (2) Subject Code, | 223 |
| | (3) Curriculum Objective, (4) Delivery Methodology with | |
| | Number of hours, (5) PO, PSO, CO Mapping, (6) Crosscutting | |
| | Issues Integrated which address the Professional Ethics, | |
| | Gender, Human Values, Environment and Sustainability into | |
| | the Curriculum | |
| 8. | Curriculum Highlighting Cross cutting Issues - UG | |
| a. | B.E Computer Science & Engineering | 223 - 229 |
| b. | B.E Information Science & Engineering | 230 - 234 |
| с. | B.E Electronics & Communication Engineering | 235 - 238 |
| d. | B.E Electrical & Electronics Engineering | 239 - 244 |
| e. | B.E Mechanical Engineering | 245 - 256 |
| f. | B.E Biotechnology | 257 - 271 |
| g. | B.E Civil Engineering | 272 - 276 |
| h. | B.E Automobile Engineering | 277 - 288 |
| | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi.

Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

| | e man engprincipalgarear oralead mest ministrear oral | actinggior g |
|-----|--|--------------|
| i. | B.E Mechatronics | 289 - 292 |
| 9. | Curriculum Highlighting Cross Cutting Issues - PG | |
| a. | MBA | 275- 303 |
| b. | MCA | 304 - 310 |
| | 2018-19 | |
| 10. | Institution Curriculum Committee Minutes - | 311 - 314 |
| a. | Dept. of Computer Science & Engineering | 315 - 320 |
| b. | Dept. of Information Science & Engineering | 321 - 326 |
| c. | Dept. of Electronics & Communication Engineering | 327 - 332 |
| d. | Dept. of Electrical & Electronics Engineering | 333 - 339 |
| e. | Dept. of Mechanical Engineering | 340 - 345 |
| f. | Dept. of Biotechnology | 346 - 349 |
| g. | Dept. of Civil Engineering | 350 - 353 |
| h. | Dept. of Automobile Engineering | 354 - 359 |
| i. | Dept. of Mechatronics | 360 - 363 |
| j. | Dept. of Master of Business Administration | 364 - 367 |
| k. | Dept. of Master of Computer Applications | 368 - 373 |
| 11. | List and Description of courses (1) Subject, (2) Subject Code, | 374 |
| | (3) Curriculum Objective, (4) Delivery Methodology with | |
| | Number of hours, (5) PO, PSO, CO Mapping, (6) Crosscutting | |
| | Issues Integrated which address the Professional Ethics, | |
| | Gender, Human Values, Environment and Sustainability into | |
| | the Curriculum | |
| 12. | Curriculum Highlighting Cross cutting Issues - UG | |
| | B.E Computer Science & Engineering | 374 - 379 |
| | B.E Information Science & Engineering | 380 - 384 |
| | B.E Electronics & Communication Engineering | 385 - 389 |
| | B.E Electrical & Electronics Engineering | 390 - 394 |
| | B.E Mechanical Engineering | 395 - 405 |
| | B.E Biotechnology | 406 - 421 |
| | B.E Civil Engineering | 422 - 428 |
| | B.E Automobile Engineering | 429 - 432 |
| | B.E Mechatronics | 433 - 436 |
| 13. | Curriculum Highlighting Cross Cutting Issues - PG | |
| a. | MBA | 437 - 443 |
| b. | MCA | 444 - 445 |
| | 2019-20 | |
| 14. | Institution Curriculum Committee Minutes - | 447 -450 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi.

Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

| | Email: engphilicipal@theoxifold.edd web. www.theoxifold | aenggiorg |
|-----|--|-----------|
| a. | Dept. of Computer Science & Engineering | 451 -456 |
| b. | Dept. of Information Science & Engineering | 457 - 462 |
| C. | Dept. of Electronics & Communication Engineering | 463 - 468 |
| d. | Dept. of Electrical & Electronics Engineering | 469 - 476 |
| e. | Dept. of Mechanical Engineering | 477 - 481 |
| f. | Dept. of Biotechnology | 482 - 485 |
| g. | Dept. of Civil Engineering | 486 - 489 |
| h. | Dept. of Automobile Engineering | 490 - 495 |
| i. | Dept. of Mechatronics | 496 - 499 |
| j. | Dept. of Master of Business Administration | 500 - 503 |
| k. | Dept. of Master of Computer Applications | 504 - 509 |
| 15. | List and Description of courses (1) Subject, (2) Subject Code, | 510 |
| | (3) Curriculum Objective, (4) Delivery Methodology with | |
| | Number of hours, (5) PO, PSO, CO Mapping, (6) Crosscutting | |
| | Issues Integrated which address the Professional Ethics, | |
| | Gender, Human Values, Environment and Sustainability into | |
| | the Curriculum | |
| 16. | Curriculum Highlighting Cross cutting Issues - UG | |
| a. | B.E Computer Science & Engineering | 510 - 515 |
| b. | B.E Information Science & Engineering | 516 - 521 |
| с. | B.E Electronics & Communication Engineering | 522 - 525 |
| d. | B.E Electrical & Electronics Engineering | 526 - 534 |
| e. | B.E Mechanical Engineering | 535 - 541 |
| f. | B.E Biotechnology | 542 - 556 |
| g. | B.E Civil Engineering | 557 - 562 |
| h. | B.E Automobile Engineering | 563 - 568 |
| i. | B.E Mechatronics | 569 - 573 |
| 17. | Curriculum Highlighting Cross Cutting Issues - PG | |
| a. | MBA | 574 - 580 |
| b. | MCA | 581 - 582 |
| | 2020-21 | |
| 18. | Institution Curriculum Committee Minutes - | 584 -587 |
| a. | Dept. of Computer Science & Engineering | 588 -591 |
| b. | Dept. of Information Science & Engineering | 592 -595 |
| С. | Dept. of Electronics & Communication Engineering | 696 -601 |
| d. | Dept. of Electrical & Electronics Engineering | 602 -607 |
| e. | Dept. of Mechanical Engineering | 608 -611 |
| f. | Dept. of Biotechnology | 612 -615 |
| | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| g. | Dept. of Civil Engineering | 616-619 |
|-----|--|-----------|
| h. | Dept. of Automobile Engineering | 620 -625 |
| i. | Dept. of Mechatronics | 626 -630 |
| j. | Dept. of Master of Business Administration | 631 -634 |
| k. | Dept. of Master of Computer Applications | 635 -639 |
| 19. | List and Description of courses (1) Subject, (2) Subject Code, (3) Curriculum Objective, (4) Delivery Methodology with Number of hours, (5) PO, PSO, CO Mapping, (6) Crosscutting Issues Integrated which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum | 680 |
| 20. | Curriculum Highlighting Cross cutting Issues - UG | 125 Mar - |
| а. | B.E Computer Science & Engineering | 640-644 |
| b. | B.E Information Science & Engineering | 646 -651 |
| с. | B.E Electronics & Communication Engineering | 652 -657 |
| d. | B.E Electrical & Electronics Engineering | 658 -665 |
| e. | B.E Mechanical Engineering | 666-673 |
| f. | B.E Biotechnology | 674 -685 |
| g. | B.E Civil Engineering | 687 -696 |
| h. | B.E Automobile Engineering | 697 -702 |
| i. | B.E Mechatronics | 703-708 |
| 21. | Curriculum Highlighting Cross Cutting Issues - PG | |
| a. | MBA | 709 -714 |
| b. | MCA | 715 -716 |

PRINCIPAL fhe Oxford College of Engineering Bommanahalli, Hosur Road Bengaluru-560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Summary

To integrate cross-cutting issues such as gender, environment and sustainability, human values, and professional ethics. The oxford college of engineering, Bangalore has incorporated various types of courses into the curriculum, some of which aim to enhance professional competencies while others aim to instil general competencies such as social ethical values, human values, environmental sensitivity, and so on, resulting in the holistic development of students.

Professional Ethics and Human Values

Ethics in education aids in the management of the educational system and ensures that these habits positively contribute to human well-being. To help students understand moral values and professional ethics, the institution has worked to develop value-based education for students, with the goal of improving values for a better citizen. Various courses are taught to students in all engineering programmes for them to imbibe and practise human values and professional ethics. Concerning social development activities such as organising blood donation camps, health check-up camps, hygiene and health workshops, visit to old age home, environmental awareness camps, river cleanliness drives, workshops on social issues, public health, gender issues, and so on. The activities of the campus are overseen by the faculty in charge.

Gender Sensitivity

Gender equality protects women and girls from violence. It is necessary for economic prosperity. Societies that treat men and women equally are safer and healthier. The college has a Women Grievance Cell and a Grievance Redressal Cell to provide counselling to students, promote gender equity among students, and address issues concerning the safety and security of female students, staff, and faculty. CCTV and high-level security are in place on the college campus. There are separate Boys and Girls hostels (on-campus) to ensure that all students are safe. They have addressed such themes as love, responsibility, respect, relationships, perseverance, self-discipline, courage, honesty, and kindness. In order to sensitize students about the gender equality issues, a number of activities such as International Literary Day Observance,World Mental Health Day Observance, Decomposition Awareness Program, World Aids Day, National Youths Day, Menstural Hygiene, Awareness Program for "Yoga and Meditation For Increasing" and field excursions were organized for students of all.

Environment and Sustainability

Environmental sustainability is interacting with the environment responsibly in order to avoid resource depletion or degradation and to allow for long-term environmental quality. A variety of activities, such as seminars, workshops, guest lectures, industry visits, and field excursions, were organised for students from all programmes to raise awareness of environmental and sustainability issues. Environment Day, Covid-19 Vaccination Awareness Campaign, Road Safety Awareness Campaign, Save Water-Save Life Campaign Sound Pollution Awareness, Traffic Awareness, Clean India Campaign, Plastic Awareness Campaign, Swatch Bharat – Go Green Initiative, Traffic Awareness Program, Government Acts and Schemes Awareness Plastic Materials Are Dangerous, Awareness of Energy Conservation Traffic Awareness Campaign, Swachh Bharat Abhiyan Save Water, Save the Environment, Covid-19 Awareness Programme Every year, Earth Day and Water Day are celebrated, where students actively participate. Workshops and seminars on various aspects of environmental sustainability are organised periodically.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

List and Description of courses

| S.N 0 | Year /Semester | Name of the Program | Name of the Course |
|----------|--|--|--|
| 1 | 1st Year / 1st Semester | Department of Computer Science & Engineering | Environmental Studies(15CIV18) |
| 2 | 1st Year / 2nd Semester | Department of Computer Science & Engineering | Constitution of India, Professional Ethics and Human Rights (15CPH28) |
| 3 | 2nd Year / 1st Semester | Department of Computer Science & Engineering | Constitution of India, Professional Ethics and Cyber Law (18CPC39) |
| 4 | 3rd Year / 1st Semester | Department of Computer Science & Engineering | Environmental Studies(18CIV59) |
| 5 | 1st Year / 1st Semester | Department of Information Science & Engineering | Environmental Studies(15CIV18) |
| 6 | 1st Year / 2nd Semester | Department of Information Science & Engineering | Constitution of India, Professional Ethics and Human Rights (15CPH28) |
| 7 | 2nd Year/3rd sem | Department of Information Science & Engineering | Kannada/Constitution of India, Professional Ethics and Human Rights(17KL/CPH39/49) |
| 8 | 2nd Year/4th sem | Department of Information Science & Engineering | Kannada/Constitution of India, Professional Ethics and Human Rights(17KL/CPH39/49) |
| 9 | 2nd Year/3rd Sem | Department of Information Science & Engineering | Constitution of India, Professional Ethics and Cyber Law(18CPC39) |
| 10 | 2nd Year/4th Sem | Department of Information Science & Engineering | Constitution of India, Professional Ethics and Cyber Law(18CPC39) |
| 11 | 3rd/Vth Sem | Department of Information Science & Engineering | Environmental Studies(18CIV59) |
| 12 | 1st Year / 1st Semester | Department of Electronics & Communication Engineering | Environmental Studies(15CIV18) |
| 13 | 1st Year / 2nd Semester | Department of Electronics & Communication Engineering | Constitution of India, Professional Ethics and Human Rights (15CPH28) |
| 14 | 2nd Year/3rd Semester/4th Semester | Department of Electronics & Communication Engineering | Vyavaharika Kannada (Kannada for communication-18KVK39/49) |
| 15 | 2nd Year/3rd Semester/4th Semester | Department of Electronics & Communication Engineering | Kannada/Constitution of India,Professional Ethics and Human Rights |
| 16 | 3rd Year/5th Semester | Department of Electronics & Communication Engineering | Management and Entrepreneurship Development |
| 17 | 1st Year / 1st Semester | Department of Electrical & Electronics Engineering | Environmental Studies(15CIV18) |
| 18 | 1st Year / 2nd Semester | Department of Electrical & Electronics Engineering | Constitution of India, Professional Ethics and Human Rights (15CPH28) |
| 19 | 2nd Year / 4th Semester | Department of Electrical & Electronics Engineering | Vyavaharika Kannada (Kannada for communication)/Aadalitha Kannada (Kannada for Administration) |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi.

Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

| E | std. 1974 | E-mail: engprincipal@theoxford.edu Web: v | |
|----|----------------------------|--|--|
| 20 | 3rd year/5th Semester | Department of Electrical & Electronics Engineering | Management and Entrepreneurship |
| 21 | 3rd year/5th Semester | Department of Electrical & Electronics Engineering | Renewable Energy Systems (17EE563) |
| 22 | 3rd year/6th Semester | Department of Electrical & Electronics Engineering | SOLAR AND WIND ENERGY |
| 23 | 4th year/7th Semester | Department of Electrical & Electronics Engineering | Intellectual Property Rights (10EE846) |
| 24 | 4th year/8th Semester | Department of Electrical & Electronics Engineering | Renewable energy sources (10EE836) |
| 25 | 1st Year / 1st Semester | Department of Mechanical Engineering | Environmental Studies(15CIV18) |
| 26 | 1st Year / 2nd Semester | Department of Mechanical Engineering | Constitution of India, Professional Ethics and Human Rights (15CPH28) |
| 27 | 2nd Year / 3rd Semester | Department of Mechanical Engineering | Constitution of India, Professional Ethics and Cyber Law |
| 28 | 2nd Year / 3rd Semester | Department of Mechanical Engineering | Vyavaharika Kannada (Kannada for communication)/Aadalitha Kannada (Kannada for Administration) |
| 29 | 3rd Year / 5th Semester | Department of Mechanical Engineering | Managment and Engineering Economics |
| 30 | 3rd Year / 5th Semester | Department of Mechanical Engineering | Human Resourse Management |
| 31 | 3rd Year / 5th Semester | Department of Mechanical Engineering | Energy and Environment |
| 32 | 3rd Year / 5th Semester | Department of Mechanical Engineering | Project management |
| 33 | 1st Year / 1st Semester | Department ofBiotechnology | Environmental Studies(15CIV18) |
| 34 | 1st Year / 2nd Semester | Department ofBiotechnology | Constitution of India, Professional Ethics and Human Rights (15CPH28) |
| 35 | 2nd Year / 3rd Semester | Department ofBiotechnology | Kannada/Constitution of India, Professional Ethics and Human Rights(17KL/CPH39/49) |
| 36 | 3rd year/5th Semester | Department ofBiotechnology | Biotechnology for sustainable environment(15BT563) |
| 37 | 3rd year/6th Semester | Department ofBiotechnology | Bio-business and entrepreneurship(15BT61) |
| 38 | 4th year/8th Semester | Department ofBiotechnology | Project management & IPR(10BT71) |
| 39 | 4th year/8th Semester | Department of Biotechnology | Bioethics & biosafety(10BT82) |
| 40 | 4th year/8th Semester | Department of Biotechnology | Environmental biotechnology(15BT833) |
| 41 | 1st Year / 1st Semester | Department of Civil Engineering | Environmental Studies(15CIV18) |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi.

Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

| | | e man, engprincipal@ureoxroid.edu web. v | minitedulordenggiorg |
|----|----------------------------|---|--|
| 42 | 1st Year / 1st Semester | Department of Civil Engineering | Constitution of India, Professional Ethics and Human Rights (15CPH28) |
| 43 | 2nd year/1st semester | Department of Civil Engineering | Constitution of India, Professional Ethics and Human Rights (18CPC39) |
| 44 | 2nd year/2nd semester | Department of Civil Engineering | Constitution of India, Professional Ethics and Human Rights (18CPC39/49) |
| 45 | 3rd year/1st semester | Department of Civil Engineering | Environmental Studies(18CIV59) |
| 46 | 3rd year/2nd semester | Department of Civil Engineering | Conservation of Natural Resources(18CV656) |
| 47 | 4th year/1st semester | Department of Civil Engineering | Environmental Project and Management (18CV753) |
| 48 | 1st Year / 1st Semester | Department of Automobile Engineering | Environmental Studies(15CIV18) |
| 49 | 1st Year / 2nd Semester | Department of Automobile Engineering | Constitution of India, Professional Ethics and Human Rights (15CPH28) |
| 50 | 2nd Year / 3rd Semester | Department of Automobile Engineering | Aadalitha Kannada(18KAK28/39/49) |
| 51 | 2nd Year / 3rd Semester | Department of Automobile Engineering | Constitution of India, professional ethics and cyber law (CPC)(18CPC39/49) |
| 52 | 2nd Year / 4th Semester | Department of Automobile Engineering | Vyavaharika Kannada(18KVK28/39/49) |
| 53 | 2nd Year / 4th Semester | Department of Automobile Engineering | Kannada/Constitution of India, Professional Ethics and Human Rights(17KL/CPH39/49) |
| 54 | 3rd year/5th Semester | Department of Automobile Engineering | Management and entrepreneurship(18AU51) |
| 55 | 3rd year/5th Semester | Department of Automobile Engineering | Environmental studies(18CIV59) |
| 56 | 1st Year / 1st Semester | Department of Mechatronics | Environmental Studies(15CIV18) |
| 57 | 1st Year / 2nd Semester | Department of Mechatronics | Constitution of India, Professional Ethics and Human Rights (15CPH28) |
| 58 | 2nd Year / 3rd Semester | Department of Mechatronics | Constitution of India, Professional Ethics and Cyber Law |
| 59 | 2nd Year / 3rd Semester | Department of Mechatronics | Vyavaharika Kannada (Kannada for communication)/Aadalitha Kannada (Kannada for Administration) |
| 60 | 1st Year / 1st Semester | Department of Master of Business Administration | MANAGEMENT & ORGANIZATIONAL BEHAVIOUR (16MBA11/18MBA11) |
| 61 | 1st Year / 2nd Semester | Department of Master of Business Administration | BUSINESS LAW AND POLICY (16MBA24) |
| 62 | 2nd Year / 2nd Semester | Department of Master of Business Administration | Legal and Business Environment (18MBA24) |
| · | | 1 | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi.

Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 63 | 1st Year / 2nd Semester | Department of Master of Business Administration | HUMAN RESOURCE MANAGEMENT (16MBA21) |
|----|----------------------------|---|--|
| 64 | 2nd Year / 3rd Semester | Department of Master of Business Administration | CONFLICT AND NEGOTIATION MANAGEMENT (16MBA HR306) |
| 65 | 2nd Year / 4th Semester | Department of Master of Business Administration | Sales Management (18MBA MM401) |
| 66 | 2nd Year / 4th Semester | Department of Master of Business Administration | Organisational change and development (20MBAHR404) |
| 67 | 1st Year / 1st Semester | Master of Computer Applications | Basics of Programming & CO (Bridge course-20MCA19-BC)for non Computer science Background |
| 68 | 2nd Year / 3rd Semester | Master of Computer Applications | Intellectual Property Rights(16MCA351) |

2016 – 17



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

INSTITUTIONAL CURRICULUM COMMITTEE MEETING 2016-2017 –(ODD)

The reconstitution of the Institutional curriculum committee was made and the meeting was held on 14/07/2016 and the following members were present for the meeting.

| Sl no. | NAME | DESIGNATION | COMMITTEE DESIGNATION |
|--------|-----------------------|--------------------------|--------------------------|
| 1. | Dr R V Praveena Gowda | Principal | Chair Person |
| 2. | Dr R J Anandhi | Vice Principal & HOD-CSE | Member Coordinator |
| 3. | Dr D Jayaramaiah | HOD-ISE | Member |
| 4. | Dr Dattathreya | HOD-ECE | Member |
| 5. | Prof Jayakumar N | HOD-EEE (In charge) | Member |
| 6. | Dr G S Bhatt | HOD-ME | Member |
| 7. | Dr Kusum Paul | HOD-BT | Member |
| 8. | Dr Amarnath K | HOD-Civil | Member |
| 9. | Ms. Neeta | HOD-MTE (In charge) | Member |
| 10. | Dr Raju B R | HOD-AUTO | Member |
| 11. | Prof N Chiranthana | HOD-CTM | Member |
| 12. | Dr Mallikarjuna K | HOD-Maths | Member |
| 13. | Dr Vijayakumaran Nair | HOD-Physics | Member |
| 14. | Dr Surekha M | HOD-Chemistry | Member |
| 15. | Dr James Thomas | HOD-MBA | Member |
| 16. | Dr M S Shashidhara | HOD-MCA | Member |
| 17. | Prof S Sathish | HOD- B-Arch | Member |

Agenda:

- Implementation of VTU prescribed syllabus with the continuation of the CBCS system
- Discussion on cross cutting issues for relevant subjects implementing in the present semester
- Tentative schedule for the Field Work/ Industrial visit, Project Work
- Certified Program for the pre-final / final year students
- Preparation of TIME TABLE for ODD semester 2016-17
 - a. B.E / B.Arch (UG) Time Table



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- b. PG Time Table
- Faculties to participate in BOS / Academic Council and question paper designing evaluation and assessment.
- Implementation of Enrichment Courses.
- Implementation of Interdisciplinary/ Interdepartmental courses.
- Implementation of Value-added courses.
- Implementation of Internships
- Implementation of action on Feedback analysis report.

Summary: Minutes

The committee is composed of Principal, Dean Academics and Head of all departments. The abovementioned agenda was discussed and resolutions were formed. These were circulated to all the concerned departments and were recommended to be inculcated in their respective department curriculum meeting and implementation of the same.

Resolutions:

- It has been informed to all HOD's to implement the latest prescribed syllabus by VTU in the respective department.
- All the HOD's are required to submit a time table for theory, practical for the odd semester 2016-17.
- HOD's should ensure and make their maximum efforts to make their faculties to participate in BOS and academic council members in affiliated university as well as outside universities
- It is decided to implement 2 enrichment courses for each department and an action plan to be submitted one week after this meeting.
- It is decided to implement 2 value added courses for each department and an action plan to be submitted one week after this meeting.
- It is decided to implement 2 interdisciplinary courses for each department and an action plan to be submitted one week after this meeting.
- It is decided to implement 1 field visit for each department and an action plan to be submitted one week after this meeting.

PRINCIPAL

The Oxford College of Engineering Bommanahalli, Hosur Road Bengaluru-560 peg;



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

INSTITUTIONAL CURRICULUM COMMITTEE MEETING 2016-2017 – (EVEN)

The reconstitution of the Institutional curriculum committee was made and the meeting was held on 01/02/2017 and the following members were present for the meeting.

| Sl no. | NAME | DESIGNATION | COMMITTEE DESIGNATION |
|--------|-----------------------|--------------------------|--------------------------|
| 1. | Dr R V Praveena Gowda | Principal | Chair Person |
| 2. | Dr R J Anandhi | Vice Principal & HOD-CSE | Member Coordinator |
| 3. | Dr D Jayaramaiah | HOD-ISE | Member |
| 4. | Dr Manju Devi | HOD-ECE | Member |
| 5. | Prof Jayakumar N | HOD-EEE (In charge) | Member |
| 6. | Dr G S Bhatt | HOD-ME | Member |
| 7. | Dr Kusum Paul | HOD-BT | Member |
| 8. | Dr Amarnath K | HOD-Civil | Member |
| 9. | Ms. Nandini D B | HOD-MTE (In charge) | Member |
| 10. | Dr Raju B R | HOD-AUTO | Member |
| 11. | Mr Shivakumar M | HOD-CTM (In charge) | Member |
| 12. | Dr Mallikarjuna K | HOD-Maths | Member |
| 13. | Dr Snigdha Gupta | HOD-Physics (In charge) | Member |
| 14. | Dr Surekha M | HOD-Chemistry | Member |
| 15. | Dr Sarit Kumar | Director-MBA | Member |
| 16. | Dr M S Shashidhara | HOD-MCA | Member |
| 17. | Prof Benny Kurian | HOD- B-Arch (In charge) | Member |

Agenda: Minutes

- To review that prescribed syllabus is being followed.
- To review implementation of the time table for 2016-17 EVEN.
- To review the efforts made by the faculties in in participating in BoS/ Academic council and question paper designing evaluation and assessment
- To review on enrichment courses/Value added courses, Field visits/Industry visit and Internship/Community posting conducted and report submitted.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Summary: Minutes

The committee is composed of Principal, Dean Academics and Head of all departments. The above mentioned agenda was discussed and resolutions were formed. These were circulated to all the concerned departments and were recommended to be inculcated in their respective department curriculum meeting and implementation of the same.

Resolution:

- The approved syllabus is followed.
- Principal advised HODs to allocate theory classes in the morning and labs in the afternoon.
- Principal advised all faculty to have their course file ready and checked by respective HODs before 6th Feb 2017
- Lesson plan shall be prepared for 16 weeks and softcopy to be submitted.
- HODs were advised to prepare academic plan and send hardcopy
- One enrichment course and one value added course has been done and the report is satisfactory.

PRINCIPAL The Oxford Cottege of Engineering

Bommanaballi, Hosur Road Bengaluru-560 oes



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org Departmental Committee Meeting – (CSE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017 –(ODD)

The department curriculum committee was made and the meeting was held on 14/07/2016 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|---------------------------|------------------|
| 1 | Dr.AnandhiR.J | Professor & HOD |
| 2 | Dr. Nirmala | Professor |
| 3 | Ms. Shobha T | Assot. Professor |
| 4 | Mr. Senthil Kumar | Assot. Professor |
| 5 | Ms. Seema Patil | Assot. Professor |
| 6 | Ms. Gousia T | Assot. Professor |
| 7 | Ms. Sowmya H K | Assot. Professor |
| 8 | Ms. Shilpa Kamman | Asst. Professor |
| 9 | Ms. Koyel Sinha Chowdhury | Asst. Professor |
| 10 | Ms. Chandanita Thakur | Asst. Professor |
| 11 | Ms. Maragatham | Asst. Professor |
| 12 | Ms. Florance G | Asst. Professor |
| 13 | Mr. Naveen H S | Asst. Professor |
| 14 | Ms. Jesy Janet Kumari | Asst. Professor |
| 15 | Ms. AnarghaRemesh | Asst. Professor |
| 16 | Ms. Fenita F | Asst. Professor |
| 17 | Ms. Moutushi Kar | Asst. Professor |
| 18 | Ms. Neeta Ann Jacob | Asst. Professor |
| 19 | Ms. Shirisha | Asst. Professor |
| 20 | Ms. Lavanya S | Asst. Professor |
| 21 | Ms. Beena K | Asst. Professor |
| 22 | Ms. Amrutha | Asst. Professor |
| 23 | Ms. Bindu Madavi | Asst. Professor |

| CODETY MAN | CHILDREN'S EDUCATION SOCIETY (Regd.) | | |
|----------------------|---|-----------------|--|
| 1 Carlos | THE OXFORD COLLEGE OF ENGINEERING | | |
| | (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. | | |
| BEN WARDER | Approved by A.I.C.T.E. New Delhi. | | |
| E CARACTER I | Recognised by UGC Under Section 2(f) | | |
| L. A. L | Bommanahalli, Hosur Road, Bangalore - 560 068. | | |
| विद्या नवंत्र शोभत/7 | Ph: 080-61754601/602, Fax: 080 - 25730551 | | |
| Estcl. 1974 | E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org | | |
| 24 | Ms. Manasa | Asst. Professor | |

Agenda:

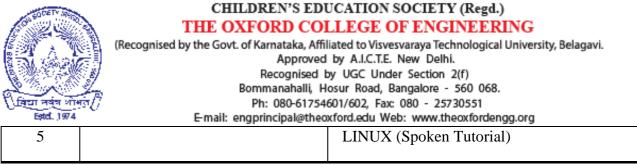
- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1. HOD, Dr. R J Anandhi welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans for Field Visit / Industrial Visit.
- 7. Planning for the Final Year's Project Works / Internships.
- 8. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following certificate programs will be conducted during 2016 – 2017 odd semester

| Sl. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| 1 | | C (Spoken Tutorial) |
| 2 | CSE | CPP (Spoken Tutorial) |
| 3 | _ CSE | PHP & MySQL (Spoken Tutorial) |
| 4 | | JAVA (Spoken Tutorial) |



The following value-added programs will be conducted during 2016 – 2017 odd semester

| Sl. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 1. | CSE | Soft Skill Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

HEAD OF THE DEPARTMENT DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING THE OXFORD COLLEGE OF ENGINEERING BENGALURU - 560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org Departmental Committee Meeting – (CSE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017 –(EVEN)

The department curriculum committee was made and the meeting was held on 01/02/2017 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|---------------------------|------------------|
| 1 | Dr.AnandhiR.J | Professor & HOD |
| 2 | Dr. Nirmala | Professor |
| 3 | Ms. Shobha T | Assot. Professor |
| 4 | Mr. Senthil Kumar | Assot. Professor |
| 5 | Ms. Seema Patil | Assot. Professor |
| 6 | Ms. Gousia T | Assot. Professor |
| 7 | Ms. Sowmya H K | Assot. Professor |
| 8 | Ms. Shilpa Kamman | Asst. Professor |
| 9 | Ms. Koyel Sinha Chowdhury | Asst. Professor |
| 10 | Ms. Chandanita Thakur | Asst. Professor |
| 11 | Ms. Maragatham | Asst. Professor |
| 12 | Ms. Florance G | Asst. Professor |
| 13 | Mr. Naveen H S | Asst. Professor |
| 14 | Ms. Jesy Janet Kumari | Asst. Professor |
| 15 | Ms. AnarghaRemesh | Asst. Professor |
| 16 | Ms. Fenita F | Asst. Professor |
| 17 | Ms. Moutushi Kar | Asst. Professor |
| 18 | Ms. Neeta Ann Jacob | Asst. Professor |
| 19 | Ms. Shirisha | Asst. Professor |
| 20 | Ms. Lavanya S | Asst. Professor |
| 21 | Ms. Beena K | Asst. Professor |
| 22 | Ms. Amrutha | Asst. Professor |
| 23 | Ms. Bindu Madavi | Asst. Professor |

| CODETY MAL | CHILDREN'S EDUCATION SOCIETY (Regd.) | | |
|-----------------------|---|-----------------|--|
| Carl Carlo | THE OXFORD COLLEGE OF ENGINEERING | | |
| | (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. | | |
| STAL WARDER | Approved by A.I.C.T.E. New Delhi. | | |
| | Recognised by UGC Under Section 2(f) | | |
| Look L | Bommanahalli, Hosur Road, Bangalore - 560 068. | | |
| िविद्या नवंत्र गोभल/7 | Ph: 080-61754601/602, Fax: 080 - 25730551 | | |
| Estel. 1974 | E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org | | |
| 24 | Ms. Manasa | Asst. Professor | |

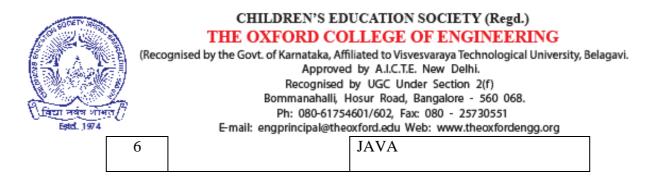
Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1. HOD, Dr. R J Anandhi, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 2. Semester plan for 2016-17 even semester and mentioning the activities planned in the department.
- 3. Syllabus copy prescribed by the university circulated to the students and faculty.
- 4. Department announced to conduct the regular seminars to the students.
- 5. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 6. Department plans for Field Visit / Industrial Visit.
- 7. Planning for the Final Year's Project Works / Internships.
- 8. Mentor mentee list discussion
- 9. The following certificate programs will be conducted during 2016 2017 EVEN semester

| Sl. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| 1 | | C (Spoken Tutorial) |
| 2 | | CPP (Spoken Tutorial) |
| 3 | CSE | PHP & MySQL (Spoken Tutorial) |
| 4 | | JAVA (Spoken Tutorial) |
| 5 | | Android App Development |



Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

CSE

HEAD OF THE DEPARTMENT DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING THE OXFORD COLLEGE OF ENGINEERING BENGALURU - 560 068



CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – Information Science and Engineering

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017 – (EVEN)

The department curriculum committee was made and the meeting was held on 13/01/2016 and the following members were present for the meeting.

| Sl no. | NAME | DESIGNATION |
|--------|-----------------------|--------------|
| 1. | Dr.Jayaramaiah. D | HOD |
| 2. | Dr.R.Kanagavalli | Assot. Prof. |
| 3. | Mrs.J.Karthiyaini | Asst. Prof. |
| 4. | Ms.Nalinakshi B G | Asst. Prof. |
| 5. | Ms. Visalini S | Asst. Prof. |
| 6. | Mr.Ram Sankar G | Asst. Prof. |
| 7. | Ms. KalaiSelvi | Asst. Prof. |
| 8. | Ms. Kokila P | Asst. Prof. |
| 9. | Ms.Bindyashree | Asst. Prof. |
| 10. | Mrs.Chempavathy B | Asst. Prof. |
| 11. | Mrs.Sindhuja | Asst. Prof. |
| 12. | Ms. Suganya R | Asst. Prof. |
| 13. | Mr. Channappa Gowda | Asst. Prof. |
| 14. | Ms. InduK.S | Asst. Prof. |
| 15. | Mrs.Prathiba.K.N | Asst. Prof. |
| 16. | Mr. Karthik S L | Asst. Prof. |
| 17. | Mrs.Halaharvi Keerthi | Asst. Prof. |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxford.engg.org

Agenda:

- 1. Semester plan
- 2. Introduction of syllabus based on CBCS scheme
- 3. Conduction of seminars
- 4. Plan for Field Visit/ Industrial Visit
- 5. Plan for the (Final Year's) Project Works / Internships
- 6. Allotment the assignment topics and tutorial topics
- 7. Plan for mentoring activities

Summary: Minutes

- 1. HOD, Dr.Jayaramaiah. D welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. Semester plan for 2016-17 even semester and mentioning the activities planned in the department.
- 3. The discussion of the subjects of CBCS selected by the students.
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the (Final Year's) Project Works / Internships (with company names and details).
- 9. Mentor mentee list discussion

10. The following certificate programs will be conducted during 2016 – 2017 EVEN semester

| Sl. No. | Name of the department | Name of the Certificate Program |
|---------|-------------------------------------|---------------------------------|
| 1. | Information Science and Engineering | CCNA |
| 2. | Information Science and Engineering | Big data |

11. The following value-added programs will be conducted during 2016 – 2017 EVEN semester

| Sl. No. | Name of the department | Name of the Value-added programs |
|---------|-------------------------------------|----------------------------------|
| 2. | Information Science and Engineering | Soft skill training |

Resolutions:

- 1. Faculty members are informed to motivate the students to involve in the Research activities.
- 2. Toppers from each semester to be motivated to get VTU ranks.
- 3. Result percentage of forthcoming semester to be improved.

PROFESSOR & HOD-ISE The Oxford College Of Engineering Bommanahalli, Hosur Main Road, Bangalore 560 068.

HOD-ISE



CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – Information Science and Engineering

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017 – (ODD)

The department curriculum committee was made and the meeting was held on 29/07/2015 and the following members were present for the meeting.

| Sl no. | NAME | DESIGNATION |
|--------|-----------------------|--------------|
| 1. | Dr.Jayaramaiah. D | HOD |
| 2. | Dr.R.Kanagavalli | Professor |
| 3. | Mrs.J.Karthiyaini | Professor |
| 4. | Ms.Nalinakshi B G | Professor |
| 5. | Ms. Visalini S | Assot. Prof. |
| 6. | Mr.Ram Sankar G | Assot. Prof. |
| 7. | Ms. KalaiSelvi | Asst. Prof. |
| 8. | Ms. Kokila P | Asst. Prof. |
| 9. | Ms.Bindyashree | Asst. Prof. |
| 10. | Mrs.Chempavathy B | Asst. Prof. |
| 11. | Mrs.Sindhuja | Asst. Prof. |
| 12. | Ms. Suganya R | Asst. Prof. |
| 13. | Mr. Channappa Gowda | Asst. Prof. |
| 14. | Ms. InduK.S | Asst. Prof. |
| 15. | Mrs.Prathiba.K.N | Asst. Prof. |
| 16. | Mr. Karthik S L | Asst. Prof. |
| 17. | Mrs.Halaharvi Keerthi | Asst. Prof. |
| 18. | Mrs.VijayaLaxmiPatil | Asst. Prof. |

Agenda:

1. Semester plan



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 2. Value-added and certificate programs
- 3. Conduction of seminars
- 4. Plan for Field Visit/ Industrial Visit
- 5. Plan for the (Final Year's) Project Works / Internships
- 6. Allotment the assignment topics and tutorial topics

Summary: Minutes

- 1. HOD, Dr.Jayaramaiah. D welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS)
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans for Field Visit/ Industrial Visit.
- 7. Planning for the (Final Year's) Project Works / Internships (with company names and details).
- 8. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following certificate programs will be conducted during 2016 – 2017 odd semesters

| Sl | . No. | Name of the department | Name of the Certificate Program |
|----|-------|-------------------------------------|---------------------------------|
| 2. | | Information Science and Engineering | CCNA |
| 2 | | Information Science and Engineering | Big data |

The following value-added programs will be conducted during 2016–2017 odd semester

| Sl. No. | Name of the department | Name of the Value-added programs |
|---------|-------------------------------------|----------------------------------|
| 3. | Information Science and Engineering | Soft skill training |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Resolutions:

- 1. Faculty members are informed to motivate the students to publish the Research papers in the Reputed Journals.
- 2. Toppers from each semester to be motivated to get VTU ranks.
- 3. Result percentage of forthcoming semester to be improved.

PROFESSOR & HOD-ISE The Oxford College Of Engineering Bommanahalli, Hosur Main Road, Bangalore 560 068.

HOD -ISE



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org Departmental Committee Meeting -ECE

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017 – (ODD)

The Department curriculum committee was made and the meeting was held on 15/07/2016 and the following members were present for the meeting

| Slno. | NAME | DESIGNATION |
|-------|---------------------|----------------|
| 1. | Dr.Dattathreya | HOD&Professor |
| 2. | Dr.Vivek.M | Professor |
| 3. | Dr.PreetaSharan | Professor |
| 4. | Mr.N.Jayaraj | AssociateProf |
| 5. | Ms.SajithraVarun | AssociateProf |
| 6. | Mr.Piruthviraj.P | AssociateProf |
| 7. | Mr.N.Sridhar | AssociateProf |
| 8. | Ms.ChrispinJiji | Asst.Professor |
| 9. | Mr.Ramesh.T.M | Asst.Professor |
| 10. | Ms.SowmyaPadukone.G | Asst.Professor |
| 11. | Ms.ReemaSharma | Asst.Professor |
| 12. | Mr.BhargavRamGowd | Asst.Professor |
| 13. | Ms.LayaTojo | Asst.Professor |
| 14. | Ms.Chandrakala.S | Asst.Professor |
| 15 | Ms.Aruna.J | Asst.Professor |
| 16. | Mr.ManjunathSheth | Asst.Professor |
| 17. | Mr.Veeresh.H | Asst.Professor |

्रिया नवंश गोभग हिंदा नवंश गोभग हिंदी 1974

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | eoxioid.edd web. www.ileoxioidengg.org |
|-----|--------------------------|--|
| 18. | Mr.Anand.K.Warad | Asst.Professor |
| 19. | Mr.RichardLincolnPaulraj | Asst.Professor |
| 20 | Ms.SoniyaJames | Asst.Professor |
| 21. | Ms.Lakshmi.R | Asst.Professor |
| 22. | Mr.AravindReddy | Asst.Professor |
| 23. | TejalFarkhande | Asst.Professor |
| 24. | Ashwini.M | Asst.Professor |
| 25. | AnujaHanji | Asst.Professor |
| 26. | Raghavendra.M | Asst.Professor |
| 27. | MttuGeorge | Asst.Professor |
| 28. | Prashanth.N | Asst.Professor |
| 29. | Dhanya | Asst.Professor |
| 30. | JagadeeshwarReddy | Asst.Professor |
| 31. | Sheela.C | Asst.Professor |
| 32. | Dr.Karibasappa | Principal&Professor |
| 33. | Vaibhav | Professor |
| 34. | Sunitha | Asst.Professor |
| 35. | Dr.AnilTiwari | Professor |
| | | |

Agenda:

(i) Odd Semester Plan for Academics & Co-Curricular Activities



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- (ii) Introduction of CBCS & orientation for Students
- (iii) Arrangement of Seminars ,Field Visits & Industrial Visit to Students Conduction of Project Work, Internship work to Students

Summary: Minutes of meeting

,Dr.Dattathreya,HOD & Prof welcomed all the faculty and explained VTU, ODD semester regulations.

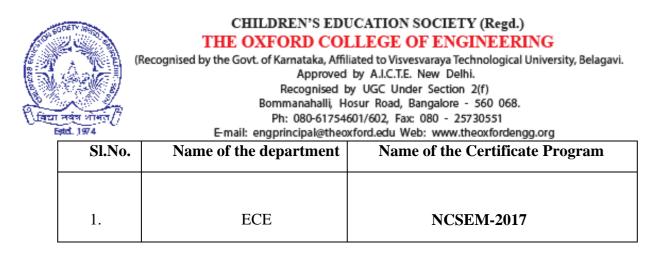
1. Semester plan for2016-17Odd semester and mentioning the activities planned in the department.

| Sl. No. | NameoftheDepartment | CBCS |
|---------|---------------------|----------------|
| 1. | ECE | 2016-17 Scheme |

- 2. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 3. As per the VTU regulation guide lines the students of B.E have to select one subject from the MOOCS-I,MOOCS-II & MOOCS-III

| Sl.No | NameoftheDepartment | MOOCS –I | MOOCS-II | MOOCS-III |
|-------|---------------------|----------------------|---------------------|---------------------------|
| 1. | ECE | Nano- Electronics | Operating System | Automotive Electronics |

- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit/ Industrial Visit.
- 8. Planning for the (FinalYear's) Project Works/ Internships (with company names and details).
- 9. Mentor menteelist-discussion
- 10. The following certificate programs will be conducted during
 - 2016 2017ODD Semester



11. The following value-added programs will be conducted during

2016 – 2017ODD Semester

| Sl. No. | Name of thedepartm ent | NameoftheCertificateProgram |
|------------|------------------------------|-----------------------------|
| 1. | ECE | MEGA MIND |

Resolutions:

The HOD & Faculties of the Department will do the Resolution that We all wll work towards the over all growth of the Department, Students & Organization.

Professor & HOD of E&C Engineering Tue Oxford College of Engineering Bommananalli, Bangatore - 560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting -ECE

DEPARTMENTALCURRICULUMCOMMITTEEMEETING2016-2017(EVEN)

The Department curriculum committee was made and the meeting was held on 12/02/2017 and the following members were present for the meeting.

| NAME | DESIGNATION | |
|---------------------|---|---|
| Dr.Vivek.M | Professor | |
| Dr.PreetaSharan | Professor | |
| Mr.N.Jayaraj | AssociateProf | |
| Ms.SajithraVarun | AssociateProf | |
| Mr.Piruthviraj.P | AssociateProf | |
| Mr.N.Sridhar | AssociateProf | |
| Ms.ChrispinJiji | Asst.Professor | |
| Mr.Ramesh.T.M | Asst.Professor | |
| Ms.SowmyaPadukone.G | Asst.Professor | |
| Ms.ReemaSharma | Asst.Professor | |
| Mr.BhargavRamGowd | Asst.Professor | |
| Ms.LayaTojo | Asst.Professor | |
| Ms.Chandrakala.S | Asst.Professor | |
| Ms.Aruna.J | Asst.Professor | |
| Mr.ManjunathSheth | Asst.Professor | |
| Mr.Veeresh.H | Asst.Professor | |
| Mr.Anand.K.Warad | Asst.Professor | |
| | Dr.Vivek.MDr.PreetaSharanMr.N.JayarajMr.N.JayarajMs.SajithraVarunMr.Piruthviraj.PMr.N.SridharMs.ChrispinJijiMr.Ramesh.T.MMs.SowmyaPadukone.GMs.ReemaSharmaMr.BhargavRamGowdMs.LayaTojoMs.Chandrakala.SMs.Aruna.JMr.ManjunathShethMr.Veeresh.H | Dr. Vivek.MProfessorDr.PreetaSharanProfessorMr.N.JayarajAssociateProfMs.SajithraVarunAssociateProfMr.Piruthviraj.PAssociateProfMr.N.SridharAssociateProfMs.ChrispinJijiAsst.ProfessorMr.Ramesh.T.MAsst.ProfessorMs.SowmyaPadukone.GAsst.ProfessorMs.ReemaSharmaAsst.ProfessorMs.LayaTojoAsst.ProfessorMs.Chandrakala.SAsst.ProfessorMs.Aruna.JAsst.ProfessorMr.ManjunathShethAsst.ProfessorMr.Veeresh.HAsst.Professor |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 18. | Mr.RichardLincolnPaulraj | Asst.Professor |
|-----|--------------------------|----------------|
| 19 | Ms.SoniyaJames | Asst.Professor |
| 20. | Ms.Lakshmi.R | Asst.Professor |
| 21 | Mr.AravindReddy | Asst.Professor |
| 22 | TejalFarkhande | Asst.Professor |
| 23. | Ashwini.M | Asst.Professor |
| 24 | Raghavendra.M | Asst.Professor |
| 25 | MttuGeorge | Asst.Professor |
| 26 | Prashanth.N | Asst.Professor |
| 27 | Dhanya | Asst.Professor |
| 28. | JagadeeshwarReddy | Asst.Professor |
| 29. | Sheela.C | Asst.Professor |
| 30. | Vaibhav | Professor |
| 31. | Sunitha | Asst.Professor |
| 32. | Dr.Manju Devi | Prof&HOD |
| 33. | Dr.AnilTiwari | Professor |
| | | |

Agenda:

- (i) Even Semester Plan for Academics & Co-CurricularActivities
- (ii) Introduction of CBCS & orientation for Students
- (iii) Arrangement of Seminars, Field Visits & IndustrialVisit to Students
- (iv) Conduction of ProjectWork, Internship work to Students



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Summary: Minutes of meeting

,Dr.Manju Devi HOD & Prof welcomed all the faculty and explained VTU, EVEN Semesterr 2016-17 Regulations.

1 Semester plan for 2016-17 Evensemester and mentioning the activities planned in the department.

| Sl.No. | NameoftheDepartment | CBCS |
|--------|---------------------|----------------|
| 1. | ECE | 2016-17 Scheme |

The discussion of the subjects of CBCS given in the above table, selected by the students.

2 Asper the VTU regulation guide lines the students of B.E have to select one subject from the MOOCS-I, MOOCS-II& MOOCS-III

| Sl.No | NameoftheDepartment | MOOCS-I | MOOCS – II | MOOCS-III |
|-------|---------------------|----------------------|---------------------|---------------------------|
| 1. | ECE | Nano- Electronics | Operating System | Automotive Electronics |

- 3 Syllabus copy prescribed by the university circulated to thes tudents and faculty.
- 4 Department announced to conduct the regular seminars to the students.
- 5 Department plans to all ot the assignment topics to the students and toallocate the tutorial topics to the students.
- 6 Department plansforFieldVisit/IndustrialVisit.
- 7 Planning for the (FinalYear's) ProjectWorks/Internships (with company names and details).
- 8 Mentor menteelist-discussion



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|---------------------|-----------------------------|
| 1. | ECE | NCSEM-2017 |

The following certificate programs will be conducted during

2016 – 2017EVENsemester

9 The following value-added programs will be conducted during 2016

- 2017EVENSemester

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|---------------------|-----------------------------|
| 1 | ECE | |
| 1. | | ME GAMIND |

Resolutions:

The HOD & Faculties of the Department will do the Resolution that We all wll work towards the over all growth of the Department, Students & Organization.

rofessor & HOD of E&C Engineering

The Oxford College of Engineering Bommananalli, Bangatore - 560 068.

HOD-ECE



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (EEE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017 -(ODD)

The department curriculum committee was made and the meeting was held on 21/07/2016 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|------------------------|--------------|
| 1 | Dr.H.B.PHANI RAJU | Prof.& HOD |
| 2 | Dr.V.Chinnappan | Prof |
| 3 | Dr.Sidheshwarprasad | Prof |
| 4 | Dr.Gurumurthy | Prof. |
| 5 | Dr.Puneet Kaur | Assoc.Prof. |
| 6 | Dr.Gangadhara Swami | Prof. |
| 7 | Mrs.SandhyaRai | Assoc. Prof. |
| 8 | Mr.N.Jayakumar | Assoc. Prof. |
| 9 | Mrs.Nisha.C.Rani | Assoc.Prof. |
| 10 | Mrs.B.DeviVighneshwari | Assoc. Prof. |
| 11 | Mrs.Raichel Ruby | Assoc.Prof. |
| 12 | Mrs.Manjula.C | Assoc.Prof. |
| 13 | Mrs.Viji.K | Asst.Prof. |
| 14 | Mrs.NalinaKumari | Asst. Prof |
| 15 | Mr.Muniyappa | Asst.Prof. |
| 16 | Mrs.Thilaga.P | Asst.Prof. |
| 17 | Mrs.AnupamaSisodiya | Asst.Prof. |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | Email: engphilicipal@uteoxioid.edd web. www.uteoxioidengg.org | | |
|----|---|-------------|--|
| 18 | Mrs.NavathaKumari | Asst.Prof. | |
| 19 | Mrs.Sumitha.T.L | Asst.Prof. | |
| 20 | Mrs.Someswari | Asst.Prof. | |
| 21 | Mrs.ArutselviNagammai | Asst.Prof. | |
| 22 | Ms.Pavithra.P.S | Asst.Prof. | |
| 23 | Ms.Deepa.N.Raju | Asst.Prof. | |
| 24 | Mrs.Vinutha.Y.E | Asst.Prof. | |
| 25 | Mrs.Vaishnavi Galli | Asst.Prof. | |
| 26 | Mrs.Thiruvonasundari.D | Asst.Prof. | |
| 27 | Mrs.Manjusha Mishra | Asst.Prof. | |
| 28 | Ms.Savitha.M | Asst.Prof | |
| 29 | Ms.Swapna.C.M | Asst.Prof | |
| 30 | Mrs.Resna.S.R | Asst.Prof | |
| 31 | Mrs.Samatha | Asst.Prof. | |
| 32 | Dhanya .P.S | Assoc.Prof. | |
| 32 | | | |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship

Minutes of Meeting:

Est. 1974

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 1. HOD, Dr.H.B.PHANI RAJU welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.

| Sl. No. | CBCS ELECTIVE/MATDIP | |
|---------|----------------------|--|
| 1 | 10EE751 | HVDC Transmission |
| 2 | 10EE762 | Computer control of Electrical drives |
| 3 | 10EE764 | VLSI Circuit and Design |
| 4 | 15KL/CPH39/49 | Kannada/Constitution of India, Professional Ethics and Human Rights |
| 5 | 15MATDIP31 | Additional Mathematics –I |

- 5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.
- 6. Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following value-added programs will be conducted during 2016 - 2017 odd semester

| Sl. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|--|
| 1. | EEE | Technical Skill Training on "AUTOMATION (PLC&SCADA), DRIVES, LV SWITCHGEAR" |
| 2. | EEE | Technical Skill Training on "EMBEDDED SYSTEM -CRANES VARSITY" |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Professor & Head EEE The Oxford College of Engg Bommanahalli, Hosur Road Bangalore-560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (EEE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017 –(EVEN)

The department curriculum committee was made and the meeting was held on 17/02/2017 and the following members were present for the meeting.

| Sl. No. | Name | Designation | |
|---------|------------------------|--------------|--|
| 1 | Dr.H.B.PHANI RAJU | Prof.& HOD | |
| 2 | Dr.V.Chinnappan | Prof | |
| 3 | Dr.Sidheshwarprasad | Prof | |
| 4 | Dr.Gurumurthy | Prof. | |
| 5 | Dr.Puneet Kaur | Assoc.Prof. | |
| 6 | Dr.Gangadhara Swami | Prof. | |
| 7 | Mrs.SandhyaRai | Assoc. Prof. | |
| 8 | Mr.N.Jayakumar | Assoc. Prof. | |
| 9 | Mrs.Nisha.C.Rani | Assoc.Prof. | |
| 10 | Mrs.B.DeviVighneshwari | Assoc. Prof. | |
| 11 | Mrs.Raichel Ruby | Assoc.Prof. | |
| 12 | Mrs.Manjula.C | Assoc.Prof. | |
| 13 | Mrs.Viji.K | Asst.Prof. | |
| 14 | Mrs.NalinaKumari | Asst. Prof | |
| 15 | Mr.Muniyappa | Asst.Prof. | |
| 16 | Mrs.Thilaga.P | Asst.Prof. | |
| 17 | Mrs.AnupamaSisodiya | Asst.Prof. | |
| 18 | Mrs.NavathaKumari | Asst.Prof. | |
| 19 | Mrs.Sumitha.T.L | Asst.Prof. | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 20 | Mrs.Someswari | Asst.Prof. |
|----|------------------------|-------------|
| 21 | Mrs.ArutselviNagammai | Asst.Prof. |
| 22 | Ms.Pavithra.P.S | Asst.Prof. |
| 23 | Ms.Deepa.N.Raju | Asst.Prof. |
| 24 | Mrs.Vinutha.Y.E | Asst.Prof. |
| 25 | Mrs.Vaishnavi Galli | Asst.Prof. |
| 26 | Mrs.Thiruvonasundari.D | Asst.Prof. |
| 27 | Mrs.Manjusha Mishra | Asst.Prof. |
| 28 | Ms.Savitha.M | Asst.Prof |
| 29 | Ms.Swapna.C.M | Asst.Prof |
| 30 | Mrs.Resna.S.R | Asst.Prof |
| 31 | Mrs.Samatha | Asst.Prof. |
| 32 | Dhanya .P.S | Assoc.Prof. |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Minutes of Meeting:

1. HOD, Dr.H.B.PHANI RAJU, welcomed all the faculty and explained VTU, EVEN semester

regulations.

2. Semester plan for 2016-17 even semester and mentioning the activities planned in the

department.

| Sl. No. | CBCS ELECTIVE/MATDIP | |
|------------|----------------------|--------------------------------------|
| 1 | 10EE842 | Energy Auditing & Demand Side |
| | 1022642 | Management |
| 2 | 10EE836 | Renewable Energy Sources |
| 3 | 15KL/CPH39/49 | Kannada/Constitution of India, |
| | | Professional Ethics and Human Rights |
| 4 | 15MATDIP41 | Additional Mathematics –II |

- 3. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 8. Planning for the Final Year's Project Works / Internships.
- 9. Mentor mentee list discussion
- 10. The following certificate programs will be conducted during 2016-2017 EVEN semester

| Sl. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|---|
| | | |
| 1. | | Technical Skill Training on "AUTOMATION |
| | EEE | (PLC&SCADA), DRIVES, LV |
| | | SWITCHGEAR" |
| | | |
| 2. | | Technical Skill Training on "EMBEDDED |
| | EEE | SYSTEM |
| | | -CRANES VARSITY" |
| | | |

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

NO

Professor & Head EEE The Oxford College of Engg Bommanahalli, Hosur Road Bangalore-560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting –(BRANCH): Mechanical engineering

DEPARTMENTALCURRICULUMCOMMITTEEMEETING2015-2016-(ODD)

The department curriculum committee was made and the meeting washeld on 30/7/2015 and the following members were present for the meeting.

| Slno. | NAME | DESIGNATION |
|-------|------------------|---------------------|
| 1 | Dr.BHADRINATH | HOD |
| | | |
| 2 | TITTUMATHEW | Professor |
| 3 | MADHUSUDHANREDDY | Professor |
| 4 | Dr. JAYAKUMAR | Professor |
| 5 | SHIVALINGU | Professor |
| 6 | ABHIJITH | Assistant Professor |
| 7 | T.V.NAGARAJA | Assistant Professor |
| 8 | RAVIPRAKASH | Assistant Professor |
| 9 | VIDYADHARPOOJAR | Assistant Professor |
| 10 | RANGU | Assistant Professor |

Agenda:

1. Finalizationofdepartmentalactivitiesfortheacademicyear.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 2. Allocationofsubjectstofaculties.
- 3. Approvalofprojectbatch.

Summary:Minutes

- HOD, Dr.Bhadrinath welcomed all the faculty and explained VTU, ODD semesterregulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should followit.
- 3. VTU has introduced Choice Based Credit System (CBCS)
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. DepartmentplansforFieldVisit/Industrial Visit.
- Planning for the (Final Year's)Project Works / Internships (with company names anddetails).
- Department plans to allot the assignment topics to the students and to allocate thetutorialtopics to thestudents.

The following certificate programs will be conducted during 2015 – 2016

oddsemester

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|-----------------------|-------------------------------|
| 1. | Mechanicalengineering | Engineeringgraphics |
| 2 | Mechanicalengineering | Programmingwithmicroprocessor |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

The following value-added programs will be conducted during 2015 – 2016

oddsemester

| Sl.No. | Nameofthedepartment | NameoftheValue-addedprograms |
|--------|------------------------|------------------------------------|
| 1. | Mechanical engineering | Designofcircuitforhydraulicsfluids |
| 2 | Mechanical engineering | Programmingwithmicroprocessor |

Resolutions:

- Each faculty has to take two theory subjects and one lab, out of which one subject willbechoiceoffaculty while theothersubjectwillbe left to the discreet of HOD.
- Departmental activities are to be planned as per calendar of institution and must begotapproval from principal.
- Fore man is given in charge to finalise the budge allocations for variouslabs/workshopsin consultation with lab in charges.

INT OF MECHAN THE OXPOSE COLES BOMMANALMER, 20 NOALORE 850058



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting-(BRANCH): mechanical engineering

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2015-2016–(EVEN)

The department curriculum committee was made and the meeting was held on 16/01/2016 and the following members were present for the meeting.

| Slno. | NAME | DESIGNATION |
|-------|------------------|---------------------|
| 1 | Dr.BHADRINATH | HOD |
| 2 | TITTUMATHEW | Professor |
| 3 | MADHUSUDHANREDDY | Professor |
| 4 | Dr.JAYAKUMAR | Professor |
| 5 | SHIVALINGU | Professor |
| 6 | ABHIJITH | Assistant Professor |
| 7 | T.V.NAGARAJA | Assistant Professor |
| 8 | RAVIPRAKASH | Assistant Professor |
| 9 | VIDYADHARPOOJAR | Assistant Professor |
| 10 | RANGU | Assistant Professor |

Agenda:

1. Allocation of subject to staff.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 2. Identifying lab incharges /mentors /class teachers.
- 3. Finalizing departmental activities to b econducted.

Summary:Minutes

- 1. HOD, Dr. Badrinath welcomed all the faculty and explained VTU, EVEN semester regulations.
- 2. Semester plan for 2015-16 even semester and mentioning the activities planned in the department.

| Sl.No. | NameoftheDepartment | CBCS |
|--------|------------------------|---|
| 1. | Mechanical engineering | 1 st &2 nd semester |

- 3. The discussion of the subjects of CBCS given in the above table, selected by thestudents.
- 4. As per the VTU regulation guidelines the students of B.E have to select one subject5.

5. fromtheMOOCS-I,MOOCS-II& MOOCS-III

| Sl.No | NameoftheDepartment | MOOCS-I | MOOCS –II | MOOCS –III |
|-------|------------------------|---------|-----------|------------|
| 1. | Mechanical engineering | nil | nil | nil |

- 6. Implementation of prescribed university syllabus approved by Principal for odd semester.
- 7. Implementation of CBCS syllabus prescribed by the university for odd semester.
- 8. Adherence to the Academic Calendar
- 9. Implementation of certificate/value added courses.

10. Implementation of Cross cutting Issues.

11. Implementation of field visits, project work, internship

12. The following certificate programs will be conducted during 2015 – 2016 EVENsemester

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|-----------------------|-----------------------------|
| 1. | Mechanicalengineering | nil |
| | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

13. The following value-added programs will be conducted during 2015 – 2016(EVENsemester)

| Sl.No. | Nameofthedepartment | NameoftheValue-addedprograms |
|--------|-----------------------|------------------------------|
| 1. | Mechanicalengineering | nil |
| | | |

Resolutions:

- Allocation of subjects for staff senior staff to take first year classes.
- Class teachers/mentors/ labinchar gesaremade.
- Lab instructors to be changed on priority basis so that each should be able to handleall mechanical labs.
- Mento rmenteelist approved.

DEPARTMENT OF MECHANICAL EP THE OXFORD COLLEGE OF ENGINE : G BOMMANALMAL CONCALORE 550058

Departmental Committee Meeting – BIOTECHNOLOGY



The department curriculum committee was made and the meeting was held on 18/07/2016 and the following members were present for the meeting.

| Sl no. | NAME | DESIGNATION |
|--------|----------------------|----------------|
| 1. | Dr. Kusum Paul | HOD |
| 2. | Dr. B.K.Manjunath | Professor |
| 3. | Dr. T.K. Suma | Asst.Professor |
| 4. | Prof. Valarmathy | Asst.Professor |
| 5. | Prof. Divakara | Asst.Professor |
| 6. | Prof. Salma Kausar.M | Asst.Professor |
| 7. | Prof.Tanushree | Asst.Professor |
| 8. | Prof.Shambhu | Asst.Professor |

Agenda:

- 1. Semester planner was decided and department level coordinators work was allotted
- 2. General instruction & working plan of the department to be discussed
- 3. Updating of course files & NBA status discussion
- 4. Action plan to execute department activity.
- 5. Other points if any to be discussed

Summary: Minutes

- 1. Faculties were allotted with coordinator workload for the new academic year
- 2. Each faculty was assigned with theory &practical subject workload
- 3. FDP to be organized by Dr. Manjunath



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi.

Recognised by UGC Under Section 2(f) Bornmanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 4. All faculties were informed to submit self appraisal form indicating their contribution for the growth of the department.
- 5. All faculties were informed to ensure every class performs atleast 2 activities.

Resolutions:

- To achieve better results and aiming for many more VTU ranks.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/ Reputed MNC Companies.

A GASE-Bangalore - 500 000.

DEPARTMENTAL COMMITTEE MEETING – BIOTECHNOLOGY DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017 –(EVEN)



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

The department curriculum committee was made and the meeting was held on 21/02/2017 and the following members were present for the meeting.

| Sl no. | NAME | DESIGNATION |
|--------|----------------------|----------------|
| 1. | Dr. Kusum Paul | HOD |
| 2. | Dr. B.K.Manjunath | Professor |
| 3. | Dr. T.K. Suma | Asst.Professor |
| 4. | Prof. Valarmathy | Asst.Professor |
| 5. | Prof. Divakara | Asst.Professor |
| 6. | Prof. Salma Kausar.M | Asst.Professor |
| 7. | Prof.Tanushree | Asst.Professor |
| 8. | Prof.Shambhu | Asst.Professor |

Agenda:

- 1. Semester planner was decided and department level coordinators work was allotted
- 2. General instruction & working plan of the department to be discussed
- 3. Updating of course files
- 4. Faculty assigning of project guides, scrutinizing of project domain & title
- 5. Action plan to execute department activity.
- 6. Other points if any to be discussed

Summary: Minutes

1. HOD, Dr. Kusum Paul welcomed all the faculty and explained VTU, EVEN semester regulations.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxford.engg.org

- 2. HOD informed about the Semester plan for 2016-17 even semester and mentioned the activities planned in the department.
- 3. Syllabus copy prescribed by the university circulated to the students and faculty.
- 4. Faculties were informed to make students select the elective subjects for even semester.
- 5. HOD informed faculty coordinator to plan for Industrial visits/ field visit.
- 6. Planning for the (Final Year's) Project Works / Internships (with company names and details) was intimated by HOD.
- 7. Mentor mentee list discussion was done and the document updating status & deadline was informed to all the faculties.

8. The following value-added programs will be conducted during 2016 – 2017EVEN semester **The following value-added programs will be conducted during 2016 – 2017 odd semester**

| Sl. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 1. | BT | Molecular biology techniques |
| 2. | BT | Soft skill & Aptitude training |

Resolutions:

- To achieve better results and aiming for many more VTU ranks.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Paul -----Head sistechnology Department of Oxford Course of Enge Bangalore - 560 068.

DEPARTMENTAL COMMITTEE MEETING – (CIVIL)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017 –(ODD)



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

The department curriculum committee was made and the meeting was held on 17/07/2016 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|---------------------|-----------------|
| 1. | Dr. Amarnath K | Professor |
| 2 | Dr. T S Malleshaiah | Professor |
| 3 | Mr Shivanand C G | Assot Professor |
| 4 | Mr.Amruth | Asst.Professor |
| 5 | Mr. Maheshkumar | Asst. Professor |
| 6 | Ms.Sowmya | Asst. Professor |
| 7 | Ms. Harsha | Asst. Professor |
| 8 | Ms. Shradha | Asst. Professor |
| 9. | Mrs.Karuna | Asst Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

1.HOD, Dr. K Amarnath welcomed all the faculty and explained VTU, ODD semester regulations.

2.As per the VTU regulation guidelines the students of all Odd semester should follow it.

3.VTU has introduced Choice Based Credit System (CBCS).

4.Syllabus copy prescribed by the university circulated to the students and faculty.

| Sl. No. | СВС | CBCS ELECTIVE/MATDIP | |
|------------|---------|--------------------------|--|
| 1 | 15CV742 | Ground Water Hydraulics | |
| 2 | 15CV751 | Urban transport planning | |
| | | | |
| | | | |

6. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.

7.Department announced to conduct the regular seminars to the students.

8.Department plans for Field Visit / Industrial Visit.

9. Planning for the Final Year's Project Works / Internships.

10.Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following value-added programs will be conducted during 2016 – 2017 odd semester

| Sl. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 1. | CIVIL | Soft Skill and Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.

Light 1974

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

• To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Dr AMARNATH X PROFESSOR

Head of the Department Department of Civil Engineering The Oxford College of Engineering Bangatore - 560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (CIVIL)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017 –(EVEN)

The department curriculum committee was made and the meeting was held on 03/02/2017 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|---------------------|-----------------|
| 1. | Dr. Amarnath K | Professor |
| 2 | Dr. T S Malleshaiah | Professor |
| 3 | Mr Shivanand C G | Assot Professor |
| 4 | Mr.Amruth | Asst.Professor |
| 5 | Mr. Maheshkumar | Asst. Professor |
| 6 | Ms.Sowmya | Asst. Professor |
| 7 | Ms. Harsha | Asst. Professor |
| 8 | Ms. Shradha | Asst. Professor |
| 9. | Mrs.Karuna | Asst Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

1.HOD, Dr.K Amarnath welcomed all the faculty and explained VTU, EVEN semester regulations.

2.Semester plan for 2016-17 even semester and mentioning the activities planned in the department.

| Sl. No. | CBCS ELECTIVE/MATDIP | |
|------------|----------------------|-----------------|
| 1 | 15CV833 | Pavement Design |

3. The discussion of the subjects of CBCS given in the above table, selected by the students.

4.Syllabus copy prescribed by the university circulated to the students and faculty.

5.Department announced to conduct the regular seminars to the students.

6.Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

7.Department plans for Field Visit / Industrial Visit.

8. Planning for the Final Year's Project Works / Internships.

9.Mentor mentee list – discussion **Resolutions:**

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.
- •

de _____

Dr AMARNATH K PROFESSOR Dependent of Givin Engineering The Oxford College of Engineering Bangatore - 560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

DEPARTMENTAL COMMITTEE MEETING – (AUTOMOBILE ENGINEERING)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017 -(ODD)

The department curriculum committee was made and the meeting was held on 20/07/2016and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|------------------------|------------------|
| 1 | Dr. Raju B R | Professor |
| 2 | Dr. Suresh R | Professor |
| 3 | Mr. Ashok Kumar Thavd | Assot. Professor |
| 4 | Mr. Sandeep K Chavan | Asst. Professor |
| 5 | Mr. Hemantha C | Asst. Professor |
| 6 | Mr. Priyankar Dhole | Asst. Professor |
| 7 | Mr. Kiran H Mudigowdar | Asst. Professor |
| 8 | Mr. Harish Kumar M | Asst. Professor |
| 9 | Mr. Maruthi S B | Asst. Professor |
| 10 | Mr. Deepak U. S | Asst. Professor |
| 11 | Mr. Raviteja R. N | Asst. Professor |
| 12 | Mr. Mahipal Reddy | Asst. Professor |
| 13 | Mr. Prasanna. S. M | Asst. Professor |
| 14 | Mr. Joshua. F | Asst. Professor |
| 15 | Mr. Karthik. K | Asst. Professor |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1. HOD, Dr.Raju B R welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS) in 2015-16.
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.

| Sl. No. | 2020 scheme ELECTIVE/MATDIP | |
|---------|-----------------------------|--|
| 1 | 10AU752 | Two & three wheeled vehicle |
| 2 | 10AU761 | Non-Destructing testing |
| 3 | 14CIP/CIV18/28 | Kannada/Constitution of India, Professional Ethics and |
| | | Human Rights |
| 4 | 15MATDIP31 | Additional Mathematics –I |

- 5. The discussion of the subjects and syllabus of CBCS scheme. Elective subjects selected by the students for final year students.
- 6. Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following value-added programs will be conducted during 2016 - 2017 odd semester



CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org SI. No. Name of the department Name of the Value-added programs 4. Automobile Engineering. Soft Skill Training

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Professor & Head Department of Automobile Engineering The Oxford College of Engineering Bommanahalli, Hosur Road Bangalore-560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

DEPARTMENTAL COMMITTEE MEETING – (AUTOMOBILE ENGINEERING)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017 –(EVEN)

The department curriculum committee was made and the meeting was held on 06/02/2017 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|------------------------|------------------|
| 1 | Dr. Raju B R | Professor |
| 2 | Dr. Suresh R | Professor |
| 3 | Mr. Ashok Kumar Thavdi | Assot. Professor |
| 4 | Mr. Sandeep K Chavan | Asst. Professor |
| 5 | Mr. Hemantha C | Asst. Professor |
| 6 | Mr. Priyankar Dhole | Asst. Professor |
| 7 | Mr. Kiran H Mudigowdar | Asst. Professor |
| 8 | Mr. Harish Kumar M | Asst. Professor |
| 9 | Mr. Maruthi S B | Asst. Professor |
| 10 | Mr. Deepak U. S | Asst. Professor |
| 11 | Mr. Raviteja R. N | Asst. Professor |
| 12 | Mr. Mahipal Reddy | Asst. Professor |
| 13 | Mr. Prasanna. S. M | Asst. Professor |
| 14 | Mr. Joshua. F | Asst. Professor |
| 15 | Mr. Karthik. K | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 12. HOD, Dr. Raju B R, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 13. Semester plan for 2016-17 even semester and mentioning the activities planned in the department.

| Sl. No. | CBCS ELECTIVE/MATDIP | |
|---------|----------------------|--------------------------------------|
| 1 | 10AU834 | Alternative energy source |
| | 10AU841 | Hybrid vehicle |
| 2 | 14CIP/CIV18/28 | Kannada/Constitution of India, |
| | | Professional Ethics and Human Rights |
| 3 | 15MATDIP41 | Additional Mathematics –II |

- 14. The discussion of the subjects of CBCS scheme. Elective subject selected by the students.
- 15. Syllabus copy prescribed by the university circulated to the students and faculty.
- 16. Department announced to conduct the regular seminars to the students.
- 17. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 18. Department plans for Field Visit / Industrial Visit.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 19. Planning for the Final Year's Project Works / Internships.
- 20. Mentor mentee list discussion
- 21. The following certificate programs will be conducted during 2016 2017 EVEN semester.

| I | Sl. No. | Name of the department | Name of the Certificate Program |
|---|---------|------------------------|---------------------------------|
| ſ | 1 | Automobile Engineering | CATIA V5 |

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Head

Professor & Head Department of Automobile Engineering The Oxford College of Engineering Bommanahalli, Hosur Road Bangalore-560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (MTE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 -(ODD)

The department curriculum committee was made and the meeting was held on 14/07/2018 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|------------------------|-----------------|
| 1 | Dr. NB Doddapattar | Professor & HOD |
| 2 | Dr.Shivappa | Professor & HOD |
| 3 | Mr. Rajesh | Asst. Professor |
| 4 | Mr. Rgavendra | Asst. Professor |
| 5 | Mr. Ravi s Jadhav | Asst. Professor |
| 6 | Ms. Rekha | Asst. Professor |
| 7 | Ms. Premela | Asst. Professor |
| 9 | Ms. Vijaykumar kurubha | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1. HOD, Dr. Rohini Deshpande welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans for Field Visit / Industrial Visit.
- 7. Planning for the Final Year's Project Works / Internships.
- 8. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following certificate programs will be conducted during 2018 - 2019 odd semester

| Sl. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| 1 | | MATLAB |
| 2 | MTE | LEGO |
| 3 | | ROBOTICS |

The following value-added programs will be conducted during 2018 – 2019 odd semester

| Sl. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| | MTE | Soft Skill Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

но́р

Prof.:& HOD Department of Mechatronics The Oxford College Of Engineering Dorbranahalii Bangalore - 00, u.2.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (MTE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 –(EVEN)

The department curriculum committee was made and the meeting was held on 01/02/2017 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|------------------------|-----------------|
| 1 | Dr. NB Doddapattar | Professor & HOD |
| 2 | Dr.Shivappa | Professor & HOD |
| 3 | Mr. Rajesh | Asst. Professor |
| 4 | Mr. Rgavendra | Asst. Professor |
| 5 | Mr. Ravi s Jadhav | Asst. Professor |
| 6 | Ms. Rekha | Asst. Professor |
| 7 | Ms. Premela | Asst. Professor |
| 9 | Ms. Vijaykumar kurubha | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 1. HOD, Dr. NB Doddapattar, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 2. Semester plan for 2018-19 even semester and mentioning the activities planned in the department.
- 3. Syllabus copy prescribed by the university circulated to the students and faculty.
- 4. Department announced to conduct the regular seminars to the students.
- 5. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 6. Department plans for Field Visit / Industrial Visit.
- 7. Planning for the Final Year's Project Works / Internships.
- 8. Mentor mentee list discussion
- 9. The following certificate programs will be conducted during 2018 2019 EVEN semester

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

HOD

Prof. & HOD Department of Mechatronics The Oxford College Of Engineering Dominanahalii Bangalore - 69, cda.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MBA - DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017 –(ODD)

The department curriculum committee was made and the meeting was held on 15/07/2016 and the following members were present for the meeting.

| Sl no. | NAME | DESIGNATION |
|--------|--------------------|---------------------|
| 1. | Dr James Thomas | HOD |
| 2. | Dr.PGiridhar Reddy | Associate Professor |
| 3. | Dr BalaKoteswari | Associate Professor |
| 4. | Ms. Umasharma | Assistant Professor |
| 5. | Ms. Richa Tiwari | Assistant Professor |
| 6. | Ms. Savitha | Assistant Professor |
| 7. | Ms. Sahana | Assistant Professor |
| 8. | Mr.Gokul | Assistant Professor |
| 9. | Mr.Chikkegowda | Assistant Professor |
| 10. | Ms.Chandrika | Assistant Professor |
| 11. | Ms. Paronita | Assistant Professor |

Agenda:

- 1. Guidelines and syllabus discussion
- 2. Seminars on specialization subjects
- 3. Industrial visit



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

4. Internship and project topic

Summary: Minutes

- 1. HOD, Dr. James Thomas welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. Syllabus copy prescribed by the university circulated to the students and faculty.
- 4. Department announced to conduct the regular seminars to the students.
- 5. Department plans for Field Visit/ Industrial Visit.
- 6. Planning for the (Final Year's)Project Works / Internships (with company names and details).
- 7. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

Resolutions:

- Guide lines and syllabus of odd semester should be discussed and plan the subjects on before 17th July.
- Industrial visit plan has to be planned and visited 7th august.
 Companies have to be allocated and verified within 15th august.
- 3. Assignment and tutorial time table made ready on before 23rd July.

HOD

HOD, Deptt. of Business Administration The Oxford College of Engineering Bommanahalh, Hosur Road Bangalore 500 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MBA DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017 – (EVEN)

The department curriculum committee was made and the meeting was held on 02/02/2017 and the following members were present for the meeting.

Agenda:

| Sl no. | NAME | DESIGNATION |
|--------|--------------------|---------------------|
| 1. | Dr James Thomas | HOD |
| 2. | Dr.PGiridhar Reddy | Associate Professor |
| 3. | Dr BalaKoteswari | Associate Professor |
| 4. | Ms. Umasharma | Assistant Professor |
| 5. | Ms. Richa Tiwari | Assistant Professor |
| 6. | Ms. Savitha | Assistant Professor |
| 7. | Ms. Sahana | Assistant Professor |
| 8. | Mr.Gokul | Assistant Professor |
| 9. | Mr.Chikkegowda | Assistant Professor |
| 10. | Ms.Chandrika | Assistant Professor |
| 11. | Ms. Paronita | Assistant Professor |

1. Discussion of VTU regulations

2. Syllabus

3. Seminar plan

4. Project and Industrial visit

Summary: Minutes



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 1. HOD, Dr.James Thomas welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. Semester plan for 2016-17 even semester and mentioning the activities planned in the department.
- 3. Syllabus copy prescribed by the university circulated to the students and faculty.
- 4. Department announced to conduct the regular seminars to the students.
- 5. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 6. Department plans for Field Visit / Industrial Visit.
- 7. Planning for the (Final Year's) Project Works / Internships (with company names and details).
- 8. Mentor mentee list discussion

Resolutions:

- 1. Mentoring activities plan has to ready 10th Feb.
- 2. Seminar on all domain specialization each has to be conduct on before 20th Feb.
- 3. Field visit and Industrial visit organized before 1st March.
- 4. Project work guidance and Topic evaluation list should be ready on the before 14th Feb.

HOD

HOD, Deptt. of Business Administration The Oxford College of Engineering Bommanahalli, Hosur Road Bangalore 569 668



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org Departmental Committee Meeting – (MCA)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017 –(ODD)

The department curriculum committee was made and the meeting was held on 26/07/2016 and the following members were present for the meeting.

| Sl. No. | Name | Designation | |
|---------|-----------------------|------------------|--|
| 1 | Dr. M S Shashidhara | Professor | |
| 2 | Dr. Praveen Kumar P U | Professor | |
| 3 | Mr.Ashok B P | Assot. Professor | |
| 4 | Mr. Dharamvir | Assot. Professor | |
| 5 | Mr. JC Achutha | Assot. Professor | |
| 6 | Mrs. Saritha S | Assot. Professor | |
| 7 | Mrs. Mridula Shukla | Assot. Professor | |
| 8 | Mrs. Selvi E | Assot. Professor | |
| 9 | Mrs Malarvizhi U. | Assot. Professor | |
| 10 | Ms. R Ushasree | Asst. Professor | |
| 11 | Mr. Changappa M R | Asst. Professor | |
| 12 | Mr. Indrakumar S S | Asst. Professor | |
| 13 | Mrs. Stuti Agarwal | Asst. Professor | |
| 14 | Ms. Anjana S Murthy | Asst. Professor | |
| 15 | Ms. Punya V | Asst. Professor | |
| 16 | Ms. Sudha K | Asst. Professor | |
| 17 | Ms. Lavanya B K | Asst. Professor | |
| | | | |

| िविद्या नवेत्र शाभुत[/ Estd. 1974 |
|--------------------------------------|

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 18 | Ms. Priyanka | Asst. Professor |
|----|----------------------|-----------------|
| 19 | Ms. Kimmi Kumari | Asst. Professor |
| 20 | Mr. Chandran M | Asst. Professor |
| 21 | Mrs.Selastina Mary A | Asst. Professor |
| 22 | Mrs.Moumita Kali | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 10. HOD, Dr. M S Shashidhara welcomed all the faculty and explained VTU, ODD semester regulations.
- 11. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 12. VTU has introduced Choice Based Credit System (CBCS).
- 13. Syllabus copy prescribed by the university circulated to the students and faculty.

| Sl. No. | CBCS ELECTIVE/MATDIP | |
|---------|----------------------|----------------------------------|
| 1 | 16MCA13 | Web Technologies |
| 2 | 16MCA15 | Discrete Mathematical Structures |

- 14. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.
- 15. Department announced to conduct the regular seminars to the students.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 16. Department plans for Field Visit / Industrial Visit.
- 17. Planning for the Final Year's Project Works / Internships.
- 18. Department plans to allot the assignment topics to the students and to allocate the tutorial topics

to the students.

The following value-added programs will be conducted during 2016 – 2017 odd semester

| Sl. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 5. | MCA | Soft Skill Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

THAHOD . M.S.Shashidhara Dept. of MCA HOD-MCA



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (MCA)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017 –(EVEN)

The department curriculum committee was made and the meeting was held on 18/02/2017 and the following members were present for the meeting.

| Sl. No. | Name | Designation | | | |
|---------|-----------------------|------------------|--|--|--|
| 1 | Dr. M S Shashidhara | Professor | | | |
| 2 | Dr. Praveen Kumar P U | Professor | | | |
| 3 | Mr.Ashok B P | Assot. Professor | | | |
| 4 | Mr. Dharamvir | Assot. Professor | | | |
| 5 | Mr. JC Achutha | Assot. Professor | | | |
| 6 | Mrs. Saritha S | Assot. Professor | | | |
| 7 | Mrs. Mridula Shukla | Assot. Professor | | | |
| 8 | Mrs. Selvi E | Assot. Professor | | | |
| 9 | Mrs Malarvizhi U. | Assot. Professor | | | |
| 10 | Ms. R Ushasree | Asst. Professor | | | |
| 11 | Mr. Changappa M R | Asst. Professor | | | |
| 12 | Mr. Indrakumar S S | Asst. Professor | | | |
| 13 | Mrs. Stuti Agarwal | Asst. Professor | | | |
| 14 | Ms. Anjana S Murthy | Asst. Professor | | | |
| 15 | Ms. Punya V | Asst. Professor | | | |
| 16 | Ms. Sudha K | Asst. Professor | | | |
| 17 | Ms. Lavanya B K | Asst. Professor | | | |
| 18 | Ms. Priyanka | Asst. Professor | | | |
| 19 | Ms. Kimmi Kumari | Asst. Professor | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 20 | Mr. Chandran M | Asst. Professor |
|----|----------------------|-----------------|
| 21 | Mrs.Selastina Mary A | Asst. Professor |
| 22 | Mrs.Moumita Kali | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 22. HOD, Dr. M S Shashidhara, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 23. Semester plan for 2016-17 even semester and mentioning the activities planned in the department.

| Sl. No. | СВС | S ELECTIVE/MATDIP |
|---------|---------|--------------------|
| 1 | 16MCA21 | Python Programming |

- 24. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 25. Syllabus copy prescribed by the university circulated to the students and faculty.
- 26. Department announced to conduct the regular seminars to the students.
- 27. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 28. Department plans for Field Visit / Industrial Visit.
- 29. Planning for the Final Year's Project Works / Internships.
- 30. Mentor mentee list discussion
- 31. The following certificate programs will be conducted during 2016 2017 EVEN semester

| Sl. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| 1 | MCA | IOT |

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

AHOD Signatur r. M.S.Shashidhara Dept. of MCA

HOD-MCA



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

List and Description of courses (1) Subject, (2) Subject Code, (3) Curriculum Objective, (4) Delivery Methodology with Number of hours, (5) PO, PSO, CO Mapping, (6) Crosscutting Issues Integrated which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Dept. of Computer Science & Engineering

2016-17

| | | | | | <mark>, ,</mark> , | | | | | |
|-----|----------|---|-----------------------|---|--------------------|-------------------------------------|-------------|-----------------|-------------|---------|
| SI. | Subject | | | Teaching | | Theory /Lab/ | | aminat Marks | | Credits |
| No. | Code | Subject | | Department | Board | Drawing (Hrs/ Week) | Th./P r. | I.A. | Total | |
| 1 | 15MAT11 | Engineering Maths-I | BS | Maths | Basic Sc. | 4 (T) | 8 0 | 2 0 | 1 0 0 | 4 |
| 2 | 15PHY12 | Engineering Physics | BS | Physics | Basic Sc. | 4 (T) | 8 0 | 2 0 | 1 0 0 | 4 |
| 3 | 15CIV13 | Elements of Civil Engg. & Mechanics | ES | Civil Engg. | Civil Engg. | 4 (T) | 8 0 | 2 0 | 1 0 0 | 4 |
| 4 | 15EME14 | Elements of Mechanical Engg. | ES | Mech. Engg. | Mech. Engg. | 4 (T) | 8 0 | 2 0 | 1 0 0 | 4 |
| 5 | 15ELE15 | Basic Electrical Engg. | ES | E & E | E & E | 4 (T) | 8 0 | 2 0 | 1 0 0 | 4 |
| 6 | 15WSL16 | Workshop Practice | ES | Mech., Auto, IP, IEM, Mfg. Engg. | Mech. Engg. | 3(2 hrslab+ 1 hr instruction) | 8 0 | 2 0 | 1 0 0 | 2 |
| 7 | 15PHYL17 | Engg. Physics Lab | BS | Physics | Basic Sc. | 3(2 hrslab+ 1hrinstruction) | 8 0 | 2 0 | 1 0 0 | 2 |
| 8 | 15CPH18 | Constitution of India, Professional Ethics and Human Rights (CPH) | MNC | Humanities | | 2 (Tutorial) | 4 0 | 1 0 | 5 0 | |
| 9 | | Language (Kan.) | Mandatory Learning | Humanities | | 1 (T) | - | - | - | |
| | | | | | | 29 | 600 | 150 | 750 | 24 |

Constitution of India, Professional Ethics and Human Rights (CPH) - 15CPH18



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

CONSTITUTION OF INDIA, PROFESSIONAL ETHICS & HUMAN RIGHTS

Subject Code - 15CPH18/15CPH28

IA Marks - 10

Number of Lecture Hours/Week - 02

Exam Marks - 40

Total Number of Lecture Hours - 25

Exam Hours - 02

Course objectives:

1. To provide basic information about Indian constitution.

2. To identify individual role and ethical responsibility towards society.

3. To understand human rights and its implications

Module 1

Introduction to the Constitution of India, The Making of the Constitution and Salient features of the Constitution. 2 Hours Preamble to the Indian Constitution Fundamental Rights & its limitations. 3 Hours Module 2

Module 2

Directive Principles of State Policy & Relevance of Directive Principles State Policy Fundamental Duties. 2 Hours Union Executives – President, Prime Minister Parliament Supreme Court of India. 3 Hours

Module 3

State Executives – Governor Chief Minister, State Legislature High Court of State. 2 Hours Electoral Process in India, Amendment Procedures, 42nd, 44th, 74th, 76th, 86th &91st Amendments. 3 Hours

Module 4

Special Provision for SC & ST Special Provision for Women, Children & Backward Classes Emergency Provisions. Human Rights – Meaning and Definitions, Legislation Specific Themes in Human Rights-Working of National Human Rights Commission in India 3 Hours

Powers and functions of Municipalities, Panchyats and Co - Operative Societies. 2 Hours **Module 5**

Scope & Aims of Engineering Ethics, Responsibility of Engineers Impediments to Responsibility. 2 Hours Risks, Safety and liability of Engineers, Honesty, Integrity & Reliability in Engineering. 3 Hours

Course outcomes:

After study of the course, the students are able to

• Have general knowledge and legal literacy and thereby to take up competitive examinations

- Understand state and central policies, fundamental duties
- Understand Electoral Process, special provisions
- Understand powers and functions of Municipalities, Panchayats and Co-operative Societies, and
- Understand Engineering ethics and responsibilities of Engineers.
- Have an awareness about basic human rights in India

Text Books:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

1. Durga Das Basu: "Introduction to the Constitution on India", (Students Edn.) Prentice –Hall EEE, 19th / 20th Edn., 2001

2. Charles E. Haries, Michael S Pritchard and Michael J. Robins "Engineering Ethics"

Thompson Asia, 2003-08-05.

Reference Books:

1. M.V.Pylee, "An Introduction to Constitution of India", Vikas Publishing, 2002.

2. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, "Engineering Ethics", Prentice –Hall

of India Pvt. Ltd. New Delhi, 2004

3. Brij Kishore Sharma, "Introduction to the Constitution of India", PHI Learning Pvt.

Ltd., New Delhi, 2011.

4. Latest Publications of Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Environmental Studies - 15CIV18

| SI. No. | Subject Code | Subject | | Teaching Department | Board | Theory /Lab/ Drawing (Hrs/ | Examinatio n Marks | | | Credits |
|------------|----------------------|---------------------------------------|-----------------------|--------------------------------------|-------------|--------------------------------|-----------------------|------|-------|---------|
| | | | | • | | Week) | Th./Pr. | I.A. | Total | |
| 1 | 15MAT11 | Engineering Maths-I | BS | Maths | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 |
| 2 | 15CHE12 | Engineering Chemistry | BS | Chemistry | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 |
| 3 | 15PCD13 | Programming in C & | ES | Any | CSE | 4 (T) | 80 | 20 | 100 | 4 |
| | | Data Structures | | Engineering Department | | | | | | |
| 4 | 15CED14 | Computer Aided Engineering Drawing | ES | Mech./IP/Auto / Mfg.Engg./ IEM | Mech. Engg. | 6 (2I+ 4P) | 80 | 20 | 100 | 4 |
| 5 | 15ELN15 | Basic Electronics | ES | E & C / E & E / TC / IT | E & C | 4 (T) | 80 | 20 | 100 | 4 |
| 6 | 15CPL16 | Computer Programming Lab | ES | Any Engineering Department | CSE | 3(2 hrs lab+ 1 hrTutorial) | 80 | 20 | 100 | 2 |
| 7 | 15CHEL17 | Engg. Chemistry Lab | BS | Chemistry | Basic Sci. | 3(2 hrs lab+ 1 hrTutorial) | 80 | 20 | 100 | 2 |
| 8 | <mark>15CIV18</mark> | Environmental Studies | MNC | Civil / Environmental | Civil | 2 (Tutorial) | 40 | 10 | 50 | |
| 9 | | Language (Eng.) | Mandatory Learning | Humanities | | 1 (T) | - | - | - | |
| | | | | | Total | 31 | 600 | 150 | 750 | 24 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

ENVIRONMENTAL STUDIES

[As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2015 -2016) SEMESTER - I/II

| Subject Code | 15CIV18/15CIV28 | IA Marks | 10 |
|-------------------------------|-----------------|------------|----|
| Number of Lecture Hours/Week | 02 | Exam Marks | 40 |
| Total Number of Lecture Hours | 25 | Exam Hours | 02 |

Course Objectives:

- 1. To identify the major challenges in environmental issues and evaluate possible solutions.
- 2. Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.
- 3. Toanalyzeanoverallimpactofspecificissuesanddevelopenvironmental

<mark>management plan</mark>.

Module - 1

Introduction: Environment - Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security.

2Hours

Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, SustainableDevelopment. 3Hours

Module - 2

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & SulphurCycle. **2 Hours** Energy – Different types of energy, Conventional sources & Non-Conventional sources of energy Solar

energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as analternativeenergy. **3Hours**

Module – 3

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects.

2 Hours

Global Environmental IssuesPopulation Growth, Urbanization, Land Management, Water & WasteWater Management.3 Hours

Module – 4

Air Pollution& Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layerdepletion, controlling measures.3 Hours

Solid Waste Management, E - Waste Management & Biomedical Waste Management - Sources,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Characteristics & Disposal methods.

2 Hours

Module – 5

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. 2 Hours

Environmental Acts & Regulations, Role of government, Legal aspects, Role of Non- governmental Organizations (NGOs), Environmental Education & WomenEducation. **3 Hours**

Course Outcomes

Students will be able to,

1. Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,

2. Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,

3. Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components

4. Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Textbooks

1. Benny Joseph (2005), "Environmental Studies", Tata McGraw – Hill Publishing Company Limited.

2. R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.

3. R Rajagopalan, "Environmental Studies - From Crisis to Cure", Oxford University Press, 2005,

4. Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012.

Reference Books:

1. Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005

2. P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006

3. S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007

4. ErachBharucha, "Text Book of Environmental Studies", for UGC, University press, 2005

5. G.Tyler Miller Jr., "Environmental Science – working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004

6. G.Tyler Miller Jr., "Environmental Science – working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006

7. Dr.Pratiba Sing, Dr.AnoopSingh and Dr.PiyushMalaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Information Science & Engineering

Scheme:

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016

II SEMESTER B.E./B.TECH.

| SL No. | Subject Code | | | Teaching | Board | Theory /Lab/ Drawing (Hrs/ | Exam | CHEMIST | Credits | |
|-----------|-----------------|---------------------------------------|-----------------------|------------------------------------|----------------|---------------------------------|---------|---------|---------|----|
| 1 | IELIATOR | | and the second second | Department | Doard | Week) | Th./Pr. | I.A. | Total | |
| 2 | 15MAT21 | Engineering Maths-II | BS | Maths | Basic Sc. | 4 (T) | 80 | 20 | 100 | |
| 3 | 15CHE22 | Engineering Chemistry | BS | Chemistry | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 |
| 3 | 15PCD23 | Programming in C & Data Structures | ES | Any Engineering Department | CSE | 4 (T) | 80 | 20 | 100 | 4 |
| • | 15CED24 | Computer Aided Engineering Drawing | ES | Mech./IP/Auto/ Mfg.Engg/ IEM | Mech. Engg. | 6 (2I+ 4P) | 80 | 20 | 100 | 4 |
| 5 | 15ELN25 | Basic Electronics | ES | E&C/E&E /TC/IT | E&C | 4 (T) | 80 | 20 | 100 | 4 |
| 6 | 15CPL26 | Computer Programming Lab | ES | Any Engineering Department | CSE | 3(2 hrs lab+ 1 hr Tutorial) | 80 | 20 | 100 | 2 |
| 7 | 15CHEL27 | Engg. Chemistry Lab | BS | Chemistry | Basic Sc. | 3(2 hrs lab+ 1 hr Tutorial) | 80 | 20 | 100 | 2 |
| 8 | 15CIV28 | Environmental Studies | MNC | Civil / Environmental | Civil | 2 (Tutorial) | 40 | 10 | 50 | - |
| 9 | | Language (Eng.) | Mandatory Learning | Humanities | | 1 (T) | - | - | | - |
| - | | | 10 martine | and the second | Total | 31 | 600 | 150 | 750 | 24 |

Note: The Subjects Kannada and English are Audit Courses



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016

LISEMESTER B.L.D.TECH.

| 51. | Sublect | | ALC: NO | | 1000 | Theory | Fram | teation Mar | | Credite |
|-----|----------|---|-----------------------|--|---------------|--------------------------------------|---------|-------------|-------|---------|
| No. | Code | Subject | | Teaching Department | Board | Astv Deswing (Hest Week) | Th./Pr. | LA. | Total | |
| 1 | 15MAT21 | Engineering Mathe-II | BS | Matha | Bastic Sc. | 10 | 80 | 20 | 100 | |
| 5 | 15PHY22 | Engineering Physics | BS | Physics | Banic Sc. | (1) | 80 | 20 | 100 | |
| 3 | 15CIV23 | Elements of Civil Engg. & Mechanics | ES | Civil Engg | Civil Enga | •۳ | 90 | 20 | 100 | 6 |
| 4 | 15EME24 | Elements of Mechanical Engg. | ES | Mech. Enga | Mech. Engg | ۰۵ | 90 | 20 | 100 | 4 |
| 5 | ISELE25 | Basic Electrical Enge | ES | EAE | EAE | 100 | 80 | 70 | 100 | |
| 6 | 15WSL26 | Workshop Practice | ES | Mech., Auto, IP, IEM, Mfg, Engg, | Mech Engl | 3(2 hrs lab+ 1 hr instruction) | 80 | 20 | 100 | 2 |
| 7 | 15PHYL27 | Engg. Physics Lab | BS | Physics | Basic Sc. | 3(2 hrs lab+ 1 hr instruction) | 80 | 20 | 100 | 2 |
| 8 | 15CPH28 | Constitution of India, Professional Ethics and Human Rights | MNC | Humanities | • | 2 (Tutorial) | 40 | 10 | 50 | - |
| 9 | | Language (Kan.) | Mandatory Learning | Humanities | | I (T) | | - | | - |
| - | | | | | | 29 | 600 | 150 | 750 | - 21 |

Note: The Subjects Kannada and English are Audit Courses



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

CONSTITUTION OF INDIA, PROFESSIONAL ETHICS & HUMAN RIGHTS

Subject Code - 15CPH18/15CPH28

IA Marks - 10

Number of Lecture Hours/Week - 02

Exam Marks - 40

Total Number of Lecture Hours - 25

Exam Hours - 02

Course objectives:

1. To provide basic information about Indian constitution.

2. To identify individual role and ethical responsibility towards society.

3. To understand human rights and its implications

Module 1

Introduction to the Constitution of India, The Making of the Constitution and Salient features of the Constitution. 2 Hours Preamble to the Indian Constitution Fundamental Rights & its limitations. 3 Hours Module 2

Module 2

Directive Principles of State Policy & Relevance of Directive Principles State Policy Fundamental Duties. 2 Hours Union Executives – President, Prime Minister Parliament Supreme Court of India. 3 Hours

Module 3

State Executives – Governor Chief Minister, State Legislature High Court of State. 2 Hours Electoral Process in India, Amendment Procedures, 42nd, 44th, 74th, 76th, 86th &91st Amendments. 3 Hours

Module 4

Special Provision for SC & ST Special Provision for Women, Children & Backward Classes Emergency Provisions. Human Rights – Meaning and Definitions, Legislation Specific Themes in Human Rights-Working of National Human Rights Commission in India 3 Hours

Powers and functions of Municipalities, Panchyats and Co - Operative Societies. 2 Hours **Module 5**

Scope & Aims of Engineering Ethics, Responsibility of Engineers Impediments to Responsibility. 2 Hours Risks, Safety and liability of Engineers, Honesty, Integrity & Reliability in Engineering. 3 Hours

Course outcomes:

After study of the course, the students are able to

• Have general knowledge and legal literacy and thereby to take up competitive examinations

- Understand state and central policies, fundamental duties
- Understand Electoral Process, special provisions
- Understand powers and functions of Municipalities, Panchayats and Co-operative Societies, and
- Understand Engineering ethics and responsibilities of Engineers.
- Have an awareness about basic human rights in India

Text Books:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

1. Durga Das Basu: "Introduction to the Constitution on India", (Students Edn.) Prentice –Hall EEE, 19th / 20th Edn., 2001

2. Charles E. Haries, Michael S Pritchard and Michael J. Robins "Engineering Ethics"

Thompson Asia, 2003-08-05.

Reference Books:

1. M.V.Pylee, "An Introduction to Constitution of India", Vikas Publishing, 2002.

2. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, "Engineering Ethics", Prentice –Hall

of India Pvt. Ltd. New Delhi, 2004

3. Brij Kishore Sharma, "Introduction to the Constitution of India", PHI Learning Pvt.

Ltd., New Delhi, 2011.

4. Latest Publications of Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Syllabus:

ENVIRONMENTAL STUDIES

[As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2015 -2016)

SEMESTER - I/II

Subject Code - 15CIV18/15CIV28

IA Marks - 10

Number of Lecture Hours/Week - 02

Exam Marks - 40

Total Number of Lecture Hours - 25

Exam Hours - 02

Course Objectives:

1. To identify the major challenges in environmental issues and evaluate possible solutions.

2. Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.

3. To analyze an overall impact of specific issues and develop environmental management plan.

Module - 1

Introduction: Environment - Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security. 2 Hours

Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, Sustainable Development. 3 Hours

Module - 2

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & Sulphur Cycle. 2 Hours

Energy – Different types of energy, Conventional sources & Non-Conventional sources of energy Solar energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as an alternative energy. 3 Hours

Module -3

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects. 2 Hours

Global Environmental Issues: Population Growth, Urbanization, Land Management, Water & Waste Water Management. 3 Hours

Module -4

Air Pollution & Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layer depletion, controlling measures. 3 Hours

Solid Waste Management, E - Waste Management & Biomedical Waste Management - Sources, Characteristics & Disposal methods. 2 Hours

Module - 5

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. 2 Hours



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Environmental Acts & Regulations, Role of government, Legal aspects, Role of Non-governmental Organizations (NGOs), Environmental Education & Women Education.

3 Hours

Course Outcome:

Students will be able to,

1. Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,

2. Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,

3. Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components

4. Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Text Books:

1. Benny Joseph (2005), "Environmental Studies", Tata McGraw – Hill Publishing Company Limited.

2. R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.

3. R Rajagopalan, "Environmental Studies – From Crisis to Cure", Oxford University Press, 2005,

4. Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012.

Reference Books:

1. Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005

2. P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006

3. S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007

4. Erach Bharucha, "Text Book of Environmental Studies", for UGC, University press, 2005

5. G.Tyler Miller Jr., "Environmental Science – working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004

6. G. Tyler Miller Jr., "Environmental Science – working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006

7. Dr.Pratiba Sing, Dr.AnoopSingh and Dr.Piyush Malaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Electronics & Communication Engineering

CONSTITUTION OF INDIA, PROFESSIONAL ETHICS & HUMAN RIGHTS

Subject Code - 15CPH18/15CPH28

IA Marks - 10

Number of Lecture Hours/Week - 02

Exam Marks - 40

Total Number of Lecture Hours - 25

Exam Hours - 02

Course objectives:

1. To provide basic information about Indian constitution.

2. To identify individual role and ethical responsibility towards society.

3. To understand human rights and its implications

Module 1

Introduction to the Constitution of India, The Making of the Constitution and Salient features of the Constitution. 2 Hours Preamble to the Indian Constitution Fundamental Rights & its limitations. 3 Hours Module 2

Directive Principles of State Policy & Relevance of Directive Principles State Policy Fundamental Duties. 2 Hours Union Executives – President, Prime Minister Parliament Supreme Court of India. 3 Hours

Module 3

State Executives – Governor Chief Minister, State Legislature High Court of State. 2 Hours



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Electoral Process in India, Amendment Procedures, 42nd, 44th, 74th, 76th, 86th &91st Amendments. 3 Hours

Module 4

Special Provision for SC & ST Special Provision for Women, Children & Backward Classes Emergency Provisions. Human Rights – Meaning and Definitions, Legislation Specific Themes in Human Rights-Working of National Human Rights Commission in India 3 Hours

Powers and functions of Municipalities, Panchyats and Co - Operative Societies. 2 Hours **Module 5**

Scope & Aims of Engineering Ethics, Responsibility of Engineers Impediments to Responsibility. 2 Hours Risks, Safety and liability of Engineers, Honesty, Integrity & Reliability in Engineering. 3 Hours

Course outcomes:

After study of the course, the students are able to

• Have general knowledge and legal literacy and thereby to take up competitive

examinations

- Understand state and central policies, fundamental duties
- Understand Electoral Process, special provisions
- Understand powers and functions of Municipalities, Panchayats and Co-operative Societies, and
- Understand Engineering ethics and responsibilities of Engineers.

• Have an awareness about basic human rights in India

Text Books:

1. Durga Das Basu: "Introduction to the Constitution on India", (Students Edn.) Prentice –Hall EEE, 19th / 20th Edn., 2001

2. Charles E. Haries, Michael S Pritchard and Michael J. Robins "Engineering Ethics"

Thompson Asia, 2003-08-05.

Reference Books:

1. M.V.Pylee, "An Introduction to Constitution of India", Vikas Publishing, 2002.

2. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, "Engineering Ethics", Prentice – Hall of India Pvt. Ltd. New Delhi, 2004

3. Brij Kishore Sharma, "Introduction to the Constitution of India", PHI Learning Pvt. Ltd., New Delhi, 2011.

4. Latest Publications of Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org MANAGEMENTANDENTREPRENEURSHIP

Sub Code : 10AL 51 IA Marks : 25Hrs/week:04ExamHours:03 Total Lecture Hrs : 52 Exam Marks : 10 0PART-A

MANAGEMENT UNIT 1: Introduction - Meaning - nature and characteristics of Management, Scope and Functional areas of management - Management as a science, art of profession - Management & Administration - Roles of Management, Levels of Management, Development of Management Thought - early management approaches - Modem management approaches.

7 Hours

UNIT - 2

PLANNING: Nature, importance and purpose of planning process Objectives - Types of plans (Meaning Only) - Decision making Importance of planning - steps in planning & planning premises - Hierarchy of plans.

. 6 Hours

UNIT - 3

ORGANIZING AND STAFFING: Nature and purpose of organization Principles of organization - Types of organization - Departmentation Committees- Centralization Vs Decentralization of authority. and responsibility - Span of control - MBO and MBE (Meaning Only) Nature and importance of staffing--: Process of Selection & Recruitment (in brief).

6 Hours

UNIT - 4

DIRECTING & CONTROLLING: Meaning and nature of directing Leadership styles, Motivation Theories, Communication - Meaning and importance - coordination, meaning and importance and Techniques of Co Ordination. Meaning and steps in controlling - Essentials of a sound control system - Methods of establishing control (in brief):

7 Hours

PART-B

ENTREPRENEURSHIP UNIT - 5

ENTREPRENEUR: Meaning of Entrepreneur; Evolution of .the Concept; Functions of an Entrepreneur, Types of Entrepreneur, Entrepreneur - an emerging. Class. Concept of Entrepreneurship - Evolution of Entrepreneurship, Development of Entrepreneurship; Stages in entrepreneurial process; Role of entrepreneurs in Economic Development; Entrepreneurship in India; Entrepreneurship - its Barriers.

6 Hours

UNIT – 6

SMALL SCALE INDUSTRIES: Definition; Characteristics; Need and rationale; Objectives; Scope; role of SSI in Economic Development. Advantages of SSI Steps to start and SSI - Government policy towards SSI; Different Policies of SSI; Government Support for SSI during 5 year plans. Impact of Liberalization, Privatization,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Globalization on SSI Effect of WTO/GA TT Supporting Agencies of Government for SSI, Meaning, Nature of support; Objectives; Functions; Types of Help; Ancillary Industry and Tiny Industry (Definition Only)

7 Hours UNIT - 7

UNII - /

INSTITUTIONAL SUPPORT: Different Schemes; TECKSOK; KIADB; KSSIDC; KSIMC; DIC Single Window Agency; SISI; NSIC; SIDBI; KSFC.

7 Hours

UNIT - 8

PREPARATION OF PROJECT: Meaning of Project; Project Identification; Project Selection; Project Report; Need and Significance of Report; Contents; Formulation; Guidelines by Planning Commission for Project report; Network Analysis; Errors of Project Report; Project Appraisal. Identification of business opportunities: Market Feasibility Study; Technical Feasibility Study; Financial Feasibility Study & Social Feasibility Study. 7 Hours

TEXT BOOKS:

- 1. Principles of Management P. C.Tripathi, P.N. Reddy Tata McGraw Hill,
- Dynamics of Entrepreneurial Development & Management Vasant Desai Himalaya Publishing House
 24

3. Entrepreneurship Development – Poornima. M. Charantimath Small Business Enterprises - Pearson Education - 2006 (2 & 4).

REFERENCE BOOKS:

- 1. Management Fundamentals Concepts, Application, Skill Development RobersLusier Thomson
- 2. Entrepreneurship Development S.S.Khanka S.Chand& Co.
- 3. Management Stephen Robbins Pearson Education/PHI 17th Edition, 2003.



(Recognised by the Govt, of Karnataka, Affiliated to Visvesvarava Technological University, Belagavi, Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

ENVIRONMENTAL STUDIES

[As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2015 - 2016) **SEMESTER - I/II**

Subject Code - 15CIV18/15CIV28

IA Marks - 10

Number of Lecture Hours/Week - 02

Exam Marks - 40

Total Number of Lecture Hours - 25

Exam Hours - 02

Course Objectives:

1. To identify the major challenges in environmental issues and evaluate possible solutions.

2. Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.

3. To analyze an overall impact of specific issues and develop environmental management plan. Module - 1

Introduction: Environment - Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security. 2 Hours

Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, Sustainable Development. 3 Hours

Module - 2

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & Sulphur Cycle. 2 Hours

Energy – Different types of energy, Conventional sources & Non-Conventional sources of energy Solar energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as an alternative energy. 3 Hours

Module -3

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects. 2 Hours

Global Environmental Issues: Population Growth, Urbanization, Land Management, Water & Waste Water Management. 3 Hours

Module -4

Air Pollution & Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layer depletion, controlling measures. 3 Hours

Solid Waste Management, E - Waste Management & Biomedical Waste Management - Sources, Characteristics & Disposal methods. 2 Hours

Module - 5



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. 2 Hours

Environmental Acts & Regulations, Role of government, Legal aspects, Role of Non-governmental Organizations (NGOs), Environmental Education & Women Education.

3 Hours

Course Outcome:

Students will be able to,

1. Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,

2. Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,

3. Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components

4. Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Text Books:

1. Benny Joseph (2005), "Environmental Studies", Tata McGraw – Hill Publishing Company Limited.

2. R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.

3. R Rajagopalan, "Environmental Studies – From Crisis to Cure", Oxford University Press, 2005,

4. Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012.

Reference Books:

1. Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005

2. P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006

3. S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007

4. Erach Bharucha, "Text Book of Environmental Studies", for UGC, University press, 2005

5. G.Tyler Miller Jr., "Environmental Science – working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004

6. G. Tyler Miller Jr., "Environmental Science – working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006

7. Dr.Pratiba Sing, Dr.AnoopSingh and Dr.Piyush Malaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Electrical & Electronics Engineering

Course Structure for B.E- 2015 scheme Regulation

Electrical and Electronics Engineering

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016

I SEMESTER B.E./B.TECH.

| | | | | | | | | PHYS | ICS GROU | Р |
|-----|----------|---|-----------------------|--|----------------|---------------------------------------|-------------|-------------|----------|---------|
| SL. | Subject | | | Teaching | | Theory /Lab/ | Exan | nination Ma | rks | Credits |
| No. | Code | Subject | | Department | Board | Drawing (Hrs/ Week) | Th./Pr. | I.A. | Total | |
| 1 | 15MAT11 | Engineering Maths-I | BS | Maths | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 |
| 2 | 15PHY12 | Engineering Physics | BS | Physics | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 |
| 3 | 15CIV13 | Elements of Civil Engg. & Mechanics | ES | Civil Engg. | Civil Engg. | 4 (T) | 80 | 20 | 100 | 4 |
| 4 | 15EME14 | Elements of Mechanical Engg. | ES | Mech. Engg. | Mech. Engg. | 4 (T) | 80 | 20 | 100 | 4 |
| 5 | 15ELE15 | Basic Electrical Engg. | ES | E & E | E & E | 4 (T) | 80 | 20 | 100 | 4 |
| 6 | 15WSL16 | Workshop Practice | ES | Mech., Auto, IP, IEM, Mfg. Engg. | Mech. Engg. | 3(2 hrs lab+ 1 hr instruction) | 80 | 20 | 100 | 2 |
| 7 | 15PHYL17 | Engg. Physics Lab | BS | Physics | Basic Sc. | 3(2 hrs lab+ 1 hr instruction) | 80 | 20 | 100 | 2 |
| 8 | 15CPH18_ | Constitution of India, Professional Ethics and Human Rights (CPH) | MNC | Humanities | | 2.(Tutorial) | 40 _ | 10_ | 50 | |
| 9 | | Language_(Kan.)_ | Mandatory Learning | Humanities | | l _(T)_ | - | - | - | |
| | | | | | | 29 | 600 | 150 | 750 | 24 |

Note: The Subjects Kannada and English are Audit Courses



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016

IISEMESTER B.E./B.TECH.

| | PHYSICS GROUP | | | | | | | | | | | | |
|------------|-----------------|--|-------------------------|--|----------------|--------------------------------------|-------------------|-------------|-------|---------|--|--|--|
| SI. | Cublert | | | Trackler | | Theory /Lab/ | Exan | nination Ma | rks | Credits | | | |
| 51. No. | Subject Code | Subject | | Teaching Department | Board | Drawing (Hrs/ Week) | Th./Pr. | I.A. | Total | | | | |
| 1 | 15MAT21 | Engineering Maths-II | BS | Maths | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 | | | |
| 2 | 15PHY22 | Engineering Physics | BS | Physics | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 | | | |
| 3 | 15CIV23 | Elements of Civil Engg. & Mechanics | ES | Civil Engg. | Civil Engg. | 4 (T) | 80 | 20 | 100 | 4 | | | |
| 4 | 15EME24 | Elements of Mechanical Engg. | ES | Mech. Engg. | Mech. Engg. | 4 (T) | 80 | 20 | 100 | 4 | | | |
| 5 | 15ELE25 | Basic Electrical Engg. | ES | E & E | E & E | 4 (T) | 80 | 20 | 100 | 4 | | | |
| 6 | 15WSL26 | Workshop Practice | ES | Mech., Auto, IP, IEM, Mfg. Engg. | Mech. Engg. | 3(2 hrs lab+ 1 hr instruction) | 80 | 20 | 100 | 2 | | | |
| 7 | 15PHYL27 | Engg. Physics Lab | BS | Physics | Basic Sc. | 3(2 hrs lab+ 1 hr instruction) | 80 | 20 | 100 | 2 | | | |
| 8 | 15CPH28_ | Constitution of India, Professional Ethics and Human Rights. | MNC | Humanities_ | | 2 (Tutorial) | <mark>40</mark> _ | 10_ | 50_ | , | | | |
| 9 | - | Language (Kan.) | Mandatory_ Learning_ | Humanities | | I_ <mark>(T)</mark> _ | * | • | - | | | | |
| | | | | | | 29 | 600 | 150 | 750 | 24 | | | |

Note: The Subjects Kannada and English are Audit Courses



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016

I SEMESTER B.E./B.TECH.

| | | | | | CH | EMISTRY GROU | J P | | | |
|-----|----------|---------------------------------------|-------------------------|-------------------------------------|----------------|---------------------------------|------------|-------------|-------|---------|
| SI. | Subject | Subject | | Teaching | Board | Theory /Lab/ Drawing (Hrs/ | Exan | nination Ma | 'ks | Credits |
| No. | Code | Subject | | Department | Боаги | Week) | Th./Pr. | I.A. | Total | |
| 1 | 15MAT11 | Engineering Maths-I | BS | Maths | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 |
| 2 | 15CHE12 | Engineering Chemistry | BS | Chemistry | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 |
| 3 | 15PCD13 | Programming in C & Data Structures | ES | Any Engineering Department | CSE | 4 (T) | 80 | 20 | 100 | 4 |
| 4 | 15CED14 | Computer Aided Engineering Drawing | ES | Mech./IP/Auto/ Mfg.Engg./ IEM | Mech. Engg. | 6 (2I+4P) | 80 | 20 | 100 | 4 |
| 5 | 15ELN15 | Basic Electronics | ES | E & C / E & E / TC / IT | E & C | 4 (T) | 80 | 20 | 100 | 4 |
| 6 | 15CPL16 | Computer Programming Lab | ES | Any Engineering Department | CSE | 3(2 hrs lab+ 1 hr Tutorial) | 80 | 20 | 100 | 2 |
| 7 | 15CHEL17 | Engg. Chemistry Lab | BS | Chemistry | Basic Sci. | 3(2 hrs lab+ 1 hr Tutorial) | 80 | 20 | 100 | 2 |
| 8 | 15CIV18_ | Environmental Studies | MNC_ | Civil/ Environmental | CiviL | 2.(Tutorial) | 40_ | 10_ | 50. | |
| 9 | - | Language (Eng.) | Mandatory_ Learning_ | Humanities | | I.(T)_ | • | • | - | |
| | | | | | Total | 31 | 600 | 150 | 750 | 24 |

Note: The Subjects Kannada and English are Audit Courses

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016

II SEMESTER B.E./B.TECH.

| HBE | MESTER B.E | <u>ab.recii.</u> | | | - | | | | CHEMIS | FRY GROUP |
|------------|------------|---------------------------------------|-------------------------|--|----------------|--|-------------------|-------|--------|-----------|
| SI. No. | Subject | Subject | | Teaching Department | Board | Theory /Lab/ Drawing (Hrs/ Week) | Examination Marks | | | Credits |
| | Code | | | | | | Th./Pr. | I.A. | Total | |
| 1 | 15MAT21 | Engineering Maths-II | BS | Maths | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 |
| 2 | 15CHE22 | Engineering Chemistry | BS | Chemistry | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 |
| 3 | 15PCD23 | Programming in C & Data Structures | ES | Any Engineering Department | CSE | 4 (T) | 80 | 20 | 100 | 4 |
| 4 | 15CED24 | Computer Aided Engineering Drawing | ES | Mech./IP/Auto/ Mfg.Engg./ IEM | Mech. Engg. | 6 (2I+ 4P) | 80 | 20 | 100 | 4 |
| 5 | 15ELN25 | Basic Electronics | ES | E & C / E & E / TC / IT | E & C | 4 (T) | 80 | 20 | 100 | 4 |
| 6 | 15CPL26 | Computer Programming Lab | ES | Any Engineering Department | CSE | 3(2 hrs lab+ 1 hr Tutorial) | 80 | 20 | 100 | 2 |
| 7 | 15CHEL27 | Engg. Chemistry Lab | BS | Chemistry | Basic Sc. | 3(2 hrs lab+ 1 hr Tutorial) | 80 | 20 | 100 | 2 |
| 8 | 15CIV28_ | Environmental Studies. | MNC_ | Civil ^I . Environmental. | Civil | 2.(Tutorial) | 40_ | 10. | 50. | |
| 9 | - | Language (Eng.) | Mandatory_ Learning_ | Humanities | | I_ <u>(T)</u> _ | 1 | 5 - S | ~ | - |
| | | | | | Total | 31 | 600 | 150 | 750 | 24 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

CONSTITUTION OF INDIA, PROFESSIONAL ETHICS & HUMAN RIGHTS

Subject Code - 15CPH18/15CPH28

IA Marks - 10

Number of Lecture Hours/Week - 02

Exam Marks - 40

Total Number of Lecture Hours - 25

Exam Hours - 02

Course objectives:

1. To provide basic information about Indian constitution.

2. To identify individual role and ethical responsibility towards society.

3. To understand human rights and its implications

Module 1

Introduction to the Constitution of India, The Making of the Constitution and Salient features of the Constitution. 2 Hours Preamble to the Indian Constitution Fundamental Rights & its limitations. 3 Hours Module 2

Directive Principles of State Policy & Relevance of Directive Principles State Policy Fundamental Duties. 2 Hours Union Executives – President, Prime Minister Parliament Supreme Court of India. 3 Hours

Module 3

State Executives – Governor Chief Minister, State Legislature High Court of State. 2 Hours Electoral Process in India, Amendment Procedures, 42nd, 44th, 74th, 76th, 86th &91st Amendments. 3 Hours

Module 4

Special Provision for SC & ST Special Provision for Women, Children & Backward Classes Emergency Provisions. Human Rights – Meaning and Definitions, Legislation Specific Themes in Human Rights-Working of National Human Rights Commission in India 3 Hours

Powers and functions of Municipalities, Panchyats and Co - Operative Societies. 2 Hours **Module 5**

Scope & Aims of Engineering Ethics, Responsibility of Engineers Impediments to Responsibility. 2 Hours Risks, Safety and liability of Engineers, Honesty, Integrity & Reliability in Engineering. 3 Hours

Course outcomes:

After study of the course, the students are able to

- Have general knowledge and legal literacy and thereby to take up competitive examinations
- Understand state and central policies, fundamental duties
- Understand Electoral Process, special provisions
- Understand powers and functions of Municipalities, Panchayats and Co-operative Societies, and
- Understand Engineering ethics and responsibilities of Engineers.
- Have an awareness about basic human rights in India

Text Books:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

1. Durga Das Basu: "Introduction to the Constitution on India", (Students Edn.) Prentice –Hall EEE, 19th / 20th Edn., 2001

2. Charles E. Haries, Michael S Pritchard and Michael J. Robins "Engineering Ethics"

Thompson Asia, 2003-08-05.

Reference Books:

1. M.V.Pylee, "An Introduction to Constitution of India", Vikas Publishing, 2002.

- 2. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, "Engineering Ethics", Prentice -Hall
- of India Pvt. Ltd. New Delhi, 2004

3. Brij Kishore Sharma, "Introduction to the Constitution of India", PHI Learning Pvt.

Ltd., New Delhi, 2011.

4. Latest Publications of Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

ENVIRONMENTAL STUDIES

[As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2015 -2016) SEMESTER - I/II

Subject Code - 15CIV18/15CIV28

IA Marks - 10 Number of Lecture Hours/Week - 02

Exam Marks - 40

Total Number of Lecture Hours - 25

Exam Hours - 02

Course Objectives:

1. To identify the major challenges in environmental issues and evaluate possible solutions.

2. Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.

3. To analyze an overall impact of specific issues and develop environmental management plan.

Module - 1

Introduction: Environment - Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security. 2 Hours

Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, Sustainable Development. 3 Hours

Module - 2

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & Sulphur Cycle. 2 Hours

Energy – Different types of energy, Conventional sources & Non-Conventional sources of energy Solar energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as an alternative energy. 3 Hours

Module -3

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects. 2 Hours

Global Environmental Issues: Population Growth, Urbanization, Land Management, Water & Waste Water Management. 3 Hours

Module -4

Air Pollution & Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layer depletion, controlling measures. 3 Hours

Solid Waste Management, E - Waste Management & Biomedical Waste Management - Sources, Characteristics & Disposal methods. 2 Hours

Module - 5

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. 2 Hours

Environmental Acts & Regulations, Role of government, Legal aspects, Role of Non-governmental Organizations (NGOs), Environmental Education & Women Education.

3 Hours



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Course Outcome:

Students will be able to,

1. Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,

2. Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,

3. Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components

4. Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Text Books:

1. Benny Joseph (2005), "Environmental Studies", Tata McGraw – Hill Publishing Company Limited.

2. R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.

3. R Rajagopalan, "Environmental Studies – From Crisis to Cure", Oxford University Press, 2005,

4. Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012.

Reference Books:

1. Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005

2. P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006

3. S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007

4. Erach Bharucha, "Text Book of Environmental Studies", for UGC, University press, 2005

5. G.Tyler Miller Jr., "Environmental Science – working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004

6. G.Tyler Miller Jr., "Environmental Science – working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006

7. Dr.Pratiba Sing, Dr.AnoopSingh and Dr.Piyush Malaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.



15EE554

Special Electrical Machines

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI SCHEME OF TEACHING AND EXAMINATION - 2015-16 B.E. ELECTRICAL AND ELECTRONICS ENGINEERING CHOICE BASED CREDIT SYSTEM (CBCS)

| V SEMESTER | | | | | | | | | | | | |
|--|-----------------|-------------------------------|-------------------------------------|-------|--|--------------------------|--------------------------|----------------------|--------------------------------|------------|----------------|---------|
| | | | | | | Teaching Hours /Week | | Examinatio | | nation | tion | |
| SL No | Subject Code | Subject (Course) | Title | | Teaching Department | Theory | Practical/ Drawing | Duration in hours | Theory/ Practical Marlss | I.A. Marks | Total Marks | Credits |
| 1 | 15EE51 | Core Subject | Management and Entrepreneurship | | EEE | 04 | | 03 | 80 | 20 | 100 | 4 |
| 2 | 15EE52 | Core Subject | Microcontroller | | EEE | 04 | | 03 | 80 | 20 | 100 | 4 |
| 3 | 15EE53 | Core Subject | Power Electronics | | EEE | 04 | | 03 | 80 | 20 | 100 | 4 |
| 4 | 15EE54 | Core Subject | Signals and Systems | | EEE | 04 | | 03 | 80 | 20 | 100 | 4 |
| 5 | 15EE55X | Professional Elective | Professional Elective – I | | EEE | 03 | | 03 | 80 | 20 | 100 | 3 |
| 6 | 15EE56Y | Open Elective | Open Elective - I | | EEE | 03 | | 03 | 80 | 20 | 100 | 3 |
| 7 | 15EEL57 | Laboratory | Microcontroller Laboratory | | EEE | | Instruction Practical | 03 | 80 | 20 | 100 | 2 |
| 8 | 15EEL58 | Laboratory | Power Electronics Laboratory | | EEE | | Instruction Practical | 03 | 80 | 20 | 100 | 2 |
| 1 | | | | | OTAL | | 22hours al: 06 hours | 24 | 160 | 640 | 800 | 26 |
| Elective | | | | | | | | | | | | |
| Professional Elective Open Offered by the Department of E | | | | | | | | | ectronics | s Enginee | ring | |
| Courses under Code 15EE55X Title | | Title | Courses u Code 15E | lifle | | | | | | | | |
| 15 | EE551 | Introduction to Nuclear Power | | 15EE5 | 15EE561 Electronic Communication systems | | | | | | | |
| 15EE552 Electrical Engineering Materials | | 15EE5 | 2562 Programmable Logic controllers | | | | | | | | | |
| 15EE553 | | Estimating and Costing | | 15EE5 | 563 | Renewable Energy Systems | | | | | | |

15EE564

Business Communication



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MANAGEMENT AND ENTREPRENEURSHIP (Core Course):

Module-1 Management: Definition, Importance – Nature and Characteristics of Management, Management Functions, Roles of Manager, Levels of Management, Managerial Skills, Management & Administration, Management as a Science, Art & Profession. Planning: Nature, Importance and Purpose Of Planning, Types of Plans, Steps in Planning, Limitations of Planning, Decision Making – Meaning, Types of Decisions- Steps in Decision Making.

Teaching Hours 10

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L4 – Analysing.

Module-2 Organizing and Staffing: Meaning, Nature and Characteristics of Organization – Process of Organization, Principles of Organization, Departmentalization, Committees – meaning, Types of Committees, Centralization Versus Decentralization of Authority and Responsibility, Span of Control (Definition only), Nature and Importance of Staffing, Process of Selection and Recruitment. Directing and Controlling: Meaning and Nature of Directing-Leadership Styles, Motivation Theories Communication – Meaning and Importance, Coordination-Meaning and Importance, Techniques of Coordination. Controlling – Meaning, Steps in Controlling.

Teaching Hours 10

Revised Bloom's Taxonomy Level L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-3 Social Responsibilities of Business: Meaning of Social Responsibility, Social Responsibilities of Business towards Different Groups, Social Audit, Business en and Corporate Governance. Entrepreneurship: Definition of Entrepreneur, Importance of Entrepreneurship, concepts of Entrepreneurship, Characteristics of successful Entrepreneur, Classification of Entrepreneurs, Intrapreneur – An Emerging Class, Comparison between Entrepreneur and Intrapreneur, Myths of Entrepreneurship, Entrepreneurial Development models, Entrepreneurial development cycle, Problems faced by Entrepreneurs and capacity building for Entrepreneurship.

Teaching Hours 10

Revised Bloom's Taxonomy Level L3 – Applying.

Module-4 Teaching Hours Modern Small Business Enterprises: Role of Small Scale Industries, Concepts and definitions of SSI Enterprises, Government policy and development of the Small Scale sector in India, Growth and Performance of Small Scale Industries in India, Sickness in SSI sector, Problems for Small Scale Industries, Impact of Globalization on SSI, Impact of WTO/GATT on SSIs, Ancillary Industry and Tiny Industry (Definition only). Institutional Support for Business Enterprises: Introduction, Policies & Schemes of Central–Level Institutions, State-Level Institutions.

Teaching Hours 10

Revised Bloom's Taxonomy Level L3 – Applying.

Module-5 Project Management: Meaning of Project, Project Objectives & Characteristics, Project IdentificationMeaning& Importance; Project Life Cycle, Project Scheduling, Capital Budgeting, Generating an Investment Project Proposal, Project Report-Need and Significance of Report, Contents, Formulation, Project



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Analysis-Market, Technical, Financial, Economic, Ecological, Project Evaluation and Selection, Project Financing, Project Implementation Phase, Human & Administrative aspects of Project Management, Prerequisites for Successful Project Implementation. New Control Techniques- PERT and CPM, Steps involved in developing the network, Uses and Limitations of PERT and CPM.

Teaching Hours 10

Revised Bloom's Taxonomy Level L3 – Applying, L4 – Analysing. L2 – Understanding, L4 – Analysing.

ELECTRICAL ESTMATION AND COSTING (Professional Elective)

Module-1 Principles of Estimation: Introduction to Estimation and Costing, Electrical Schedule, Catalogues, Market Survey and Source Selection, Recording of Estimates, Determination of Required Quantity of Material, LabourConditions, Determination of Cost Material and Labour, Contingencies, Overhead Charges, Profit, Purchase System, Purchase Enquiry and Selection of Appropriate Purchase Mode, Comparative Statement, Purchase Orders, Payment Of Bills, Tender Form, General Idea about IE Rule, Indian Electricity(IE) Act and IE Rules -29,30,45,46,47,50,51,54,55,77 and79.

Teaching Hours : 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding.

Module-2 Wiring: Introduction, Distribution of energy in a Building, PVC Casing and Capping, Conduit Wiring, Desirabilities of Wiring. Types of cables used in Internal Wiring, Multi Strand Cables, Voltage Grading and Specification of Cables Wiring (continued): Main Switch and Distribution Board, Conduits and its accessories and Fittings. Lighting Accessories and Fittings, Types of Fuses, Size of Fuse, Fuse Units, Earthing Conductor. Internal Wiring: General rules for wiring, Design of Lighting Points (Refer to Seventh Chapter of the Textbook), Number of Points, Determination of Total Load, Number of Sub –Circuits, Ratings Main Switch and Distribution Board and Size of Conductor. Current Density, Layout.

Teaching Hours : 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-3 Service Mains: Introduction, Types, Estimation of Underground and Overhead Service Connections. Design and Estimation of Power Circuits: Introduction, Important Considerations Regarding Motor Installation Wiring, Input Power, Input Current to Motors, Rating of Cables, Rating of Fuse, Size of Condit, Distribution Board Main Switch and Starter.

Teaching Hours: 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-4 Estimation of Overhead Transmission and Distribution Lines: (Review of Line Supports, Conductor Materials, Size of Conductor for Overhead Transmission Line, Types of Insulators)[No Question Shall be Set From the Review Portion]. Cross Arms, Pole Brackets and Clamps, Guys and Stays, Conductors Configuration Spacing and Clearances, Span Lengths, Lightning Arrestors, Phase Plates, Danger Plates, Anti Climbing Devices, Bird



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Guards, Beads of Jumpers, Muffs, Points to be Considered at the Time of Erection of Overhead Lines, Erection of Supports, Setting of Stays, Fixing of Cross Arms, Fixing of Insulators, Conductor Erection. Repairing and Jointing of Conductors, Dead End Clamps, Positioning of Conductors and Attachment to Insulators, Jumpers, Tee-Offs, Earthing of Transmission Lines, Guarding of Overhead Lines, Clearances of Conductor From Ground, Spacing Between Conductors, Important Specifications.

Teaching Hours: 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding. L3 – Applying, L4 – Analysing

Module-5 Estimation of Substations: Main Electrical connection, Graphical Symbols for Various Types of Apparatus and Circuit Elements on Substation main Connection Diagram, Single Line Diagram of Typical Substations, Equipment for Substation, Substation Auxiliaries Supply, Substation Earthing.

Teaching Hours: 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding.

RENEWABLE ENERGY RESOURCES(Open Elective)

Module-1 Introduction: Causes of Energy Scarcity, Solution to Energy Scarcity, Factors Affecting Energy Resource Development, Energy Resources and Classification, Renewable Energy – Worldwide Renewable Energy Availability, Renewable Energy in India. Energy from Sun: Sun- earth Geometric Relationship, Layer of the Sun, Earth – Sun Angles and their Relationships, Solar Energy Reaching the Earth's Surface, Solar Thermal Energy Applications.

Teaching Hours: 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying.

Module-2 Solar Thermal Energy Collectors: Types of Solar Collectors, Configurations of Certain Practical Solar Thermal Collectors, Material Aspects of Solar Collectors, Concentrating Collectors, Parabolic Dish – Stirling Engine System, Working of Stirling or Brayton Heat Engine, Solar Collector Systems into Building Services, Solar Water Heating Systems, Passive Solar Water Heating Systems, Applications of Solar Water Heating Systems, Active Solar Space Cooling, Solar Air Heating, Solar Dryers, Crop Drying, Space Cooing, Solar Cookers, Solar pond. Solar Cells: Components of Solar Cell System, Elements of Silicon Solar Cell, Solar Cell materials, Practical Solar Cells, I – V Characteristics of Solar Cells, Efficiency of Solar Cells, Photovoltaic Panels, Applications of Solar Cell Systems

Teaching Hours: 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-3 Hydrogen Energy: Benefits of Hydrogen Energy, Hydrogen Production Technologies, Hydrogen Energy Storage, Use of Hydrogen Energy, Advantages and Disadvantages of Hydrogen Energy, Problems Associated with Hydrogen Energy. Wind Energy: Windmills, Wind Turbines, Wind Resources, Wind Turbine Site Selection. Geothermal Energy: Geothermal Systems, Classifications, Geothermal Resource Utilization, Resource Exploration, Geothermal Based Electric Power Generation, Associated Problems, environmental Effects. Solid waste andAgricultural Refuse: Waste is Wealth, Key Issues, Waste Recovery Management Scheme, Advantages and Disadvantages of Waste Recycling, Sources and Types of Waste, Recycling of Plastics.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Teaching Hours: 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-4 Biomass Energy:Biomass Production, Energy Plantation,Biomass Gasification, Theory of Gasification, Gasifier and Their Classifications, Chemistry of Reaction Process in Gasification, Updraft, Downdraft and Crossdraft Gasifiers, Fluidized Bed Gasification, Use of Biomass Gasifier, Gasifier Biomass Feed Characteristics, Applications of Biomass Gasifier, Cooling and Cleaning of Gasifiers. Biogas Energy: Introduction, Biogas and its Composition, Anaerobic Digestion, Biogas Production, Benefits of Biogas, Factors Affecting the Selection of a Particular Model of a Biogas Plant, Biogas Plant Feeds and their Characteristics. Tidal Energy:Introduction, Tidal Energy Resource, Tidal Energy Availability, Tidal Power Generation in India, Leading Country in Tidal Power Plant Installation, Energy Availability in Tides, Tidal Power Basin, Turbines for Tidal Power, Advantages and Disadvantages of Tidal Power, Problems Faced in Exploiting Tidal Energy.

Teaching Hours: 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-5 Sea Wave Energy:Introduction, Motion in the sea Waves, Power Associated with Sea Waves, Wave Energy Availability, Devices for Harnessing Wave Energy, Advantages and Disadvantages of Wave Power. Ocean Thermal Energy:Introduction,Principles of Ocean Thermal Energy Conversion (OTEC), Ocean Thermal Energy Conversion plants, Basic Rankine Cycle and its Working, Closed Cycle, Open Cycle and Hybrid Cycle, Carnot Cycle, Application of OTEC in Addition to Produce Electricity, Advantages, Disadvantages and Benefits of OTEC.

Teaching Hours: 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying.

BUSINESS COMMUNICATION (Open Elective)

Module-1 Analyse Communication Purpose and Audience: How to Learn, How Engineers Are Persuaded, Speak or Write: Select the Right Communication Channel, Consider Your Communication Purpose and Audience. Projecting the Image of the Engineering Profession: Overcome Anxiety, Primary Impact: Nonverbal Body Language, Secondary Impact: Control Vocal Quality, Volume, And Pace, Optimize Presentation Environment. Presentation Aids: Engineering: The Real da Vinci Code, Speaking Visually—Guidelines for Using Presentation Aids, Choosing among Options, Creating Visuals with Impact, Delivering with Visuals.

Teaching Hours :08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying.

Module-2 Organize Your Talk: Planning Your Talk, Conducting an Audience Analysis: 39Questions, Organizing Your Talking Seven Easy Stages, Getting Attention and Keeping Interest, Five Minutes Early – Time Management for Your Presentation, Delivering Your Introduction, Presenting Your Conclusion. Handling Audience Response: Create the Environment, Handle with C.A.R.E, Deal with Hostile Questions, Deal with Other Types of Questions, Control the Q&A Session, Thinking on Your Feet. Organizing for Emphasis: Make our Bottom Line the Top Line, Purpose Statement and Blueprints, Open Long Reports with a Summary, Use More Topic Sentences, Develop Headings, Structure Vertical Lists.

Teaching Hours :08



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-3 Write As If Talking to Your Engineering Associates: Use Personal Pronouns, Relyon Everyday Words, Use Short Spoken Transitions, Keep Sentences Short, Reach Out to Your Engineering Readers by Asking Questions, 5Whys-ATechnique for Engineering Problem Solving. Trim Your Expressions: Introduction, Prune Wordy Expressions, Use Strong Verbs, Cut Doublings and Noun Strings, Eliminate Unnecessary Determiners and Modifiers, Change Phrases into Single Words, Change Unnecessary Clauses into Phrases or Single Words, Avoid Over using "Itis" and "Thereis", Eight Steps for Lean Writing. Write Actively—Engineering is about Actions: Active Voice: "Albert Einstein Wrote the Theory of Relativity", How to Recognize the Passive Voice, How to Write Actively—Use Three Cures, Write Passively for Good Reasons Only, Theory of Completed Staff Work.

Teaching Hours :08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-4 Every day Engineering Communications -E-Mails, Phone Calls, and Memos: Effective E-mail Writing: Seven Things to Remember, How to Be Productive on the Phone, "Memos Solve Problems". Visuals for Engineering Presentation - Engineers Think in Pictures: Optimize Slide Layout, Display Engineering Data Effectively, How to Develop Effective Graphics. Write Winning Grant Proposals: Know Your Audience, Understand Your Goal and Marketing Strategy, Select the Correct Writing Style, Organize Your Proposal around the FourPs, A Brief Checklist before Submitting Your Proposal.

Teaching Hours :08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding.

Module-5 How to Effectively Prepare Engineering Reports: Writing an Effective Progress Report, Develop Informative Design Reports. Listening Interactive Communication about Engineering Risk: Listening – A Forgotten Risk Communication Skill Listening – Harder Than Speaking and Writing, How to Listen to Voice of Customers about Risk, Listen Attentively: Understanding What Drives Perceived Risk, Thirteen Questions about Risk Communication.

Teaching Hours :08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI SCHEME OF TEACHING AND EXAMINATION - 2015-16 B.E. ELECTRICAL AND ELECTRONICS ENGINEERING CHOICE BASED CREDIT SYSTEM (CBCS)

| VI SE | MESTER | 1 | 1 | | | | | | | | |
|-------------------------------------|-----------------|--|-------------------------------------|------------------------|----------------------------------|------------------------------------|----------------------|-------------------------------|-----------|----------------|---------|
| | | | | - | Teaching Hours /Week | | Examination | | | | 1 |
| SL No | Subject Code | Subject (Course) | Title | Teaching Department | Theory | Practical/ Drawing | Duration in hours | Theory/ Practical Marks | LA. Marks | Total Marks | Credits |
| 1 | 15EE61 | Core Subject | Control Systems | EEE | 04 | | 03 | 80 | 20 | 100 | 4 |
| 2 | 15EE62 | Core Subject | Power System Analysis - 1 | EEE | 04 | | 03 | 80 | 20 | 100 | 4 |
| 3 | 15EE63 | Core Subject | Digital Signal Processing | EEE | 04 | | 03 | 80 | 20 | 100 | 4 |
| 4 | 15EE64 | Core Subject | Electrical Machine Design | EEE | 04 | | 03 | 80 | 20 | 100 | 4 |
| 5 | 15EE65X | Professional Elective | Professional Elective - II | EEE | 03 | | 03 | 80 | 20 | 100 | 3 |
| 6 | 15EE66Y | Open Elective | Open Elective - II | EEE | 03 | - | 03 | 80 | 20 | 100 | 3 |
| 7 | 15EEL67 | Laboratory | Control System Laboratory | EEE | | Iour Instruction Iour Practical | 03 | 80 | 20 | 100 | 2 |
| 8 | 15EEL68 | Laboratory Digital Signal Processing Laboratory | | EEE | | Iour Instruction Iour Practical | 03 | 80 | 20 | 100 | 2 |
| | | | TOTAL | | ory:22 hours ctical: 06 hours | 24 | 160 | 640 | 800 | 26 | |
| Elective | | | | | | | | | | | |
| | | Professional | Elective | Offered | l by ti | Open Ele he Department of Elect | | Electro | nics Eng | incering | |
| Courses under Code 15EE65X Title | | | Courses under Code 15EE66Y Title | | | | | | | | |

| Code 15EE65X | | Code 15EE66Y | |
|--------------|--|--------------|--|
| 15EE651 | Computer Aided Electrical Drawing | 15EE661 | Artificial Neural Networks and Fuzzy logic |
| 15EE652 | Advanced Power Electronics | 15EE662 | Sensors and Transducers |
| 15EE653 | Energy Audit and Demand side Management | 15EE663 | Batteries and Fuel Cells for Commercial, Military and Space Applications |
| 15EE654 | Solar and Wind Energy | 15EE664 | Industrial Servo Control Systems |

ENERGY AUDIT AND DEMAND SIDE MANAGEMENT (Professional Elective):

Module-1 Energy Scenarios: Energy Conservation, Energy Audit, Energy Scenarios, Energy Consumption, Energy Security, Energy Strategy, Clean Development Mechanism. Types of Energy Audits and Energy-Audit Methodology: Definition of Energy Audit, Place of Audit, Energy – Audit Methodology, Financial Analysis, Sensitivity Analysis, Project Financing Options, Energy Monitoring and Training. Survey Instrumentation: Electrical Measurement, Thermal Measurement, Light Measurement, Speed Measurement, Data Logger and Data – Acquisition System, Thermal Basis.

Teaching Hours: 08



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Revised Bloom's Taxonomy Level L1 - Remembering, L2 - Understanding, L3 - Applying, L4 - Analysing.

Module-2 Energy Audit of Boilers: Classification of Boilers, Parts of Boiler, Efficiency of a Boiler, Role of excess Air in Boiler Efficiency, Energy Saving Methods. Energy Audit of Furnaces: Parts of a Furnace, classification of Furnaces, Energy saving Measures in Furnaces, Furnace Efficiency.

Teaching Hours: 08

Revised Bloom's Taxonomy Level L1 - Remembering, L2 - Understanding, L3 - Applying, L4 - Analysing,

Module-3 Energy Audit of HVAC Systems: Introduction to HVAC, Components of Air – Conditioning System, Types of Air – Conditioning Systems, Human Comfort Zone and Psychrometry, Vapour – Compression Refrigeration Cycle, Energy Use Indices, Impact of Refrigerants on Environment and Global Warming, Energy – Saving Measures in HVAC, Star Rating and Labelling by BEE. Electrical-Load Management: Electrical Basics, Electrical Load Management, Variable- Frequency Drives, Harmonics and its Effects, Electricity Tariff, Power Factor, Transmission and Distribution Losses.

Teaching Hours : 08

Revised Bloom's Taxonomy Level L1 - Remembering, L2 - Understanding, L3 - Applying, L4 - Analysing

Module-4 Energy Audit of Motors: Classification of Motors, Parameters related to Motors, Efficiency of a Motor, Energy Conservation in Motors, BEE Star Rating and Labelling. Energy Audit of Lighting Systems:Fundamentals of Lighting, Different Lighting Systems, Ballasts, Fixtures (Luminaries), Reflectors, Lenses and Louvres, Lighting Control Systems, Lighting System Audit, Energy Saving Opportunities.

Teaching Hours : 08

Revised Bloom's Taxonomy Level L1 - Remembering, L2 - Understanding, L3 - Applying, L4 - Analysing

Module-5 Teaching Hours Energy Audit Applied to Buildings: Energy – Saving Measures in New Buildings, Water Audit, Method of Audit, General Energy – Savings Tips Applicable to New as well as Existing Buildings. Demand side Management: Scope of DSM, Evolution of DSM concept, DSM planning and Implementation, Load management as a DSM strategy, Applications of Load Control, End use energy conservation, Tariff options for DSM, customer acceptance, implementation issues, Implementation strategies, DSM and Environment. Energy Conservation: Motivation of energy conservation, Principles of Energy conservation, Energy conservation planning, Energy conservation in industries, EC in SSI, EC in electrical generation, transmission and distribution, EC in household and commercial sectors, EC in transport, EC in agriculture, EC legislation.

Teaching Hours : 08

Revised Bloom's Taxonomy Level L1 - Remembering, L2 - Understanding, L3 - Applying, L4 – Analysing

SOLAR AND WIND ENERGY (Professional Elective):



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Module-1 Fundamentals of Energy Science and Technology: Introduction, Energy, Economy and Social Development, Classification of Energy Sources, Importance of Non-conventional Energy Sources, Salient features of Non-conventional Energy Sources, World Energy Status, Energy Status in India. Energy Conservation and Efficiency: Introduction, Important Terms and Definitions, Important Aspects of Energy Conservation, Global Efforts, Achievements and Future Planning, Energy Conservation/Efficiency Scenario in India, Energy Audit, Energy Conservation Opportunities. Energy Storage: Introduction, Necessity of Energy Storage, Specifications of Energy Storage Devices. Solar Energy-Basic Concepts: Introduction, The Sun as Source of Energy, The Earth, Sun, Earth Radiation Spectrum, Extraterrestrial and Terrestrial Radiations, Spectral Power Distribution of Solar Radiation.

Teaching Hours : 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying.

Module-2 Solar Energy-Basic Concepts (continued): Measurement of Solar Radiation, Solar Radiation Data, Solar Time, Solar Radiation Geometry, Solar Day Length, Extraterrestrial Radiation on Horizontal Surface, Empirical Equations for Estimating Terrestrial Solar Radiation on Horizontal Surface, Solar Radiation on Inclined Plane Surface. Solar Thermal Systems: Introduction, Solar Collectors, Solar Water Heater, Solar Passive Space Heating and Cooling Systems, Solar Industrial Heating Systems, Solar Refrigeration and Air Conditioning Systems, Solar Cookers.

Teaching Hours : 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-3 Teaching Hours Solar Photovoltaic Systems: Introduction, Solar Cell Fundamentals, Solar Cell Characteristics, Solar Cell Classification, Solar Cell Technologies, Solar Cell, Module, and Array Construction, Maximizing the Solar PV Output and Load Matching. Maximum Power Point Tracker. Balance of System Components, Solar PV Systems, Solar PV Applications

Teaching Hours : 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-4 Wind Energy: Introduction, Basic Principles of Wind Energy Conversion, History of Wind Energy, Wind Energy Scenario – World and India. The Nature of the Wind, The Power in the Wind, Forces on the Blades, Wind Energy Conversion, Wind Data and Energy Estimation, Site Selection Considerations Wind energy systems: Environment and Economics Environmental benefits and problems of wind energy, Economics of wind energy, Factors influence the cost of energy generation, machine parameters, Life cycle cost analysis

Teaching Hours : 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Module-5 Basic Components of a Wind Energy Conversion(WEC) System: Classification of WEC systems, Advantages and Disadvantages of WECS, Types of Wind Machines (Wind Energy Collectors), Analysis of Aerodynamic Forces Acting on the Blade, Performance of Windmachines, Generating Systems, Energy Storage, Applications of Wind Energy, Environmental Aspects

Teaching Hours: 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying.

BATTERIES AND FUEL CELLS FOR COMMERCIAL, MILITARY AND SPACE APPLICATIONS (Open Elective):

Module-1 Current Status of Rechargeable Batteries and Fuel Cells: Rechargeable Batteries, Fundamental Aspects of a Rechargeable Battery, Rechargeable Batteries Irrespective of Power Capability, Rechargeable Batteries for Commercial and Military Applications, Batteries for Low-Power Applications, Fuel Cells.

Teaching Hours 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying.

Module-2 Batteries for Aerospace and Communications Satellites: Introduction, On-board Electrical Power System, Battery Power Requirements and Associated Critical Components, Cost-Effective Design Criterion for Battery-Type Power Systems for Spacecraft, Spacecraft Power System Reliability, Ideal Batteries for Aerospace and Communications Satellites, Performance Capabilities and Battery Power Requirements for the Latest Commercial and Military Satellite Systems, Military Satellites for Communications, Surveillance, Reconnaissance, and Target Tracking, Batteries Best Suited to Power Satellite Communications Satellites

Teaching Hours 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-3 Fuel Cell Technology:Introduction, Performance Capabilities of Fuel Cells Based on Electrolytes, Low-Temperature Fuel Cells Using Various Electrolytes, Fuel Cells Using a Combination of Fuels, Fuel Cell Designs for Multiple Applications, Ion-Exchange Membrane Fuel Cells, Potential Applications of Fuel Cells, Fuel Cells for Aircraft Applications, Fuel Cells for Commercial, Military, and Space Applications, Fuel Cells Capable of Operating in Ultra-High-Temperature Environments, Fuel Cell Requirements for Electric Power Plant Applications

Teaching Hours 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-4 Batteries for Electric and Hybrid Vehicles:Introduction, Chronological Development History of Early Electric Vehicles and Their Performance Parameters, Electric and Hybrid Electric Vehicles Batteries for Electric and Hybrid Vehicles (continued):Developed Earlier by Various Companies and Their Performance Specifications, Development History of the Latest Electric and Hybrid Electric Vehicle Types and Their Performance Capabilities and Limitations, Performance Requirements of Various Rechargeable Batteries, Materials for Rechargeable Batteries, Critical Role of Rare Earth Materials in the Development of EVs and HEVs.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Teaching Hours 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding.

Module-5 Low-Power Rechargeable Batteries for Commercial, Space, and Medical Applications: Introduction, Low-Power Battery Configurations, Characteristics, Batteries for Miniaturized Electronic System Applications, for Embedded-System Applications, Batteries for Medical Applications, Selection Criteria for Primary and Secondary (Rechargeable) Batteries for Specific Applications.

Teaching Hours 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Mechanical Engineering

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016

I SEMESTER B.E./B.TECH.

| | - | | | | | | | PHYS | ICS GROU | Р |
|------------|-----------------|--|-----------|------------------------|----------------|---------------------------------|---------|------|----------|----|
| | C-1-1-1 | | | Tracklas | | Theory Examination Mar /Lab/ | | rks | Credits | |
| SI. No. | Subject Code | Subject | | Teaching Department | Board | /Lab/ Drawing | Th./Pr. | I.A. | Total | |
| | | | | | | (Hrs/ Week) | | | | |
| 1 | 15MAT11 | Engineering Maths-I | BS | Maths | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 |
| 2 | 15PHY12 | Engineering Physics | BS | Physics | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 |
| 3 | 15CIV13 | Elements of Civil Engg. & Mechanics | ES | Civil Engg. | Civil Engg. | 4 (T) | 80 | 20 | 100 | 4 |
| 4 | 15EME14 | Elements of Mechanical Engg. | ES | Mech. Engg. | Mech. Engg. | 4 (T) | 80 | 20 | 100 | 4 |
| 5 | 15ELE15 | Basic Electrical Engg. | ES | E & E | E & E | 4 (T) | 80 | 20 | 100 | 4 |
| | 15WSL16 | Workshop Practice | ES | Mech., Auto, | Mech. | 3(2 hrs lab+ | 80 | 20 | 100 | 2 |
| 6 | | | | IP, IEM, Mfg. | Engg. | 1 hr | | | | |
| | | | | Engg. | | instruction) | | | | |
| | 15PHYL17 | Engg. Physics Lab | BS | Physics | Basic Sc. | 3(2 hrs lab+ | 80 | 20 | 100 | 2 |
| 7 | | | | | | 1 hr | | | | |
| | | | | | | instruction) | | | | |
| | 15CPH18 | Constitution of India, | MNC | Humanities | | 2 (Tutorial) | 40 | 10 | 50 | |
| 8 | | Professional Ethics and | | | | | | | | |
| | | Human Rights (CPH) | | | | | | | | |
| 9 | | Language_(Kan.)_ | Mandatory | Humanities_ | | l_(T)_ | | | · | |
| | | | Learning | | | | | | | |
| | | | | | | 29 | 600 | 150 | 750 | 24 |

Note: The Subjects Kannada and English are Audit Courses



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016

IISEMESTER B.E./B.TECH.

| | | | | | | Theory | | SICS GRO | | Credits |
|------------|-----------------|--|-------------------------|--|----------------|--------------------------------------|-----------------|---------------------|--------------|---------|
| SI. No. | Subject Code | Subject | | Teaching Department | Board | /Lab/ Drawing (Hrs/ Week) | Exan Th./Pr. | nination Ma I.A. | rks Total | cituits |
| 1 | 15MAT21 | Engineering Maths-II | BS | Maths | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 |
| 2 | 15PHY22 | Engineering Physics | BS | Physics | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 |
| 3 | 15CIV23 | Elements of Civil Engg. & Mechanics | ES | Civil Engg. | Civil Engg. | 4 (T) | 80 | 20 | 100 | 4 |
| 4 | 15EME24 | Elements of Mechanical Engg. | ES | Mech. Engg. | Mech. Engg. | 4 (T) | 80 | 20 | 100 | 4 |
| 5 | 15ELE25 | Basic Electrical Engg. | ES | E & E | E & E | 4 (T) | 80 | 20 | 100 | 4 |
| 6 | 15WSL26 | Workshop Practice | ES | Mech., Auto, IP, IEM, Mfg. Engg. | Mech. Engg. | 3(2 hrs lab+ 1 hr instruction) | 80 | 20 | 100 | 2 |
| 7 | 15PHYL27 | Engg. Physics Lab | BS | Physics | Basic Sc. | 3(2 hrs lab+ 1 hr instruction) | 80 | 20 | 100 | 2 |
| 8 | 15CPH28_ | Constitution of India, Professional Ethics and Human Rights. | MNC_ | Humanities_ | | 2_(Tutorial)_ | 40_ | 10_ | 50_ | - |
| 9 | - | Language (Kan.) | Mandatory_ Learning_ | Humanities | | I_ <mark>(T)</mark> _ | ÷ | • | - | |
| | | | | | | 29 | 600 | 150 | 750 | 24 |

Note: The Subjects Kannada and English are Audit Courses



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016

I SEMESTER B.E./B.TECH.

| | | | | | CH | EMISTRY GROU | JP | | | |
|-----|----------|---------------------------------------|-------------------------|-------------------------------------|----------------|---------------------------------|-------------------|-------------------|-------|---------|
| SI. | Subject | Subject | | Teaching | Board | Theory /Lab/ Drawing (Hrs/ | Exar | Examination Marks | | Credits |
| No. | Code | Subject | | Department | board | Week) | Th./Pr. | I.A. | Total | |
| 1 | 15MAT11 | Engineering Maths-I | BS | Maths | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 |
| 2 | 15CHE12 | Engineering Chemistry | BS | Chemistry | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 |
| 3 | 15PCD13 | Programming in C & Data Structures | ES | Any Engineering Department | CSE | 4 (T) | 80 | 20 | 100 | 4 |
| 4 | 15CED14 | Computer Aided Engineering Drawing | ES | Mech./IP/Auto/ Mfg.Engg./ IEM | Mech. Engg. | 6 (2I+ 4P) | 80 | 20 | 100 | 4 |
| 5 | 15ELN15 | Basic Electronics | ES | E & C / E & E / TC / IT | E & C | 4 (T) | 80 | 20 | 100 | 4 |
| 6 | 15CPL16 | Computer Programming Lab | ES | Any Engineering Department | CSE | 3(2 hrs lab+ 1 hr Tutorial) | 80 | 20 | 100 | 2 |
| 7 | 15CHEL17 | Engg. Chemistry Lab | BS | Chemistry | Basic Sci. | 3(2 hrs lab+ 1 hr Tutorial) | 80 | 20 | 100 | 2 |
| 8 | 15CIV18_ | Environmental Studies. | MNC_ | Civil/ Environmental | CiviL | 2.(Tutorial) | <mark>40</mark> _ | 10. | 50. | |
| 9 | - | Language (Eng.) | Mandatory_ Learning_ | Humanities | | I_(T)_ | • | • | - | - |
| | | | | | Total | 31 | 600 | 150 | 750 | 24 |

Note: The Subjects Kannada and English are Audit Courses

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016

II SEMESTER B.E./B.TECH.

| 11 512 | I SEMESTER B.E.B. TECH. CHEMISTRY GROUP | | | | | | | | | | |
|--------|---|---------------------------------------|-------------------------|--|----------------|---------------------------------|---------|---------|-------|----|--|
| SI. | Subject | Subject | | Teaching | Board | Theory /Lab/ Drawing (Hrs/ | Exa | Credits | | | |
| No. | Code | Subject | | Department | | Week) | Th./Pr. | I.A. | Total | | |
| 1 | 15MAT21 | Engineering Maths-II | BS | Maths | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 | |
| 2 | 15CHE22 | Engineering Chemistry | BS | Chemistry | Basic Sc. | 4 (T) | 80 | 20 | 100 | 4 | |
| 3 | 15PCD23 | Programming in C & Data Structures | ES | Any Engineering Department | CSE | 4 (T) | 80 | 20 | 100 | 4 | |
| 4 | 15CED24 | Computer Aided Engineering Drawing | ES | Mech./IP/Auto/ Mfg.Engg./ IEM | Mech. Engg. | 6 (2I+ 4P) | 80 | 20 | 100 | 4 | |
| 5 | 15ELN25 | Basic Electronics | ES | E & C / E & E / TC / IT | E & C | 4 (T) | 80 | 20 | 100 | 4 | |
| 6 | 15CPL26 | Computer Programming Lab | ES | Any Engineering Department | CSE | 3(2 hrs lab+ 1 hr Tutorial) | 80 | 20 | 100 | 2 | |
| 7 | 15CHEL27 | Engg. Chemistry Lab | BS | Chemistry | Basic Sc. | 3(2 hrs lab+ 1 hr Tutorial) | 80 | 20 | 100 | 2 | |
| 8 | 15CIV28_ | Environmental Studies. | MNC_ | Civil ^I . Environmental. | CiviL | 2.(Tutorial) | 40_ | 10_ | 50. | | |
| 9 | - | Language (Eng.) | Mandatory_ Learning_ | Humanities_ | | I_ <u>(T)</u> _ | - | e. | ~ | - | |
| | | | | | Total | 31 | 600 | 150 | 750 | 24 | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

CONSTITUTION OF INDIA, PROFESSIONAL ETHICS & HUMAN RIGHTS

Subject Code - 15CPH18/15CPH28

IA Marks - 10

Number of Lecture Hours/Week - 02

Exam Marks - 40

Total Number of Lecture Hours - 25

Exam Hours - 02

Course objectives:

- 1. To provide basic information about Indian constitution.
- 2. To identify individual role and ethical responsibility towards society.
- 3. To understand human rights and its implications

Module 1

Introduction to the Constitution of India, The Making of the Constitution and Salient features of the Constitution. 2 Hours Preamble to the Indian Constitution Fundamental Rights & its limitations. 3 Hours Module 2

Directive Principles of State Policy & Relevance of Directive Principles State Policy Fundamental Duties. 2 Hours Union Executives – President, Prime Minister Parliament Supreme Court of India. 3 Hours

Module 3

State Executives – Governor Chief Minister, State Legislature High Court of State. 2 Hours

Electoral Process in India, Amendment Procedures, 42nd, 44th, 74th, 76th, 86th &91st Amendments. 3 Hours

Module 4

Special Provision for SC & ST Special Provision for Women, Children & Backward Classes Emergency Provisions. Human Rights – Meaning and Definitions, Legislation Specific Themes in Human Rights-Working of National Human Rights Commission in India 3 Hours

Powers and functions of Municipalities, Panchyats and Co - Operative Societies. 2 Hours

Module 5

Scope & Aims of Engineering Ethics, Responsibility of Engineers Impediments to Responsibility. 2 Hours Risks, Safety and liability of Engineers, Honesty, Integrity & Reliability in Engineering. 3 Hours

Course outcomes:

After study of the course, the students are able to

• Have general knowledge and legal literacy and thereby to take up competitive examinations

- Understand state and central policies, fundamental duties
- Understand Electoral Process, special provisions
- Understand powers and functions of Municipalities, Panchayats and Co-operative

Societies, and

- Understand Engineering ethics and responsibilities of Engineers.
- Have an awareness about basic human rights in India

Text Books:

1. Durga Das Basu: "Introduction to the Constitution on India", (Students Edn.) Prentice –Hall EEE, 19th / 20th Edn., 2001

2. Charles E. Haries, Michael S Pritchard and Michael J. Robins "Engineering Ethics"



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Thompson Asia, 2003-08-05. Reference Books:

1. M.V.Pylee, "An Introduction to Constitution of India", Vikas Publishing, 2002.

2. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, "Engineering Ethics", Prentice -Hall

of India Pvt. Ltd. New Delhi, 2004

3. Brij Kishore Sharma, "Introduction to the Constitution of India", PHI Learning Pvt.

Ltd., New Delhi, 2011.

4. Latest Publications of Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

ENVIRONMENTAL STUDIES

[As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year

2015 -2016)

SEMESTER - I/II

Subject Code - 15CIV18/15CIV28 IA Marks - 10

Number of Lecture Hours/Week - 02

Exam Marks - 40

Total Number of Lecture Hours - 25

Exam Hours - 02

Course Objectives:

1. To identify the major challenges in environmental issues and evaluate possible solutions.

2. Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.

3. To analyze an overall impact of specific issues and develop environmental management plan. Module - 1

Introduction: Environment - Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security. 2 Hours

Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, Sustainable Development. 3 Hours

Module - 2

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & Sulphur Cycle. 2 Hours

Energy – Different types of energy, Conventional sources & Non-Conventional sources of energy Solar energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as an alternative energy. 3 Hours

Module -3

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects. 2 Hours

Global Environmental Issues: Population Growth, Urbanization, Land Management, Water & Waste Water Management. 3 Hours

Module -4

Air Pollution & Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layer depletion, controlling measures. 3 Hours

Solid Waste Management, E - Waste Management & Biomedical Waste Management - Sources, Characteristics & Disposal methods. 2 Hours

Module - 5

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. 2 Hours

Environmental Acts & Regulations, Role of government, Legal aspects, Role of Non-governmental Organizations (NGOs), Environmental Education & Women Education.

3 Hours

Course Outcome:

Students will be able to,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

1. Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,

2. Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,

3. Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components

4. Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Text Books:

1. Benny Joseph (2005), "Environmental Studies", Tata McGraw – Hill Publishing Company Limited.

2. R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.

3. R Rajagopalan, "Environmental Studies – From Crisis to Cure", Oxford University Press, 2005,

4. Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012.

Reference Books:

1. Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005

2. P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006

3. S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007

4. Erach Bharucha, "Text Book of Environmental Studies", for UGC, University press, 2005

5. G.Tyler Miller Jr., "Environmental Science – working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004

6. G. Tyler Miller Jr., "Environmental Science – working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006

7. Dr.Pratiba Sing, Dr.AnoopSingh and Dr.Piyush Malaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.

MANAGEMENT AND ENTREPRENEURSHIP

Sub Code : 10AL 51



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org Hrs/week : 04 Total Lecture Hrs : 52 Exam Marks : 100

PART – A

MANAGEMENT

UNIT - 1

MANAGEMENT: Introduction - Meaning - nature and characteristics of Management, Scope and Functional areas of management - Management as a science, art of profession - Management & Administration - Roles of Management, Levels of Management, Development of Management Thought - early management approaches - Modem management approaches.

7 Hours

UNIT - 2

PLANNING: Nature, importance and purpose of planning process Objectives - Types of plans (Meaning Only) - Decision making Importance of planning - steps in planning & planning premises - Hierarchy of plans.

6 Hours

UNIT - 3

ORGANIZING AND STAFFING: Nature and purpose of organization Principles of organization – Types of organization - Departmentation Committees- Centralization Vs Decentralization of authority. And responsibility - Span of control - MBO and MBE (Meaning Only) Nature and importance of staffing--:Process of Selection & Recruitment (in brief).

6 Hours

UNIT - 4

DIRECTING & CONTROLLING: Meaning and nature of directing Leadership styles, Motivation Theories, Communication - Meaning and importance - coordination, meaning and importance and Techniques of Co Ordination. Meaning and steps in controlling - Essentials of a sound control system - Methods of establishing control (in brief):

7 Hours

PART-B

ENTREPRENEURSHIP

UNIT - 5

ENTREPRENEUR: Meaning of Entrepreneur; Evolution of .the Concept; Functions of an Entrepreneur, Types of Entrepreneur, Entrepreneur - an emerging. Class. Concept of Entrepreneurship - Evolution of Entrepreneurship, Development of Entrepreneurship; Stages in entrepreneurial process; Role of entrepreneurs in Economic Development; Entrepreneurship in India; Entrepreneurship - its Barriers.
 6 Hours

UNIT – 6

SMALL SCALE INDUSTRIES: Definition; Characteristics; Need and rationale; Objectives; Scope; role of SSI in Economic Development. Advantages of SSI Steps to start and SSI - Government policy towards



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

SSI; Different Policies of SSI; Government Support for SSI during 5 year plans. Impact of Liberalization, Privatization, Globalization on SSI Effect of WTO/GA TT Supporting Agencies of Government for SSI, Meaning, Nature of support; Objectives; Functions; Types of Help; Ancillary Industry and Tiny Industry (Definition Only)

7 Hours

UNIT - 7

INSTITUTIONAL SUPPORT: Different Schemes; TECKSOK; KIADB; KSSIDC; KSIMC; DIC Single Window Agency; SISI; NSIC; SIDBI; KSFC.

7 Hours

UNIT - 8

PREPARATION OF PROJECT: Meaning of Project; Project Identification; Project Selection; Project Report; Need and Significance of Report; Contents; Formulation; Guidelines by Planning Commission for Project report; Network Analysis; Errors of Project Report; Project Appraisal. Identification of business opportunities: Market Feasibility Study; Technical Feasibility Study; Financial Feasibility Study & Social Feasibility Study.

7 Hours

TEXT BOOKS:

1. Principles of Management – P. C. Tripathi, P.N. Reddy – Tata McGraw Hill,

2. Dynamics of Entrepreneurial Development & Management Vasant Desai – Himalaya Publishing House 24

3. Entrepreneurship Development – Poornima. M. Charantimath Small Business Enterprises –

Pearson Education - 2006 (2 & 4)

REFERENCE BOOKS:

1. Management Fundamentals - Concepts, Application, Skill Development - RobersLusier - Thomson

- 2. Entrepreneurship Development S.S.Khanka S.Chand& Co.
- 3. Management Stephen Robbins Pearson Education/PHI 17th Edition, 2003.

B.E Biotechnology

CONSTITUTION OF INDIA, PROFESSIONAL ETHICS & HUMAN RIGHTS



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Subject Code - 15CPH18/15CPH28

IA Marks - 10

Number of Lecture Hours/Week - 02

Exam Marks - 40

Total Number of Lecture Hours - 25

Exam Hours - 02

Course objectives:

1. To provide basic information about Indian constitution.

- 2. To identify individual role and ethical responsibility towards society.
- 3. To understand human rights and its implications

Module 1

Introduction to the Constitution of India, The Making of the Constitution and Salient features of the Constitution. 2 Hours Preamble to the Indian Constitution Fundamental Rights & its limitations. 3 Hours Module 2

Directive Principles of State Policy & Relevance of Directive Principles State Policy Fundamental Duties. 2 Hours Union Executives – President, Prime Minister Parliament Supreme Court of India. 3 Hours

Module 3

State Executives - Governor Chief Minister, State Legislature High Court of State. 2 Hours

Electoral Process in India, Amendment Procedures, 42nd, 44th, 74th, 76th, 86th &91st Amendments. 3 Hours

Module 4

Special Provision for SC & ST Special Provision for Women, Children & Backward Classes Emergency Provisions. Human Rights – Meaning and Definitions, Legislation Specific Themes in Human Rights-Working of National Human Rights Commission in India 3 Hours

Powers and functions of Municipalities, Panchyats and Co - Operative Societies. 2 Hours **Module 5**

Scope & Aims of Engineering Ethics, Responsibility of Engineers Impediments to Responsibility. 2 Hours Risks, Safety and liability of Engineers, Honesty, Integrity & Reliability in Engineering. 3 Hours

Course outcomes:

After study of the course, the students are able to

• Have general knowledge and legal literacy and thereby to take up competitive examinations

- Understand state and central policies, fundamental duties
- Understand Electoral Process, special provisions
- Understand powers and functions of Municipalities, Panchayats and Co-operative

Societies, and

- Understand Engineering ethics and responsibilities of Engineers.
- Have an awareness about basic human rights in India

Text Books:

1. Durga Das Basu: "Introduction to the Constitution on India", (Students Edn.) Prentice –Hall EEE, 19th / 20th Edn., 2001

2. Charles E. Haries, Michael S Pritchard and Michael J. Robins "Engineering Ethics" Thompson Asia, 2003-08-05.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Reference Books:

1. M.V.Pylee, "An Introduction to Constitution of India", Vikas Publishing, 2002.

2. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, "Engineering Ethics", Prentice – Hall of India Pvt. Ltd. New Delhi, 2004

3. Brij Kishore Sharma, "Introduction to the Constitution of India", PHI Learning Pvt. Ltd., New Delhi, 2011.

4. Latest Publications of Indian Institute of Human Rights, New Delhi.

MANAGEMENT AND ENTREPRENEURSHIP Sub Code : 10AL 51 IA Marks : 25 Hrs/week : 04 Exam Hours : 03 Total Lecture Hrs : 52 Exam Marks : 100 PART – A

MANAGEMENT

UNIT - 1

MANAGEMENT: Introduction - Meaning - nature and characteristics of Management, Scope and Functional areas of management - Management as a science, art of profession - Management &

Administration - Roles of Management, Levels of Management, Development of Management Thought -

early management approaches - Modem management approaches.

7 Hours

UNIT - 2

PLANNING: Nature, importance and purpose of planning process Objectives - Types of plans (Meaning Only) - Decision making Importance of planning - steps in planning & planning premises - Hierarchy of plans.

6 Hours

UNIT - 3

ORGANIZING AND STAFFING: Nature and purpose of organization Principles of organization – Types of organization - Departmentation Committees- Centralization Vs Decentralization of authority. And responsibility - Span of control - MBO and MBE (Meaning Only) Nature and importance of staffing-- :Process of Selection & Recruitment (in brief).

6 Hours UNIT - 4

DIRECTING & CONTROLLING: Meaning and nature of directing Leadership styles, Motivation

Theories, Communication - Meaning and importance - coordination, meaning and importance and

Techniques of Co Ordination. Meaning and steps in controlling - Essentials of a sound control system - Methods of establishing control (in brief):

7 Hours PART-B ENTREPRENEURSHIP UNIT - 5

ENTREPRENEUR: Meaning of Entrepreneur; Evolution of .the Concept; Functions of an Entrepreneur, Types of Entrepreneur, Entrepreneur - an emerging. Class. Concept of Entrepreneurship - Evolution of Entrepreneurship, Development of Entrepreneurship; Stages in entrepreneurial process; Role of entrepreneurs in Economic Development; Entrepreneurship in India; Entrepreneurship - its Barriers.

6 Hours

UNIT – 6

SMALL SCALE INDUSTRIES: Definition; Characteristics; Need and rationale; Objectives; Scope; role of SSI in Economic Development. Advantages of SSI Steps to start and SSI - Government policy towards SSI; Different Policies of SSI; Government Support for SSI during 5 year plans. Impact of Liberalization, Privatization, Globalization on SSI Effect of WTO/GA TT Supporting Agencies of Government for SSI, Meaning, Nature of support; Objectives; Functions; Types of Help; Ancillary Industry and Tiny Industry



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

(Definition Only)

7 Hours UNIT - 7

INSTITUTIONAL SUPPORT: Different Schemes; TECKSOK; KIADB; KSSIDC; KSIMC; DIC Single Window Agency; SISI; NSIC; SIDBI; KSFC.

7 Hours

UNIT - 8

PREPARATION OF PROJECT: Meaning of Project; Project Identification; Project Selection; Project Report; Need and Significance of Report; Contents; Formulation; Guidelines by Planning Commission for Project report; Network Analysis; Errors of Project Report; Project Appraisal. Identification of business opportunities: Market Feasibility Study; Technical Feasibility Study; Financial Feasibility Study & Social Feasibility Study.

7 Hours

TEXT BOOKS:

1. Principles of Management - P. C. Tripathi, P.N. Reddy - Tata McGraw Hill,

2. Dynamics of Entrepreneurial Development & Management Vasant Desai - Himalaya Publishing House

24

3. Entrepreneurship Development – Poornima. M. Charantimath Small Business Enterprises - Pearson Education - 2006 (2 & 4).

REFERENCE BOOKS:

1. Management Fundamentals - Concepts, Application, Skill Development - RobersLusier - Thomson

2. Entrepreneurship Development - S.S.Khanka - S.Chand& Co.

3. Management - Stephen Robbins - Pearson Education/PHI - 17th Edition, 2003.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

PROJECT MANAGEMENT & IPR

Sub. Code : 10BT-81 I.A Marks : 25 Hours/week : 04 Exam Hrs. : 03 Total Hours : 52 Exam Marks : 100 PART A

UNIT 1: INTRODUCTION

Definitions, network planning techniques, benefits and limitations of network planning, project reporting, case studies. **02 Hours**

UNIT 2:

PROJECT PLANNING

Planning procedures, developing a network planning diagram, project evaluation and review techniques. Developing the project schedule: scheduling procedure, timing estimates, manual timing calculations, optional start and finish times, tabulating the schedule, setting up the calendar schedule, constructing the bar chart time, schedule. Monitoring and controlling the project: constructing the progress schedule constructing the summary bar chart, constructing the project status report, status reporting using the milestone approach. Scheduling and Controlling Project Costs: Developing the Project Cost Schedule Monitoring Project Costs. Cost Minimizing: Time/Cost Trade-Offs, Planning Personnel/Labor Requirements, Need for Planning Personnel/Labor, Planning Personnel Requirements, Early Start Scheduling.

12 Hours

UNIT 3:

ROLE OF THE COMPUTER

Software Packages, features of a Project Management Package,

Background Planning the Project Scheduling the Project, Monitoring the Project Schedule, Controlling Project Costs, Planning for Labor and Personnel, Using the Computer for Planning and Scheduling. **06 Hours**

UNIT 4:

MANAGEMENT SYSTEM

Background developing a plan of action, conducting the audit, preparing the feasibility report, obtaining management approval, planning and scheduling project implementation, procuring, installing, and trying out the equipments, designing and constructing the site **06 Hours**

PART B

UNIT 5:

<mark>IPR</mark>

Introduction to IPR, Concept of Property, Mar'x theory on Property, Constitutional aspects of Intellectual property. Basic principles of Patent laws: Historical background in UK, US and India. Basis for IP protection. Criteria for patentability: Novelty, Utility, and Inventive step, Non obviousness, Non patentable invention. **06 Hours**

UNIT 6:

CONVENTIONS & AGREEMENTS

Paris convention (1883), Berne convention for protection of literary and artistic works (1886), Patent Corporation Treaty (PCT), Madrid agreement (1891) and protocols of relative agreement 1989). Rome convention (1961) on the protection of performances, producers of phonograms and Broadcasting organization, TRIPS agreement (1994), WIPO performance and phonograms



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Treaty (WPPT, 1996). 06 Hours

UNIT 7:

74

PATENT LAWS & BT

Objectives, Evolution of Biotechnology, Application of Biotechnology, Commercial potential of BT invention, R & D investments, Rationale and applications. Concept of Novelty and Inventive step in BT, Micro organisms and BT inventions, Moral issues in patenting BT invention. Substantiation of Patent laws & international agreements related to pharma, microbial, environmental, agricultural and informatics sectors via classical case studies. **06 Hours UNIT 8:**

TRADITIONAL KNOWLEDGE

Introduction, Justification for plant variety protection, International position, UPOV, 1961, 1978, 1991 guidelines, Plant variety protection in India. Justification for geographical indications, Multi-lateral treaties. Concept of Traditional knowledge, stake holders, issues concerning traditional knowledge, Bioprospecting &Biopyracy – ways to tackle, Protectability of traditional knowledge under existing IP framework, need for sui-generis regime, Traditional knowledge on the International arena, Traditional knowledge at WTO and National level, Traditional

knowledge digital library. 08 Hours

TEXT BOOKS

The Law & Strategy of Biotechnology Patents by Sibley Kenneth.

Intellectual Property by Bently and Lionel, Oxford University Press.

Cases and Materials on Intellectual Property by Cornish, W R.

Project Management by Sahni, Ane Books.

Project Management for Business & Engineering: Principles and Practice by John M Nicholas, Elsevier.

Project Management for Business & Technology, Nicholas, PHI.

Practical Approach to IPR by Rachana Singh Puri, IK Intl. Ltd.

REFERENCE BOOKS

Intellectual Property and Criminal Law by Gopalakrishnan, N S, Bangalore: National Law School of India Univeristy.

Intellectual Property Law by Tina Gart and Linda Fazzani, London: McMillan Publishing Co. Intellectual Property Rights in the WTO and developing contry by Watal Jayashree, Oxford University Press.

BIOETHICS & BIOSAFETY



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org Sub. Code : 10BT-82 I.A Marks : 25 Hours/week : 04 Exam Hrs. : 03 Total Hours : 52 Exam Marks : 100 PART A

UNIT 1:

BIOTECHNOLOGY AND SOCIETY

Introduction to science, technology and society, issues of access-Case studies/experiences from developing and developed countries. Ownership, monopoly, traditional knowledge, biodiversity, benefit sharing, environmental sustainability, public vs. private funding, biotechnology in international relations, globalization and development divide. Public acceptance issues for biotechnology: Biotechnology and hunger: Challenges for the Indian Biotechnological research and industries. **08 Hours**

UNIT 2:

LEGAL ISSUES

The legal, institutional and socioeconomic impacts of biotechnology; biotechnology and social responsibility, Public education to increase the awareness of bioethics with regard to generating new forms of life for informed decision making – with case studies. **04 Hours**

75

UNIT 3:

BIOETHICS

Principles of bioethics: Legality, morality and ethics, autonomy, human rights, beneficence, privacy, justice, equity etc. The expanding scope of ethics from biomedical practice to biotechnology, bioethics vs. business ethics, ethical dimensions of IPR, technology transfer and other global biotech issues. **06 Hours**

UNIT 4:

BIOSAFETY CONCEPTS AND ISSUES

Ethical conflicts in biotechnology - interference with nature, fear of unknown, unequal distribution of risks and benefits of biotechnology, Rational vs. subjective perceptions of risks and benefits, relationship between risk, hazard, exposure and safeguards, Biotechnology and biosafety concerns at the level of individuals, institutions, society, region, country and the world. The Cartagena protocol on biosafety. Biosafety management. Ethical implications of biotechnological products and techniques. **08 Hours**

PART B

UNIT 5:

BIOSAFETY IN THE LABORATORY

Laboratory associated infections and other hazards, assessment of biological hazards and levels of biosafety, prudent biosafety practices in the laboratory/institution. Experimental protocol approvals, levels of containment. **04 Hours**

UNIT 6:

REGULATIONS

Biosafety assessment procedures in India and abroad. International dimensions in biosafety, bioterrorism and convention on biological weapons. Social and ethical implications of biological weapons. Biosafety regulations and national and international guidelines with regard to recombinant DNA technology. Guidelines for research in transgenic plants. Good manufacturing practice and Good lab practices (GMP and GLP). National and international regulations for food



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

and pharma products. **08 Hours**

UNIT 7:

ECOLOGICAL & FOOD SAFETY

The GM-food debate and biosafety assessment procedures for biotech foods & related products, including transgenic food crops, case studies of relevance. Key to the environmentally responsible use of biotechnology. Environmental aspects of biotech applications. Use of genetically modified organisms and their release in environment. **06 Hours UNIT 8**:

AGRI & PHARMA SECTOR

Discussions on recombinant organisms and transgenic crops, with case studies of relevance. Plant breeder's rights. Legal implications, Biodiversity and farmers rights. Biosafety assessment of pharmaceutical products such as drugs/vaccines etc. Biosafety issues in Clinical Trials. **08 Hours**

TEXT BOOKS

Biotechnology and Safety Assessment by Thomas, J.A., Fuch, R.L, Academic Press.

Biological safety Principles and practices) by Fleming, D.A., Hunt, D.L, ASM Press.

Biotechnology - A comprehensive treatise. Legal economic and ethical dimensions VCH.

Bioethics by Ben Mepham, Oxford University Press.

Bioethics & Biosafety by R Rallapalli& Geetha Bali, APH Publication.

REFERENCE BOOKS

BIOETHICS & BIOSAFTEY by SATEESH MK, IK Publishers

76

Biotechnologies and development by Sassaon A, UNESCO Publications.

Biotechnologies in developing countries by Sasson A, UNESCO Publishers.

Intellectual Property Rights on Biotechnology by Singh K. BCIL, New Delhi.

WTO and International Trade by M B Rao. Vikas Publishing House Pvt. Ltd.

IPR in Agricultural Biotechnology by Erbisch F H and Maredia K M. Orient Longman Ltd. Cartagena Protocol on Biosafety.

Biological Warfare in the 21st century by M.R. Dano, Brassies London.

Safety Considerations for Biotechnology, Paris, OECD.

Biosafety Management by P.L. Traynor, Virginia polytechnic Institute Publication.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Civil Engineering

CONSTITUTION OF INDIA, PROFESSIONAL ETHICS & HUMAN RIGHTS

Subject Code - 15CPH18/15CPH28

IA Marks - 10

Number of Lecture Hours/Week - 02

Exam Marks - 40

Total Number of Lecture Hours - 25

Exam Hours - 02

Course objectives:

- 1. To provide basic information about Indian constitution.
- 2. To identify individual role and ethical responsibility towards society.
- 3. To understand human rights and its implications

Module 1

Introduction to the Constitution of India, The Making of the Constitution and Salient features of the Constitution. 2 Hours Preamble to the Indian Constitution Fundamental Rights & its limitations. 3 Hours Module 2

Directive Principles of State Policy & Relevance of Directive Principles State Policy Fundamental Duties. 2 Hours Union Executives – President, Prime Minister Parliament Supreme Court of India. 3 Hours

Module 3

State Executives – Governor Chief Minister, State Legislature High Court of State. 2 Hours

Electoral Process in India, Amendment Procedures, 42nd, 44th, 74th, 76th, 86th &91st Amendments. 3 Hours

Module 4

Special Provision for SC & ST Special Provision for Women, Children & Backward Classes Emergency Provisions. Human Rights – Meaning and Definitions, Legislation Specific Themes in Human Rights-Working of National Human Rights Commission in India 3 Hours

Powers and functions of Municipalities, Panchyats and Co - Operative Societies. 2 Hours **Module 5**

Scope & Aims of Engineering Ethics, Responsibility of Engineers Impediments to Responsibility. 2 Hours Risks, Safety and liability of Engineers, Honesty, Integrity & Reliability in Engineering. 3 Hours

Course outcomes:

After study of the course, the students are able to

• Have general knowledge and legal literacy and thereby to take up competitive examinations

- Understand state and central policies, fundamental duties
- Understand Electoral Process, special provisions
- Understand powers and functions of Municipalities, Panchayats and Co-operative Societies, and
- Understand Engineering ethics and responsibilities of Engineers.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

• Have an awareness about basic human rights in India

Text Books:

1. Durga Das Basu: "Introduction to the Constitution on India", (Students Edn.) Prentice –Hall EEE, 19th / 20th Edn., 2001

2. Charles E. Haries, Michael S Pritchard and Michael J. Robins "Engineering Ethics"

Thompson Asia, 2003-08-05.

- Reference Books:
- 1. M.V.Pylee, "An Introduction to Constitution of India", Vikas Publishing, 2002.
- 2. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, "Engineering Ethics", Prentice -Hall
- of India Pvt. Ltd. New Delhi, 2004

3. Brij Kishore Sharma, "Introduction to the Constitution of India", PHI Learning Pvt. Ltd., New Delhi, 2011.

4. Latest Publications of Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

ENVIRONMENTAL STUDIES

[As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year

2015 -2016)

SEMESTER - I/II

Subject Code - 15CIV18/15CIV28 IA Marks - 10

Number of Lecture Hours/Week - 02

Exam Marks - 40

Total Number of Lecture Hours - 25

Exam Hours - 02

Course Objectives:

1. To identify the major challenges in environmental issues and evaluate possible solutions.

2. Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.

3. To analyze an overall impact of specific issues and develop environmental management plan. Module - 1

Introduction: Environment - Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security. 2 Hours

Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, Sustainable Development. 3 Hours

Module - 2

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & Sulphur Cycle. 2 Hours

Energy – Different types of energy, Conventional sources & Non-Conventional sources of energy Solar energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as an alternative energy. 3 Hours

Module -3

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects. 2 Hours

Global Environmental Issues: Population Growth, Urbanization, Land Management, Water & Waste Water Management. 3 Hours

Module -4

Air Pollution & Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layer depletion, controlling measures. 3 Hours

Solid Waste Management, E - Waste Management & Biomedical Waste Management - Sources, Characteristics & Disposal methods. 2 Hours

Module - 5

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. 2 Hours

Environmental Acts & Regulations, Role of government, Legal aspects, Role of Non-governmental Organizations (NGOs), Environmental Education & Women Education.

3 Hours

Course Outcome:

Students will be able to,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

1. Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,

2. Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,

3. Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components

4. Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Text Books:

1. Benny Joseph (2005), "Environmental Studies", Tata McGraw – Hill Publishing Company Limited.

2. R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.

3. R Rajagopalan, "Environmental Studies – From Crisis to Cure", Oxford University Press, 2005,

4. Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012.

Reference Books:

1. Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005

2. P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006

3. S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007

4. Erach Bharucha, "Text Book of Environmental Studies", for UGC, University press, 2005

5. G.Tyler Miller Jr., "Environmental Science – working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004

6. G. Tyler Miller Jr., "Environmental Science – working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006

7. Dr.Pratiba Sing, Dr.AnoopSingh and Dr.Piyush Malaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Course Title: Environmental Protection and Management

As per Choice Based Credit System (CBCS) scheme] SEMESTER:VI Subject Code 15CV662 IA Marks 20 Number of Lecture Hours/Week 03 Exam Marks 80 Total Number of Lecture Hours 40 Exam Hours 03 CREDITS –03 Total Marks- 100 Course objectives: This course will enable students to gain knowledge in Environmental protection and Management systems Revised Modules Teaching Bloom's Hours Taxonomy (RBT) Level

Module -**1** Environmental Management Standards Unique Characteristics of Environmental Problems - Systems approach to Corporate environmental management - Classification of Environmental Impact Reduction Efforts - Business Charter for Sustainable Production and Consumption – Tools, Business strategy drivers and Barriers - Evolution of 8 hours L1,L2,L3 Environmental Stewardship. Environmental Management Principles – National policies on environment, abatement of pollution and conservation of resources - Charter on Corporate responsibility for Environmental protection.

Module -2 Environmental Management Objectives Environmental quality objectives – Rationale of Environmental standards: Concentration and Mass standards, Effluent and stream standards, Emission and ambient standards, Minimum national standards, environmental performance 8 Hours L1,L2,L3 evaluation: Indicators, benchmarking. Pollution control Vs Pollution Prevention - Opportunities and Barriers – Cleaner production and Clean technology, closing the loops, zero discharge technologies

Module -3 Environmental Management System

EMAS, ISO 14000 - EMS as per ISO 14001– benefits and barriers of EMS – Concept of continual improvement and pollution prevention – environmental policy – initial environmental review – environmental aspect and impact analysis – legal and other requirements- objectives and targets – environmental 8 Hours L1,L2,L3 management programs – structure and responsibility – training awareness and competence- communication – documentation and document control – operational control – monitoring and measurement – management review.

Module -4 Environmental Audit Environmental management system audits as per ISO 19011- – Roles and qualifications of auditors - Environmental performance indicators and their evaluation – Non conformance – Corrective and preventive actions -compliance 8 Hours L1,L2,L3 audits – waste audits and waste minimization planning – Environmental statement (form V) - Due diligence audit

Module -5 Applications Applications of EMS, Waste Audits and Pollution Prevention opportunities in Textile, Sugar, Pulp & Paper, Electroplating,, Tanning industry, Dairy, Cement, 8 Hours L1,L2,L3 Chemical industries, etc. Trans boundary movement, disposal, procedures, of hazardous wastes.

Course outcomes: After studying this course, students will be able to:

- 1. Appreciate the elements of Corporate Environmental Management systems complying to international environmental management system standards
- 2. Lead pollution prevention assessment team and implement waste minimization options
- 3. Develop, Implement, maintain and Audit Environmental Management systems for Organisations



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Program Objectives:

- Engineering knowledge
- Problem analysis
- Interpretation of data

Question paper pattern:

- The question paper will have 5 modules comprising of ten questions. Each full question carrying 16 marks
- There will be two full questions (with a maximum of three subdivisions, if necessary) from each module.
- Each full question shall cover the topics as a module

• The students shall answer five full questions, selecting one full question from each module. If more than one question is answered in modules, best answer will be considered for the award of marks limiting one full question answer in each module.

Reference Books:

1. Christopher Sheldon and Mark Yoxon, "Installing Environmental management Systems – a step by step guide" Earthscan Publications Ltd, London, 1999.

2. ISO 14001/14004: Environmental management systems – Requirements and Guidelines – International Organisation for Standardisation, 2004

3. ISO 19011: 2002, "Guidelines for quality and/or Environmental Management System auditing, Bureau of Indian Standards, New Delhi, 2002

4. Paul L Bishop "Pollution Prevention: Fundamentals and Practice , McGraw- Hill International, Boston, 2000.

5. Environmental Management Systems: An Implementation Guide for Small and Medium-Sized

Organizations, Second Edition, NSF International, Ann Arbor, Michigan, January 2001.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

4th Year / 1st Semester Civil Engineering Environmental Engineering Laboratory

Course Title: Environmental Engineering Laboratory As per Choice Based Credit System (CBCS) scheme SEMESTER:VII Subject Code 15CVL76 IA Marks 20 Number of Lecture Hours/Week 1I+2P Exam Marks 80

Total Number of Lecture Hours 40 Exam Hours 03

CREDITS -02 Total Marks- 100

Course objectives: This course will enable students,

1. To learn different methods of water & waste water quality

2. To conduct experiments to determine the concentrations of water and waste water

3. To determine the degree and type of treatment

4. To understand the <mark>environmental</mark> significance and application in <mark>environmental</mark> engineering practice Revised

Experiments Teaching Hours Bloom's

Taxonomy

(RBT) Level

- 1. Determination of pH, Acidity and Alkalinity 02 Class L1,L2,L3
- 2. Determination of Calcium, Magnesium and Total Hardness. 02 Class L1,L2,L3

3. Determination of Dissolved Oxygen.

- 4. Determination of BOD. 02 Class L1,L2,L3
- 5. Determination of Chlorides 01 Class L1,L2,L3

6. Determination of percentage of available chlorine in bleaching powder, 01 Class L1,L2,L3 Determination of Residual Chlorine

7. Determination of Solids in Sewage:

I) Total Solids,

- II) Suspended Solids,
- III) Dissolved Solids, 02 Class L1,L2,L3 IV) Volatile Solids, Fixed Solids,

V) Settle able Solids.

- 8. Determination of Turbidity by Nephelometer
- 9. Determination of Optimum Dosage of Alum using Jar test apparatus.
- 10. Determination of sodium and potassium using flame photometer. 01 Class L1,L2,L3
- 11. Determination Nitrates by spectrophotometer.
- 12. Determination of Iron & Manganese. 01 Class L1,L2,L3
- 13. Determination of COD. Demonstration L1,L2,L3

14. Air Quality Monitoring (Ambient, stack monitoring, Indoor air Demonstration L1,L2,L3 pollution)

15. Determination of Sound by Sound level meter at different location Demonstration L1,L2,L3

Course Outcomes: After studying this course, students will be able to:

- 1. Acquire capability to conduct experiments and estimate the concentration of different parameters.
- 2. Compare the result with standards and discuss based on the purpose of analysis.
- 3. Determine type of treatment, degree of treatment for water and waste water.

Identify the parameter to be analyzed for the student project work in environmental stream.
 Program Objectives:

1. Evaluation of the test results and assesses the impact on water and waste water treatment.

Train student to undertake student project work in 8th semester in the field of environmental engineering.
 Question paper pattern:

• Two experiments shall be asked from the above set



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

• One experiment to be conducted and for the other student should write detailed procedure. Reference Books:

1. Lab Manual, ISO 14001 Environmental Management, Regulatory Standards for Drinking Water and Sewage disposal

2. Clair Sawyer and Perry McCarty and Gene Parkin, "Chemistry for Environmental Engineering and Science",

McGraw-Hill Series in Civil and Environmental Engineering

- Course Title: Computer Aided Detailing of Structures As per Choice Based Credit System (CBCS) scheme]
- SEMESTER:VII
- Subject Code 15CVL77 IA Marks 20
- Number of Lecture Hours/Week 03 (1I+2D) Exam Marks 80
- Total Number of Lecture Hours 40 Exam Hours 03
- CREDITS -02 Total Marks- 100

Course objectives: This course will enable students to

- 1. Be aware of the Scale Factors, Sections of drawings,
- 2. Draft the detailing of RC and Steel Structural member.
- Revised

Modules Teaching Bloom's Hours Taxonomy

(RBT) Level

Module -1 Detailing of RCC Structures

- 1. Beams Simply supported, Cantilever and Continuous.
- 2. Slab One way, Two way and One-way continuous.
- 3. Staircase Doglegged 20 hours L1,L2,L3 4. Cantilever Retaining wall
- 5. Counter Fort Retaining wall
- 6. Circular Water Tank, Rectangular Water Tank.
- Module -2 Detailing of Steel Structures
- 1. Connections Beam to beam, Beam to Column by Bolted and Welded

Connections.

- 2. Built-up Columns with lacings and battens
- 3. Column bases and Gusseted bases with bolted and welded connections. 20 Hours L1,L2,L3
- 4. Roof Truss Welded and Bolted
- 5. Beams with Bolted and Welded

6. Gantry Girder

- Course outcomes: After studying this course, students will be able to:
- Prepare detailed working drawings
- Program Objectives:
- Engineering knowledge
- Problem analysis
- Interpretation of data
- Question paper pattern:
- Two questions shall be asked from each Module.
- One full question should be answered from each Module.
- Each question carries 40 marks.

Text Books:

1. N Krishna Raju, "Structural Design and Drawing of Reinforced Concrete and Steel", University Press

2. Krishna Murthy, "Structural Design and Drawing – Concrete Structures", CBS Publishers, New Delhi Reference Books:

1. SP 34: Handbook on Concrete Reinforcement and Detailing, Bureau of Indian Standards

2. IS 13920:2016, Ductile Design And Detailing Of Reinforced Concrete Structures Subjected To Seismic Forces



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Code Of Practice, Bureau of Indian Standard

B.E Automobile Engineering

B.E Mechatronics

2016-2017

| | | EnglishforProfessionalCommunication | | | | |
|---|-----------------------|-------------------------------------|----|----|----|----|
| 1 | 15452201 | | 2 | 1 | | 2 |
| 2 | 15A54201 | Mathematics – | 3 | 1 | _ | 3 |
| 3 | 15A01201 | EngineeringMechanics | 3 | 1 | | 2 |
| 3 | | | 3 | LI | - | |
| | | EngineeringChemistry | | | | |
| 5 | <mark>15A51101</mark> | Environmental studies | 3 | 1 | - | 3 |
| | | | | | | |
| | | AppliedMechanicsLab | | | | |
| 7 | 15A51102 | EngineeringChemistryLab | - | - | 4 | 2 |
| 8 | 15A99201 | Engineering&ITWorkshop | _ | _ | 4 | 2 |
| | | | | | 4 | |
| | Total | | 15 | 5 | 12 | 21 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

CONSTITUTION OF INDIA, PROFESSIONAL ETHICS & HUMAN RIGHTS

Subject Code - 15CPH18/15CPH28

IA Marks - 10

Number of Lecture Hours/Week - 02

Exam Marks - 40

Total Number of Lecture Hours - 25

Exam Hours - 02

Course objectives:

1. To provide basic information about Indian constitution.

- 2. To identify individual role and ethical responsibility towards society.
- 3. To understand human rights and its implications

Module 1

Introduction to the Constitution of India, The Making of the Constitution and Salient features of the Constitution. 2 Hours Preamble to the Indian Constitution Fundamental Rights & its limitations. 3 Hours Module 2

Directive Principles of State Policy & Relevance of Directive Principles State Policy Fundamental Duties. 2 Hours Union Executives – President, Prime Minister Parliament Supreme Court of India. 3 Hours

Module 3

State Executives - Governor Chief Minister, State Legislature High Court of State. 2 Hours

Electoral Process in India, Amendment Procedures, 42nd, 44th, 74th, 76th, 86th &91st Amendments. 3 Hours

Module 4

Special Provision for SC & ST Special Provision for Women, Children & Backward Classes Emergency Provisions. Human Rights – Meaning and Definitions, Legislation Specific Themes in Human Rights-Working of National Human Rights Commission in India 3 Hours

Powers and functions of Municipalities, Panchyats and Co - Operative Societies. 2 Hours **Module 5**

Scope & Aims of Engineering Ethics, Responsibility of Engineers Impediments to Responsibility. 2 Hours Risks, Safety and liability of Engineers, Honesty, Integrity & Reliability in Engineering. 3 Hours

Course outcomes:

After study of the course, the students are able to

• Have general knowledge and legal literacy and thereby to take up competitive examinations

- Understand state and central policies, fundamental duties
- Understand Electoral Process, special provisions
- Understand powers and functions of Municipalities, Panchayats and Co-operative Societies, and
- Understand Engineering ethics and responsibilities of Engineers.
- Have an awareness about basic human rights in India



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Text Books:

1. Durga Das Basu: "Introduction to the Constitution on India", (Students Edn.) Prentice –Hall EEE, 19th / 20th Edn., 2001

2. Charles E. Haries, Michael S Pritchard and Michael J. Robins "Engineering Ethics"

Thompson Asia, 2003-08-05.

Reference Books:

1. M.V.Pylee, "An Introduction to Constitution of India", Vikas Publishing, 2002.

2. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, "Engineering Ethics", Prentice – Hall of India Pvt. Ltd. New Delhi, 2004

3. Brij Kishore Sharma, "Introduction to the Constitution of India", PHI Learning Pvt. Ltd., New Delhi, 2011.

4. Latest Publications of Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

ENVIRONMENTAL STUDIES

[As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2015 -2016) SEMESTER - I/II

Subject Code - 15CIV18/15CIV28

IA Marks - 10

Number of Lecture Hours/Week - 02

Exam Marks - 40

Total Number of Lecture Hours - 25

Exam Hours - 02

Course Objectives:

1. To identify the major challenges in environmental issues and evaluate possible solutions.

2. Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.

3. To analyze an overall impact of specific issues and develop environmental management plan. **Module - 1**

Introduction: Environment - Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security. 2 Hours

Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, Sustainable Development. 3 Hours

Module - 2

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & Sulphur Cycle. 2 Hours

Energy – Different types of energy, Conventional sources & Non-Conventional sources of energy Solar energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as an alternative energy. 3 Hours

Module -3

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects. 2 Hours

Global Environmental Issues: Population Growth, Urbanization, Land Management, Water & Waste Water Management. 3 Hours

Module -4

Air Pollution & Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layer depletion, controlling measures. 3 Hours

Solid Waste Management, E - Waste Management & Biomedical Waste Management - Sources, Characteristics & Disposal methods. 2 Hours

Module - 5

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. 2 Hours



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Environmental Acts & Regulations, Role of government, Legal aspects, Role of Non-governmental Organizations (NGOs), Environmental Education & Women Education.

3 Hours

Course Outcome:

Students will be able to,

1. Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,

2. Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,

3. Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components

4. Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Text Books:

1. Benny Joseph (2005), "Environmental Studies", Tata McGraw – Hill Publishing Company Limited.

2. R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.

3. R Rajagopalan, "Environmental Studies – From Crisis to Cure", Oxford University Press, 2005,

4. Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012.

Reference Books:

1. Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005

2. P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006

3. S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007

4. Erach Bharucha, "Text Book of Environmental Studies", for UGC, University press, 2005

5. G.Tyler Miller Jr., "Environmental Science – working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004

6. G. Tyler Miller Jr., "Environmental Science – working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006

7. Dr.Pratiba Sing, Dr.AnoopSingh and Dr.Piyush Malaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Mechatronics

2016-17

Constitution of India, Professional Ethics and Human Rights (CPH) - 15CPH18

| sı. | Subject | | | Teaching | | Theory /Lab/ | Exa | aminat Marks | | Credits |
|-----|----------|---|-----|---|----------------|-------------------------------------|-------------|-----------------|-------------|---------|
| No. | Code | Subject | | Department | Board | Drawing (Hrs/ Week) | Th./P r. | I.A. | Total | |
| 1 | 15MAT11 | Engineering Maths-I | BS | Maths | Basic Sc. | 4 (T) | 8 0 | 2 0 | 1 0 0 | 4 |
| 2 | 15PHY12 | Engineering Physics | BS | Physics | Basic Sc. | 4 (T) | 8 0 | 2 0 | 1 0 0 | 4 |
| 3 | 15CIV13 | Elements of Civil Engg. & Mechanics | ES | Civil Engg. | Civil Engg. | 4 (T) | 8 0 | 2 0 | 1 0 0 | 4 |
| 4 | 15EME14 | Elements of Mechanical Engg. | ES | Mech. Engg. | Mech. Engg. | 4 (T) | 8 0 | 2 0 | 1 0 0 | 4 |
| 5 | 15ELE15 | Basic Electrical Engg. | ES | E & E | E & E | 4 (T) | 8 0 | 2 0 | 1 0 0 | 4 |
| 6 | 15WSL16 | Workshop Practice | ES | Mech., Auto, IP, IEM, Mfg. Engg. | Mech. Engg. | 3(2 hrslab+ 1 hr instruction) | 8 0 | 2 0 | 1 0 0 | 2 |
| 7 | 15PHYL17 | Engg. Physics Lab | BS | Physics | Basic Sc. | 3(2 hrslab+ 1hrinstruction) | 8 0 | 2 0 | 1 0 0 | 2 |
| 8 | 15CPH18 | Constitution of India, Professional Ethics and Human Rights (CPH) | MNC | Humanities | | 2 (Tutorial) | 4 0 | 1 0 | 5 0 | |

| | CHILDREN'S EDUCATION SOCIETY (Regd.) | | | | | | | | | | | |
|--|---|-----------------|---------------|----------------|--------------|----------------|-----|-----|-----|----|--|--|
| 1 | THE OXFORD COLLEGE OF ENGINEERING | | | | | | | | | | | |
| 1 | (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. | | | | | | | | | | | |
| - Iĝ | Approved by A.I.C.T.E. New Delhi. | | | | | | | | | | | |
| - lê | Recognised by UGC Under Section 2(f) | | | | | | | | | | | |
| Bommanahalli, Hosur Road, Bangalore - 560 068. | | | | | | | | | | | | |
| \mathcal{T} | বিতা নৰ্ব গাঁশ | r dia anti- | Ph: 080-6 | 1754601/602, F | ax: 080 - 25 | 5730551 | | | | | | |
| | Estcl. 1974 | E-mail: | engprincipal@ | theoxford.edu | Web: www.t | heoxfordengg.o | rg | | | | | |
| 9 | | Language (Kan.) | Mandatory | Humanities | | 1 (T) | - | - | - | | | |
| | | | Learning | | | | | | | | | |
| | | | | | | 29 | 600 | 150 | 750 | 24 | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

CONSTITUTION OF INDIA, PROFESSIONAL ETHICS & HUMAN RIGHTS

Subject Code - 15CPH18/15CPH28

IA Marks - 10

Number of Lecture Hours/Week - 02

Exam Marks - 40

Total Number of Lecture Hours - 25

Exam Hours - 02

Course objectives:

- 1. To provide basic information about Indian constitution.
- 2. To identify individual role and ethical responsibility towards society.
- 3. To understand human rights and its implications

Module 1

Introduction to the Constitution of India, The Making of the Constitution and Salient features of the Constitution. 2 Hours Preamble to the Indian Constitution Fundamental Rights & its limitations. 3 Hours Module 2

Directive Principles of State Policy & Relevance of Directive Principles State Policy Fundamental Duties. 2 Hours Union Executives – President, Prime Minister Parliament Supreme Court of India. 3 Hours

Module 3

State Executives – Governor Chief Minister, State Legislature High Court of State. 2 Hours

Electoral Process in India, Amendment Procedures, 42nd, 44th, 74th, 76th, 86th &91st Amendments. 3 Hours

Module 4

Special Provision for SC & ST Special Provision for Women, Children & Backward Classes Emergency Provisions. Human Rights – Meaning and Definitions, Legislation Specific Themes in Human Rights-Working of National Human Rights Commission in India 3 Hours

Powers and functions of Municipalities, Panchyats and Co - Operative Societies. 2 Hours

Module 5

Scope & Aims of Engineering Ethics, Responsibility of Engineers Impediments to Responsibility. 2 Hours Risks, Safety and liability of Engineers, Honesty, Integrity & Reliability in Engineering. 3 Hours

Course outcomes:

After study of the course, the students are able to

• Have general knowledge and legal literacy and thereby to take up competitive examinations

- Understand state and central policies, fundamental duties
- Understand Electoral Process, special provisions
- Understand powers and functions of Municipalities, Panchayats and Co-operative

Societies, and

- Understand Engineering ethics and responsibilities of Engineers.
- Have an awareness about basic human rights in India

Text Books:

1. Durga Das Basu: "Introduction to the Constitution on India", (Students Edn.) Prentice –Hall EEE, 19th / 20th Edn., 2001

2. Charles E. Haries, Michael S Pritchard and Michael J. Robins "Engineering Ethics"



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Thompson Asia, 2003-08-05. Reference Books:

1. M.V.Pylee, "An Introduction to Constitution of India", Vikas Publishing, 2002.

2. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, "Engineering Ethics", Prentice -Hall

of India Pvt. Ltd. New Delhi, 2004

3. Brij Kishore Sharma, "Introduction to the Constitution of India", PHI Learning Pvt.

Ltd., New Delhi, 2011.

4. Latest Publications of Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

ENVIRONMENTAL STUDIES

[As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year

2015 -2016)

SEMESTER - I/II

Subject Code - 15CIV18/15CIV28 IA Marks - 10

Number of Lecture Hours/Week - 02

Exam Marks - 40

Total Number of Lecture Hours - 25

Exam Hours - 02

Course Objectives:

1. To identify the major challenges in environmental issues and evaluate possible solutions.

2. Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.

3. To analyze an overall impact of specific issues and develop environmental management plan. Module - 1

Introduction: Environment - Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security. 2 Hours

Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, Sustainable Development. 3 Hours

Module - 2

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & Sulphur Cycle. 2 Hours

Energy – Different types of energy, Conventional sources & Non-Conventional sources of energy Solar energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as an alternative energy. 3 Hours

Module -3

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects. 2 Hours

Global Environmental Issues: Population Growth, Urbanization, Land Management, Water & Waste Water Management. 3 Hours

Module -4

Air Pollution & Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layer depletion, controlling measures. 3 Hours

Solid Waste Management, E - Waste Management & Biomedical Waste Management - Sources, Characteristics & Disposal methods. 2 Hours

Module - 5

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. 2 Hours

Environmental Acts & Regulations, Role of government, Legal aspects, Role of Non-governmental Organizations (NGOs), Environmental Education & Women Education.

3 Hours

Course Outcome:

Students will be able to,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

1. Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,

2. Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,

3. Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components

4. Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Text Books:

1. Benny Joseph (2005), "Environmental Studies", Tata McGraw – Hill Publishing Company Limited.

2. R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.

3. R Rajagopalan, "Environmental Studies – From Crisis to Cure", Oxford University Press, 2005,

4. Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012.

Reference Books:

1. Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005

2. P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006

3. S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007

4. Erach Bharucha, "Text Book of Environmental Studies", for UGC, University press, 2005

5. G.Tyler Miller Jr., "Environmental Science – working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004

6. G. Tyler Miller Jr., "Environmental Science – working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006

7. Dr.Pratiba Sing, Dr.AnoopSingh and Dr.Piyush Malaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Curriculum Highlighting Cross Cutting Issues - PG

<mark>MBA</mark>

<mark>2016-2017</mark>

SCHEME OF TEACHING AND EXAMINATION MASTER OF BUSINESS ADMINISTRATION

| | | | | EMESTER | | | | | | |
|-----------------|---|-------------|----------|---|-------|--------------------|-----------|------|----------------|---------|
| | | Category | Teaching | hours / week | | Duration | Marks for | | | |
| Subject Code | Title of the Subject | | Lecture | Practical / Field Work / Assignment * | Total | of Exam (Hours) | IA | Exam | Total Marks | Credits |
| 16MBA11 | Management & Organizational Behaviour | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| 16MBA12 | Managerial Economics | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| 16MBA13 | Accounting for Managers | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| 16MBA14 | Quantitative Methods | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| 16MBA15 | Marketing Management | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| 16MBA16 | Managerial Communications | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| | Total | | 18 | 12 | 30 | | 120 | 480 | 600 | 24 |

* Practical /Field Work / Assignment is a part of contact hours for the faculty and must be considered in the workload.

| | | Category | Teaching hours / week | | | | Marks for | | | |
|-----------------|---------------------------------|-------------|-----------------------|--|-------|--------------------------------|-----------|------|----------------|---------|
| Subject Code | Title of the Subject | | Lecture | Practical / Field Work / Assignment * | Total | Duration of Exam (Hours) | IA | Exam | Total Marks | Credits |
| 16MBA21 | Human Resource Management | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| 16MBA22 | Financial Management | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| 16MBA23 | Research Methods | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| 16MBA24 | Business Law and Policy | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| 16MBA25 | Strategic Management | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| 16MBA26 | Entrepreneurship Development | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| | Total | | 18 | 12 | 30 | | 120 | 480 | 600 | 24 |

II SEMESTER

SEMESTER I MANAGEMENT & ORGANIZATIONAL BEHAVIOUR Subject Code : 16MBA11 IA Marks : 20



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org No. of Lecture Hours / Week: 03 Exam Hours : 03 Number of Lecture Hours : 56 Exam Marks : 80 Practical Component : 02 Hours / Week

Course Objectives:

• To make students understand fundamental concepts and principles of management, including the basic roles, skills, and functions of management

• To make students knowledgeable of historical development, theoretical aspects and practice applications of managerial process

• To understand the basic concepts and theories underlying individual behavior besides developing better insights into one's own self

• To make students aware of Individual behavior in groups, dynamics of groups and team building besides developing a better awareness of how they can be better facilitators for building effective teams as leaders themselves

Course Outcomes:

At the end of the course students are able to:

_ Comprehend & correlate all the management activities which are happening around them with fundamental concepts and principles of management.

_ Get an overview of management, theory of management and practical applications of the same.

_ Effectively use their individual skill to work in groups to achieve organizational goals and ability to lead groups/teams.

_ Demonstrate their acumen in applying managerial and behavioral concept in real world/situation.

Part A - Principles of Management

Unit 1: (8 Hours)

Introduction: Management: Introduction, Definition of management, Nature, Purpose and Functions, Levels and types of managers, managerial roles, skills for managers, evolution of management thought, Fayol's fourteen principles of management, Recent trends in management.

Unit 2: (12 Hours)

Planning and Organizing:

Planning: Nature of Planning, Planning Process, Objectives, MBO, Strategies, level of strategies, policies, methods and programs, Planning Premises, Decision-making, Process of decision-making, Types of decisions, Techniques in decision-making.

Organizing: Organization structure, Formal and informal organizations, Principles of organizationschain of command, span of control, delegation, decentralization, and empowerment. Functional, divisional, geographical, customer based and matrix organizations, tram based structures, virtual organizations, boundary less organizations.

Unit 3: (5 Hours)

Controlling: Controlling, importance of controlling, controlling process, types of control, factors influencing control effectiveness.

RECOMMENDED BOOKS

- Essentials of Management-Koontz, 8/e, McGraw Hill
- Management: Text and Cases-VSP Rao, Excel Books



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

• MGMT, An Innovative approach to teaching and learning Principles of Management, Chuck Williams, Cengage Publications, 2010

- Principles and practices of Management, Kiran Nerkar, Vilas Chopde, Dreamtech Press, 2011
- Management Theory & practice Chandan J. S, Vikas Publishing House.
- Management Theory & Practice Text & Cases Subba Rao P & Hima Bindu, Himalaya Publication.

REFERENCE BOOKS:

• Masters of Management Thought – MahanandCharati& M M

Munshi, Sapna Book House, Bangalore, 2015.

Part B - Organizational Behaviour

Unit 4: (6 hours)

Introduction: Organizational Behaviour: Introduction, definition, historical development, fundamental principles of OB, contributing disciplines, challenges and opportunities.

Unit 5: (15 Hours)

Foundations of Individual Behaviour: Individual behaviour:Foundations of individual behaviour. Ability: Intellectual abilities, Physical ability, the role of disabilities.

Personality: Meaning, formation, determinants, traits of personality, big five and MBTI, personality attributes influencing OB.

Attitude: Formation, components of attitudes, relation between attitude and behaviour.

Perception: Process of perception, factors influencing perception, link between perception and individual decision-making.

Unit 6: (10 Hours)

Motivation: Meaning, theories of motivation-needs theory, two factor theory, Theory X and Y, application of motivational theories.

Leadership: Meaning, styles of leadership, leadership theories, trait theory, behavioural theories, managerial grid, situational theories

Note: Related case studies to be discussed.

Practical Components:

• Studying organizational structures of any 10 companies and classifying them into different types of organizations which are studied in Unit 2 and justifying why such structures are chosen by those organizations.

• Preparing the leadership profiles of any 5 business leaders and studying their leadership qualities and behaviours with respects to the trait, behavioural and contingency theories studied.

• Identifying any five job profiles and listing the various types, abilities required for those jobs and also the personality traits/attributes required for the jobs identified.

Note: Faculty can either identify the organizations/ leaders/jobs or

students can be allowed to choose the same.

RECOMMENDED BOOKS:

• Organizational behaviour, Stephen P Robbins, Timothy A. Judge, Neharika Vohra, 14th Edition, Pearson, 2012.

- Introduction to Organisational Behaviour Michael Butler, Jaico Publishing House,
- Organization Behaviour Ashwathappa, Himalaya Publication House
- ORGB Nelson, Quick, Khanelwal, 2/e, Cengage Learning, 2012.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Organizational Behaviour Anada Das Gupta, Biztantra, 2011.
- Organizational Behaviour: A modern approach Arun Kumar and Meenakshi, Vikas Publishing House, 2011.
- Organizational Behaviour Rao V. S. P, Excel BOOKS, 2009.

REFERENCE BOOKS:

- Organizational Behaviour Fred Luthans, 12/e, McGraw Hill International, 2011.
- Management and Organizational Behaviour Laurie J Mullins, Pearson education

HUMAN RESOURCE MANAGEMENT

Subject Code : 16MBA21 IA Marks : 20 No. of Lecture Hours / Week : 03 Exam Hours : 03 Total Number of Lecture Hours : 56 Exam Marks : 80 Practical Component : 02 Hours / Week

Objectives:

- To understand the HRM concepts and theory
- To obtain an overview of various HRM functions and practices
- To gain an insight into the various statutory provisions

Course outcome:

At the end of the course studentswillbe able to:

- _ Synthesize information regarding the effectiveness of recruiting methods & selection procedures
- _ Identify the various training methods and design a training program
- _ Design a job description and job specification for various levels of employees.
- _ List out the regulations governing employee benefit practices.

Unit 1: (8 hours)

Human Resource Management:

Introduction, meaning, nature, scope of HRM - Importance and Evolution of the concept of HRM - Major functions of HRM - Principles of HRM

Unit 2: (10 hours)

Job Analysis: Meaning, process of Job Analysis, methods of collecting job analysis data, Job Description and Job Specification, Role Analysis.

Human Resource Planning: Objectives, Importance and process of Human Resource Planning, Effective HRP.

Unit 3: (10 hours)

Recruitment: Definition, Constraints and Challenges, Sources and Methods of Recruitment, New Approaches to recruitment.

Selection: Definition and Process of Selection.

Placement: Meaning, Induction/Orientation, Internal Mobility, Transfer, Promotion, Demotion and Employee Separation.

Unit 4: (8 hours)

Training and development: Training v/s development, Training v/s Education, Systematic Approach to Training, Training Methods.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Unit 5: (10 hours)

Performance Appraisal: Concept of Performance Appraisal, the Performance Appraisal Process, Methods of Performance Appraisal

Compensation:Objectives of Compensation Planning, Job Evaluation, Compensation Pay Structure in India.

Unit 6: (10 hours)

Employee Welfare: Introduction, Types of Welfare Facilities and Statutory Provisions.

Employee Grievances: Employee Grievance procedure, Grievances Management in Indian Industry.

Discipline: Meaning, approaches to discipline, essential of a good disciplinary system, managing difficult employees.

Practical Components:

• Give a case and ask the students to prepare the recruitment advertisement for a newspaper.

- Expose students to standard selection tests followed in various sectors.
- Exploring training and development practices.
- Exploring performance appraisal practices in various sectors.
- Exploring employee separation practices.
- Give a job analysis case and ask the students to prepare job description and job specification.

• Ask the students to prepare an appointment letter for the post of office manager of a company known to you.

RECOMMENDED BOOKS:

• Human Resources Management: A South Asian Perspective, Denski/Griffin/Sarkar-Cengage Learning, 2012.

- Human Resource Management Rao V. S. P, Excel BOOKS, 2010
- Human Resource Management Lawrence S. Kleeman, Biztantra, 2012.
- Human Resource Management Dr. T.P RenukaMurthy HPH

REFERENCE BOOKS:

- Human Resource Management John M. Ivancevich, 10/e, McGraw Hill.
- Human Resource Management in practice Srinivas R. Kandula, PHI, 2009

• Managing Human Resources - Luis R Gomez-Mejia, David B. Balkin, Robert L. Cardy,6/e, PHI, 2010.

• Human Resource Management & Industrial relations, P.Subba Rao, Himalaya Publishing House, Mumbai.

• Human Resource Management – Aswathappa K HPH



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

BUSINESS LAW AND POLICY

Subject Code : 16MBA24 IA Marks : 20 No. of Lecture Hours / Week : 03 Exam Hours : 03 Total Number of Lecture Hours : 56 Exam Marks : 80 Practical Component : 02 Hours / Week

Objectives:

- To understand the legal environment of business and complexities faced by businesses.
- To learn various legal provisions under Indian Companies Act.
- To understand the importance of Corporate Social Responsibility

Course Outcome:

At the end of the course students will be able to:

_ Demonstrate awareness towards legal and regulatory context of business

_ Recognize and appropriately respond to ethical, legal and strategic concerns relating to human resource and organizational management.

_ Gain insights into various acts and understand the significance of corporate governance **Unit 1 (10 Hours)**

Indian Contract Act, 1872-meaning of contract, agreement, essential elements of a valid contract. Law of agency-meaning, creation and termination of agency. Bailment and Pledgemeaning rights and duties of bailor and bailee.

Unit 2: (10 Hours)

Companies Act 1956- Meaning and features, kinds of companies, registration and incorporation, Memorandum of Association, & Articles of Association, Prospectus. Winding up of companies

Unit 3: (10 Hours)

Miscellaneous Acts-Meaning, scope and objectives of: (a) Intellectual Property Law (relating to patents, copyrights and trademarks): (b) Consumer Protection Act 1986 and (c) Environment Protection Act 1986,

Unit 4: (10 Hours)

Indian Partnership Act 1932 - THE NATURE OF PARTNERSHIP- Introduction of a partner-Admission of the partner -Retirement of a partner- Expulsion of a partner - Insolvency a partner -Liability of estate of deceased partner

Unit 5: (8 Hours)

Corporate Governance: Introduction, Definition, Issues in corporate governance, relevance of corporate governance, need and importance of corporate governance, benefits of good corporate governance. Obligation to society, investors, employees and customers, managerial obligation, Indian cases

Unit 6: (8 Hours)

Corporate Social Responsibility: Types and nature of social responsibilities, CSR principles and strategies, models of CSR, Best practices of CSR, Need of CSR, Arguments for and against CSR, CSR in Indian perspective, Indian examples. Latest trends in CSR **Practical Components:**



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

 \cdot Students are expected to study any five CSR initiatives by Indian organizations and submit a report for the same.

 \cdot A group assignment on the relationship between Business, Law and Society in Indian context

- · Case studies/Role plays related ethical issues in business with respect to Indian context.
- Students to collect, analyse and discuss MA, AA & Prospectus of a company.
- · Organize a programme on consumer awareness and consumer rights.

RECOMMENDED BOOKS:

• Business, Government, and Society: A Managerial Perspective, Text and Cases – John F. Steiner, 12/e, McGraw-Hill, 2011.

- Business and Government Francis Cherunilam, HPH.
- Corporate Governance: principles, policies and practices Fernando A. C, 2/e, Pearson, 2011.
- Business Ethics and Corporate Governance Ghosh B. N, Tata McGraw-Hill, 2012.
- Business Law for Managers, Goel P. K, Biztantra, 2012.
- Corporate Social Responsibility: A Study of CSR Practices in Indian Industry, Baxi C. V & Rupamanjari Sinha Ray, Vikas Publishing House, 2012.

REFERENCE BOOKS:

- Business and Society Lawrence and Weber, 12/e, Tata McGraw- Hill, 2010.
- Business Ethics Bajaj P. S & Raj Agarwal, Biztantra, 2012.
- Corporate Governance Keshoo Prasad, 2/e, PHI.
- Corporate Governance, Ethics and social responsibility Balachandran V,

&Chandrashekharan V, 2/e, PHI, 2011.

- Corporate Governance Machiraju H. R, HPH.
- Business Ethics and Corporate Governance Prabakaran S, Excel BOOKS.
- Corporate Governance Badi N. V, Vrinda Publications, 2012



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

<mark>MCA</mark>

SCHEME OF TEACHING AND EXAMINATION MASTER OF COMPUTER APPLICATIONS

IV SEMESTER

| S. | Subject | Title | Teachi | ng Hrs / | | Examinati | | | |
|----|---------|---------------------------|--------|-----------|----------|-----------|-----|-------|--|
| No | Code | | Theory | Practical | Duration | | Ma | r | |
| • | | | _ | | | IA | Exa | Total | |
| 1 | 13MCA41 | Analysis & Design of | 04 | - | 03 | 50 | 100 | 150 | |
| 2 | 13MCA42 | Advanced Java Programming | 04 | - | 03 | 50 | 100 | 150 | |
| 3 | 13MCA43 | Advanced Web Programming | 04 | - | 03 | 50 | 100 | 150 | |
| 4 | 13MCA44 | Elective-2 | 04 | - | 03 | 50 | 100 | 150 | |
| 5 | 13MCA45 | Elective-3 | 04 | - | 03 | 50 | 100 | 150 | |
| 6 | 13MCA46 | Algorithms Lab | - | 03 | 03 | 50 | 50 | 100 | |
| 7 | 13MCA47 | Advanced Java Lab | - | 03 | 03 | 50 | 50 | 100 | |
| 8 | 13MCA48 | Mini Project-I | - | 03 | 03 | 50 | 50 | 100 | |
| | TOTAL | | | 09 | | 400 | 650 | 1050 | |

| Electiv | Elective-2 | | ctive 3 |
|----------|---|----------|------------------------------------|
| 13MCA441 | Advanced Computer Networks | 13MCA451 | Cryptography & Network Security |
| 13MCA442 | Data Warehousing & Data Mining | 13MCA452 | Network Management |
| 13MCA443 | Mobile Computing and Wireless Communications | 13MCA453 | NOSQL |
| 13MCA444 | Software Testing and Practices | 13MCA454 | Software Architectures |
| 13MCA445 | Theory of Computation (FAFL) | 13MCA455 | Enterprise Resource Planning (ERP) |
| 13MCA446 | Digital Image Processing | 13MCA456 | Mobile Applications |

Cryptography&Network Security

Subject Code: 13MCA451 I.A. Marks : 50

Hours/Week: 04 Exam Hours: 03

Total Hours: 52 Exam Marks : 100

Introduction 3 Hours

OSI <mark>Security</mark> Architecture, <mark>Security</mark> Attacks, <mark>Security</mark> Services, <mark>Security</mark> Mechanism, Model for Network Security.

Classical Encryption Technique 5 Hours

Symmetric Cipher Model, Substitution Techniques, Transposition Techniques.

Block Ciphers, Data Encryption Standard and Advanced Encryption Standard 8 Hours



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Block Cipher Principles, The Data Encryption Standard, Block Cipher Design Principles and Modes of operation, Evaluation Criteria for AES, AES Cipher-Encryption and Decryption, Data Structure, Encryption Round.

Public Key Cryptography and Key Management 6 Hours

Principles of Public Key Cryptosystem, RSA algorithm, Key management, Diffie Hellman Key exchange

Message Authentication and Hash Function 6 Hours

Authentication Requirement, Authentication Functions, Message Authentication Code, Hash Functions, Digital Signatures, Digital Signature Standard

Authentication Applications 5 Hours

Kerberos, X.509 Authentication Service

Electronic Mail Security 5 Hours

Pretty Good Privacy (PGP), S/MIME

IP <mark>Security</mark> 5 Hours

IP <mark>Security</mark> Overview; IP <mark>Security</mark> Architecture; Authentication Header; Encapsulating <mark>Security</mark> Payload; Combining <mark>Security</mark> Associations; Key Management.

Web Security 5 Hours

Web <mark>Security</mark> Considerations; Secure Socket layer (SSL) and Transport layer <mark>Security</mark> (TLS); Secure Electronic Transaction (SET)

System Security 4 Hours

Intruders, Intrusion Detection, Firewall Design Principles- Characteristics, Types of Firewall and Firewall Configuration.

82

Text Books:

William Stallings, "Cryptography and NetworkSecurity – Principles and Practices", 4th Edition, Pearson Education, 2009. (Chapters: 1, 2.1-2.3, 3.1,3.2,3.5, 5.1,5.2, 6.2, 9.1,9.2, 10.1,10.2, 11.1-11.4, 13.1, 13.3, 14.1, 4.2, 15.1, 15.2, 16.1-16.6, 17.1-17.3, 18.1, 18.2, 20.1; Exclude the topic not mentioned in the syllabus)

Reference Book:

1.Behrouz A. Forouzan and DebdeepMukhopadhyay: "<mark>Cryptography</mark> and <mark>Network Security</mark>", 2nd Edition, Tata McGraw-Hill, 2010.

2.AtulKahate, "Cryptography and NetworkSecurity" 2nd Edition TMH.

1.3.1. Institution integrates cross cutting issues relevant to Gender, Environment and

Sustainability, Human Values and Professional Ethics into the Curriculum(2017-2018)

1)2nd Year / 3rd Semester

IntellectualPropertyProperty(16MCA351)



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| III Semes | III Semester CREDIT BASED | | | | | | | | | | | | |
|--|---|---------|-----------------------------------|---------------------|-----------|------------------|-------|---------|--|--|--|--|--|
| Subject | Name of the | Teachin | Teaching hours/week | | Marks for | | Total | | | | | | |
| Code | Subject | Prac | | of Exam in Hours | CIE | SEE | Marks | CREDITS | | | | | |
| 16MCA31 | Computer Networks | 4 | | 3 | 20 | 80 | 100 | 4 | | | | | |
| 16MCA32 | Java Programming | 4 | | 3 | 20 | 80 | 100 | 4 | | | | | |
| 16MCA33 | Analysis and Design of Algorithms | 4 | | 3 | 20 | 80 | 100 | 4 | | | | | |
| 16MCA34 | Software Engineering | 4 | | 3 | 20 | 80 | 100 | 4 | | | | | |
| 16MCA35 | Elective 1 | 3 | | 3 | 20 | 80 | 100 | 3 | | | | | |
| 16MCA36 | Computer Networks Laboratory | | 3(2 hrs lab+ 1 hr instruction) | 3 | 20 | 80 | 100 | 2 | | | | | |
| 16MCA37 | Java Programming Laboratory | | 3(2 hrs lab+ 1 hr instruction) | 3 | 20 | 80 | 100 | 2 | | | | | |
| 16MCA38 Analysis and Design of Algorithms Laboratory | | | 3(2 hrs lab+ 1 hr instruction) | 3 | 20 | 80 | 100 | 2 | | | | | |
| | Total | 19 | 09 | 24 | 160 | <mark>640</mark> | 800 | 25 | | | | | |

| | Elective- 1 | | | | | | | |
|----------|-----------------------------------|--|--|--|--|--|--|--|
| 16MCA351 | Intellectual Property Rights | | | | | | | |
| 16MCA352 | Enterprise Resource Planning(ERP) | | | | | | | |
| 16MCA353 | MIS & E-Commerce | | | | | | | |
| 16MCA354 | Cyber Security | | | | | | | |

IntellectualPropertyProperty

[As per Choice Based Credit System (CBCS) scheme]

SEMESTER -- III

| Subject Code | 16MCA351 | CIE Marks | 20 |
|-------------------------------|----------|-----------|----|
| Number of Lecture Hours/Week | 03 | SEE Marks | 80 |
| Total Number of Lecture Hours | 40 | SEE Hours | 03 |

CREDITS – 03

Course Outcome (CO): At the end of this course, the students will be able to



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

CO1: Identify which of the four main different types of IntellectualPropertyProperty may bepresented by an output

CO2: Analyse an innovative or creative output in terms of IntellectualPropertyProperty generated

- **CO3:** Discuss the appropriateness, or not, of registering an IntellectualProperty right
- **CO4:** Apply the appropriate ownership rules to IntellectualProperty he / she has been involved in creating

CO5: Suggest ways of exploiting IntellectualPropertyProperty created in his / her own work.

| Teaching Hours |
|----------------|
| 8 Hours |
| |
| |
| |
| |
| 8 Hours |
| |
| |
| · · · · |

 Infringement - Dilution Ownership of Trade mark – Likelihood of confusion -Trademarks claims – Trademarks Litigations – International Trade mark Law

| Module -3 | 8 Hours |
|---|---------|
| Introduction to Copy <mark>Property</mark> – – Principles of Copyright Principles -The subjects Matter | |
| of Copy right – The Property Afforded by Copyright Law – Copy right Ownership, | |
| Transfer and duration – Right to prepare Derivative works – Property of Distribution – | |
| Property of Perform the work Publicity Copyright Formalities and Registrations - | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| Limitations - Copyright disputes and International Copyright Law – Semiconductor | |
|--|---------|
| Chip Protection Act | |
| Module -4 | 8 Hours |
| The law of patents-patent searches –Patent owner shp and transfer-Patent | |
| infringement-International Patent Law | |
| Module -5 | 8 Hours |
| Introduction to Trade Secret – Maintaining Trade Secret – Physical Secrurity – | |
| Employee Limitation - Employee confidentiality agreement - Trade Secret Law - | |
| Unfair Competation – Trade Secret Letigation – Breach of Contract – Applying State | |
| Law | |

Question paper pattern:

- ☑ The question paper will have ten questions.
- **Each full question consists of 16 marks.**



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- There will be 2 full questions (with a maximum of four sub questions) from each module.
- Each full question will have sub questions covering all the topics under a module.
- The students will have to answer 5 full questions, selecting one full question from each module.

Text Books:

- 1 DebiragE.Bouchoux: "IntellectualProperty". Cengage learning, New Delhi
- 2. M.Ashok Kumar and Mohd.Iqbal Ali: "IntellectualProperty Right" Serials Pub.
- 3. Cyber Law. Texts & Cases, South-Western's Special Topics Collections.

Reference Books:

- 1. PrabhuddhaGanguli: 'IntellectualPropertyProperty" Tata Mc-Graw –Hill, New Delhi
- J Martin and C Turner "IntellectualProperty" CRC Press Richard Stimm "IntellectualProperty" Cengage Learning

2)2nd Year / 4th Semester Seminar (16MCA49)

| IV Sem | IV Semester CREDIT BASED | | | | | | | | | | |
|-----------------|-----------------------------------|------------|-------------------------------|--------------------------|-----|-------|------|-------------|--|--|--|
| | | Teaching h | Duratio | Marks for | | Total | | | | | |
| Subject Code | Name of the Subject | Lecture | Practical / Assignmen t | n of Exam in Hours | CIE | SEE | Mark | CREDIT S | | | |
| 16MCA4 1 | Advanced Java Programming | 4 | | 3 | 20 | 80 | 100 | 4 | | | |
| 16MCA4 2 | Advanced Web Programming | 4 | | 3 | 20 | 80 | 100 | 4 | | | |
| 16MCA4 3 | Software Testing and Practices | 4 | | 3 | 20 | 80 | 100 | 4 | | | |
| 16MCA4 4 | Elective-2 | 3 | | 3 | 20 | 80 | 100 | 3 | | | |
| 16MCA4 5 | Elective-3 | 3 | | 3 | 20 | 80 | 100 | 3 | | | |

| - Charles in the | CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org | | | | | | | | |
|------------------|---|----|--------------------------------------|----|---------|-----|-----|----|--|
| 16MCA4 6 | Programming Laboratory | | 3(2 hrs lab+ 1 hr instruction) | 3 | 20 | 80 | 100 | 2 | |
| 16MCA4 7 | Advanced Web ProgrammingLaborat ory | | 3(2 hrs lab+ 1 hr instruction) | 3 | 20 | 80 | 100 | 2 | |
| 16MCA4 8 | Software Testing Laboratory | | 3(2 hrs lab+ 1 hr instruction) | 3 | 20 | 80 | 100 | 2 | |
| 16MCA4 9 | Seminar | | 2 | | 50 | | 50 | 1 | |
| | Total | 18 | 11 | 24 | 21 0 | 640 | 850 | 25 | |

16MCA49 and 16MCA59: Seminar

• Students should present the seminar on cutting edge/emerging/state of the art technologies in the field of Computer Science and Applications.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

2017 – 18



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

INSTITUTIONAL CURRICULUM COMMITTEE MEETING 2017-2018 – (ODD)

The reconstitution of the Institutional curriculum committee was made and the meeting was held on 25/07/2017 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION | COMMITTEE DESIGNATION |
|--------|-----------------------|--------------------------|--------------------------|
| 1. | Dr R V Praveena Gowda | Principal | Chair Person |
| 2. | Dr R J Anandhi | Vice Principal & HOD-CSE | Member Coordinator |
| 3. | Dr D Jayaramaiah | HOD-ISE | Member |
| 4. | Dr Manju Devi | HOD-ECE | Member |
| 5. | Dr V S Bharath | HOD-EEE | Member |
| 6. | Dr G S Bhatt | HOD-ME | Member |
| 7. | Dr Kusum Paul | HOD-BT | Member |
| 8. | Dr Amarnath K | HOD-Civil | Member |
| 9. | Dr N B Doddapattar | HOD-MTE | Member |
| 10. | Dr Raju B R | HOD-AUTO | Member |
| 11. | Prof N Chiranthana | HOD-CTM | Member |
| 12. | Dr Mallikarjuna K | HOD-Maths | Member |
| 13. | Dr Vijayakumaran Nair | HOD-Physics | Member |
| 14. | Dr Surekha M | HOD-Chemistry | Member |
| 15. | Dr James Thomas | HOD-MBA | Member |
| 16. | Dr M S Shashidhara | HOD-MCA | Member |
| 17. | Dr Sridhar Rajan | Principal (B-Arch)-TOSA | Member |

Agenda:

- Prescribed syllabus by VTU to be followed.
- Preparation of TIME TABLE for ODD semester 2017-18
- B.E / B.Arch (UG) Time Table and PG Time Table



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Faculties to participate in BOS / Academic council and question paper designing evaluation and assessment.
 - Implementation of Enrichment Courses.
 - Implementation of Interdisciplinary/ Interdepartmental courses.
 - Implementation of Value-added courses.
 - Implementation of Field visits / industry visits.
 - Implementation of internships / community posting
 - Implementation of action on Feedback analysis report.

Summary: Minutes

The committee is composed of Principal, Dean Academics and Head of all departments. The abovementioned agenda was discussed and resolutions were formed. These were circulated to all the concerned departments and were recommended to be inculcated in their respective department curriculum meeting and implementation of the same. Two subjects per faculty member and one subject to HOD and to offer TWO – electives for 60 intakes and THREE – electives for 120 intakes during V and VII semester.

Resolutions:

- It has been informed to all HOD's to implement the latest prescribed syllabus by VTU in the respective department.
- HOD's should ensure and make their maximum efforts to make their faculties to participate In BOS and academic council members in affiliated university as well as outside universities
- It is decided to implement 2 enrichment courses for each department and an action plan to be submitted one week after this meeting.
- It is decided to implement 2 value added courses for each department and an action plan to be submitted one week after this meeting.
- It is decided to implement 2 interdisciplinary courses for each department and an action plan to be submitted one week after this meeting.
- It is decided to implement 1 field visit for each department and an action plan to be submitted one week after this meeting.

raveena Gowda Dr. R PRINCUPAL The Oxford College of Engineering Bommanahalli, Hosur Road Bengaluru-550 Deg



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

INSTITUTIONAL CURRICULUM COMMITTEE MEETING 2017-2018 – (EVEN)

The reconstitution of the Institutional curriculum committee was made and the meeting was held on 31/01/2018 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION | COMMITTEE DESIGNATION |
|--------|------------------------|--------------------------|--------------------------|
| 1. | Dr R V Praveena Gowda | Principal | Chair Person |
| 2. | Dr R J Anandhi | Vice Principal & HOD-CSE | Member Coordinator |
| 3. | Dr D Jayaramaiah | HOD-ISE | Member |
| 4. | Dr Manju Devi | HOD-ECE | Member |
| 5. | Dr V S Bharath | HOD-EEE | Member |
| 6. | Dr N B Doddapattar | HOD-ME | Member |
| 7. | Dr B K Manjunath | HOD-BT (in-charge) | Member |
| 8. | Dr Amarnath K | HOD-Civil | Member |
| 9. | Dr Jayanthi Kumari T R | HOD-MT | Member |
| 10. | Dr Raju B R | HOD-AUTO | Member |
| 11. | Prof Shivakumar | HOD-CTM (In-charge) | Member |
| 12. | Dr Mallikarjuna K | HOD-Maths | Member |
| 13. | Dr Vijayakumaran Nair | HOD-Physics | Member |
| 14. | Dr Surekha M | HOD-Chemistry | Member |
| 15. | Dr James Thomas | HOD-MBA | Member |
| 16. | Dr M S Shashidhara | HOD-MCA | Member |
| 17. | Dr Sridhar Rajan | Principal (B-Arch)-TOSA | Member |

Agenda: Minutes

- To review that prescribed syllabus is being followed.
- To review implementation of time table for 2017- 18 even
- To review the efforts made by the faculties in in participating in BOS/ Academic council and question paper designing evaluation and assessment



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- To review on enrichment courses/Value added courses, Field visits/Industry visit and Internship/Community posting conducted and report submitted.
- To review implementation and delivery of cross cutting issues.

Summary: Minutes

The committee is composed of Principal, Dean Academics and Head of all departments. The abovementioned agenda was discussed and resolutions were formed. These were circulated to all the concerned departments and were recommended to be inculcated in their respective department curriculum meeting and implementation of the same.

Resolution:

- The approved syllabus is followed.
- The classes were conducted and attendance was checked.
- The committee was proud to inform that few faculties have become members of BOS and BOE of many Autonomous colleges and deemed universities
- One enrichment course and one value added course has been done and the report is satisfactory.
- It has been advised to maintain an Attendance register, circular, reports and photographs for the activities conducted.

Praveena Gowda Dr. R V PRINCUPAL

The Oxford College of Engineering Bommanahalli, Hosur Road Bengaluru-560 9eg



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (CSE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 –(ODD)

The department curriculum committee was made and the meeting was held on 25/07/2017 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|----------------------------|------------------|
| 1 | Dr.AnandhiR.J | Professor & HOD |
| 2 | Dr. E Saravana Kumar | Professor |
| 3 | Dr. Nirmala | Professor |
| 4 | Dr. Tamanna Jena | Assot. Professor |
| 5 | Ms. Shobha T | Assot. Professor |
| 6 | Mr. Senthil Kumar | Assot. Professor |
| 7 | Ms. Seema Patil | Assot. Professor |
| 8 | Ms. Gousia T | Assot. Professor |
| 9 | Ms. Sowmya H K | Assot. Professor |
| 10 | Ms. Shilpa Kamman | Asst. Professor |
| 11 | Ms. Koyel Sinha Chowdhury | Asst. Professor |
| 12 | Ms. Chandanita Thakur | Asst. Professor |
| 13 | Ms. Maragatham | Asst. Professor |
| 14 | Ms. Florance G Asst. Profe | |
| 15 | Mr. Naveen H S | Asst. Professor |
| 16 | Ms. Sushma Gunjal | Asst. Professor |
| 17 | Ms. Jesy Janet Kumari | Asst. Professor |
| 18 | Ms. AnarghaRemesh | Asst. Professor |
| 19 | Ms. Latha R | Asst. Professor |
| 20 | Ms. Mary Nathisiya B | Asst. Professor |
| 21 | Ms. Archana R | Asst. Professor |
| 22 | Ms. Sushma T Shanbhoogue | Asst. Professor |



23

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Ms. MoutushiKar

Asst. Professor

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 19. HOD, Dr. R J Anandhi welcomed all the faculty and explained VTU, ODD semester regulations.
- 20. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 21. VTU has introduced Choice Based Credit System (CBCS).
- 22. Syllabus copy prescribed by the university circulated to the students and faculty.

| SI. No. | CBCS ELECTIVE | |
|---------|---------------|-------------------------------------|
| 1. | 15CS551 | Object Oriented Modeling and Design |
| 2. | 15CS563 | Embedded Computing Systems |

- 23. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.
- 24. Department announced to conduct the regular seminars to the students.
- 25. Department plans for Field Visit / Industrial Visit.
- 26. Planning for the Final Year's Project Works / Internships.
- 27. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following certificate programs will be conducted during 2017 – 2018 odd semester

| SI. No. | Name of the Certificate Program |
|---------|---------------------------------|
| 1 | GIT (Spoken Tutorial) |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxford.engg.org

| 2 | RUBY (Spoken Tutorial) |
|---|---|
| 3 | C (Spoken Tutorial) |
| 4 | Introduction to Computers (Spoken Tutorial) |
| 5 | JAVA (Spoken Tutorial) |
| 6 | BASH (Spoken Tutorial) |
| 7 | C++ (Spoken Tutorial) |

The following value-added programs will be conducted during 2017 – 2018 odd semester

| SI. No | Name of the department | Name of the Value-added programs |
|--------|------------------------|----------------------------------|
| 6. | CSE | Soft Skill Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

HEAD OF THE DEPARTMENT DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING THE OXFORD COLLEGE OF ENGINEERING BENGALURU - 560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (CSE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 – (EVEN)

The department curriculum committee was made and the meeting was held on 31/01/2018 and the following members were present for the meeting.

| Sl. No. | Name | Designation | |
|---------|-----------------------------------|------------------|--|
| 1 | Dr.AnandhiR.J | Professor & HOD | |
| 2 | Dr. E Saravana Kumar | Professor | |
| 3 | Dr. Nirmala | Professor | |
| 4 | Dr. Tamanna Jena | Assot. Professor | |
| 5 | Ms. Shobha T | Assot. Professor | |
| 6 | Mr. Senthil Kumar | Assot. Professor | |
| 7 | Ms. Seema Patil | Assot. Professor | |
| 8 | Ms. Gousia T | Assot. Professor | |
| 9 | Ms. Sowmya H K | Assot. Professor | |
| 10 | Ms. Shilpa Kamman | Asst. Professor | |
| 11 | Ms. Koyel Sinha Chowdhury | Asst. Professor | |
| 12 | Ms. Chandanita Thakur | Asst. Professor | |
| 13 | Ms. Maragatham | Asst. Professor | |
| 14 | Ms. Florance G Asst. Pro | | |
| 15 | Mr. Naveen H S | Asst. Professor | |
| 16 | Ms. Sushma Gunjal | Asst. Professor | |
| 17 | Ms. Jesy Janet Kumari Asst. Profe | | |
| 18 | Ms. AnarghaRemesh | Asst. Professor | |
| 19 | Ms. Latha R | Asst. Professor | |
| 20 | Ms. Mary Nathisiya B | Asst. Professor | |
| 21 | Ms. Archana R Asst. Pi | | |
| 22 | Ms. Sushma T Shanbhoogue | Asst. Professor | |



23

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Ms. MoutushiKar

Asst. Professor

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 32. HOD, Dr. R J Anandhi, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 33. Semester plan for 2017-18 even semester and mentioning the activities planned in the department.

| SI. No. | CBCS ELECTIVE | |
|---------|---------------|----------------------------------|
| 1. | 15CS651 | Data Mining and Data Warehousing |
| 2. | 15CS664 | Python Application Programming |

- 34. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 35. Syllabus copy prescribed by the university circulated to the students and faculty.
- 36. Department announced to conduct the regular seminars to the students.
- 37. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 38. Department plans for Field Visit / Industrial Visit.
- 39. Planning for the Final Year's Project Works / Internships.
- 40. Mentor mentee list discussion
- 41. The following certificate programs will be conducted during 2017 2018 EVEN semester

42.

Sl. No. Name of the Certificate Program



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 1 | PHP & MySQL (Spoken Tutorial) |
|---|-------------------------------|
| 2 | BLENDER (Spoken Tutorial) |
| 3 | LINUX (Spoken Tutorial) |
| 4 | JAVA (Spoken Tutorial) |
| 5 | C (Spoken Tutorial) |
| 6 | DevOps |
| 7 | Big Data Hadoop |

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

CSE HØD

HEAD OF THE DEPARTMENT DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING THE OXFORD COLLEGE OF ENGINEERING BENGALURU - 560 066



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

2017-18 (EVEN)

Departmental Committee Meeting – Information Science and Engineering

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 - (EVEN)

The department curriculum committee was made and the meeting was held on 01/02/2018 and the following members were present for the meeting.

| Sl no. | NAME | DESIGNATION |
|--------|-----------------------|--------------|
| 1. | Dr.Jayaramaiah. D | HOD |
| 2. | Mrs.Karthiyaini | Assot. Prof. |
| 3. | Mrs.Vinodha K | Assot. Prof. |
| 4. | Ms. Visalini S | Assot. Prof. |
| 5. | Ms. KalaiSelvi | Asst. Prof. |
| 6. | Ms. Kokila P | Asst. Prof. |
| 7. | Mrs.Chempavathy B | Asst. Prof. |
| 8. | Ms. Suganya R | Asst. Prof. |
| 9. | Mr. Channappa Gowda | Asst. Prof. |
| 10. | Ms. Chitra G | Asst. Prof. |
| 11. | Ms. InduK.S | Asst. Prof. |
| 12. | Mrs.Prathiba.K.N | Asst. Prof. |
| 13. | Mr. Karthik S L | Asst. Prof. |
| 14. | Mrs.Halaharvi Keerthi | Asst. Prof. |
| 15. | Ms.Radha.D.N | Asst. Prof. |
| 16. | Ms.Geethanjali | Asst. Prof. |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 17. | Mrs.VijayaLaxmiPatil | Asst. Prof. |
|-----|-----------------------|-------------|
| 18. | Ms.LohithaMalli Reddy | Asst. Prof. |

Agenda:

- 7. Semester plan
- 8. Introduction of syllabus based on CBCS scheme
- 9. Conduction of seminars
- 10. Plan for Field Visit/ Industrial Visit
- 11. Plan for the (Final Year's) Project Works / Internships
- 12. Allotment the assignment topics and tutorial topics
- 13. Plan for mentoring activities

Summary: Minutes

- 1. HOD, Dr.Jayaramaiah. D welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. Semester plan for 2016-17 even semester and mentioning the activities planned in the department.
- 3. The discussion of the subjects of CBCS selected by the students.
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the (Final Year's) Project Works / Internships (with company names and details).
- 9. Mentor mentee list discussion
- 10. The following certificate programs will be conducted during 2017 2018 EVEN semester



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| Sl. No. | Name of the department | Name of the Certificate Program |
|---------|-------------------------------------|---------------------------------|
| 3. | Information Science and Engineering | Network Security |
| 2. | Information Science and Engineering | ΙοΤ |

11. The following value-added programs will be conducted during 2017–2018 EVEN semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|-------------------------------------|----------------------------------|
| 7. | Information Science and Engineering | Soft skill training |

Resolutions:

- 1. Faculty members are informed to motivate the students to involve in the Research activities.
- 2. Toppers from each semester to be motivated to get VTU ranks.
- 3. Result percentage of forthcoming semester to be improved.

PROFESSOR & HOD-ISE The Oxford College Of Engineering Bommanahalli, Hosur Main Road, Bangalore 560 068.

HOD



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

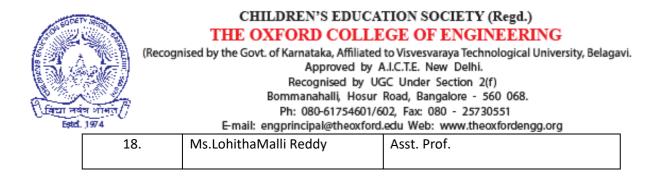
2017-18 (ODD)

Departmental Committee Meeting – Information Science and Engineering

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 - (ODD)

The department curriculum committee was made and the meeting was held on 26/07/2017 and the following members were present for the meeting.

| Sl no. | NAME | DESIGNATION | | |
|---------------------------------------|---------------------------------|--------------|--|--|
| 1. | Dr.Jayaramaiah. D | HOD | | |
| 2. | Mrs.Karthiyaini | Assot. Prof. | | |
| 3. | Mrs.Vinodha K | Assot. Prof. | | |
| 4. | Ms. Visalini S | Assot. Prof. | | |
| 5. | Ms. KalaiSelvi | Asst. Prof. | | |
| 6. | Ms. Kokila P | Asst. Prof. | | |
| 7. | Mrs.Chempavathy B | Asst. Prof. | | |
| 8. Ms. Suganya R | | Asst. Prof. | | |
| 9. | Mr. Channappa Gowda | Asst. Prof. | | |
| 10. | Ms. Chitra G | Asst. Prof. | | |
| 11. | Ms. InduK.S | Asst. Prof. | | |
| 12. | Mrs.Prathiba.K.N | Asst. Prof. | | |
| 13. | 13. Mr. Karthik S L Asst. Prof. | | | |
| 14. Mrs.Halaharvi Keerthi Asst. Prof. | | Asst. Prof. | | |
| 15. | Ms.Radha.D.N | Asst. Prof. | | |
| 16. | Ms.Geethanjali | Asst. Prof. | | |
| 17. | Mrs.VijayaLaxmiPatil | Asst. Prof. | | |



Agenda:

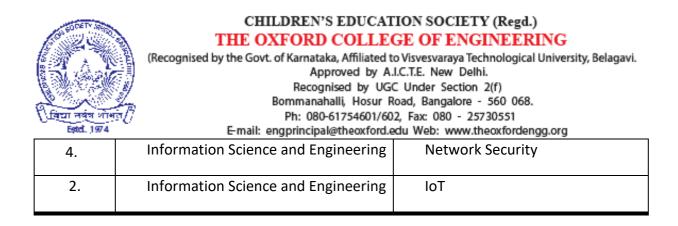
- 1. Semester plan
- 2. Value-added and certificate programs
- 3. Conduction of seminars
- 4. Plan for Field Visit/ Industrial Visit
- 5. Plan for the (Final Year's) Project Works / Internships
- 6. Allotment the assignment topics and tutorial topics

Summary: Minutes

- 1. HOD, Dr.Jayaramaiah. D welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS)
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans for Field Visit/ Industrial Visit.
- 7. Planning for the (Final Year's) Project Works / Internships (with company names and details).
- 8. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following certificate programs will be conducted during 2017 – 2018 odd semesters

| SI. No. | Name of the department | Name of the Certificate Program | |
|---------|------------------------|---------------------------------|--|
| | | | |



The following value-added programs will be conducted during 2017–2018 odd semester

| SI. No. | Name of the department | Name of the Value-added programs | |
|---------|-------------------------------------|----------------------------------|--|
| 8. | Information Science and Engineering | Soft skill training | |

Resolutions:

- 4. Faculty members are informed to motivate the students to involve in the Research activities.
- 5. Toppers from each semester to be motivated to get VTU ranks.
- 6. Result percentage of forthcoming semester to be improved.

PROFESSOR & HOD-ISE The Oxford College Of Engineering Bommanahalli, Hosur Main Road, Bangalore 560 068.

HOD



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

ECE

DEPARTMENTAL CURRICULUM COMMITTEE MEETING2017-2018(ODD)

The Department curriculum committee was made and the meeting was held on 26/07/2017 and the following members were present for the meeting.

| Slno. | NAME | DESIGNATION | |
|-------|--------------------------|----------------|--|
| 1 | Dr.Vivek.M | Professor | |
| 2 | Dr.PreetaSharan | Professor | |
| 3. | Mr.N.Jayaraj | AssociateProf | |
| 4 | Ms.SajithraVarun | AssociateProf | |
| 5 | Mr.Piruthviraj.P | AssociateProf | |
| 6 | Mr.N.Sridhar | AssociateProf | |
| 7 | Ms.ChrispinJiji | Asst.Professor | |
| 8 | Mr.Ravindra.V.S | Asst.Professor | |
| 9 | Ms.SowmyaPadukone.G | Asst.Professor | |
| 10 | Mr.BhargavRamGowd | Asst.Professor | |
| 11. | Ms.LayaTojo | Asst.Professor | |
| 12. | Ms.Chandrakala.S | Asst.Professor | |
| 13 | Ms.Aruna.J | Asst.Professor | |
| 14 | Mr.ManjunathSheth | Asst.Professor | |
| 15 | Mr.Veeresh.H | Asst.Professor | |
| 16 | Mr.Anand.K.Warad | Asst.Professor | |
| 17 | Mr.RichardLincolnPaulraj | Asst.Professor | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 18. | Ms.SoniyaJames | Asst.Professor |
|-----|-------------------|----------------|
| 19 | Ms.Lakshmi.R | Asst.Professor |
| 20 | Mr.AravindReddy | Asst.Professor |
| 21 | MttuGeorge | Asst.Professor |
| 22 | Dhanya | Asst.Professor |
| 23 | JagadeeshwarReddy | Asst.Professor |
| 24 | Vaibhav | Professor |
| 25 | Dr.Manju Devi | Prof&HOD |
| 26 | Dr.AnilTiwari | Professor |
| 27 | VarshaParihar | Asst.Professor |
| 28 | Rani.B.A | Asst.Professor |
| 29 | Megha.M.S | Asst.Professor |
| 30 | Poojashri.C.S | Asst.Professor |
| 31 | Bindu.P | Asst.Professor |
| 32 | PraveenKumar | Asst.Professor |

Agenda:

1. Odd Semester Plan for Academics & Co- urricular

Activities

- 2.Introduction of CBCS& orientation for Students
- 3. Arrangementof Seminars, Field Visits&Industrial Visit to



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Students 4. Conduction of Project Work, Internship work to

Students

Summary:Minutesofmeeting

,Dr.ManjuDevi,HOD&Profwelcomed all the faculty and explained VTU, ODDSemesterregulations.

1. Semesterplanfor2017-

18 ODD semester and mentioning the activities planned in the Department.

| Sl. No. | NameoftheDepartment | CBCS | |
|---------|---------------------|----------------|--|
| 1. | ECE | 2017-18 Scheme | |

2 .ThediscussionofthesubjectsofCBCS given intheabovetable,selectedbythestudents.

3. Asper

the VTU regulation guidelines the students of B. Ehave to select one subject from the MOOCS-II, MOOCS-II& MOOCS-III

| Sl.No | NameoftheDepartment | MOOCS-I | MOOCS-II | MOOCS-III |
|-------|---------------------|-----------------------------|---------------------------------|---------------------|
| 1. | ECE | MultimediaCo mmunication | Digital SwitchingSystem s | Operating System |

- 4. Syllabuscopyprescribedbytheuniversitycirculatedtothestudentsandfaculty.
- 5. Departmentannouncedtoconducttheregularseminarstothestudents.
- 6. Departmentplanstoallottheassignmenttopicstothestudentsandtoallocatet hetutorialtopics tothestudents.
- 7. Department plansforFieldVisit/IndustrialVisit.
- 8. Planningforthe(FinalYear's)ProjectWorks/Internships(withcompanynames anddetails).
- 9. Mentormenteelist-discussion



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

10. The following certificate programs will be conducted during

2017 - 2018ODDsemester.

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|---------------------|---------------------------------|
| 1. | ECE | NationalWorkshoponRemoteSensing |

11. The following value-added programs will be conducted during

2017-2018 ODDS emester

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|---------------------|----------------------------------|
| 1. | ECE | ARM7 & Embedded – CAddon Program |

Resolutions:

The HOD & Faculties of the Department will do the Resolution that We all wll work towardstheoverallgrowthoftheDepartment,Students&Organization.

HOD

V Toféssor & HOD of E&C Engineering Tue Oxford College of Engineering Bommananalli, Bangalore-560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

DEPARTMENTAL CURRICULUMCOMMITTEE MEETING – ECE

DEPARTMENTAL CURRICULUMCOMMITTEE MEETING 2017-2018–(EVEN) ECE The Department curriculum committee was made and the meeting was held on1/02/2018 and the following members were present for the meeting.

| Slno. | NAME | DESIGNATION | |
|-------|---------------------|----------------|--|
| 1 | Dr.Vivek.M | Professor | |
| 2 | Dr.PreetaSharan | Professor | |
| 3. | Mr.N.Jayaraj | AssociateProf | |
| 4 | Ms.SajithraVarun | AssociateProf | |
| 5 | Mr.Piruthviraj.P | AssociateProf | |
| 6 | Mr.N.Sridhar | AssociateProf | |
| 7 | Ms.ChrispinJiji | Asst.Professor | |
| 8 | Mr.Ravindra.V.S | Asst.Professor | |
| 9 | Ms.SowmyaPadukone.G | Asst.Professor | |
| 10 | Mr.BhargavRamGowd | Asst.Professor | |
| 11. | Ms.LayaTojo | Asst.Professor | |
| 12. | Ms.Chandrakala.S | Asst.Professor | |
| 13 | Ms.Aruna.J | Asst.Professor | |
| 14 | Mr.ManjunathSheth | Asst.Professor | |
| 15 | Mr.Veeresh.H | Asst.Professor | |
| 16 | Mr.Anand.K.Warad | Asst.Professor | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 17 | Mr.RichardLincolnPaulraj | Asst.Professor |
|-----|--------------------------|----------------|
| 18. | Ms.SoniyaJames | Asst.Professor |
| 19 | Ms.Lakshmi.R | Asst.Professor |
| 20 | Mr.AravindReddy | Asst.Professor |
| 21 | MttuGeorge | Asst.Professor |
| 22 | Dhanya | Asst.Professor |
| 23 | JagadeeshwarReddy | Asst.Professor |
| 24 | Vaibhav | Professor |
| 25 | Dr.Manju Devi | Prof&HOD |
| 26 | Dr.AnilTiwari | Professor |
| 27 | VarshaParihar | Asst.Professor |
| 28 | Rani.B.A | Asst.Professor |
| 29 | Megha.M.S | Asst.Professor |
| 30 | Poojashri.C.S | Asst.Professor |
| 31 | Bindu.P | Asst.Professor |
| 32 | PraveenKumar | Asst.Professor |

Agenda:

1.Even Semester Plan for Academics & Co-Curricular

Activities

 $2. Introduction \ of \ CBCS \& orientation for Students$

3. Arrangement of Seminars, Field Visits & Industrial Visitto Stu



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

dents 4. Conduction of Project Work, Internship work to

Students

Summary:Minutesofmeeting

, Dr.ManjuDevi,HOD&Profwelcomed all the faculty and explained VTU, EVEN Semesterregulations.

5. Semester planfor2017-18Even Semester and mentioning the activitie splanned in the Department.

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|---------------------|-----------------------------|
| 1. | ECE | NCSEM-2018 |

6. The following value-added programs will be conducted during

2017 – 2018EvenSemester

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|---------------------|-----------------------------|
| 1. | ECE | WorkshoponArduino&Robotics |

Resolutions:

The HOD&Faculties of the Department will do the Resolution that We all will work towards the overall grow the first of the Department, Students&Organization.

HOD

V voféssor & HOD of E&C Engineering Tue Oxford College of Engineering Bommananalli, Bangalore-560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

THE OXFORD COLLEGE OF ENGINEERING

Departmental Committee Meeting – (EEE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 –(ODD)

The department curriculum committee was made and the meeting was held on 21/07/2017 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|------------------------|--------------|
| 1 | Dr.Bharath.V.S | Prof.& HOD |
| 2 | Dr.V.Chinnappan | Prof |
| 3 | Dr.Sidheshwarprasad | Prof |
| 4 | Dr.Gurumurthy | Prof. |
| 5 | Dr.Puneet Kaur | Assoc. Prof. |
| 6 | Dr.Gangadhara Swami | Prof. |
| 7 | Mrs.SandhyaRai | Assoc. Prof. |
| 8 | Mr.N.Jayakumar | Assoc. Prof. |
| 9 | Mrs.Nisha.C.Rani | Assoc. Prof. |
| 10 | Mrs.B.DeviVighneshwari | Assoc. Prof. |
| 11 | Mrs.Raichel Ruby | Assoc. Prof. |
| 12 | Mrs.Manjula.C | Assoc. Prof. |
| 13 | Mrs.Viji.K | Asst. Prof. |
| 14 | Mrs.NalinaKumari | Asst. Prof |
| 15 | Mr.Muniyappa | Asst. Prof. |
| 16 | Mrs.Thilaga.P | Asst. Prof. |
| 17 | Mrs. Anupama Sisodiya | Asst. Prof. |
| 18 | Mrs.NavathaKumari | Asst. Prof. |
| 19 | Mrs.Sumitha.T.L | Asst. Prof. |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 20 | Mrs.Someswari | Asst. Prof. |
|----|------------------------|-------------|
| 21 | Mrs.ArutselviNagammai | Asst. Prof. |
| 22 | Ms.Pavithra.P.S | Asst. Prof. |
| 23 | Ms.Deepa.N.Raju | Asst. Prof. |
| 24 | Mrs.Vinutha.Y.E | Asst.Prof. |
| | Mrs.Thiruvonasundari.D | Asst.Prof. |
| 25 | | |
| 26 | Ms.Savitha.M | Asst.Prof. |
| 27 | Ms.Swapna.C.M | Asst.Prof. |
| 28 | Mrs.Resna.S.R | Asst.Prof |
| 29 | Ms.Deepa.R | Asst.Prof |
| 30 | Ms.KavyaShree.C.M | Asst.Prof |
| 31 | Ms.Bhuvaneswari.M | Asst.Prof. |
| 32 | Mrs.Savitha | Asst.Prof. |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship

Minutes of Meeting:

- 1. HOD, Dr.Bharath.V.S welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| SI. No. | CBCS ELECTIVE/MATDIP | |
|------------|----------------------|--|
| 1 | 10EE751 | HVDC Transmission |
| 2 | 10EE762 | Computer control of Electrical drives |
| 3 | 10EE764 | VLSI Circuit and Design |
| 4 | 15KL/CPH39/49 | Kannada/Constitution of India, Professional Ethics and Human Rights |
| 5 | 15MATDIP31 | Additional Mathematics –I |

- 5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.
- 6. Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following value-added programs will be conducted during 2017 – 2018 odd semester

| SI. No. | Name of the department Name of the Value-added programs | |
|---------|---|--|
| 1. | EEE | Technical Skill Training on "AUTOMATION |
| | | (PLC&SCADA), DRIVES, LV SWITCHGEAR" |
| 2. | EEE | Technical Skill Training on "EMBEDDED SYSTEM |
| | | -CRANES VARSITY" |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Profe The Oxford College of Engg Bommanahalli, Hosur Road Bangalore-560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (EEE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 – (EVEN)

The department curriculum committee was made and the meeting was held on 17/02/2018 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|-------------------------|--------------|
| 1 | Dr.Bharath.V.S | Prof.& HOD |
| 2 | Dr.V.Chinnappan | Prof |
| 3 | Dr.Sidheshwarprasad | Prof |
| 4 | Dr.Gurumurthy | Prof. |
| 5 | Dr.Puneet Kaur | Assoc. Prof. |
| 6 | Dr.Gangadhara Swami | Prof. |
| 7 | Mrs.SandhyaRai | Assoc. Prof. |
| 8 | Mr.N.Jayakumar | Assoc. Prof. |
| 9 | Mrs.Nisha.C.Rani | Assoc. Prof. |
| 10 | Mrs.B.DeviVighneshwari | Assoc. Prof. |
| 11 | Mrs.Raichel Ruby | Assoc. Prof. |
| 12 | Mrs.Manjula.C | Assoc. Prof. |
| 13 | Mrs.Viji.K | Asst. Prof. |
| 14 | Mrs.NalinaKumari | Asst. Prof |
| 15 | Mr.Muniyappa | Asst. Prof. |
| 16 | Mrs.Thilaga.P | Asst. Prof. |
| 17 | Mrs. Anupama Sisodiya | Asst. Prof. |
| 18 | Mrs.NavathaKumari | Asst. Prof. |
| 19 | Mrs.Sumitha.T.L | Asst. Prof. |
| 20 | Mrs.Someswari | Asst. Prof. |
| 21 | Mrs. Arutselvi Nagammai | Asst. Prof. |
| 22 | Ms.Pavithra.P.S | Asst. Prof. |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 23 | Ms.Deepa.N.Raju | Asst. Prof. |
|----|----------------------------|-------------|
| 24 | Mrs.Vinutha.Y.E | Asst.Prof. |
| 25 | Mrs. Thiruvon as undari. D | Asst.Prof. |
| 26 | Ms.Savitha.M | Asst.Prof. |
| 27 | Ms.Swapna.C.M | Asst.Prof. |
| 28 | Mrs.Resna.S.R | Asst.Prof |
| 29 | Ms.Deepa.R | Asst.Prof |
| 30 | Ms.KavyaShree.C.M | Asst.Prof |
| 31 | Ms.Bhuvaneswari.M | Asst.Prof. |
| 32 | Mrs.Samitha | Asst.Prof. |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship

Minutes of Meeting:

- 1. HOD, Dr.Bharath.V.S, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 2. Semester plan for 2017-18 even semester and mentioning the activities planned in the department.

| SI. No. | CBCS ELECTIVE/MATDIP | | |
|------------|----------------------|---------------------------------|--|
| 1 | 10EE836 | 10EE836 Renewable Energy Source | |
| 2 | 10EE842 | Energy Auditing & Demand Side | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | Management |
|---|---------------|--------------------------------------|
| 3 | 15KL/CPH39/49 | Kannada/Constitution of India, |
| | | Professional Ethics and Human Rights |
| 4 | 15MATDIP41 | Additional Mathematics –II |

- 3. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Mentor mentee list discussion
- 10. The following certificate programs will be conducted during 2017–2018 EVEN semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|--|
| 1. | EEE | Technical Skill Training on "AUTOMATION (PLC&SCADA), DRIVES, LV SWITCHGEAR" |
| 2. | EEE | Technical Skill Training on "EMBEDDED SYSTEM -CRANES VARSITY" |

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Profestio The Oxford College of Engg Bommanahalli, Hosur Road Bangalore-560 068

HOD- EEE



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting-(BRANCH): Mechanical engineering

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2016-2017- (ODD)

The department curriculum committee was made and the meeting was heldon 30/7/2016 and the following members were present for themeeting.

| Slno. | NAME | DESIGNATION |
|-------|------------------|--------------------|
| 1 | DR.G.S.BHAT | HOD |
| 2 | C.D.SRINIVAS | Professor |
| 3 | MADHUSUDHANREDDY | Professor |
| 4 | ASHOKTAWADE | Professor |
| 5 | SHIVALINGU | Professor |
| 6 | SUHASV | AssistantProfessor |
| 7 | T.V.NAGARAJA | Assistantprofessor |
| 8 | RAVIPRAKASH | AssistantProfessor |
| 9 | VIDYADHARPOOJAR | AssistantProfessor |
| 10 | VARUNK.R. | AssistantProfessor |

Agenda:

1. Finalization of departmental activities for the academic year.

2. Allocation of subjects to faculties.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

3. Approvalofprojectbatch.

ummary:Minutes

- 1. HOD, Dr. G.S BHAT welcomed all the faculty and explained VTU, ODD semesterregulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should followit.
- 3. VTU has introduced Choice Based Credit System (CBCS)
- 4. Syllabuscopyprescribedbytheuniversitycirculatedtothestudentsandfaculty.
- 5. Departmentannouncedtoconduct the regularseminarstothestudents.
- 6. Department plans for FieldVisit / IndustrialVisit.
- 7. Planningforthe(FinalYear's)ProjectWorks/Internships(withcompanynamesanddetails).
- 8. Department plans to allot the assignment topics to the students and to allocate thetutorial topics to the students.

The following certificate programs will be conducted during 2016 – 2017 oddsemester

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|-----------------------|-------------------------------|
| 1 | Mechanicalengineering | Engineeringgraphics |
| 2 | Mechanicalengineering | Programmingwithmicroprocessor |

The following value-added programs will be conducted during 2016 – 2017 oddsemester

| Sl.No. | Nameofthedepartment | NameoftheValue-addedprograms |
|--------|---------------------|------------------------------|
|--------|---------------------|------------------------------|



 (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

 1
 Mechanicalengineering
 Designofcircuitforhydraulicsfluids

| 2 | Mechanicalengineering | Programmingwithmicroprocessor |
|---|-----------------------|-------------------------------|

Resolutions:

- Eachfacultyhastotaketwotheorysubjectsandonelab,outofwhichonesubjectwillbechoiceoffa cultywhiletheothersubject will beallocatedbyHOD.
- Departmental activities are to be planned as per calendar of institution and must begotapproval from principal
- Foreman is given in charge to finalise the budge allocations for variouslabs/workshopsinconsultationwithlabinchargesandfinalapprovalfrom HOD.

PROFESSIOR & HEAD DEPARTMENT OF MECHANICAL ENGINEERING THE OXFORD COLLEGE OF ENGINEERING BOMMANALIALLY, OF NOALORE 55058



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting–(BRANCH): mechanical engineering

DEPARTMENTAL CURRICULUM COMMITTEE MEETING2016-2017–(EVEN)

The department curriculum committee was made and the meeting was held on 18/01/2017 and the following memberswer epresent for themeeting.

| Slno. | NAME | DESIGNATION |
|-------|------------------|---------------------|
| 1 | DR.G.S.BHAT | HOD |
| | | |
| 2 | C.D.SRINIVAS | Professor |
| 3 | MADHUSUDHANREDDY | Professor |
| 4 | ASHOKTAWADE | Professor |
| 5 | SHIVALINGU | Professor |
| 6 | SUHASV | Assistant Professor |
| 7 | T.V.NAGARAJA | Assistant Professor |
| 8 | RAVIPRAKASH | Assistant Professor |
| 9 | VIDYADHARPOOJAR | Assistant Professor |
| 10 | VARUNK.R. | Assistant Professor |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Agenda:

- 1. Allocation of subject to staff.
- 2. Identifying lab incharges/mentors/class teachers.
- 3. Finalizing departmental activities to be conducted.

Summary:Minutes

- 1. HOD, Dr. GS BHAT welcomed all the faculty and explained VTU, EVEN semesterregulations.
- 2. Semester plan for 2016-17 even semester and mentioning the activities planned in thedepartment.

| Sl.No. | Name of the Department | CBCS |
|--------|------------------------|---|
| 1. | Mechanical engineering | 3 rd &4 th semester |

- 3. The discussion of the subjects of CBCS given in the above table, selected by thestudents.
- 4. As per the VTU regulation guidelines the students of B.E have to select one subjectfromtheMOOCS-I, MOOCS-II& MOOCS-III

| Sl.No | NameoftheDepartment | MOOCS-I | MOOCS –II | MOOCS –III |
|-------|-----------------------|---------|-----------|------------|
| 1. | Mechanicalengineering | nil | nil | nil |

- 5. Syllabus copy prescribed by the university circulated to the students and faculty.
- 6. Department announced to conduct the regular seminars to the students.
- 7. Department plans to allot the assignment topics to the students and to allocate thetutorial topics to the students.
- 8. DepartmentplansforFieldVisit/IndustrialVisit.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 9. Planningforthe(FinalYear's)ProjectWorks/ Internships (with company names and details).
- 10. Mentor mentee list-discussion
- 11. The following certificate programs will be conducted during 2016 2017 EVENsemester

| Sl.No. | Name of the department | Name of the Certificate Program |
|--------|------------------------|---------------------------------|
| 1. | Mechanicalengineering | nil |
| | | |

12. The following value-added programs will be conducted during 2016 – 2017 (EVENsemester)

| Sl.No. | Name of the department | Name of theValue-added programs |
|--------|------------------------|---------------------------------|
| 2. | Mechanical engineering | nil |
| | | |

Resolutions:

- Allocation of subjects for staff senior staff to take firstyear classes.
- Class teachers /mentors/lab incharges are made.
- Lab instructors to be changed on priority basis so that each should be able to handleallmechanical labs.
- Mentor mentee list approved

PROFESSIOR & HEAD DEPARTMENT OF NECHANICAL ENGINEERING THE OXFORD COLLEGE OF ENGINEERING BOMMANALIMLE, OF NOALORE ISSOES



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – BIOTECHNOLOGY

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017 -2018 -(ODD)

The department curriculum committee was made and the meeting was held on 04/08/2017 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION |
|--------|----------------------|----------------|
| 1. | Dr. B.K.Manjunath | HOD |
| 2. | Dr. Kusum Paul | Professor |
| 3. | Dr. T.K. Suma | Asst.Professor |
| 4. | Prof. Valarmathy | Asst.Professor |
| 5. | Prof. Divakara | Asst.Professor |
| 6. | Prof. Salma Kausar.M | Asst.Professor |
| 7. | Prof.Tanushree | Asst.Professor |
| 8. | Prof.Shambhu | Asst.Professor |
| 9. | Prof. Sindhu | Asst.Professor |

Agenda:

- 1. Semester planner was decided and department level coordinators work was allotted
- 2. General instruction & working plan of the department to be discussed
- 3. Updating of course files & NBA status discussion
- 4. Action plan to execute department activity.
- 5. Other points if any to be discussed



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Summary: Minutes

- 1. Faculties were allotted with coordinator workload for the new academic year
- 2. Each faculty was assigned with theory & practical subject workload

3. faculties were asked to inform students about the digital library in the college & make use of it effectively'

- 4. All faculties were informed to strictly monitor the attendance & IA performance of students.
- 5. All faculties were informed to ensure every class performs at least 2 activities.

Resolutions:

- To achieve better results and aiming for many more VTU ranks.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

part Tor." TVD rofesso = 5.2 art ent College ford Bengaluru ESO DE

HOD (SEAL)



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – BIOTECHNOLOGY

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 – (EVEN)

The department curriculum committee was made and the meeting was held on 01/02/2018 and the following members were present for the meeting.

| NAME | DESIGNATION |
|----------------------|--|
| Dr. B.K.Manjunath | HOD |
| Dr. T.K. Suma | Asst.Professor |
| Prof. Valarmathy | Asst.Professor |
| Prof. Divakara | Asst.Professor |
| Prof. Salma Kausar.M | Asst.Professor |
| Prof.Tanushree | Asst.Professor |
| Prof.Shambhu | Asst.Professor |
| Prof. Sindhu | Asst.Professor |
| | Dr. B.K.Manjunath Dr. T.K. Suma Prof. Valarmathy Prof. Divakara Prof. Salma Kausar.M Prof.Tanushree Prof.Shambhu |

Agenda:

- 1. Semester planner was decided and department level coordinators work was allotted
- 2. General instruction & working plan of the department to be discussed
- 3. Updating of course files
- 4. Faculty assigning of project guides, scrutinizing of project domain & title
- 5. Action plan to execute department activity.
- 6. Other points if any to be discussed

Summary: Minutes

1. HOD, Dr. Kusum Paul welcomed all the faculty and explained VTU, EVEN semester regulations.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 2. HOD informed about the Semester plan for 2017-18 even semester and mentioned the activities planned in the department.
- 3. Syllabus copy prescribed by the university circulated to the students and faculty.
- 4. Faculties were informed to make students select the elective subjects for even semester.
- 5. HOD informed faculty coordinator to plan for Industrial visits/ field visit.
- 6. Planning for the (Final Year's) Project Works / Internships (with company names and details) was intimated by HOD.
- 7. Mentor mentee list discussion was done and the document updating status & deadline was informed to all the faculties.
- 8. "Youth for work (online site)"- faculties were asked to tell the students to register & take up the exams and it is open to all semester students.

9. The following value-added programs will be conducted during 2017 – 2018 EVEN semester **The following value-added programs will be conducted during 2017 – 2018 odd semester**

| Sl. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|---|
| 1. | BT | Molecular biology & Cell culture techniques |
| 2. | ВТ | Soft skill & Aptitude training |

Resolutions:

- To achieve better results and aiming for many more VTU ranks.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

WY A TY The C TAT 5 C essor of Sictorn partment Oxford College Bengaluru-560 066



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (CIVIL)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 –(ODD)

The department curriculum committee was made and the meeting was held on 28/07/2017 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|---------------------|-----------------|
| 1 | Dr. T S Malleshaiah | Professor |
| 2 | Mr Shivanand C G | Assot Professor |
| 3 | Mr. Amruth | Asst. Professor |
| 4 | Mr. Maheshkumar | Asst. Professor |
| 5 | Ms. Kavya | Asst. Professor |
| 6 | Ms. Harsha | Asst. Professor |
| 7 | Ms. Shradha | Asst. Professor |
| 8. | Ms.Sowmya | Asst .Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

1. HOD, Dr. T S Malleshaiah welcomed all the faculty and explained VTU, ODD semester regulations.

2.As per the VTU regulation guidelines the students of all Odd semester should follow it.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

VTU has introduced Choice Based Credit System (CBCS).

Syllabus copy prescribed by the university circulated to the students and faculty.

| SI. No. | CE | CBCS ELECTIVE/MATDIP | |
|------------|---------|--------------------------|--|
| 1 | 17CV742 | Ground Water Hydraulics | |
| 2 | 17CV751 | Urban transport planning | |

3. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.

4.Department announced to conduct the regular seminars to the students.

5. Department plans for Field Visit / Industrial Visit.

6.Planning for the Final Year's Project Works / Internships.

7.Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following value-added programs will be conducted during 2017 – 2018 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 1. | CIVIL | Being Employable |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Head of the Department Department of Civil Engineering The Oxford College of Engineering Bangatore - 560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (CIVIL)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 – (EVEN)

The department curriculum committee was made and the meeting was held on 02/02/2018 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|---------------------|-----------------|
| 1 | Dr. T S Malleshaiah | Professor |
| 2 | Mr Shivanand C G | Assot Professor |
| 3 | Mr.Amruth | Asst. Professor |
| 4 | Mr. Maheshkumar | Asst. Professor |
| 5 | Ms. Kavya | Asst. Professor |
| 6 | Ms. Harsha | Asst. Professor |
| 7 | Ms. Shradha | Asst. Professor |

Agenda:

Implementation of prescribed university syllabus approved by Principal for even semester.

- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

1.HOD, Dr.T S Malleshaiah welcomed all the faculty and explained VTU, EVEN semester regulations.

2.Semester plan for 2017-18 even semester and mentioning the activities planned in the department.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| SI. No. | CBCS ELECTIVE/MATDIP | |
|------------|----------------------|-----------------|
| 1 | 17CV833 | Pavement Design |

3. The discussion of the subjects of CBCS given in the above table, selected by the students.

4.Syllabus copy prescribed by the university circulated to the students and faculty.

5.Department announced to conduct the regular seminars to the students.

6.Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

7. Department plans for Field Visit / Industrial Visit.

8. Planning for the Final Year's Project Works / Internships.

9.Mentor mentee list – discussion

10. The following certificate programs will be conducted during 2017 – 2018 EVEN semester

| SI. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| 1 | CIVIL | Being Employable |

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Head of the Department Department of Civil Engineering The Oxford College of Engineering Bangatore - 560 068.

1



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (Automobile engineering)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 – (ODD)

The department curriculum committee was made and the meeting was held on 02/08/2018 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|------------------------|------------------|
| 1 | Dr. Raju B R | Professor |
| 2 | Dr. Suresh R | Professor |
| 3 | Mr. Ashok Kumar Thavd | Assot. Professor |
| 4 | Mr. Sandeep K Chavan | Asst. Professor |
| 5 | Mr. Hemantha C | Asst. Professor |
| 6 | Mr. Priyankar Dhole | Asst. Professor |
| 7 | Mr. Harish Kumar M | Asst. Professor |
| 8 | Mr. Maruthi S B | Asst. Professor |
| 9 | Mr. Deepak U. S | Asst. Professor |
| 10 | Mr. Raviteja R. N | Asst. Professor |
| 11 | Mr. Mahipal Reddy | Asst. Professor |
| 12 | Mr. Prasanna. S. M | Asst. Professor |
| 13 | Mr. Joshua. F | Asst. Professor |
| 14 | Mr.Sapthagiri Prasad N | Asst. Professor |
| 15 | Mr. Karthik. K | Asst. Professor |

Agenda:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1.HOD, Dr.Raju B R welcomed all the faculty and explained VTU, ODD semester regulations.
- 2.As per the VTU regulation guidelines the students of all odd semester should follow it.
- 3.VTU has introduced Choice Based Credit System (CBCS) 2017-18 scheme.
- 4.Syllabus copy prescribed by the university circulated to the students and faculty.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|---------|-------------------------------------|--------------------------------------|
| 1 | 10AU752 Two & three wheeled vehicle | |
| 2 | 10AU761 | Non-Destructing testing |
| 3 | 17KL/CPH39/49 | Kannada/Constitution of India, |
| | | Professional Ethics and Human Rights |
| 4 | 17MATDIP31 | Additional Mathematics –I |

- 5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.
- 6.Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

9.Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following value-added programs will be conducted during 2017 – 2018 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 9. | Automobile Engg. | Soft Skill Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.



Professor & Head Department of Automobile Engineering The Oxford College of Engineering Bommanahalli, Hosur Road Bangalore-560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (Automobile Engineering)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 - (EVEN)

The department curriculum committee was made and the meeting was held on 05/02/2018 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|------------------------|------------------|
| 1 | Dr. Raju B R | Professor |
| 2 | Dr. Suresh R | Professor |
| 3 | Mr. Ashok Kumar Thavd | Assot. Professor |
| 4 | Mr. Sandeep K Chavan | Asst. Professor |
| 5 | Mr. Hemantha C | Asst. Professor |
| 6 | Mr. Priyankar Dhole | Asst. Professor |
| 7 | Mr. Harish Kumar M | Asst. Professor |
| 8 | Mr. Maruthi S B | Asst. Professor |
| 9 | Mr. Deepak U. S | Asst. Professor |
| 10 | Mr. Raviteja R. N | Asst. Professor |
| 11 | Mr. Mahipal Reddy | Asst. Professor |
| 12 | Mr. Prasanna. S. M | Asst. Professor |
| 13 | Mr. Joshua. F | Asst. Professor |
| 14 | Mr.Sapthagiri Prasad N | Asst. Professor |
| 15 | Mr. Karthik. K | Asst. Professor |

Agenda:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

1.HOD, Dr. Raju B R, welcomed all the faculty and explained VTU, EVEN semester regulations.

2.Semester plan for 2017-18 even semester and mentioning the activities planned in the department.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|---------|----------------------|--|
| 1 | 10AU834 | Alternative energy source |
| 2 | 10AU841 | Hybrid vehicle |
| 3 | 15AU663 | Composite Materials |
| 3 | 17KL/CPH39/49 | Kannada/Constitution of India, Professional Ethics and Human Rights |
| 4 | 17MATDIP41 | Additional Mathematics –II |

- 3. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 4.Syllabus copy prescribed by the university circulated to the students and faculty.
- 5.Department announced to conduct the regular seminars to the students.
- 6.Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

9. Mentor mentee list - discussion

10.The following certificate programs will be conducted during 2017 – 2018 EVEN semester.

| SI. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| 1 | Automobile Engineering | ANSYS |

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

MBR

Professor & Head Department of Automobile Engineering The Oxford College of Engineering Bommanahalli, Hosur Road Bangalore-560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (MTE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 -(ODD)

The department curriculum committee was made and the meeting was held on 14/07/2017 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|------------------------|--------------------|
| 1 | Dr. NB Doddapattar | Professor & HOD |
| 2 | Dr.Shivappa | Professor & HOD |
| 3 | Mr. Rajesh | Asst. Professor |
| 4 | Mr. Rgavendra | Asst. Professor |
| 5 | Mr. Ravi s Jadhav | Asst. Professor |
| 6 | Ms. Rekha | Asst. Professor |
| 7 | Ms. Premela | Asst. Professor |
| 8 | Mr. Rani Aishwaraya | Asst. Professor |
| 9 | Ms. Vijaykumar kurubha | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1. HOD, Dr. NB Doddapattar welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.

Estel. 1974

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 6. Department plans for Field Visit / Industrial Visit.
- 7. Planning for the Final Year's Project Works / Internships.
- 8. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following certificate programs will be conducted during 2017 – 2018 odd semester

| SI. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| 1 | | MATLAB |
| 2 | MTE | LEGO |
| 3 | | ROBOTICS |

The following value-added programs will be conducted during 2017 – 2018 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| | MTE | Soft Skill Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

HOD Prof.:& HOD Department of Mechatronics The Oxford College Of Engineering Dominianahalli Bangalore 505, 508.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (MTE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 – (EVEN)

The department curriculum committee was made and the meeting was held on 01/02/2018 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|------------------------|-----------------|
| 1 | Dr. NB Doddapattar | Professor & HOD |
| 2 | Dr.Shivappa | Professor & HOD |
| 3 | Mr. Rajesh | Asst. Professor |
| 4 | Mr. Rgavendra | Asst. Professor |
| 5 | Mr. Ravi s Jadhav | Asst. Professor |
| 6 | Ms. Rekha | Asst. Professor |
| 7 | Ms. Premela | Asst. Professor |
| 8 | Mr. Rani Aishwaraya | Asst. Professor |
| 9 | Ms. Vijaykumar kurubha | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Minutes of Meeting:

- 1. HOD, Dr. NB Doddapattar, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 2. Semester plan for 2017-18 even semester and mentioning the activities planned in the department.
- 3. Syllabus copy prescribed by the university circulated to the students and faculty.
- 4. Department announced to conduct the regular seminars to the students.
- 5. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 6. Department plans for Field Visit / Industrial Visit.
- 7. Planning for the Final Year's Project Works / Internships.
- 8. Mentor mentee list discussion
- 9. The following certificate programs will be conducted during 2017 2018 EVEN semester

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Cijl

HOD Prof.:& HOD Department of Mechatronics The Oxford College Of Engineering Dominanghalii Bangalore - 00, cd3.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MBA-DEPARTMENTAL CURRICULUM COMMITTEE MEETING

2017-2018 - (EVEN)

The department curriculum committee was made and the meeting was held on 01/02/2018 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION |
|-----------|--------------------|---------------------|
| | Dr. James Thomas | |
| 1. | Dr James Thomas | HOD |
| 2. | Dr.PGiridhar Reddy | Associate Professor |
| 3. | Dr BalaKoteswari | Associate Professor |
| 4. | Ms. Umasharma | Assistant Professor |
| 5. | Ms. Richa Tiwari | Assistant Professor |
| 6. | Ms. Savitha | Assistant Professor |
| 7. | Ms. Sahana | Assistant Professor |
| 8. | Mr.Gokul | Assistant Professor |
| 9. | Mr.Chikkegowda | Assistant Professor |
| 10. | Ms.Chandrika | Assistant Professor |
| 11. | Ms. Paronita | Assistant Professor |

Agenda:

- 1. Welcome and Syllabus discussion .
- 2. Seminars.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 3. Plan of Field and Industrial visit.
- 4. Project or internship.

Summary: Minutes

- 1. HOD, Dr.James Thomas welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. Semester plan for 2017-18 even semester and mentioning the activities planned in the department.
- 3. Syllabus copy prescribed by the university circulated to the students and faculty.
- 4. Department announced to conduct the regular seminars to the students.
- 5. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 6. Department plans for Field Visit / Industrial Visit.
- 7. Planning for the (Final Year's) Project Works / Internships (with company names and details).
- 8. Mentor mentee list discussion

Resolutions:

- 1. Semester mentoring activities plan has to submit in the specialization on the before 10th Feb
- 2. Seminar has to be conducted on one each subject.
- 3. One industrial visit on before 25th Feb for the process study.
- 4. Project work topic allocation and discussion has be done within 15th Feb

HOD, Depti. of Business Administration The Oxford College of Engineering Bommanahalli, Hosur Road Bangalore 509 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MBA- DEPARTMENTAL CURRICULUM COMMITTEE MEETING

2017-2018 –(ODD)

The department curriculum committee was made and the meeting was held on 27/07/2017 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION |
|--------|--------------------|---------------------|
| 1. | Dr James Thomas | HOD |
| 2. | Dr.PGiridhar Reddy | Associate Professor |
| 3. | Dr BalaKoteswari | Associate Professor |
| 4. | Ms. Umasharma | Assistant Professor |
| 5. | Ms. Richa Tiwari | Assistant Professor |
| 6. | Ms. Savitha | Assistant Professor |
| 7. | Ms. Sahana | Assistant Professor |
| 8. | Mr.Gokul | Assistant Professor |
| 9. | Mr.Chikkegowda | Assistant Professor |
| 10. | Ms.Chandrika | Assistant Professor |
| 11. | Ms. Paronita | Assistant Professor |

Agenda:

1. Faculty welcome and Guidelines



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 2. Syllabus discussion
- 3. Industrial Visit
- 4. Project work

Summary: Minutes

- 1. HOD, Dr. James Thomas welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. Syllabus copy prescribed by the university circulated to the students and faculty.
- 4. Department announced to conduct the regular seminars to the students.
- 5. Department plans for Field Visit/ Industrial Visit.
- 6. Planning for the (Final Year's)Project Works / Internships (with company names and details).
- 7. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

Resolutions:

- 1. Discussed and planned for regulations of the semester.
- 2. Syllabus copy has to be circulated on before 30th July.
- 3. Seminars schedule and plan to be ready before 2nd August.
- 4. Mentors and student meeting and evaluation to be done within 5th August.

HOD

HOD, Deptt. of Business Administration The Oxford College of Engineering Bommanshalli, Hosur Road Bangalore 569 668



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (MCA)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 -(ODD)

The department curriculum committee was made and the meeting was held on 26/07/2017 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|-----------------------|------------------|
| 1 | Dr. M S Shashidhara | Professor |
| 2 | Dr. Praveen Kumar P U | Professor |
| 3 | Mr.Ashok B P | Assot. Professor |
| 4 | Mr. Dharamvir | Assot. Professor |
| 5 | Mr. JC Achutha | Assot. Professor |
| 6 | Mrs. Saritha S | Assot. Professor |
| 7 | Mrs. Mridula Shukla | Assot. Professor |
| 8 | Mrs. Selvi E | Assot. Professor |
| 9 | Ms. R Ushasree | Asst. Professor |
| 10 | Mr. Changappa M R | Asst. Professor |
| 11 | Mr. Indrakumar S S | Asst. Professor |
| 12 | Mrs. Stuti Agarwal | Asst. Professor |
| 13 | Ms. Kimmi Kumari | Asst. Professor |
| 14 | Ms. Anjana S Murthy | Asst. Professor |
| 15 | Ms. Punya V | Asst. Professor |
| 16 | Ms. Sudha K | Asst. Professor |
| 17 | Ms. Lavanya B K | Asst. Professor |
| 18 | Mr. Chandran M | Asst. Professor |
| 19 | Mrs.Selastina Mary A | Asst. Professor |
| 20 | Mrs.Moumita Kali | Asst. Professor |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1. HOD, Dr. M S Shashidhara welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.

| SI. No. | CBCS ELECTIVE/MATDIP | | | | | |
|---------|----------------------|-----------------------------------|--|--|--|--|
| 1 | 16MCA352 | Enterprise Resource Planning(ERP) | | | | |
| 2 | 16MCA354 | Cyber Security | | | | |

5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 6. Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Department plans to allot the assignment topics to the students and to allocate the tutorial

topics to the students.

The following value-added programs will be conducted during 2017 – 2018 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 10. | MCA | Soft Skill Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Signature of the HOD Dr. M.S.Shashidhara Dept. of MCA

HOD-MCA



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (MCA)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 – (EVEN)

The department curriculum committee was made and the meeting was held on 19/02/2018 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|-----------------------|------------------|
| 1 | Dr. M S Shashidhara | Professor |
| 2 | Dr. Praveen Kumar P U | Professor |
| 3 | Mr.Ashok B P | Assot. Professor |
| 4 | Mr. Dharamvir | Assot. Professor |
| 5 | Mr. JC Achutha | Assot. Professor |
| 6 | Mrs. Saritha S | Assot. Professor |
| 7 | Mrs. Mridula Shukla | Assot. Professor |
| 8 | Mrs. Selvi E | Assot. Professor |
| 9 | Ms. R Ushasree | Asst. Professor |
| 10 | Mr. Changappa M R | Asst. Professor |
| 11 | Mr. Indrakumar S S | Asst. Professor |
| 12 | Mrs. Stuti Agarwal | Asst. Professor |
| 13 | Ms. Kimmi Kumari | Asst. Professor |
| 14 | Ms. Anjana S Murthy | Asst. Professor |
| 15 | Ms. Punya V | Asst. Professor |
| 16 | Ms. Sudha K | Asst. Professor |
| 17 | Ms. Lavanya B K | Asst. Professor |
| 18 | Mr. Chandran M | Asst. Professor |
| 19 | Mrs.Selastina Mary A | Asst. Professor |
| 20 | Mrs.Moumita Kali | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1. HOD, Dr. M S Shashidhara, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 2. Semester plan for 2017-18 even semester and mentioning the activities planned in the department.

| SI. No. | CBCS ELECTIVE/MATDIP | | | | | |
|---------|----------------------|-----------------------|--|--|--|--|
| 1 | 16MCA443 | Software Architecture | | | | |
| 2 | 16MCA452 | Big Data Analytics | | | | |

- 3. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Mentor mentee list discussion
- 10. The following certificate programs will be conducted during 2017 2018 EVEN semester

| SI. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| 1 | MCA | ЮТ |

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Signature of the HOD r. M.S.Shashidha Dept. of MCA



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

List and Description of courses (1) Subject, (2) Subject Code, (3) Curriculum Objective, (4) Delivery Methodology with Number of hours, (5) PO, PSO, CO Mapping, (6) Crosscutting Issues Integrated which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

2017-18

Dept. of Computer Science & Engineering

Environmental Studies - 17CIV18

| | VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI | | | | | | | | | | |
|-----------|---|--------------------------|---------------------|------------------|---------------------|-----------------------|----------------------|-----------|-----------|-------------|---------|
| | Scheme of Teaching and Examination 2017-2018 | | | | | | | | | | |
| | Choice Based Credit System (CBCS) | | | | | | | | | | |
| | I SEMESTER B.E/B.Tech (CHEMISTRY GROUP) | | | | | | | | | | |
| SI. No | Course Code | Course Title | rtment | | Teaching Hours/W | - | Examin | ation | | | |
| | | | Teaching Department | Board | Theory | Practical/ Drawing | Duration in hours | SEE Marks | CIE Marks | Total Marks | Credits |
| 1 | 17MAT11 | Engineering Maths-I | Mathematics | Basic Science | 04 | | 03 | 60 | 40 | 100 | 4 |
| 2 | 17CHE12 | Engineering Chemistry | Chemistry | Basic Science | 04 | | 03 | 60 | 40 | 100 | 4 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 3 | 17PCD13 | Programming | Any | Computer | 04 | | 03 | 60 | 40 | 100 | 4 |
|---|----------|-----------------------------|---------------|-------------|------------|-----------|----|-----|-----|-----|----|
| | | in C and Data | Engineering | Science | | | | | | | |
| | | Structures | Department | Engineering | | | | | | | |
| | | | 2 opartiment | 0 0 | | | | | | | |
| 4 | 17CED14 | Computer | ME,IP,Auto, | Mechanical | 02 Hour | | 03 | 60 | 40 | 100 | 4 |
| | | Aided | IEM, Mfg. | Engineering | Instructio | on | | | | | |
| | | Engineering | Engineering | | | | | | | | |
| | | Drawing | | | 04 Hour | Practice | | | | | |
| | | | | | | 1 | | | | | |
| 5 | 17ELN15 | Basic | ECE/EEE/TC | E and C | 04 | | 03 | 60 | 40 | 100 | 4 |
| | | Electronics | /E and I | Engineering | | | | | | | |
| 6 | 17CPL16 | Computer | Any | Computer | 01 Hour | Tutorial | 03 | 60 | 40 | 100 | 2 |
| | | Programming | Engineering | Science | | | | | | | |
| | | Laboratory | Department | Engineering | 02 Hour | Practical | | | | | |
| | | | • | | | | | | | | |
| 7 | 17CHEL17 | Engineering | Chemistry | Basic | 01 Hour | Tutorial | 03 | 60 | 40 | 100 | 2 |
| | | Chemistry | | Science | | I | | | | | |
| | | Laboratory | | | 02 Hour | Practical | | | | | |
| 8 | 17CIV18 | Environmental | Civil / | Civil | 01 Hour | Tutorial | | 30 | 20 | 50 | |
| | | <mark>Studies</mark> (Audit | Environmental | Engineering | | | | | | | |
| | | Course) | Engineering | | | | | | | | |
| | | - | | | | | | | | | |
| | | | | TOTAL | Theory:2 | 21 hours | 21 | 450 | 300 | 750 | 24 |
| | | | | | Practica | l: 08 | | | | | |
| | | | | | hours | | | | | | |
| | | | | | | | | | | | |

ENVIRONMENTAL STUDIES

| Laboratory Code | 17CIV18/17CIV28 | IA Marks | 20 |
|-----------------|-----------------|----------|----|



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bornmanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| Number of Lecture Hours/Week | 02 | Exam Marks | 30 |
|-------------------------------|----|------------|----|
| Total Number of Lecture Hours | 25 | Exam Marks | 02 |

Course Objectives:

- To identify the major challenges in environmental issues and evaluate possible solutions.
- Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.
- To analyze an overall impact of specific issues and develop environmental management plan.

Module -1 (05 – Hours)

Introduction Environment – Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security. Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, Sustainable Development

Module -2 (05 – Hours)

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & Sulphur Cycle. Energy – Different types of energy, Conventional sources & Non Conventional sources of energy Solar energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as an alternative energy.

Module -3 (05 – Hours)

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects. Global Environmental Issues: Population Growth, Urbanization, Land Management, Water & Waste Water Management.

Module -4 (05 – Hours)

Air Pollution & Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layer depletion, controlling measures. Solid Waste Management, E – Waste Management & Biomedical Waste Management – Sources, Characteristics & Disposal methods.

Module -5 (05 – Hours)

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. Environmental Acts & Regulations, Role of government, Legal aspects, Role of Nongovernmental Organizations (NGOs), Environmental Education & Women Education.

Course Outcome:

Students will be able to,

- Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,
- Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,
- Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components
- Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Text Books:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Benny Joseph (2005), "Environmental Studies", Tata McGraw Hill Publishing Company Limited.
- R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.
- R Rajagopalan, "Environmental Studies From Crisis to Cure", Oxford University Press, 2005,

• Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012. Reference Books:

- Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005
- P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006
- S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007
- Erach Bharucha, "Text Book of Environmental Studies", for UGC, University press, 2005
- G.Tyler Miller Jr., "Environmental Science working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004
- G.Tyler Miller Jr., "Environmental Science working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006
- Dr.Pratiba Sing, Dr.AnoopSingh and Dr.Piyush Malaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.

Constitution of India, Professional Ethics and Human Rights - 17CPH39/49

| SI. | Course Code | Title | Teaching | Teaching Hours/Week | | Examination | | | | Credits |
|-----|-------------|-----------------------|------------|------------------------|------------|-------------|-------|-------|-------|---------|
| No | | | Department | Theory | Practical/ | Duration | SEE | CIE | Total | |
| | | | | | Drawing | in hours | Marks | Marks | Marks | |
| 1 | 17MAT31 | Engineering | Maths | 04 | | 03 | 60 | 40 | 100 | 4 |
| | | Mathematics - III | | | | | | | | |
| 2 | 17CS32 | Analog and Digital | CS/IS | 04 | | 03 | 60 | 40 | 100 | 4 |
| | | Electronics | | | | | | | | |
| 3 | 17CS33 | Data Structures and | CS/IS | 04 | | 03 | 60 | 40 | 100 | 4 |
| | | Applications | | | | | | | | |
| 4 | 17CS34 | Computer Organization | CS/IS | 04 | | 03 | 60 | 40 | 100 | 4 |



CHILDREN'S EDUCATION SOCIETY (Regd.)

THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 5 | 17CS35 | Unix and Shell Programming | CS/IS | 03 | | 03 | 60 | 40 | 100 | 3 |
|---|---------------|--|------------|----|---------------------------|----|-----|-----|-----|----|
| 6 | 17CS36 | Discrete Mathematical Structures | CS/IS | 04 | | 03 | 60 | 40 | 100 | 4 |
| 7 | 17CSL37 | Analog and Digital Electronics Laboratory | CS/IS | | r Tutorial r Practical | 03 | 60 | 40 | 100 | 2 |
| 8 | 17CSL38 | Data Structures Laboratory | CS/IS | | r Tutorial r Practical | 03 | 60 | 40 | 100 | 2 |
| 9 | 17KL/CPH39/49 | Kannada/Constitution of India, Professional Ethics and Human Rights | Humanities | 01 | | 01 | 30 | 20 | 50 | 1 |
| | | TOTAL | | | : 24 hours l: 06 hours | 25 | 510 | 340 | 850 | 28 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Constitution of India, Professional Ethics and Human Rights - 2017 scheme VTU CBCS 17CPH39

Module-1Introduction and Basic Information about Indian Constitution 3 hours Introduction and Basic Information about Indian Constitution

• The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, the making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) & it's present relevance in our society with examples. Fundamental Duties and its Scope and significance in Nation building. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-2 Union Excutive and State Excutive 3 hours

Union Excutive and State Excutive

- Parliamentary System, Federal System, Centre-State Relations.
- Union Executive President, Prime Minister, Union Cabinet, Parliament LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Article 370.371,371J) for some States. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-3 Elections, Amendments and Emergency Provisions 3 hours Elections, Amendments and Emergency Provisions

• Elections, Electoral Process, and Election Commission of India, Election Laws.

• Amendments - Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments – 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Recent Amendments with explanation. Important Judgements with Explanation and its impact on society (from the list of Supreme Court Judgements). Emergency Provisions, types of Emergencies and it's consequences. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-4 Constitutional Provisions/ Local Administration/ Human Rights 3 hours Constitutional Provisions/ Local Administration/ Human Rights

Special Constitutional Provisions for SC & ST, OBC, Special Provision for Women, Children & Backward Classes. Local Administration: Powers and functions of Municipalities and Panchayats System. Co – Operative Societies and Constitutional and Non-constitutional Bodies. Human Rights/values – Meaning and Definitions, Legislative Specific Themes in Human Rights and Functions/ Roles of National Human Rights Commission of India. Human Rights (Amendment Act)2006.

Module-5 Professional / Engineering Ethics 3 hours Professional / Engineering Ethics

• Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Ethics, Code of Ethics as defined in the website of Institution of Engineers (India) : Profession, Professionalism, Professional Responsibility. Clash of Ethics, Conflicts of Interest.

Responsibilities in Engineering

• Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliability in Engineering, IPRs (Intellectual Property Rights),

• Risks, Safety and liability in Engineering. (Duration: 03 Hours & RBT Levels: L1, L2 & L3) Course Outcomes:

On completion of this course, students will be able to,

- 1. Have general knowledge and legal literacy about Indian Constitution and there by it helps to take up competitive examinations & to manage/face complex societal issues in society.
- 2. Understand state and central policies(Union and State Excutive), fundamental Rights & their duties.
- 3. Understand Electoral Process, Amendments and special provisions in Constitution.
- 4. Understand powers and functions of Municipalities, Panchayats and Co-operative Societies, with Human Rights and NHRC.
- 5. Understand Engineering & Professional ethics and responsibilities of Engineers.

Question paper pattern for SEE and CIE.

- The SEE question paper will be set for 30 marks and the pattern of the question paper will be objective type (MCQ).
- For the award of 20 CIE marks, refer the University Scheme and Syllabus book.

Text Books:

- 1. Durga Das Basu (DD Basu): Introduction to the Constitution on India, (Students Edition.) Prentice -Hall EEE, 19th / 20th Edn., (Latest Edition) or 2008.
- 2. Shubham Singles, Charles E. Haries, and Et al: Constitution of India and Professional Ethics by Cengage Learning India Private Limited, Latest Edition 2018.

Reference Books:

- 1. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, Engineering Ethics, Prentice -Hall of India Pvt. Ltd. New Delhi, 2004
- 2. M.V.Pylee, An Introduction to Constitution of India, Vikas Publishing, 2002.
- 3. Latest Publications of NHRC Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Information Science & Engineering

| SI | _ | _ | Teaching | Teaching /Week | Hours | | | | Examin | ation | Credits | |
|--------|-------------------|---|--------------------|--|---------------------------------------|---|----------------------|----------------------|--------------|----------------|---------|---|
| N o | Course Code | T i t l e | Department | Theory | Prac tical / Dra win g | | Duration in hours | SE E Mar ks | CIE Marks | Total Marks | | |
| 1 | 17MAT31 | Engineering Mathematics - III | Mat hs | 04 | | | 0 3 | 6 0 | 40 | 1 0 0 | 4 | |
| 2 | 17CS32 | Analog and Digital Electronics | CS/I S | 04 | | | 0 3 | 6 0 | 40 | 1 0 0 | 4 | |
| 3 | 17CS33 | Data Structures and Applications | CS/I S | 04 | | | 0 3 | 6 0 | 40 | 1 0 0 | 4 | |
| 4 | 17CS34 | Computer Organization | CS/I S | 04 | | | 0 3 | 6 0 | 40 | 1 0 0 | 4 | |
| 5 | 17CS35 | Unix and Shell Programming | CS/I S | 03 | | | 0 3 | 6 0 | 40 | 1 0 0 | 3 | |
| 6 | 17CS36 | Discrete Mathematical Structures | CS/I S | 04 | | | 0 3 | 6 0 | 40 | 1 0 0 | 4 | |
| 7 | 17CSL37 | Analog and Digital Electronics Laboratory | CS/I S | 01- Hour I 02- HourP | | ı | 0 3 | 6 0 | 40 | | 100 | 1 |
| 8 | 17CSL38 | Data Structures Laboratory | CS/I S | 01-Hour Instruction 02-Hour Practical | 1 | | 0 3 | 6 0 | 40 | | 100 | |
| 9 | 17КL/СРНЗ 9/49 | Kannada/Constitution of India, Professional Ethics and Human Rights | Hu man ities | 01 | | | 0 1 | 3 0 | 20 | 50 | 01 | |
| | · | Т О Т А L | | Theory 24hour Practic hours | rs | | 2 5 | 51 0 | 34 0 | 85 0 | 28 | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Constitution of India, Professional Ethics and Human Rights - 2017 scheme VTU CBCS 17CPH39

Module-1Introduction and Basic Information about Indian Constitution 3 hours Introduction and Basic Information about Indian Constitution

• The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, the making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) & it's present relevance in our society with examples. Fundamental Duties and its Scope and significance in Nation building. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-2 Union Excutive and State Excutive 3 hours Union Excutive and State Excutive

- Parliamentary System, Federal System, Centre-State Relations.
- Union Executive President, Prime Minister, Union Cabinet, Parliament LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Article 370.371,371J) for some States. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-3 Elections, Amendments and Emergency Provisions 3 hours Elections, Amendments and Emergency Provisions

- Elections, Electoral Process, and Election Commission of India, Election Laws.
- Amendments Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Recent Amendments with explanation. Important Judgements with Explanation and its impact on society (from the list of Supreme Court Judgements). Emergency Provisions, types of Emergencies and it's consequences. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-4 Constitutional Provisions/ Local Administration/ Human Rights 3 hours Constitutional Provisions/ Local Administration/ Human Rights

Special Constitutional Provisions for SC & ST, OBC, Special Provision for Women, Children & Backward Classes, Local Administration: Powers and functions of Municipalities and Panchayats System. Co – Operative Societies and Constitutional and Non-constitutional Bodies. Human Rights/values – Meaning and Definitions, Legislative Specific Themes in Human Rights and Functions/ Roles of National Human Rights Commission of India. Human Rights (Amendment Act)2006.

Module-5 Professional / Engineering Ethics 3 hours Professional / Engineering Ethics

 Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Ethics, Code of Ethics as defined in the website of Institution of Engineers (India) : Profession, Professionalism, Professional Responsibility. Clash of Ethics, Conflicts of Interest.

Responsibilities in Engineering

• Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliability in Engineering, IPRs (Intellectual Property Rights),

• Risks, Safety and liability in Engineering. (Duration: 03 Hours & RBT Levels: L1, L2 & L3) Course Outcomes:

On completion of this course, students will be able to,

- 6. Have general knowledge and legal literacy about Indian Constitution and there by it helps to take up competitive examinations & to manage/face complex societal issues in society.
- 7. Understand state and central policies(Union and State Excutive), fundamental Rights & their duties.
- 8. Understand Electoral Process, Amendments and special provisions in Constitution.
- 9. Understand powers and functions of Municipalities, Panchayats and Co-operative Societies, with Human Rights and NHRC.

10. Understand Engineering & Professional ethics and responsibilities of Engineers.

Question paper pattern for SEE and CIE.

- The SEE question paper will be set for 30 marks and the pattern of the question paper will be objective type (MCQ).
- For the award of 20 CIE marks, refer the University Scheme and Syllabus book.

Text Books:

- 3. Durga Das Basu (DD Basu): Introduction to the Constitution on India, (Students Edition.) Prentice -Hall EEE, 19th / 20th Edn., (Latest Edition) or 2008.
- 4. Shubham Singles, Charles E. Haries, and Et al: Constitution of India and Professional Ethics by Cengage Learning India Private Limited, Latest Edition 2018.

Reference Books:

- 4. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, Engineering Ethics, Prentice -Hall of India Pvt. Ltd. New Delhi, 2004
- 5. M.V.Pylee, An Introduction to Constitution of India, Vikas Publishing, 2002.
- 6. Latest Publications of NHRC Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

ENVIRONMENTAL STUDIES

| Laboratory Code | 17CIV18/17CIV28 | IA Marks | 20 |
|-------------------------------|-----------------|------------|----|
| Number of Lecture Hours/Week | 02 | Exam Marks | 30 |
| Total Number of Lecture Hours | 25 | Exam Marks | 02 |

Course Objectives:

- To identify the major challenges in environmental issues and evaluate possible solutions.
- Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.
- To analyze an overall impact of specific issues and develop environmental management plan.

Module -1 (05 – Hours)

Introduction Environment – Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security. Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, Sustainable Development

Module -2 (05 – Hours)

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & Sulphur Cycle. Energy – Different types of energy, Conventional sources & Non Conventional sources of energy Solar energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as an alternative energy.

Module -3 (05 – Hours)

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects. Global Environmental Issues: Population Growth, Urbanization, Land Management, Water & Waste Water Management.

Module -4 (05 – Hours)

Air Pollution & Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layer depletion, controlling measures. Solid Waste Management, E – Waste Management & Biomedical Waste Management – Sources, Characteristics & Disposal methods.

Module -5 (05 – Hours)

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. Environmental Acts & Regulations, Role of government, Legal aspects, Role of Nongovernmental Organizations (NGOs), Environmental Education & Women Education.

Course Outcome:

Students will be able to,

- Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,
- Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components
- Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Text Books:

- Benny Joseph (2005), "Environmental Studies", Tata McGraw Hill Publishing Company Limited.
- R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.
- R Rajagopalan, "Environmental Studies From Crisis to Cure", Oxford University Press, 2005,
- Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012. Reference Books:
 - Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005
 - P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006
 - S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007
 - Erach Bharucha, "Text Book of Environmental Studies", for UGC, University press, 2005
 - G.Tyler Miller Jr., "Environmental Science working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004
 - G.Tyler Miller Jr., "Environmental Science working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006
 - Dr.Pratiba Sing, Dr.AnoopSingh and Dr.Piyush Malaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Electronics & Communication Engineering

ENVIRONMENTAL STUDIES

| Laboratory Code | 17CIV18/17CIV28 | IA Marks | 20 |
|-------------------------------|-----------------|------------|----|
| Number of Lecture Hours/Week | 02 | Exam Marks | 30 |
| Total Number of Lecture Hours | 25 | Exam Marks | 02 |

Course Objectives:

- To identify the major challenges in environmental issues and evaluate possible solutions.
- Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.
- To analyze an overall impact of specific issues and develop environmental management plan.

Module -1 (05 – Hours)

Introduction Environment – Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security. Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, Sustainable Development

Module -2 (05 – Hours)

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & Sulphur Cycle. Energy – Different types of energy, Conventional sources & Non Conventional sources of energy Solar energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as an alternative energy.

Module -3 (05 – Hours)

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects. Global Environmental Issues: Population Growth, Urbanization, Land Management, Water & Waste Water Management.

Module -4 (05 – Hours)

Air Pollution & Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layer depletion, controlling measures. Solid Waste Management, E – Waste Management & Biomedical Waste Management – Sources, Characteristics & Disposal methods.

Module -5 (05 – Hours)

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. Environmental Acts & Regulations, Role of government, Legal aspects, Role of Nongovernmental Organizations (NGOs), Environmental Education & Women Education.

Course Outcome:

Students will be able to,

Laur rate viteit Estel, 1974

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,
- Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,
- Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components
- Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Text Books:

- Benny Joseph (2005), "Environmental Studies", Tata McGraw Hill Publishing Company Limited.
- R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.
- R Rajagopalan, "Environmental Studies From Crisis to Cure", Oxford University Press, 2005,
- Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012. Reference Books:
 - Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005
 - P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006
 - S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007
 - Erach Bharucha, "Text Book of Environmental Studies", for UGC, University press, 2005
 - G.Tyler Miller Jr., "Environmental Science working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004
 - G.Tyler Miller Jr., "Environmental Science working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006
 - Dr.Pratiba Sing, Dr.AnoopSingh and Dr.Piyush Malaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND HUMAN RIGHTS - 2017 SCHEME VTU CBCS 17CPH39

Module-1Introduction and Basic Information about Indian Constitution 3 hours Introduction and Basic Information about Indian Constitution

• The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, the making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) & it's present relevance in our society with examples. Fundamental Duties and its Scope and significance in Nation building. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-2 Union Excutive and State Excutive 3 hours Union Excutive and State Excutive

- Parliamentary System, Federal System, Centre-State Relations.
- Union Executive President, Prime Minister, Union Cabinet, Parliament LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Article 370.371,371J) for some States. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-3 Elections, Amendments and Emergency Provisions 3 hours Elections, Amendments and Emergency Provisions

- Elections, Electoral Process, and Election Commission of India, Election Laws.
- Amendments Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments – 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Recent Amendments with explanation. Important Judgements with Explanation and its impact on society (from the list of Supreme Court Judgements). Emergency Provisions, types of Emergencies and it's consequences. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-4 Constitutional Provisions/ Local Administration/ Human Rights 3 hours Constitutional Provisions/ Local Administration/ Human Rights

Special Constitutional Provisions for SC & ST, OBC, Special Provision for Women, Children & Backward Classes. Local Administration: Powers and functions of Municipalities and Panchayats System. Co – Operative Societies and Constitutional and Non-constitutional Bodies. Human Rights/values – Meaning and Definitions, Legislative Specific Themes in Human Rights and Functions/ Roles of National Human Rights Commission of India. Human Rights (Amendment Act)2006.

Module-5 Professional / Engineering Ethics 3 hours Professional / Engineering Ethics

• Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Ethics, Code of Ethics as defined in the website of Institution of Engineers (India) : Profession, Professionalism, Professional Responsibility. Clash of Ethics, Conflicts of Interest.

Responsibilities in Engineering

• Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliability in Engineering, IPRs (Intellectual Property Rights),

• Risks, Safety and liability in Engineering. (Duration: 03 Hours & RBT Levels: L1, L2 & L3) Course Outcomes:

On completion of this course, students will be able to,

- 11. Have general knowledge and legal literacy about Indian Constitution and there by it helps to take up competitive examinations & to manage/face complex societal issues in society.
- 12. Understand state and central policies(Union and State Excutive), fundamental Rights & their duties.
- 13. Understand Electoral Process, Amendments and special provisions in Constitution.
- 14. Understand powers and functions of Municipalities, Panchayats and Co-operative Societies, with Human Rights and NHRC.
- 15. Understand Engineering & Professional ethics and responsibilities of Engineers.

Question paper pattern for SEE and CIE.

- The SEE question paper will be set for 30 marks and the pattern of the question paper will be objective type (MCQ).
- For the award of 20 CIE marks, refer the University Scheme and Syllabus book.

Text Books:

- 5. Durga Das Basu (DD Basu): Introduction to the Constitution on India, (Students Edition.) Prentice -Hall EEE, 19th / 20th Edn., (Latest Edition) or 2008.
- 6. Shubham Singles, Charles E. Haries, and Et al: Constitution of India and Professional Ethics by Cengage Learning India Private Limited, Latest Edition 2018.

Reference Books:

- 7. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, Engineering Ethics, Prentice -Hall of India Pvt. Ltd. New Delhi, 2004
- 8. M.V.Pylee, An Introduction to Constitution of India, Vikas Publishing, 2002.
- 9. Latest Publications of NHRC Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Electrical & Electronics Engineering

Course Structure for B.E- 2017 scheme Regulation

Electrical and Electronics Engineering

Visvesvaraya Technological University, Belagavi

REGULATIONS GOVERNING THE DEGREE OF BACHELOR OF ENGINEERING/ TECHNOLOGY (B.E/B.Tech) UNDER CHOICE BASED CREDIT SYSTEM (CBCS) Effective from the academic year 2017–18

Annexure -1

| | | Sche | me of Teaching Choice Based | | | | | | | | |
|-----------|-------------|---|--|--|--|---------------------------|----------------------|-----------|------------------|-------------|---------|
| - | | | SEMESTER B.E. | | | | | | | _ | - |
| | | | | D. THE (THIS) | Te | naching us/V =1 | | Funk | ation | | Г |
| SL. No | Course Code | e Course Title | Traching | Board | Theory | Practical/ Drawing | Duration in hours | SEE Marks | CIE Marks | Total Marks | Crudine |
| 1 | 17MAT11 | Engineering Mathematics | Mathematics | Basic Science | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 2 | 17PHY12 | Engineering Physics | Physics | Basic Science | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 3 | 170113 | Elements of Civil Engineering and Mechanics | Civil Engineering | Civil Engiseering | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 4 | 17EME14 | Elements of Mechanical Engineering | Mechanical Engineering | Mechanical Engineering | 04 | (#) | 03 | 60 | 40 | 100 | 1 |
| 5 | 17ELE17 | Basic Electrical Engineering | E and E Engineering | E and E Engineering | 04 | - | 03 | 60 | 40 | 100 | |
| 6 | 17WSL16 | Workshop Practice | ME, Auto, IP, IEM, Mig Engineering | Mechanical Engineering | | Instruction Practical | 03 | 60 | 40 | 100 | 1 |
| 7 | 17PHYL17 | Engineering Physics Laboratory | Physics | Basic Science | 01Hour Instruction 02Hour Practical | | 63 | 60 | 40 | 100 | |
| 8 | I7ENGI8 | Language - English (Audit Course) | Humanities | | 01 | | | | - | | ŀ |
| | | | | TOTAL | | :21 hours al: 06 hours | 21 | 420 | 280 | 700 | 2 |
| - | | II | SEMESTER B.E.A | Tech. (CHEMIS | TRY GR | OUP) | | | | | - |
| 1 | 17MAT21 | Engineering Mathematics | Mathematics | Basic Science | 04 | - | 03 | 60 | 40 | 100 | |
| 2 | 17CHE22 | Engineering Chemistry | Chemistry | Basic Science | - 64 | | 03 | 60 | 40 | 100 | |
| 3 | 17PCD23 | Programming in C and Data Structures | Any Engineering Department | Computer Science and Engineering | 64 | ** | 03 | 60 | 40 | 100 | |
| 4 | 17CED24 | Computer Aided Engineering Drawing | ME, Auto, IP, IEM, Mfg Engineering | Mechanical Engineering | | Instruction r Practice | 03 | 60 | 40 | 100 | |
| 5 | 17ELN25 | Basic Electronics | ECE/EEE/TC/E and L | E and C Engineering | 04 | - | 03 | 60 | 40 | 100 | |
| 6 | 17CPL26 | Computer Programming Laboratory | Any Engineering Department | Computer Science and Engineering | | Tutorial Practical | 03 | 60 | 40 | 100 | |
| 7 | 17CHEL27 | Engineering Chemistry Laboratory | Chemistry | Basic Science | | Tutorial Practical | 03 | 60 | 40 | 100 | |
| 8 | 17CTV28 | Environmental Studies (Audit Course) | Civil/ Environmental Engineering | Cwil Engineering | OlTute | rial | - | 30 | 20 | 50 | 1 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

ENVIRONMENTAL STUDIES

| Laboratory Code | 17CIV18/17CIV28 | IA Marks | 20 |
|-------------------------------|-----------------|------------|----|
| Number of Lecture Hours/Week | 02 | Exam Marks | 30 |
| Total Number of Lecture Hours | 25 | Exam Marks | 02 |

Course Objectives:

- To identify the major challenges in environmental issues and evaluate possible solutions.
- Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.
- To analyze an overall impact of specific issues and develop environmental management plan.

Module -1 (05 – Hours)

Introduction Environment – Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security. Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, Sustainable Development

Module -2 (05 – Hours)

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & Sulphur Cycle. Energy – Different types of energy, Conventional sources & Non Conventional sources of energy Solar energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as an alternative energy.

Module -3 (05 – Hours)

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects. Global Environmental Issues: Population Growth, Urbanization, Land Management, Water & Waste Water Management.

Module -4 (05 – Hours)

Air Pollution & Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layer depletion, controlling measures. Solid Waste Management, E – Waste Management & Biomedical Waste Management – Sources, Characteristics & Disposal methods.

Module -5 (05 – Hours)

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. Environmental Acts & Regulations, Role of government, Legal aspects, Role of Nongovernmental Organizations (NGOs), Environmental Education & Women Education.

Course Outcome:

Students will be able to,

- Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,
- Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,
- Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

• Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Text Books:

- Benny Joseph (2005), "Environmental Studies", Tata McGraw Hill Publishing Company Limited.
- R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.
- R Rajagopalan, "Environmental Studies From Crisis to Cure", Oxford University Press, 2005,
- Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012. Reference Books:
 - Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005
 - P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006
 - S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007
 - Erach Bharucha, "Text Book of Environmental Studies", for UGC, University press, 2005
 - G.Tyler Miller Jr., "Environmental Science working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004
 - G.Tyler Miller Jr., "Environmental Science working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006
 - Dr.Pratiba Sing, Dr.AnoopSingh and Dr.Piyush Malaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.



(Recognised by the Govt, of Karnataka, Affiliated to Visvesvarava Technological University, Belagavi, Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

> VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2017-2018 Choice Based Credit System (CBCS)

| ~ | | | Teaching | Teaching Hours /Week | | | Exami | nation | | Credits |
|-----------|---------------|--|-------------|---------------------------------|-----------------------|----------------------|--------------|--------------|----------------|---------|
| SI. No | Course Code | Title | Department | Theory | Practical/ Drawing | Duration in hours | SEE Marks | CIE Marks | Total Marks | |
| 1 | 17MAT41 | Engineering Mathematics-IV (Core) | Mathematics | 04 | | 03 | 60 | 40 | 100 | 4 |
| 2 | 17EE42 | Power Generation and Economics (Core) | EEE | 04 | | 03 | 60 | 40 | 100 | 4 |
| 3 | 17EE43 | Transmission and Distribution (Core) | EEE | 04 | | 03 | 60 | 40 | 100 | 4 |
| 4 | 17EE44 | Electric Motors (Core) | EEE | 04 | | 03 | 60 | 40 | 100 | 4 |
| 5 | 17EE45 | Electromagnetic Field Theory (Core) | EEE | 04 | | 03 | 60 | 40 | 100 | 4 |
| 6 | 17EE46 | Operational Amplifiers and Linear ICs (Foundation course) | EEE | 03 | | 03 | 60 | 40 | 100 | 3 |
| 7 | 17EEL47 | Electrical Machines Laboratory -2 | EEE | 01-Hour Instru 02-Hour Pract | | 03 | 60 | 40 | 100 | 2 |
| 8 | 17EEL48 | Op- amp and Linear ICs Laboratory | EEE | 01-Hour Instru 02-Hour Pract | | 03 | 60 | 40 | 100 | 2 |
| 9 | 17KL/CPH39/49 | Kannada/Constitution of India, Professional Ethics and Human Rights | Humanities | 01 | | 01 | 30 | 20 | 50 | 01 |
| | | | TOTAL | Theory: 241 Practical: 06 | | 25 | 510 | 340 | 850 | 28 |

1. Kannada/Constitution of India, Professional Ethics and Human Rights: 50 % of the programs of the Institution have to teach Kannada/Constitution of India, Professional Ethics and man Rights in cycle based concept during III and IV semesters

CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND HUMAN RIGHTS - 2017 SCHEME VTU CBCS 17CPH39

Module-1Introduction and Basic Information about Indian Constitution 3 hours **Introduction and Basic Information about Indian Constitution**

The Necessity of the Constitution, The Societies before and after the Constitution adoption. ٠ Introduction to the Indian constitution, the making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) & it's present relevance in our society with examples. Fundamental Duties and its Scope and significance in Nation building. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-2 Union Excutive and State Excutive 3 hours

Union Excutive and State Excutive

- Parliamentary System, Federal System, Centre-State Relations.
- Union Executive President, Prime Minister, Union Cabinet, Parliament LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives - Governor, Chief Minister, State



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Article 370.371,371J) for some States. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-3 Elections, Amendments and Emergency Provisions 3 hours

Elections, Amendments and Emergency Provisions

- Elections, Electoral Process, and Election Commission of India, Election Laws.
- Amendments Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Recent Amendments with explanation. Important Judgements with Explanation and its impact on society (from the list of Supreme Court Judgements). Emergency Provisions, types of Emergencies and it's consequences. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-4 Constitutional Provisions/ Local Administration/ Human Rights 3 hours Constitutional Provisions/ Local Administration/ Human Rights

Special Constitutional Provisions for SC & ST, OBC, Special Provision for Women, Children & Backward Classes, Local Administration: Powers and functions of Municipalities and Panchayats System. Co – Operative Societies and Constitutional and Non-constitutional Bodies. Human Rights/values – Meaning and Definitions, Legislative Specific Themes in Human Rights and Functions/ Roles of National Human Rights Commission of India. Human Rights (Amendment Act)2006.

Module-5 Professional / Engineering Ethics 3 hours Professional / Engineering Ethics

 Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India) : Profession,

Professionalism, Professional Responsibility. Clash of Ethics, Conflicts of Interest.

Responsibilities in Engineering

- Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliability in Engineering, IPRs (Intellectual Property Rights),
- Risks, Safety and liability in Engineering. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Course Outcomes:

On completion of this course, students will be able to,

- 16. Have general knowledge and legal literacy about Indian Constitution and there by it helps to take up competitive examinations & to manage/face complex societal issues in society.
- 17. Understand state and central policies(Union and State Excutive), fundamental Rights & their duties.
- 18. Understand Electoral Process, Amendments and special provisions in Constitution.
- 19. Understand powers and functions of Municipalities, Panchayats and Co-operative Societies, with Human Rights and NHRC.

20. Understand Engineering & Professional ethics and responsibilities of Engineers.

Question paper pattern for SEE and CIE.

- The SEE question paper will be set for 30 marks and the pattern of the question paper will be objective type (MCQ).
- For the award of 20 CIE marks, refer the University Scheme and Syllabus book.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bornmanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Text Books:

- 7. Durga Das Basu (DD Basu): Introduction to the Constitution on India, (Students Edition.) Prentice -Hall EEE, 19th / 20th Edn., (Latest Edition) or 2008.
- 8. Shubham Singles, Charles E. Haries, and Et al: Constitution of India and Professional Ethics by Cengage Learning India Private Limited, Latest Edition 2018.

Reference Books:

- 10. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, Engineering Ethics, Prentice -Hall of India Pvt. Ltd. New Delhi, 2004
- 11. M.V.Pylee, An Introduction to Constitution of India, Vikas Publishing, 2002.
- 12. Latest Publications of NHRC Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Mechanical Engineering

Visvesvaraya Technological University, Belagavi

REGULATIONS GOVERNING THE DEGREE OF BACHELOR OF ENGINEERING/ TECHNOLOGY (B.E/B.Tech) UNDER CHOICE BASED CREDIT SYSTEM (CBCS) Effective from the academic year 2017–18

Annexure -1

| | | Sche | YA TECHNOL me of Teaching | and Examina | tion 201 | 7-2018 | | | 100 | | |
|-----------|-------------|---|--|--|------------------|-----------------------------------|-------------------|-----------|------------------|-------------|---------|
| _ | | | Choice Based SEMESTER B.E. | | | | | _ | | | - |
| - | | | SEMESTER B.E. | B.Tech. (PHYSI) | | sching | | | | | - |
| | | | | | | s/V = | | Funk | ation | _ | |
| SL. No | Course Code | Course Title | Traching | Board | Theory | Practical ^V Drawing | Duration in hours | SEE Marks | CIE Marks | Total Marks | Credits |
| 1 | 17MAT11 | Engineering Mathematics | Mathematics | Basic Science | 04 | (<u>4</u> | 03 | 60 | 40 | 100 | 4 |
| 2 | 17PHY12 | Engineering Physics | Physics | Basic Science | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 3 | 170113 | Elements of Civil Engineering and Mechanics | Civil Engineering | Civil Engiseering | 04 | ÷. | 03 | 60 | 40 | 100 | 4 |
| 4 | 17EME14 | Elements of Mechanical Engineering | Mechanical Engineering | Mechanical Engineering | 04 | . . | 03 | 60 | 40 | 100 | 4 |
| 5 | ITELEIT | Basic Electrical Engineering | E and E Engineering | E and E Engineering | 04 | | 03 | 60 | 40 | 100 | 4 |
| 6 | 17WSL16 | Workshop Practice | ME, Auto, IP, IEM, Mig Engineering | Mechanical Engineering | 01Hour 02Hour | Instruction Practical | 03 | 60 | 40 | 100 | 2 |
| 7 | 17PHYL17 | Engineering Physics Laboratory | Physics | Basic Science | | Instruction Practical | 63 | 60 | 40 | 100 | 1 |
| 8 | I7ENGI8 | Language - English (Audit Course) | Humanities | 1.00 | 01 | | | | - | | ŀ |
| | | | | TOTAL | | 21 hours d: 06 hours | 21 | 420 | 280 | 700 | 2 |
| _ | | | SEMESTER B.E.A | Tach (CHEMIS | TRY CR | OUP | | | | | - |
| 1 | 17MAT21 | Engineering Mathematics | Mathematics | Basic Science | 04 | " | 03 | 60 | 40 | 100 | 4 |
| 2 | 17CHE22 | Engineering Chemistry | Chemistry | Basic Science | - 64 | | 03 | 60 | 40 | 100 | 4 |
| 3 | 17PCD23 | Programming in C and Data Structures | Any Engineering Department | Computer Science and Engineering | 64 | | 03 | 60 | 40 | 100 | 4 |
| 4 | 17CED24 | Computer Aided Engineering Drawing | ME, Auto, IP, IEM, Mfg Engineering | Mechanical Engineering | | Instruction Practice | 03 | 60 | 40 | 100 | |
| 5 | 17ELN25 | Basic Electronics | ECE/EEE/TC/E and I | E and C Engineering | 04 | | 03 | 60 | 40 | 100 | 4 |
| 6 | 17CPL26 | Computer Programming Laboratory | Any Engineering Department | Computer Science and Engineering | | Practical | 03 | 60 | 40 | 100 | 1 |
| 7 | 17CHEL27 | Engineering Chemistry Laboratory | Chemistry | Basic Science | 01Hour 02Hour | Tutorial Practical | 03 | 60 | 40 | 100 | 1 |
| 8 | 17CIV28 | Environmental Studies (Audit Course) | Civil/ Environmental Engineering | Civil Engineering | OlTuter | ial | - 71 | 30 | 20 | 50 | 1 |
| | - | | | | Theory | 71 hours | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengo.org

ENVIRONMENTAL STUDIES

| Laboratory Code | 17CIV18/17CIV28 | IA Marks | 20 |
|-------------------------------|-----------------|------------|----|
| Number of Lecture Hours/Week | 02 | Exam Marks | 30 |
| Total Number of Lecture Hours | 25 | Exam Marks | 02 |

Course Objectives:

- To identify the major challenges in environmental issues and evaluate possible solutions.
- Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.
- To analyze an overall impact of specific issues and develop environmental management plan.

Module -1 (05 – Hours)

Introduction Environment – Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security. Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, Sustainable Development

Module -2 (05 – Hours)

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & Sulphur Cycle. Energy – Different types of energy, Conventional sources & Non Conventional sources of energy Solar energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as an alternative energy.

Module -3 (05 – Hours)

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects. Global Environmental Issues: Population Growth, Urbanization, Land Management, Water & Waste Water Management.

Module -4 (05 – Hours)

Air Pollution & Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layer depletion, controlling measures. Solid Waste Management, E – Waste Management & Biomedical Waste Management – Sources, Characteristics & Disposal methods.

Module -5 (05 – Hours)

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. Environmental Acts & Regulations, Role of government, Legal aspects, Role of Nongovernmental Organizations (NGOs), Environmental Education & Women Education.

Course Outcome:

Students will be able to,

- Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,
- Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

- E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org
- Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components
- Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Text Books:

- Benny Joseph (2005), "Environmental Studies", Tata McGraw Hill Publishing Company Limited.
- R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.
- R Rajagopalan, "Environmental Studies From Crisis to Cure", Oxford University Press, 2005,
- Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012. Reference Books:
 - Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005
 - P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006
 - S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007
 - Erach Bharucha, "Text Book of Environmental Studies", for UGC, University press, 2005
 - G.Tyler Miller Jr., "Environmental Science working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004
 - G.Tyler Miller Jr., "Environmental Science working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006
 - Dr.Pratiba Sing, Dr.AnoopSingh and Dr.Piyush Malaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.

CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND HUMAN RIGHTS - 2017 SCHEME VTU CBCS 17CPH39

Module-1Introduction and Basic Information about Indian Constitution 3 hours Introduction and Basic Information about Indian Constitution

 The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, the making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) & it's present relevance in our society with examples. Fundamental Duties and its Scope and significance in Nation building. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-2 Union Excutive and State Excutive 3 hours

Union Excutive and State Excutive

• Parliamentary System, Federal System, Centre-State Relations.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

• Union Executive – President, Prime Minister, Union Cabinet, Parliament - LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Article 370.371,371J) for some States. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-3 Elections, Amendments and Emergency Provisions 3 hours Elections, Amendments and Emergency Provisions

- Elections, Electoral Process, and Election Commission of India, Election Laws.
- Amendments Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Recent Amendments with explanation. Important Judgements with Explanation and its impact on society (from the list of Supreme Court Judgements). Emergency Provisions, types of Emergencies and it's consequences. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-4 Constitutional Provisions/ Local Administration/ Human Rights 3 hours Constitutional Provisions/ Local Administration/ Human Rights

Special Constitutional Provisions for SC & ST, OBC, Special Provision for Women, Children & Backward Classes, Local Administration: Powers and functions of Municipalities and Panchayats System. Co – Operative Societies and Constitutional and Non-constitutional Bodies. Human Rights/values – Meaning and Definitions, Legislative Specific Themes in Human Rights and Functions/ Roles of National Human Rights Commission of India. Human Rights (Amendment Act)2006.

Module-5 Professional / Engineering Ethics 3 hours Professional / Engineering Ethics

• Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India) : Profession, Professionalism, Professional Responsibility. Clash of Ethics, Conflicts of Interest.

Responsibilities in Engineering

• Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliability in Engineering, IPRs (Intellectual Property Rights),

• Risks, Safety and liability in Engineering. (Duration: 03 Hours & RBT Levels: L1, L2 & L3) Course Outcomes:

On completion of this course, students will be able to,

- 1. Have general knowledge and legal literacy about Indian Constitution and there by it helps to take up competitive examinations & to manage/face complex societal issues in society.
- 2. Understand state and central policies(Union and State Excutive), fundamental Rights & their duties.
- 3. Understand Electoral Process, Amendments and special provisions in Constitution.
- 4. Understand powers and functions of Municipalities, Panchayats and Co-operative Societies, with Human Rights and NHRC.
- 5. Understand Engineering & Professional ethics and responsibilities of Engineers.

Question paper pattern for SEE and CIE.

Later 1974

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- The SEE question paper will be set for 30 marks and the pattern of the question paper will be objective type (MCQ).
- For the award of 20 CIE marks, refer the University Scheme and Syllabus book.

Text Books:

- 1. Durga Das Basu (DD Basu): Introduction to the Constitution on India, (Students Edition.) Prentice -Hall EEE, 19th / 20th Edn., (Latest Edition) or 2008.
- 2. Shubham Singles, Charles E. Haries, and Et al: Constitution of India and Professional Ethics by Cengage Learning India Private Limited, Latest Edition 2018.

Reference Books:

- 1. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, Engineering Ethics, Prentice -Hall of India Pvt. Ltd. New Delhi, 2004
- 2. M.V.Pylee, An Introduction to Constitution of India, Vikas Publishing, 2002.
- 3. Latest Publications of NHRC Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E. Mechanical Engineering

| | | | T | eaching Hou | irs/Week | · | Examin | ation | | Credits | | | |
|-----------|-----------------------------------|--------------------------------------|---------|--------------|-------------------------|---------------------|-------------------------------|---------------|----------------|---------|----|-----|---|
| SL. No | Subject Code | Title | Lecture | Tutoria | l Practical | Duration (Hours) | Theory/ Practical Marks | I.A. Marks | Total Marks | | | | |
| 1 | 15ME51 | Management and Engineering Economics | 3 | 2 | 0 | 03 | 80 | 20 | 100 | 4 | | | |
| 2 | 15ME52 | Dynamics of Machinery | 3 | 2 | 0 | 03 | 80 | 20 | 100 | 4 | | | |
| 3 | 15ME53 | Turbo Machines | 3 | 2 | 0 | 03 | 80 | 20 | 100 | 4 | | | |
| 4 | 15ME54 | Design of Machine Elements - I | 3 | 2 | 0 | 03 | 80 | 20 | 100 | 4 | | | |
| 5 | 15ME55X | Professional Elective-I | 3 | 0 | 0 | 03 | 80 | 20 | 100 | 3 | | | |
| 6 | 15ME56X | Open Elective-I | 3 | 0 | 0 | 03 | 80 | 20 | 100 | 3 | | | |
| 7 | 15MEL57 | Fluid Mechanics & Machinery Lab | 1 | 1 | t | 1 | 0 | 2 | 03 | 80 | 20 | 100 | 2 |
| 8 | 15MEL58 | Energy Lab | 1 | 0 | 2 | 03 | 80 | 20 | 100 | 2 | | | |
| | | TOTAL | 21 | 06 | 04 | | 640 | 160 | 800 | 26 | | | |
| | Professional | Elective-I | 0 | pen Elective | 4 | 2 | 5 | ii i | | | | | |
| | 15ME551 | Refrigeration and Air-conditioning | 1 | 5ME561 | Optimization Tech | hniques | | | | | | | |
| | 15ME552 | Theory of Elasticity | 1 | 5ME562 | Energy and Envir | onment | | 1 | | | | | |
| | 15ME553 Human Resource Management | | | 5ME563 | Automation and Robotics | | | | | | | | |
| | 15ME554 | Non Traditional Machining | 1 | 5ME564 | Project Managem | et | | | | | | | |

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Professional Elective: Elective relevant to chosen specialization/ branch

3. OpenElective: Electives from other technical and/or emerging subject areas.



(Recognised by the Govt, of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi,

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MANAGEMENT AND ENGINEERING ECONOMICS

| Courses | Cale | Credits | L-T-P | Assessment | | Exam | |
|--------------------------------------|--------|---------|-------|------------|-----|----------|--|
| Course | Code | Credits | L-I-P | SEE | CIA | Duration | |
| Management And Engineering Economics | 15ME51 | 04 | 3-2-0 | 80 | 20 | 3Hrs | |

MODULE -1

Management: Introduction - Meaning - nature and characteristics of Management, Scope and Functional areas of management - Management as ascience, art of profession - Management & Administration - Roles of Management, Levels of Management, Development of Management Thought- early management approaches - Modern management approaches

Planning: Nature, importance and purpose of planning process Objectives -Types of plans (Meaning Only) - Decision making Importance of planning steps in planning & planning premises - Hierarchy of plans. 10 Hours

MODULE - 2

Organizing And Staffing: Nature and purpose of organization Principles of organization - Types of organization - Departmentation Committees-Centralization Vs Decentralization of authority and responsibility - Span of control - MBO and MBE (Meaning Only) Nature and importance of staffing--:Process of Selection & Recruitment (in brief).

Directing & Controlling: Meaning and nature of directing Leadershipstyles, Motivation Theories, Communication - Meaning and importance coordination, meaning and importance and Techniques of Co Ordination. Meaning and steps in controlling - Essentials of a sound control system -Methods of establishing control (in brief) 10 Hours

MODULE -3

Introduction: Engineering and economics, Problem solving and decision making, Laws of demand and supply, Difference between Microeconomics & Macroeconomics, equilibrium between demand & supply, elasticity of demand, price elasticity, income elasticity Law of Returns, Interest and interest factors, simple and compound interest, Cash flow diagrams, personal loans and EMI payment calculation with flexible interest rates, Discussion and problems 10 Hours

MODULE -4

Present, future and annual worth and rate of returns: Basic present worth comparisons. Present worth-equivalence. Assets with unequal lives and infinites lives, future worth comparisons, payback comparisons, Equivalent annual worth comparisons, situations for annual worth comparisons Asset life, Rate of return, minimum acceptable rate of return, IRR anomalies and misconceptions, Cost of capital, comparisons of all present future and annual worth with IRR, product costing, Discussions and problems 10 Hours

MODULE -5

Costing and depreciation: Components of costs, estimation of selling price, marginal cost, first cost, all kinds of overheads, indirect cost estimation with depreciation, mensuration and estimation of material cost, cost estimation of mechanical process, idling time.

Product costing (approaches to product costing), causes of depreciation, methods of computing depreciation charges, straight line method, declining balance method, sum of years method, sinking fund method, service output methods, taxation concepts, personal income taxes and corporate taxes, 10 Hours Discussions and problems.

Course outcomes

- On completion of this subject students will be able to
- 1. Understand needs, functions, roles, scope and evolution of Management
- 2. Understand importance, purpose of Planning and hierarchy of planning and also analyze its types
- 3. Discuss Decision making, Organizing, Staffing, Directing and Controlling
- 4. Select the best economic model from various available alternatives
- 5. Understand various interest rate methods and implement the suitable one.
- 6. Estimate various depreciation values of commodities
- 7. Prepare the project reports effectively.

TEXT BOOKS

- Principles of Management by Tripathy and Reddy 1
- Mechanical estimation and costing, T.R. Banga& S.C. Sharma, 17th edition 2015 Engineering Economy, Riggs J.L. McGraw Hill, 2002 2
- Engineering Economy, Thuesen H.G. PHI, 2002

REFERENCE BOOKS

- Management Fundamentals- Concepts, Application, Skill Development RobersLusier Thomson
- Basics of Engineering Economy, Leland Blank & Anthony Tarquin, McGraw Hill Publication (India) Private Limited 2
- 3 Engineering Economics, R.Paneerselvam, PHI publication
- 4. Fundamentals of Management: Essential Concepts and Applications, Pearson Education, Robbins S.P. and Decenzo David A.
- 5. Economics: Principles of Economics, N Gregory Mankiw, Cengage Learning
- 6. Modern Economic Theory, By Dr. K. K. Dewett& M. H. Navalur, S. Chand Publications



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

HUMAN RESOURCE MANAGEMENT (Professional Elective-I)

| Courses | urse Code Credits L-T-H | | L-T-P | Assessment | | Exam | |
|------------------------------|-------------------------|---------|-------|------------|-----|----------|--|
| Course | Course Code | Credits | L-I-P | SEE | CIA | Duration | |
| Human Resource Management | 15ME553 | 03 | 3-0-0 | 80 | 20 | 3Hrs | |

Course Objectives:

1. To develop a meaningful understanding of HRM theory, functions and practices.

2. To apply HRM concepts and skills across various types of organizations.

Module - 1

Human Resource Management

Introduction, meaning, nature, scope of HRM. Importance and Evolution of the concept of HRM. Major functions of HRM, Principles of HRM, Organization of Personnel department, Role of HR Manager.

Job Analysis: Meaning, process of job analysis, methods of collecting job analysis data, Job Description and Specification, Role Analysis.

Human Resource Planning: Objectives, Importance and process of Human Resource planning, Effective HRP Recruitment: Definition, Constraints and Challenges, Sources and Methods of Recruitment, New Approaches to recruitment.

Selection: Definition and Process of Selection. **08** hours

Module - 3

Module - 2

Placement: Meaning, Induction/Orientation, Internal Mobility, Transfer, Promotion, Demotion and Employee Separation. Training and development: Training v/s development, Training v/s Education, Systematic Approach to Training, Training Methods, Executive Development, Methods and Development of Management Development, Career and Succession Planning.

Module - 4

Performance Appraisal: Concept of Performance Appraisal, the Performance Appraisal process, Methods of Performance Appraisal, Essential Characteristic of an Effective Appraisal System.

Compensation: Objectives of Compensation Planning, Job Evaluation, Compensation Pay Structure in India, Wage and Salary Administration, Factors Influencing Compensation Levels, Executive Compensation. 09 hours

08 hours

08 hours



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Module - 5

Employee Welfare: Introduction, Types of Welfare Facilities and Statutory Provisions. Employee Grievances: Employee Grievance procedure, Grievances management in Indian Industry. Discipline: Meaning, approaches to discipline, essential of a good disciplinary system, managing difficult employees.

Course Outcomes

- On completion of the course the student will be able to
 - Understand the importance, functions and principles Human Resource Management and process of Job analysis 1
 - 2. Summarize the objectives of Human Resource planning, Recruitment and selection process
 - 3. Understand the process involved in Placement, Training and development activities.
 - 4. Understand the characteristics of an effective appraisal system and compensation planning.
 - 5. Understand the issues related to employee welfare, grievances and discipline.

TEXTBOOKS

- 1. Human Resource Management- Rao V.S.P, Excel books, 2010
- Human Resource Management- Cynthia D. Fisher, 3/e, AIPD, Chennai 2.
- Human Resource Management: A South Asian Perspective, Snell, Bohlander&Vohra, 16th Rep., Cengage Learning, 2012 3
- Human Resource Management- Lawrence S Kleeman, Biztantra, 2012
 Human Resource Management- Aswathappa K, HPH

REFERENCE BOOKS

- Human Resource Management- John M. Ivancevich, 10/e, McGraw Hill, 1.
- 2. Human Resource Management in Practice- Srinivas R. Kandulla, PHI
- 3. Human Resource Management- Luis R Gomez-Mejia, David B. Balkin, Robert L Cardy, 6/e, PHI, 2010

09 hours



(Recognised by the Govt, of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi, Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

ENERGY AND ENVIRONMENT (OPEN ELECTIVE - I)

| Course | Cada | Cendite | L-T-P | Asses | sment | Exam |
|------------------------|---------|---------|-------|-------|-------|----------|
| Course | Code | Credits | | SEE | CIA | Duration |
| Energy And Environment | 15ME562 | 03 | 3-0-0 | 80 | 20 | 3Hrs |

Course Objectives

- 1. Understand energy scenario, energy sources and their utilization
- 2. Learn about methods of energy storage, energy management and economic analysis
- 3. Have proper awareness about environment and eco system.
- 4. Understand the environment pollution along with social issues and acts.

Module - I

Basic Introduction to Energy: Energy and power, forms of energy, primary energy sources, energy flows, world energy production and consumption, Key energy trends in India: Demand, Electricity, Access to modern energy, Energy production and trade, Factors affecting India's energy development: Economy and demographics Policy and institutional framework, Energy prices and affordability, Social and environmental aspects, Investment 8 Hours

Module - II

Energy storage systems: Thermal energy storage methods, Energy saving, Thermal energy storage systems Energy Management: Principles of Energy Management, Energy demand estimation, Energy pricing Energy Audit: Purpose, Methodology with respect to process Industries, Characteristic method employed in Certain Energy Intensive Industries Economic Analysis: Scope, Characterization of an Investment Project 10 Hours

Module - III

Environment: Introduction, Multidisciplinary nature of environmental studies- Definition, scope and importance, Need for public awareness Ecosystem: Concept, Energy flow, Structure and function of an ecosystem. Food chains, food webs and ecological pyramids, Forest ecosystem, Grassland ecosystem, Desert ecosystem and Aquatic ecosystems, Ecological succession. 8 Hours Module - IV

Environmental Pollution: Definition, Cause, effects and control measures of - Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution and Nuclear hazards, Solid waste Management, Disaster management Role of an individual in prevention of pollution, Pollution case studies. 8 Hours

Module - V

Social Issues and the Environment: Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies. Wasteland reclamation, Consumerism and waste products, Environment Protection Act, Air (Prevention and Control of Pollution) Act, Water (Prevention and control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act, Issues involved in enforcement of environmental legislation.

8 Hours

Course Outcomes

At the end of the course, the student will be able to:

- Summarize the basic concepts of energy, its distribution and general Scenario. 1.
- 2. Explain different energy storage systems, energy management, audit and economic analysis
- 3. Summarize the environment eco system and its need for awareness
- 4. Identify the various types of environment pollution and their effects.
- 5. Discuss the social issues of the environment with associated acts.

TEXT BOOKS:

- 1. Textbook for Environmental Studies For Undergraduate Courses of all Branches of Higher Education by University grant commission and Bharathi Vidyapeeth Institute of environment education and Research ,Pune
- 2. De, B. K., Energy Management audit & Conservation, 2nd Edition, Vrinda Publication, 2010.

REFERENCE BOOKS:

- 1. Turner, W. C., Doty, S. and Truner, W. C., Energy Management Hand book, 7th edition, Fairmont Press, 2009.
- 2. Murphy, W. R., Energy Management, Elsevier, 2007.
- 3. Smith, C. B., Energy Management Principles, Pergamum, 2007
- 4. Environment pollution control Engineering by C S rao, New Age Instermnational, 2006, reprint 2015, 2nd edition
- 5. Environmental studies, by Benny Joseph, Tata McGraw Hill, 2008, 2nd edition.

E- Learning

- India Energy Outlook 2015(www.iea.org/.../IndiaEnergyOutlook_WEO2015.pdf)
- Open courseware



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

PROJECT MANAGEMENT (OPEN ELECTIVE – I)

| C | Cata | Contra | LTD | Asses | sment | Exam |
|--------------------|--------------------|---------|-------|-------|-------|----------|
| Course | ourse Code Credits | Credits | L-1-P | SEE C | CIA | Duration |
| Project Management | 15ME564 | 03 | 3-0-0 | 80 | 20 | 3Hrs |

MODULE - 1

Introduction: Definition of project, characteristics of projects, understandprojects, types of projects, scalability of project tools, project roles

Project Selection And Prioritization – Strategic planning process, Strategicanalysis, strategic objectives, portfolio alignment – identifying potentialprojects, methods of selecting projects, financial mode / scoring models toselect projects, prioritizing projects, securing and negotiating projects. 08 Hours

MODULE - 2

Planning Projects: Defining the project scope, Project scope checklist, Project priorities, Work Breakdown Structure (WBS), Integrating WBS with organisation, coding the WBS for the information system.

Scheduling Projects: Purpose of a project schedule, historical development, how project schedules are limited and created, develop project schedules, uncertainty in project schedules, Gantt chart. 08 Hours

MODULE - 3

Resourcing Projects: Abilities needed when resourcing projects, estimateresource needs, creating staffing management plant, project teamcomposition issues, Budgeting Projects: Cost planning, cost estimating, cost budgeting, establishing cost control. Project Risk Planning: Risk Management Planning, risk identification, riskanalysis, risk response planning, Project Quality Planning and ProjectKickoff: Development of quality concepts, project quality management plan, project quality tools, kickoff project, baseline and communicate projectmanagement

08 Hours

MODULE -4

plan, using Microsoft Project for project baselines.

Performing Projects: Project supply chain management: - Plan purchasingand acquisitions, plan contracting, contact types, project partnering and collaborations, project supply chain management.

27



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Project Progress and Results: Project Balanced ScorecardApproach, Internal project, customer, financial issues, Finishing the project: Terminateproject early, finish projects on time, secure customer feedback and approval knowledge management, perform administrative and contract closure 08 Hours

MODULE - 5

Network Analysis

Introduction, network construction - rules, Fulkerson's rule for numbering the events, AON and AOA diagrams; Critical path method (CPM) to find the expected completion time of a project, floats; PERTfor finding expected duration of an activity and project, determining the probability of completing a project, predicting the completion time of project; crashing of simple projects. 10 Hours

Course Outcomes

On completion of the course the student will be able to

- 1. Understand the selection, prioritization and initiation of individual projects and strategic role of project management.
- Understand the work breakdown structure by integrating it with organization. 2.
- 2
- 4
- Understand the scheduling and uncertainty in projects. Students will be able to understand risk management planning using project quality tools. Understand the activities like purchasing, acquisitions, contracting, partnering and collaborations related to performing projects. Determine project progress and results through balanced scorecard approach 5
- 6.
- 7. Draw the network diagram to calculate the duration of the project and reduce it using crashing.

TEXT BOOKS

- 1. Project Management, Timothy J Kloppenborg, Cengage Learning, Edition 2009.
- Project Management, A systems approach to planning scheduling and controlling by Harold kerzner, CBS publication.
 Project Management by S Choudhury, Mc Graw Hill Education (India) Pvt. Ltd. New Delhi, 2016

REFERENCE BOOKS

- 1. Project Management, Pennington Lawrence, Mc Graw hill
- Project Management, A Moder Joseph and Phillips New Yark Van Nostrand, Reinhold.
- 3. Project Management, Bhavesh M. Patal, Vikas publishing House,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org



CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND HUMAN RIGHTS - 2017 SCHEME VTU CBCS 17CPH39

Module-1Introduction and Basic Information about Indian Constitution 3 hours Introduction and Basic Information about Indian Constitution

• The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, the making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) & it's present relevance in our society with examples. Fundamental Duties and its Scope and significance in Nation building. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-2 Union Excutive and State Excutive 3 hours

Union Excutive and State Excutive

- Parliamentary System, Federal System, Centre-State Relations.
- Union Executive President, Prime Minister, Union Cabinet, Parliament LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Article 370.371,371J) for some States. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-3 Elections, Amendments and Emergency Provisions 3 hours

Elections, Amendments and Emergency Provisions

- Elections, Electoral Process, and Election Commission of India, Election Laws.
- Amendments Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Recent Amendments with explanation. Important Judgements with Explanation and its impact on society (from the list of Supreme Court Judgements). Emergency Provisions, types of Emergencies and it's consequences. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-4 Constitutional Provisions/ Local Administration/ Human Rights 3 hours Constitutional Provisions/ Local Administration/ Human Rights

Special Constitutional Provisions for SC & ST, OBC, Special Provision for Women, Children & Backward Classes. Local Administration: Powers and functions of Municipalities and Panchayats System. Co – Operative Societies and Constitutional and Non-constitutional Bodies. Human Rights/values – Meaning and Definitions, Legislative Specific Themes in Human Rights and Functions/ Roles of National Human Rights Commission of India. Human Rights (Amendment Act)2006.

Module-5 Professional / Engineering Ethics 3 hours Professional / Engineering Ethics

• Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Ethics, Code of Ethics as defined in the website of Institution of Engineers (India) : Profession, Professionalism, Professional Responsibility. Clash of Ethics, Conflicts of Interest.

Responsibilities in Engineering

• Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliability in Engineering, IPRs (Intellectual Property Rights),

• Risks, Safety and liability in Engineering. (Duration: 03 Hours & RBT Levels: L1, L2 & L3) Course Outcomes:

On completion of this course, students will be able to,

- 1. Have general knowledge and legal literacy about Indian Constitution and there by it helps to take up competitive examinations & to manage/face complex societal issues in society.
- 2. Understand state and central policies(Union and State Excutive), fundamental Rights & their duties.
- 3. Understand Electoral Process, Amendments and special provisions in Constitution.
- 4. Understand powers and functions of Municipalities, Panchayats and Co-operative Societies, with Human Rights and NHRC.
- 5. Understand Engineering & Professional ethics and responsibilities of Engineers.

Question paper pattern for SEE and CIE.

- The SEE question paper will be set for 30 marks and the pattern of the question paper will be objective type (MCQ).
- For the award of 20 CIE marks, refer the University Scheme and Syllabus book.

Text Books:

- 1. Durga Das Basu (DD Basu): Introduction to the Constitution on India, (Students Edition.) Prentice -Hall EEE, 19th / 20th Edn., (Latest Edition) or 2008.
- 2. Shubham Singles, Charles E. Haries, and Et al: Constitution of India and Professional Ethics by Cengage Learning India Private Limited, Latest Edition 2018.

Reference Books:

- 1. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, Engineering Ethics, Prentice -Hall of India Pvt. Ltd. New Delhi, 2004
- 2. M.V.Pylee, An Introduction to Constitution of India, Vikas Publishing, 2002.
- 3. Latest Publications of NHRC Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

ENVIRONMENTAL STUDIES

| Laboratory Code | 17CIV18/17CIV28 | IA Marks | 20 |
|-------------------------------|-----------------|------------|----|
| Number of Lecture Hours/Week | 02 | Exam Marks | 30 |
| Total Number of Lecture Hours | 25 | Exam Marks | 02 |

Course Objectives:

- To identify the major challenges in environmental issues and evaluate possible solutions.
- Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.
- To analyze an overall impact of specific issues and develop environmental management plan.

Module -1 (05 – Hours)

Introduction Environment – Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security. Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, Sustainable Development

Module -2 (05 – Hours)

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & Sulphur Cycle. Energy – Different types of energy, Conventional sources & Non Conventional sources of energy Solar energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as an alternative energy.

Module -3 (05 – Hours)

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects. Global Environmental Issues: Population Growth, Urbanization, Land Management, Water & Waste Water Management.

Module -4 (05 – Hours)

Air Pollution & Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layer depletion, controlling measures. Solid Waste Management, E – Waste Management & Biomedical Waste Management – Sources, Characteristics & Disposal methods.

Module -5 (05 – Hours)

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. Environmental Acts & Regulations, Role of government, Legal aspects, Role of Nongovernmental Organizations (NGOs), Environmental Education & Women Education.

Course Outcome:

Students will be able to,

- Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,
- Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,
- Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

• Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Text Books:

- Benny Joseph (2005), "Environmental Studies", Tata McGraw Hill Publishing Company Limited.
- R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.
- R Rajagopalan, "Environmental Studies From Crisis to Cure", Oxford University Press, 2005,
- Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012. Reference Books:
 - Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005
 - P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006
 - S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007
 - Erach Bharucha, "Text Book of Environmental Studies", for UGC, University press, 2005
 - G.Tyler Miller Jr., "Environmental Science working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004
 - G.Tyler Miller Jr., "Environmental Science working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006
 - Dr.Pratiba Sing, Dr.AnoopSingh and Dr.Piyush Malaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.

CHILDREN'S EDUCATION SOCIETY (Regd.)



THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

BIOTECHNOLOGYFORSUSTAINABLEENVIRONMENT

[As per Choice Based Credit System (CBCS) scheme]SEMESTER -V

| Sub.Code: | 15BT563 | I.AMarks: | 20 | | | |
|-------------|---------|-------------|----|--|--|--|
| Hours/week: | 3 | ExamHrs. : | 4 | | | |
| TotalHours: | 40 | ExamMarks : | 80 | | | |
| | CI | CREDITS-03 | | | | |

Courseobjectives:

Thiscoursewillenablestudentstolearn

- TheunderlyingconceptsofEnvironmentand its pollution.
- Treatmentofwastewaterandsolidwaste.
- TheimportanceofBiofuelsagainstconservativefuels

MODULE-1

| MODULE-1 | | |
|--|--------|--------------|
| WATERPOLLUTIONANDTREATMENTOF WASTEWATER: WaterasResource, Drinkingwater quality, water consumption standards, Types of WaterPollutantsandsources, Stateandcentralwastewater quality and its various discharge standards. Wastewater Sampling and Characteristics - Physical, Chemical and Biological characteristics of wastewater: Solving numerical on the sampling, characteristics and estimation of wastewaterflowrates. Biotechnological approach forwaterpurification | 0 8 | L1,L 2,L3 |
| MODULE–2 TERTIARY/ADVANCED WASTEWATER | | <u> </u> |
| TERTIARY/ADVANCEDWASTEWATERTREATMENT:Secondary/Biologicaltreatmentprocess, aerobic/anaerobicattachedandsuspendedgrowthprocess, Sludgetreatment&Disposal.Ultrafiltration, Filtration, AdsorptiononActivatedCarbon, IonExchange, ReverseOsmosis, Electrodialysiscell.WastewatertreatmentinIndustries:PaperandPulp, distillery, Leather, Foodprocessing such dairy and fruit processing and Textileprocessing. | | |
| MODULE-3 | | <u> </u> |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

AIRPOLLUTIONANDNOISEPOLLUTION Sources, Classification, Properties of airpollutants, and Effects of airpollution on health, veg etationandmaterials.Airpollutionsampling:Ambientsamplingand Stacksampling, Analysis of airpollutants,ControlmethodsandEquipmentforparticulatesandgaseouspollutants,Appli cationstoIndustries:Thermalpowerplants,MetallurgicalandCementindustries.Sources, EffectsofNoise.EquipmentforNoiseMeasurement, andApproachesforNoiseControl **MODULE-4 BIOFUELS:**Renewableandnon-renewableresources. Conventional fuels and their environmentalimpacts. Animaloils. Modernfuels and their environmentalimpacts. Biotec hnologicalinputsinproducing good quality natural fibres. Plant sourceslikeJetropha, Pongamia etc. Waste as an energy core, energy recovery systems for urban waste, technologyevaluation, conceptof gasification of wastes with molten salttoproduce low-BTUgas; pipelinegas from solid wastes by syngasrecycling process; conversion of feedlot wastes into pipeline gas; fuels and chemicals from crops, production of oil from woodwaste, fuels from woodwaste, many the state of tethanol production from organic wastes **MODULE-5 SOLIDWASTEMANAGEMENT**: Definitions, Characteristics and perspectives, Types ofsolidwastes,SourcesofSolidwaste,Propertiesofsolidwaste-Numericalproblems, Solidwaste Management -AnOverview:-Materialflowinsociety, Reductioninrawmaterialusage, Solidwastegeneration, and reuse withmaterials, energy recovery. Solidwastemanagement through Biotechnological proces 0 L1.L sesinvolvingHazardouswastes,Biomedicalwastes,Dairy wastes, Pulp industry wastes, 2.L3 8 Textile industrywastes, leather industrywastes and pharmaceutical

industrywastes, petroleumwastestreatment



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Courseoutcomes:

Afterstudyingthis course, students will beableto:

- Applyreasoningtoidentifythecomponentsofenvironmentalecosystemsandeffectofpollutant on environment.
- Characterizethevariousparametersfortreatmentofwater,wastewaterandsolid wastefromtheirsourcestoprovidevalid conclusions.
- Understand the impact of recovery, recycle of the useful resources from the wastes by adopting advanced techniques to demonstrate the need for sustainable development.
- Identify and demonstrate the knowledge to use suitable equipment for abatement and

control of air & noise pollution

Graduate Attributes (as per NBA):

- Design / development of solutions (environmental)
- Engineer and society
- Professional Ethics.
- Lifelong learning.
- Problem analysis

Question paper pattern:

- The question paper will have ten questions.
- Each full question consists of 16 marks.
- There will be 2 full questions (with a maximum of four sub questions) from each module.
- Each full question will have sub questions covering all the topics under a module.
- The students will have to answer 5 full questions, selecting one full question from each module.

TEXT BOOKS

- 1. Environmental Engineering by Howard S. Peavey, Donald R. Rowe, George Techobanolous, McGraw-Hill International Editions.
- 2. Wastewater Engineering Treatment, Disposal and Reuse, METCALF AND EDDY, INC. 3rd Edition Tata McGraw-Hill Publishing Company Limited.
- 3. Environmental Biotechnology by Foster C.F., John ware D.A., Ellis Horwood Limited.
- 4. ENVIRONMENTAL BIOTECHNOLOGY by INDU SHEKHAR THAKUR, IK Publishers.
- 5. Industrial Microbiology by L.E. Casida, Willey Eastern Ltd. Industrial Microbiology

by Prescott & Dunn, CBS Publishers.



(Recognised by the Govt, of Karnataka, Affiliated to Visvesvarava Technological University, Belagavi, Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

REFERENCE BOOKS

- 1. Fuels from Waste by Larry Anderson and David A Tillman, Academic Press.
- 2. Bioprocess Technology- fundamentals and applications, S O Enfors& L Hagstrom, RIT, Stockholm.
- 3. Comprehensive Biotechnology by M.Y. Young (Eds.), Pergamon Press.
- 4. Biotechnology, Economic & Social Aspects by E.J. Dasilva, C Ratledge& A Sasson, Cambridge Univ. Press, Cambridge.
- 5. Environmental Biotechnology by Pradipta Kumar Mahopatra.

| | BIO-BUSINESSA | NDENTREPRENEU | JRSHIP | |
|---|--|----------------------|-------------------|--|
| | [AsperChoiceBasedCreditS | | | |
| | | | | |
| Sub.Code: | 15BT61 | I.AMarks: | 20 | |
| Hours/week: | 4 | ExamHrs.: | 3 | |
| TotalHours: | 50 | ExamMarks | s: 80 | |
| | C | REDITS-04 | | |
| Course objectives: This of management, entreprend | course will enable student eurshipandIPR. | s to learn about the | e project | |
| | MODULES | | TEACHINGHO URS | REVISEDBLOOM'STA XONOMY (RBT)LEVEL |
| MODULE-1 | | | I I | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| BIOENTERPREUNERSHIP | | |
|--|----|----------|
| Introduction to bio-business, | | |
| fromtheIndiancontext,SWOTanalysisofbio- | | |
| business.ConceptofEntrepreneurship- | | |
| Evolution of Entrepreneurship, Development of Entrepreneurship; Stag | | |
| esinentrepreneurialprocess;RoleofentrepreneursinEconomicDevelo | | |
| pment;EntrepreneurshipinIndia;Entrepreneurship- | 10 | L1,L2 |
| itsbarriers.Smallscaleindustries:Definition;Characteristics;Needandr | 10 | LI,LZ |
| ationale;Objectives; Scope; Market Feasibility Study; TechnicalFeasibility Study; Financial Feasibility Study | | |
| &SocialFeasibility Study. Global bio business and industry | | |
| futuretrends. | | |
| MODULE-2 | I | |
| ENTREPRENEURSHIP OPPORTUNITY IN AGRIBIOTECHNOLOGY | | |
| Business opportunity, Essential requirement, | | |
| marketing, strategies, schemes, challenges and scope-with cases tudy on | | |
| Plant cell and tissue culture technique, polyhouse culture.Herbal bulk | | |
| drug production, Nutraceuticals, value addedherbalproducts.BioethanolproductionusingAgriwaste, | 10 | L1,L2, |
| Algalsource. | | |
| | | |
| Integration of system biology for a gricultural applications. Biosens or develo | | |
| pmentinAgrimanagement | | |
| MODULE-3 | 1 | |
| | | |
| Y Business opportunity, Essential requirement, | | |
| marketingstrategies, schemes, challenges and scope-with cases tudy- | | |
| Pollution monitoring and Bioremediation for Industrialpollutants, | | |
| Pesticides, Herbicides etc. Integrated compostproduction- | | |
| microbeenrichedcompost. | | |
| Biopesticide/insecticide production. Fermented products-probiotic | 10 | L1,L2,L3 |
| and prebiotics. Stem cell production, stem | 10 | |
| cellbank, contractresearch. Production of monoclonal/polyclonal antib | | |
| odies, Singlecell protein and second ary metabolite production | | |
| Contactresearchinmicrobialgenomics | | |
| MODULE-4 | | <u> </u> |
| | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| PROJECTMANAGEMENT,INTELLECTUALPROPERTY, TECHNOLOGY | | |
|---|----|-------|
| MANAGEMENT ANDSTARTUPSCHEMES | | |
| Building Biotech business challenges in Indian context- | | |
| biotechpartners(BICEPS,BIRAC,DBT,Incubationcenters. Etc.,), | | |
| operational biotech parks in India.IndianCompanyactforBiobusiness- | | |
| schemesandsubsidie | | |
| MeaningofProject;ProjectIdentification;ProjectSelection;ProjectRep | | |
| ort;NeedandSignificanceofReport; Contents; Formulation; | | |
| Guidelines by PlanningCommission for Project report; Network | | |
| Analysis; | | |
| ${\it Errors of Project Report; Project Appraisal. Identification of business opp}$ | | |
| ortunities:MarketFeasibilityStudy;TechnicalFeasibilityStudy;Financial | | |
| FeasibilityStudy&SocialFeasibilityStudy. | | 1112 |
| Patent expiry and Entrepreneurship opportunity, | 10 | L1,L2 |
| Principles of Technology leasing, licensing and transfer, Startups chemesi | | |
| nIndiangovernment, Business incubation supports chemes, Successfuls | | |
| tartups-casestudy. | | |
| | | |
| | | |

| MODULE-5 | | |
|--|----|-------|
| Regulatoryaffairs,Bioethics&Bio-safety: | | |
| Regulatory affairs in Bio business-regulatory bodies andtheir regulations (ex.FDA, EU, DSIR, AYUSH, FSSAIetc.,) Publiceducationoftheprocessofbiotechnologyinvolvedin generating new forms of life for informed decision-making. Ethical concerns of biotechnology research andinnovation- Interference with nature, fear of unknown, unequal distribution of risks. | 10 | L1,L2 |
| Rational vs. subjective perceptions of risks and benefits, relationship between risk, hazard, exposure and safeguards. biosafety concerns at the level of individuals, institutions, society, | | |
| region, country and the world. TheCartagenaprotocolonbiosafety.Biosafetymanagement. | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Courseoutcomes:

Afterstudyingthiscourse, students will be able to:

- Identifypotentialentrepreneurshipopportunityinbiotechnology
- Effectivelyplanaprojectwithaworkplan,budgetandschedule
- Assessthegovernmentstrategiesandschemesforstartups
- Understandtheconceptsofbioethics, biosafety and Regulatory norms

GraduateAttributes(asperNBA):

- Engineeringknowledge
- Conductinvestigationofcomplexproblem
- Engineerandsociety
- Environmentandsustainability
- ProfessionalEthics
- Projectmanagementandfinance
- .Lifelonglearning.

Questionpaperpattern:

- Thequestionpaperwillhavetenquestions.
- Eachfullquestionconsistsof16marks.
- Therewillbe2fullquestions(withamaximumoffoursubquestions)fromeachmodule.
- Eachfullquestionwillhavesubquestionscoveringallthetopicsunderamodule.
- Thestudentswillhavetoanswer5fullquestions, selecting one fullquestion from each module.

TEXTBOOKS

- 1. PrinciplesofManagement–P.C.Tripathi,P.N.Reddy–TataMcGrawHill,
- 2. EntrepreneurshipDevelopment-S.S.Khanka-S.Chand&Co.
- 3. PracticalApproachtoIPRbyRachanaSinghPuri,IKIntl.Ltd.

PROJECT MANAGEMENT & IPR

Sub. Code : 10BT-81 I.A Marks : 25 Hours/week : 04 Exam Hrs. : 03 Total Hours : 52 Exam Marks : 100 **PART A**

UNIT 1: INTRODUCTION

Definitions, network planning techniques, benefits and limitations of network planning, project reporting, case studies. **02 Hours UNIT 2: PROJECT PLANNING**



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxford.engg.org

Planning procedures, developing a network planning diagram, project evaluation and review techniques. Developing the project schedule: scheduling procedure, timing estimates, manual timing calculations, optional start and finish times, tabulating the schedule, setting up the calendar schedule, constructing the bar chart time, schedule. Monitoring and controlling the project: constructing the progress schedule constructing the summary bar chart, constructing the project status report, status reporting using the milestone approach. Scheduling and Controlling Project Costs: Developing the Project Cost Schedule Monitoring Project Costs. Cost Minimizing: Time/Cost Trade-Offs, Planning Personnel/Labor Requirements, Need for Planning Personnel/Labor, Planning Personnel Requirements, Early Start Scheduling. **12 Hours**

UNIT 3:

ROLE OF THE COMPUTER

Software Packages, features of a Project Management Package,

Background Planning the Project Scheduling the Project, Monitoring the Project Schedule, Controlling Project Costs, Planning for Labor and Personnel, Using the Computer for Planning and Scheduling. **06 Hours**

UNIT 4:

MANAGEMENT SYSTEM

Background developing a plan of action, conducting the audit, preparing the feasibility report, obtaining management approval, planning and scheduling project implementation, procuring, installing, and trying out the equipments, designing and constructing the site **06 Hours PART B**

UNIT 5:

Introduction to IPR, Concept of Property, Mar'x theory on Property, Constitutional aspects of Intellectual property. Basic principles of Patent laws: Historical background in UK, US and India. Basis for IP protection. Criteria for patentability: Novelty, Utility, and Inventive step, Non obviousness, Non patentable invention. **06 Hours**

UNIT 6:

CONVENTIONS & AGREEMENTS

Paris convention (1883), Berne convention for protection of literary and artistic works (1886), Patent Corporation Treaty (PCT), Madrid agreement (1891) and protocols of relative agreement 1989). Rome convention (1961) on the protection of performances, producers of phonograms and Broadcasting organization, TRIPS agreement (1994), WIPO performance and phonograms Treaty (WPPT, 1996). **06 Hours**

UNIT 7:

74

PATENT LAWS & BT

Objectives, Evolution of Biotechnology, Application of Biotechnology, Commercial potential of BT invention, R & D investments, Rationale and applications. Concept of Novelty and Inventive step in BT, Micro organisms and BT inventions, Moral issues in patenting BT invention. Substantiation of Patent laws & international agreements related to pharma, microbial,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

environmental, agricultural and informatics sectors via classical case studies. **06 Hours UNIT 8:**

TRADITIONAL KNOWLEDGE

Introduction, Justification for plant variety protection, International position, UPOV, 1961, 1978, 1991 guidelines, Plant variety protection in India. Justification for geographical indications, Multi-lateral treaties. Concept of Traditional knowledge, stake holders, issues concerning traditional knowledge, Bioprospecting & Biopyracy – ways to tackle, Protectability of traditional knowledge under existing IP framework, need for sui-generis regime, Traditional knowledge on the International arena, Traditional knowledge at WTO and National level, Traditional knowledge digital library. **08 Hours**

TEXT BOOKS

The Law & Strategy of Biotechnology Patents by Sibley Kenneth.

Intellectual Property by Bently and Lionel, Oxford University Press.

Cases and Materials on Intellectual Property by Cornish, W R.

Project Management by Sahni, Ane Books.

Project Management for Business & Engineering: Principles and Practice by John M Nicholas, Elsevier.

Project Management for Business & Technology, Nicholas, PHI.

Practical Approach to IPR by Rachana Singh Puri, IK Intl. Ltd.

REFERENCE BOOKS

Intellectual Property and Criminal Law by Gopalakrishnan, N S, Bangalore: National Law School of India Univeristy.

Intellectual Property Law by Tina Gart and Linda Fazzani, London: McMillan Publishing Co. Intellectual Property Rights in the WTO and developing contry by Watal Jayashree, Oxford University Press.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

BIOETHICS & BIOSAFETY

Sub. Code : 10BT-82 I.A Marks : 25 Hours/week : 04 Exam Hrs. : 03 Total Hours : 52 Exam Marks : 100 PART A

UNIT 1:

BIOTECHNOLOGY AND SOCIETY

Introduction to science, technology and society, issues of access-Case studies/experiences from developing and developed countries. Ownership, monopoly, traditional knowledge, biodiversity, benefit sharing, environmental sustainability, public vs. private funding, biotechnology in international relations, globalization and development divide. Public acceptance issues for biotechnology: Biotechnology and hunger: Challenges for the Indian Biotechnological research and industries. **08 Hours**

UNIT 2:

LEGAL ISSUES

The legal, institutional and socioeconomic impacts of biotechnology; biotechnology and social responsibility, Public education to increase the awareness of bioethics with regard to generating new forms of life for informed decision making – with case studies. **04 Hours**

75

UNIT 3:

BIOETHICS

Principles of bioethics: Legality, morality and ethics, autonomy, human rights, beneficence, privacy, justice, equity etc. The expanding scope of ethics from biomedical practice to biotechnology, bioethics vs. business ethics, ethical dimensions of IPR, technology transfer and other global biotech issues. **06 Hours**

UNIT 4:

BIOSAFETY CONCEPTS AND ISSUES

Ethical conflicts in biotechnology - interference with nature, fear of unknown, unequal distribution of risks and benefits of biotechnology, Rational vs. subjective perceptions of risks and benefits, relationship between risk, hazard, exposure and safeguards,

Biotechnology and <mark>biosafety</mark> concerns at the level of individuals, institutions, society, region, country and the world. The Cartagena protocol on biosafety. Biosafety management. Ethical implications of biotechnological products and techniques. **08 Hours**

PART B

UNIT 5:

BIOSAFETY IN THE LABORATORY

Laboratory associated infections and other hazards, assessment of biological hazards and levels of biosafety, prudent biosafety practices in the laboratory/ institution. Experimental protocol approvals, levels of containment. **04 Hours**

UNIT 6:

REGULATIONS

Biosafety assessment procedures in India and abroad. International dimensions in biosafety,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

bioterrorism and convention on biological weapons. Social and ethical implications of biological weapons. Biosafety regulations and national and international guidelines with regard to recombinant DNA technology. Guidelines for research in transgenic plants. Good manufacturing practice and Good lab practices (GMP and GLP). National and international regulations for food and pharma products. **08 Hours**

UNIT 7:

ECOLOGICAL & FOOD SAFETY

The GM-food debate and biosafety assessment procedures for biotech foods & related products, including transgenic food crops, case studies of relevance. Key to the environmentally responsible use of biotechnology. Environmental aspects of biotech applications. Use of genetically modified organisms and their release in environment. **06 Hours UNIT 8**:

AGRI & PHARMA SECTOR

Discussions on recombinant organisms and transgenic crops, with case studies of relevance. Plant breeder's rights. Legal implications, Biodiversity and farmers rights. Biosafety assessment of pharmaceutical products such as drugs/vaccines etc. Biosafety issues in Clinical Trials.

08 Hours

TEXT BOOKS

Biotechnology and <mark>Safety Assessment</mark> by Thomas, J.A., Fuch, R.L, Academic Press. Biological safety Principles and practices) by Fleming, D.A., Hunt, D.L, ASM Press. Biotechnology - A comprehensive treatise. Legal economic and ethical dimensions VCH. Bioethics by Ben Mepham, Oxford University Press.

Bioethics & Biosafety by R Rallapalli& Geetha Bali, APH Publication.

REFERENCE BOOKS

BIOETHICS & BIOSAFTEY by SATEESH MK, IK Publishers

76

Biotechnologies and development by Sassaon A, UNESCO Publications.

Biotechnologies in developing countries by Sasson A, UNESCO Publishers.

Intellectual Property Rights on Biotechnology by Singh K. BCIL, New Delhi.

WTO and International Trade by M B Rao. Vikas Publishing House Pvt. Ltd.

IPR in Agricultural Biotechnology by Erbisch F H and Maredia K M. Orient Longman Ltd. Cartagena Protocol on Biosafety.

Biological Warfare in the 21st century by M.R. Dano, Brassies London.

Safety Considerations for Biotechnology, Paris, OECD.

Biosafety Management by P.L. Traynor, Virginia polytechnic Institute Publication.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Civil Engineering

ENVIRONMENTAL STUDIES

| Laboratory Code | 17CIV18/17CIV28 | IA Marks | 20 |
|-------------------------------|-----------------|------------|----|
| Number of Lecture Hours/Week | 02 | Exam Marks | 30 |
| Total Number of Lecture Hours | 25 | Exam Marks | 02 |

Course Objectives:

- To identify the major challenges in environmental issues and evaluate possible solutions.
- Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.
- To analyze an overall impact of specific issues and develop environmental management plan.

Module -1 (05 – Hours)

Introduction Environment – Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security. Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, Sustainable Development

Module -2 (05 – Hours)

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & Sulphur Cycle. Energy – Different types of energy, Conventional sources & Non Conventional sources of energy Solar energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as an alternative energy.

Module -3 (05 – Hours)

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects. Global Environmental Issues: Population Growth, Urbanization, Land Management, Water & Waste Water Management.

Module -4 (05 – Hours)

Air Pollution & Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layer depletion, controlling measures. Solid Waste Management, E – Waste Management & Biomedical Waste Management – Sources, Characteristics & Disposal methods.

Module -5 (05 – Hours)

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. Environmental Acts & Regulations, Role of government, Legal aspects, Role of Nongovernmental Organizations (NGOs), Environmental Education & Women Education.

Course Outcome:

Students will be able to,

- Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,
- Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components
- Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Text Books:

- Benny Joseph (2005), "Environmental Studies", Tata McGraw Hill Publishing Company Limited.
- R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.
- R Rajagopalan, "Environmental Studies From Crisis to Cure", Oxford University Press, 2005,

• Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012. Reference Books:

- Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005
- P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006
- S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007
- Erach Bharucha, "Text Book of Environmental Studies", for UGC, University press, 2005
- G.Tyler Miller Jr., "Environmental Science working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004
- G.Tyler Miller Jr., "Environmental Science working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006
- Dr.Pratiba Sing, Dr.AnoopSingh and Dr.Piyush Malaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND HUMAN RIGHTS - 2017 SCHEME VTU CBCS 17CPH39

Module-1Introduction and Basic Information about Indian Constitution 3 hours Introduction and Basic Information about Indian Constitution

 The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, the making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India, Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) & it's present relevance in our society with examples. Fundamental Duties and its Scope and significance in Nation building. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-2 Union Excutive and State Excutive 3 hours

- Union Excutive and State Excutive
 - Parliamentary System, Federal System, Centre-State Relations.
 - Union Executive President, Prime Minister, Union Cabinet, Parliament LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Article 370.371,371J) for some States. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-3 Elections, Amendments and Emergency Provisions 3 hours Elections, Amendments and Emergency Provisions

- Elections, Electoral Process, and Election Commission of India, Election Laws.
- Amendments Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments – 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Recent Amendments with explanation. Important Judgements with Explanation and its impact on society (from the list of Supreme Court Judgements). Emergency Provisions, types of Emergencies and it's consequences. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-4 Constitutional Provisions/ Local Administration/ Human Rights 3 hours Constitutional Provisions/ Local Administration/ Human Rights

Special Constitutional Provisions for SC & ST, OBC, Special Provision for Women, Children & Backward Classes. Local Administration: Powers and functions of Municipalities and Panchayats System. Co – Operative Societies and Constitutional and Non-constitutional Bodies. Human Rights/values – Meaning and Definitions, Legislative Specific Themes in Human Rights and Functions/ Roles of National Human Rights Commission of India. Human Rights (Amendment Act)2006.

Module-5 Professional / Engineering Ethics 3 hours Professional / Engineering Ethics

• Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Ethics, Code of Ethics as defined in the website of Institution of Engineers (India) : Profession, Professionalism, Professional Responsibility. Clash of Ethics, Conflicts of Interest.

Responsibilities in Engineering

• Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliability in Engineering, IPRs (Intellectual Property Rights),

• Risks, Safety and liability in Engineering. (Duration: 03 Hours & RBT Levels: L1, L2 & L3) Course Outcomes:

On completion of this course, students will be able to,

- 1. Have general knowledge and legal literacy about Indian Constitution and there by it helps to take up competitive examinations & to manage/face complex societal issues in society.
- 2. Understand state and central policies(Union and State Excutive), fundamental Rights & their duties.
- 3. Understand Electoral Process, Amendments and special provisions in Constitution.
- 4. Understand powers and functions of Municipalities, Panchayats and Co-operative Societies, with Human Rights and NHRC.
- 5. Understand Engineering & Professional ethics and responsibilities of Engineers.

Question paper pattern for SEE and CIE.

- The SEE question paper will be set for 30 marks and the pattern of the question paper will be objective type (MCQ).
- For the award of 20 CIE marks, refer the University Scheme and Syllabus book.

Text Books:

- 1. Durga Das Basu (DD Basu): Introduction to the Constitution on India, (Students Edition.) Prentice -Hall EEE, 19th / 20th Edn., (Latest Edition) or 2008.
- 2. Shubham Singles, Charles E. Haries, and Et al: Constitution of India and Professional Ethics by Cengage Learning India Private Limited, Latest Edition 2018.

Reference Books:

- 1. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, Engineering Ethics, Prentice -Hall of India Pvt. Ltd. New Delhi, 2004
- 2. M.V.Pylee, An Introduction to Constitution of India, Vikas Publishing, 2002.
- 3. Latest Publications of NHRC Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

1st Year / 2nd Semester Civil Engineering ENVIRONMENTAL STUDIES (17CIV18/17CIV28)

| 2nd Year / 1st | Civil | Kannada/Constitution of India, Professional Ethics and |
|----------------|-------------|--|
| Semester | Engineering | Human Rights 17KL/CPH39/49 |
| 3rd Year / 2nd | Civil | |
| Semester | Engineering | Environmental Protection and Management (17CV662) |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Automobile Engineering

Visvesvaraya Technological University, Belagavi

REGULATIONS GOVERNING THE DEGREE OF BACHELOR OF ENGINEERING/ TECHNOLOGY (B.E/B.Tech) UNDER CHOICE BASED CREDIT SYSTEM (CBCS) Effective from the academic year 2017-18

Annexure -1

| | | | YA TECHNOL me of Teaching | and Examina | tion 201 | 7-2018 | GAVI | | • | | |
|-----------|-------------|--|--|--|----------|-----------------------------------|----------------------|-----------|------------------|-------------|---------|
| - | | | Choice Based SEMESTER B.E. | | | | | | | | _ |
| | | | | | Te | sching rs/V == | | Funie | ation | _ | Γ |
| SL. No | Course Code | Course Title | Traching | Board | Theory | Practical ^V Drawing | Duration in hours | SEE Marks | CIE Marks | Total Marks | Credits |
| 1 | 17MAT11 | Engineering Mathematics | Mathematics | Basic Science | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 2 | 1798912 | Engineering Physics | Physics | Basic Science | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 3 | 170113 | Elements of Civil Engineering and Mechanics | Civil Engineering | Civil Engiseering | 04 | ÷. | 03 | 60 | 40 | 100 | 4 |
| 4 | 17EME14 | Elements of Mechanical Engineering | Mechanical Engineering | Mechanical Engineering | 04 | * | 03 | 60 | 40 | 100 | 4 |
| 5 | ITELEIT | Basic Electrical Engineering | E and E Engineering | E and E Engineering | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 6 | 17WSL16 | Workshop Practice | ME, Auto, IP, IEM, Mig Engineering | Mechanical Engineering | | Instruction Practical | 03 | 60 | 40 | 100 | 2 |
| 7 | 17PHYL17 | Engineering Physics Laboratory | Physics | Basic Science | | Instruction Practical | 63 | 60 | 40 | 100 | 2 |
| 8 | I7ENGI8 | Language - English (Audit Course) | Humanities | 1.00 | 01 | | | | - | | |
| | | And and a second se | | TOTAL | | 21 hours al: 06 hours | 21 | 420 | 280 | 700 | 2 |
| - | | 1 | SEMESTER B.E./ | R.Tech. (CHEMIS | TRY GR | OUP) | | | | | |
| 1 | 17MAT21 | Engineering Mathematics | Mathematics | Basic Science | 04 | | 03 | 60 | 40 | 100 | 4 |
| 2 | 17CHE22 | Engineering Chemistry | Chemistry | Basic Science | - 64 | | 03 | 60 | 40 | 100 | 4 |
| 3 | 17PCD23 | Programming in C and Data Structures | Any Engineering Department | Computer Science and Engineering | 64 | | 03 | 60 | 40 | 100 | 4 |
| 4 | 17CED24 | Computer Aided Engineering Drawing | ME, Auto, IP, IEM, Mfg Engineering | Mechanical Engineering | | Instruction Practice | 03 | 60 | 40 | 100 | 4 |
| 5 | 17ELN25 | Basic Electronics | ECE/EEE/TC/E and I | E and C Engineering | -04 | - | 03 | 60 | 40 | 109 | 4 |
| 6 | 17CPL26 | Computer Programming Laboratory | Any Engineering Department | Competer Science and Engineering | 02Hour | Tutorial Practical | 03 | 60 | 40 | 100 | 2 |
| 7 | 17CHEL27 | Engineering Chemistry Laboratory | Chemistry | Basic Science | | Tutorial Practical | 03 | 60 | -40 | 100 | 2 |
| 8 | 17CTV28 | Environmental Studies (Audit Course) | Civil/ Environmental Engineering | Civil Engineering | OlTuter | ial | - | 30 | 20 | 50 | 0 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engorincipal@theoxford.edu Web: www.theoxfordengg.org

ENVIRONMENTAL STUDIES

| Laboratory Code | 17CIV18/17CIV28 | IA Marks | 20 |
|-------------------------------|-----------------|------------|----|
| Number of Lecture Hours/Week | 02 | Exam Marks | 30 |
| Total Number of Lecture Hours | 25 | Exam Marks | 02 |

Course Objectives:

- To identify the major challenges in environmental issues and evaluate possible solutions.
- Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.
- To analyze an overall impact of specific issues and develop environmental management plan.

Module -1 (05 – Hours)

Introduction Environment – Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security. Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, Sustainable Development

Module -2 (05 – Hours)

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & Sulphur Cycle. Energy – Different types of energy, Conventional sources & Non Conventional sources of energy Solar energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as an alternative energy.

Module -3 (05 – Hours)

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects. Global Environmental Issues: Population Growth, Urbanization, Land Management, Water & Waste Water Management.

Module -4 (05 – Hours)

Air Pollution & Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layer depletion, controlling measures. Solid Waste Management, E – Waste Management & Biomedical Waste Management – Sources, Characteristics & Disposal methods.

Module -5 (05 – Hours)

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. Environmental Acts & Regulations, Role of government, Legal aspects, Role of Nongovernmental Organizations (NGOs), Environmental Education & Women Education.

Course Outcome:

Students will be able to,

- Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,
- Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,
- Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

• Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Text Books:

- Benny Joseph (2005), "Environmental Studies", Tata McGraw Hill Publishing Company Limited.
- R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.
- R Rajagopalan, "Environmental Studies From Crisis to Cure", Oxford University Press, 2005,
- Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012. Reference Books:
 - Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005
 - P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006
 - S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007
 - Erach Bharucha, "Text Book of Environmental Studies", for UGC, University press, 2005
 - G.Tyler Miller Jr., "Environmental Science working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004
 - G.Tyler Miller Jr., "Environmental Science working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006
 - Dr.Pratiba Sing, Dr.AnoopSingh and Dr.Piyush Malaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi.

Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND HUMAN RIGHTS - 2017 SCHEME

VTU CBCS 17CPH39

Module-1Introduction and Basic Information about Indian Constitution 3 hours Introduction and Basic Information about Indian Constitution

 The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, the making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) & it's present relevance in our society with examples. Fundamental Duties and its Scope and significance in Nation building. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-2 Union Excutive and State Excutive 3 hours

Union Excutive and State Excutive

- Parliamentary System, Federal System, Centre-State Relations.
- Union Executive President, Prime Minister, Union Cabinet, Parliament LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Article 370.371,371J) for some States. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-3 Elections, Amendments and Emergency Provisions 3 hours

Elections, Amendments and Emergency Provisions

- Elections, Electoral Process, and Election Commission of India, Election Laws.
- Amendments Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Recent Amendments with explanation. Important Judgements with Explanation and its impact on society (from the list of Supreme Court Judgements). Emergency Provisions, types of Emergencies and it's consequences. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-4 Constitutional Provisions/ Local Administration/ Human Rights 3 hours Constitutional Provisions/ Local Administration/ Human Rights

Special Constitutional Provisions for SC & ST, OBC, Special Provision for Women, Children & Backward Classes. Local Administration: Powers and functions of Municipalities and Panchayats System. Co – Operative Societies and Constitutional and Non-constitutional Bodies. Human Rights/values – Meaning and Definitions, Legislative Specific Themes in Human Rights and Functions/ Roles of National Human Rights Commission of India. Human Rights (Amendment Act)2006.

Module-5 Professional / Engineering Ethics 3 hours Professional / Engineering Ethics

• Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India) : Profession, Professionalism, Professional Responsibility. Clash of Ethics, Conflicts of Interest.

Responsibilities in Engineering



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliability in Engineering, IPRs (Intellectual Property Rights),
- Risks, Safety and liability in Engineering. (Duration: 03 Hours & RBT Levels: L1, L2 & L3) Course Outcomes:

On completion of this course, students will be able to,

- 21. Have general knowledge and legal literacy about Indian Constitution and there by it helps to take up competitive examinations & to manage/face complex societal issues in society.
- 22. Understand state and central policies(Union and State Excutive), fundamental Rights & their duties.
- 23. Understand Electoral Process, Amendments and special provisions in Constitution.
- 24. Understand powers and functions of Municipalities, Panchayats and Co-operative Societies, with Human Rights and NHRC.
- 25. Understand Engineering & Professional ethics and responsibilities of Engineers.

Question paper pattern for SEE and CIE.

- The SEE question paper will be set for 30 marks and the pattern of the question paper will be objective type (MCQ).
- For the award of 20 CIE marks, refer the University Scheme and Syllabus book.

Text Books:

- 9. Durga Das Basu (DD Basu): Introduction to the Constitution on India, (Students Edition.) Prentice -Hall EEE, 19th / 20th Edn., (Latest Edition) or 2008.
- 10. Shubham Singles, Charles E. Haries, and Et al: Constitution of India and Professional Ethics by Cengage Learning India Private Limited, Latest Edition 2018.

Reference Books:

- 13. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, Engineering Ethics, Prentice -Hall of India Pvt. Ltd. New Delhi, 2004
- 14. M.V.Pylee, An Introduction to Constitution of India, Vikas Publishing, 2002.
- 15. Latest Publications of NHRC Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E. Mechanical Engineering

| | | | Te | aching Hou | irs /Week | · | Examin | ation | | Credits |
|-----------|-----------------|--------------------------------------|---------|--------------|--------------------------|---------------------|-------------------------------|---------------|----------------|---------|
| SL. No | Subject Code | Title | Lecture | Tutoria | l Practical | Duration (Hours) | Theory/ Practical Marks | I.A. Marks | Total Marks | |
| 1 | 15ME51 | Management and Engineering Economics | 3 | 2 | 0 | 03 | 80 | 20 | 100 | 4 |
| 2 | 15ME52 | Dynamics of Machinery | 3 | 2 | 0 | 03 | 80 | 20 | 100 | 4 |
| 3 | 15ME53 | Turbo Machines | 3 | 2 | 0 | 03 | 80 | 20 | 100 | 4 |
| 4 | 15ME54 | Design of Machine Elements - I | 3 | 2 | 0 | 03 | 80 | 20 | 100 | 4 |
| 5 | 15ME55X | Professional Elective-I | 3 | 0 | 0 | 03 | 80 | 20 | 100 | 3 |
| 6 | 15ME56X | Open Elective-I | 3 | 0 | 0 | 03 | 80 | 20 | 100 | 3 |
| 7 | 15MEL57 | Fluid Mechanics & Machinery Lab | 1 | 0 | 2 | 03 | 80 | 20 | 100 | 2 |
| 8 | 15MEL58 | Energy Lab | 1 | 0 | 2 | 03 | 80 | 20 | 100 | 2 |
| | | TOTAL | 21 | 06 | 04 | | 640 | 160 | 800 | 26 |
| | Professional | Elective-1 | 0 | pen Elective | 1 | 2 | 5 | ti i | | |
| | 15ME551 | Refrigeration and Air-conditioning | 15 | 5ME561 (| Optimization Techniques | | | | | |
| | 15ME552 | 552 Theory of Elasticity | | 5ME562 | 2 Energy and Environment | | | | | |
| | 15ME553 | Human Resource Management | 15 | 5ME563 | Automation and Robotics | | | | | |
| | 15ME554 | Non Traditional Machining | 15 | ME564 1 | Project Managem | et | | | | |

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Professional Elective: Elective relevant to chosen specialization/ branch

3. OpenElective: Electives from other technical and/or emerging subject areas.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MANAGEMENT AND ENGINEERING ECONOMICS

| Course | Cada | Credits | L-T-P | Assessment | | Exam | |
|--------------------------------------|--------|---------|-------|------------|-----|----------|--|
| Course | Code | Credits | L-1-P | SEE | CIA | Duration | |
| Management And Engineering Economics | 15ME51 | 04 | 3-2-0 | 80 | 20 | 3Hrs | |

MODULE -1

Management: Introduction - Meaning - nature and characteristics of Management, Scope and Functional areas of management - Management as ascience, art of profession - Management & Administration - Roles of Management, Levels of Management, Development of Management Thought- early management approaches - Modern management approaches

Planning: Nature, importance and purpose of planning process Objectives -Types of plans (Meaning Only) - Decision making Importance of planning steps in planning & planning premises - Hierarchy of plans. 10 Hours

MODULE - 2

Organizing And Staffing: Nature and purpose of organization Principles of organization - Types of organization - Departmentation Committees-Centralization Vs Decentralization of authority and responsibility - Span of control - MBO and MBE (Meaning Only) Nature and importance of staffing--:Process of Selection & Recruitment (in brief).

Directing & Controlling: Meaning and nature of directing Leadershipstyles, Motivation Theories, Communication - Meaning and importance coordination, meaning and importance and Techniques of Co Ordination. Meaning and steps in controlling - Essentials of a sound control system -Methods of establishing control (in brief) 10 Hours

MODULE -3

Introduction: Engineering and economics, Problem solving and decision making, Laws of demand and supply, Difference between Microeconomics & Macroeconomics, equilibrium between demand & supply, elasticity of demand, price elasticity, income elasticity Law of Returns, Interest and interest factors, simple and compound interest, Cash flow diagrams, personal loans and EMI payment calculation with flexible interest rates, Discussion and problems 10 Hours

MODULE -4

Present, future and annual worth and rate of returns: Basic present worth comparisons, Present worth-equivalence, Assets with unequal lives and infinites lives, future worth comparisons, payback comparisons, Equivalent annual worth comparisons, situations for annual worth comparisons Asset life, Rate of return, minimum acceptable rate of return, IRR anomalies and misconceptions, Cost of capital, comparisons of all present future and annual worth with IRR, product costing, Discussions and problems 10 Hours

MODULE -5

Costing and depreciation: Components of costs, estimation of selling price, marginal cost, first cost, all kinds of overheads, indirect cost estimation with depreciation, mensuration and estimation of material cost, cost estimation of mechanical process, idling time.

Product costing (approaches to product costing), causes of depreciation, methods of computing depreciation charges, straight line method, declining balance method, sum of years method, sinking fund method, service output methods, taxation concepts, personal income taxes and corporate taxes, 10 Hours Discussions and problems.

Course outcomes

- On completion of this subject students will be able to
- 1. Understand needs, functions, roles, scope and evolution of Management
- 2. Understand importance, purpose of Planning and hierarchy of planning and also analyze its types
- 3. Discuss Decision making, Organizing, Staffing, Directing and Controlling
- 4. Select the best economic model from various available alternatives
- 5. Understand various interest rate methods and implement the suitable one.
- 6. Estimate various depreciation values of commodities
- 7. Prepare the project reports effectively.

TEXT BOOKS

- Principles of Management by Tripathy and Reddy 1
- Mechanical estimation and costing, T.R. Banga& S.C. Sharma, 17th edition 2015 Engineering Economy, Riggs J.L. McGraw Hill, 2002 2
- Engineering Economy, Thuesen H.G. PHI, 2002

REFERENCE BOOKS

- Management Fundamentals- Concepts, Application, Skill Development RobersLusier Thomson
- Basics of Engineering Economy, Leland Blank & Anthony Tarquin, McGraw Hill Publication (India) Private Limited 2
- 3 Engineering Economics, R.Paneerselvam, PHI publication
- Fundamentals of Management: Essential Concepts and Applications, Pearson Education, Robbins S.P. and Decenzo David A. 4
- 5. Economics: Principles of Economics, N Gregory Mankiw, Cengage Learning
- 6. Modern Economic Theory, By Dr. K. K. Dewett& M. H. Navalur, S. Chand Publications



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

HUMAN RESOURCE MANAGEMENT (Professional Elective-I)

| Course | Code | Credits | L-T-P | Asses | sment | Exam |
|------------------------------|---------|---------|-------|-------|-------|----------|
| Course | Code | Credits | L-I-P | SEE | CIA | Duration |
| Human Resource Management | 15ME553 | 03 | 3-0-0 | 80 | 20 | 3Hrs |

Course Objectives:

1. To develop a meaningful understanding of HRM theory, functions and practices.

2. To apply HRM concepts and skills across various types of organizations.

Module - 1

Human Resource Management

Introduction, meaning, nature, scope of HRM. Importance and Evolution of the concept of HRM. Major functions of HRM, Principles of HRM, Organization of Personnel department, Role of HR Manager.

Job Analysis: Meaning, process of job analysis, methods of collecting job analysis data, Job Description and Specification, Role Analysis.

Human Resource Planning: Objectives, Importance and process of Human Resource planning, Effective HRP Recruitment: Definition, Constraints and Challenges, Sources and Methods of Recruitment, New Approaches to recruitment.

Selection: Definition and Process of Selection. **08** hours

Module - 3

Module - 2

Placement: Meaning, Induction/Orientation, Internal Mobility, Transfer, Promotion, Demotion and Employee Separation. Training and development: Training v/s development, Training v/s Education, Systematic Approach to Training, Training Methods, Executive Development, Methods and Development of Management Development, Career and Succession Planning.

Module - 4

Performance Appraisal: Concept of Performance Appraisal, the Performance Appraisal process, Methods of Performance Appraisal, Essential Characteristic of an Effective Appraisal System.

Compensation: Objectives of Compensation Planning, Job Evaluation, Compensation Pay Structure in India, Wage and Salary Administration, Factors Influencing Compensation Levels, Executive Compensation. 09 hours

08 hours

08 hours



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Module - 5

Employee Welfare: Introduction, Types of Welfare Facilities and Statutory Provisions. Employee Grievances: Employee Grievance procedure, Grievances management in Indian Industry. Discipline: Meaning, approaches to discipline, essential of a good disciplinary system, managing difficult employees.

Course Outcomes

- On completion of the course the student will be able to
 - Understand the importance, functions and principles Human Resource Management and process of Job analysis 1
 - 2. Summarize the objectives of Human Resource planning, Recruitment and selection process
 - 3. Understand the process involved in Placement, Training and development activities.
 - 4. Understand the characteristics of an effective appraisal system and compensation planning.
 - 5. Understand the issues related to employee welfare, grievances and discipline.

TEXTBOOKS

- 1. Human Resource Management- Rao V.S.P, Excel books, 2010
- Human Resource Management- Cynthia D. Fisher, 3/e, AIPD, Chennai 2.
- Human Resource Management: A South Asian Perspective, Snell, Bohlander&Vohra, 16th Rep., Cengage Learning, 2012 3
- Human Resource Management- Lawrence S Kleeman, Biztantra, 2012
 Human Resource Management- Aswathappa K, HPH

REFERENCE BOOKS

- Human Resource Management- John M. Ivancevich, 10/e, McGraw Hill, 1.
- 2. Human Resource Management in Practice- Srinivas R. Kandulla, PHI
- 3. Human Resource Management- Luis R Gomez-Mejia, David B. Balkin, Robert L Cardy, 6/e, PHI, 2010

09 hours



(Recognised by the Govt, of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi, Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

ENERGY AND ENVIRONMENT (OPEN ELECTIVE - I)

| Course | Code | Credits | LTD | Asses | sment | Exam |
|------------------------|---------|---------|-------|-------|-------|----------|
| Course | Code | Credits | L-1-P | SEE | CIA | Duration |
| Energy And Environment | 15ME562 | 03 | 3-0-0 | 80 | 20 | 3Hrs |

Course Objectives

- 1. Understand energy scenario, energy sources and their utilization
- 2. Learn about methods of energy storage, energy management and economic analysis
- 3. Have proper awareness about environment and eco system.
- 4. Understand the environment pollution along with social issues and acts.

Module - I

Basic Introduction to Energy: Energy and power, forms of energy, primary energy sources, energy flows, world energy production and consumption, Key energy trends in India: Demand, Electricity, Access to modern energy, Energy production and trade, Factors affecting India's energy development: Economy and demographics Policy and institutional framework, Energy prices and affordability, Social and environmental aspects, Investment 8 Hours

Module - II

Energy storage systems: Thermal energy storage methods, Energy saving, Thermal energy storage systems Energy Management: Principles of Energy Management, Energy demand estimation, Energy pricing Energy Audit: Purpose, Methodology with respect to process Industries, Characteristic method employed in Certain Energy Intensive Industries Economic Analysis: Scope, Characterization of an Investment Project 10 Hours

Module - III

Environment: Introduction, Multidisciplinary nature of environmental studies- Definition, scope and importance, Need for public awareness Ecosystem: Concept, Energy flow, Structure and function of an ecosystem. Food chains, food webs and ecological pyramids, Forest ecosystem, Grassland ecosystem, Desert ecosystem and Aquatic ecosystems, Ecological succession. 8 Hours Module - IV

Environmental Pollution: Definition, Cause, effects and control measures of - Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution and Nuclear hazards, Solid waste Management, Disaster management Role of an individual in prevention of pollution, Pollution case studies. 8 Hours

Module - V

Social Issues and the Environment: Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies. Wasteland reclamation, Consumerism and waste products, Environment Protection Act, Air (Prevention and Control of Pollution) Act, Water (Prevention and control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act, Issues involved in enforcement of environmental legislation.

8 Hours

Course Outcomes

At the end of the course, the student will be able to:

- Summarize the basic concepts of energy, its distribution and general Scenario. 1.
- 2. Explain different energy storage systems, energy management, audit and economic analysis
- 3. Summarize the environment eco system and its need for awareness
- 4. Identify the various types of environment pollution and their effects.
- 5. Discuss the social issues of the environment with associated acts.

TEXT BOOKS:

- 1. Textbook for Environmental Studies For Undergraduate Courses of all Branches of Higher Education by University grant commission and Bharathi Vidyapeeth Institute of environment education and Research ,Pune
- 2. De, B. K., Energy Management audit & Conservation, 2nd Edition, Vrinda Publication, 2010.

REFERENCE BOOKS:

- 1. Turner, W. C., Doty, S. and Truner, W. C., Energy Management Hand book, 7th edition, Fairmont Press, 2009.
- 2. Murphy, W. R., Energy Management, Elsevier, 2007.
- 3. Smith, C. B., Energy Management Principles, Pergamum, 2007
- Environment pollution control Engineering by C S rao, New Age Instermnational, 2006, reprint 2015, 2nd edition 4.
- 5. Environmental studies, by Benny Joseph, Tata McGraw Hill, 2008, 2nd edition.

E- Learning

- India Energy Outlook 2015(www.iea.org/.../IndiaEnergyOutlook_WEO2015.pdf)
- Open courseware



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

PROJECT MANAGEMENT (OPEN ELECTIVE - I)

| Course | Cale | Contra | LTD | Asses | sment | Exam |
|--------------------|---------|---------|-------|-------|-------|----------|
| Course | Code | Credits | L-1-P | SEE | CIA | Duration |
| Project Management | 15ME564 | 03 | 3-0-0 | 80 | 20 | 3Hrs |

MODULE - 1

Introduction: Definition of project, characteristics of projects, understandprojects, types of projects, scalability of project tools, project roles

Project Selection And Prioritization – Strategic planning process, Strategicanalysis, strategic objectives, portfolio alignment – identifying potentialprojects, methods of selecting projects, financial mode / scoring models toselect projects, prioritizing projects, securing and negotiating projects. 08 Hours

MODULE - 2

Planning Projects: Defining the project scope, Project scope checklist, Project priorities, Work Breakdown Structure (WBS), Integrating WBS with organisation, coding the WBS for the information system.

Scheduling Projects: Purpose of a project schedule, historical development, how project schedules are limited and created, develop project schedules, uncertainty in project schedules, Gantt chart. 08 Hours

MODULE - 3

Resourcing Projects: Abilities needed when resourcing projects, estimateresource needs, creating staffing management plant, project teamcomposition issues, Budgeting Projects: Cost planning, cost estimating, cost budgeting, establishing cost control. Project Risk Planning: Risk Management Planning, risk identification, riskanalysis, risk response planning, Project Quality Planning and ProjectKickoff: Development of quality concepts, project quality management plan, project quality tools, kickoff project, baseline and communicate projectmanagement

08 Hours

MODULE -4

plan, using Microsoft Project for project baselines.

Performing Projects: Project supply chain management: - Plan purchasingand acquisitions, plan contracting, contact types, project partnering and collaborations, project supply chain management.

27



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Project Progress and Results: Project Balanced ScorecardApproach, Internal project, customer, financial issues, Finishing the project: Terminateproject early, finish projects on time, secure customer feedback and approval knowledge management, perform administrative and contract closure **08 Hours**

MODULE - 5

Network Analysis

Introduction, network construction - rules, Fulkerson's rule for numbering the events, AON and AOA diagrams; Critical path method (CPM) to find the expected completion time of a project, floats; PERTfor finding expected duration of an activity and project, determining the probability of completing a project, predicting the completion time of project; crashing of simple projects. 10 Hours

Course Outcomes

On completion of the course the student will be able to

- 1. Understand the selection, prioritization and initiation of individual projects and strategic role of project management.
- Understand the work breakdown structure by integrating it with organization. 2.
- 2
- 4
- Understand the scheduling and uncertainty in projects. Students will be able to understand risk management planning using project quality tools. Understand the activities like purchasing, acquisitions, contracting, partnering and collaborations related to performing projects. Determine project progress and results through balanced scorecard approach 5
- 6.
- 7. Draw the network diagram to calculate the duration of the project and reduce it using crashing.

TEXT BOOKS

- 1. Project Management, Timothy J Kloppenborg, Cengage Learning, Edition 2009.
- Project Management, A systems approach to planning scheduling and controlling by Harold kerzner, CBS publication
 Project Management by S Choudhury, Mc Graw Hill Education (India) Pvt. Ltd. New Delhi, 2016

REFERENCE BOOKS

- 1. Project Management, Pennington Lawrence, Mc Graw hill
- Project Management, A Moder Joseph and Phillips New Yark Van Nostrand, Reinhold.
- 3. Project Management, Bhavesh M. Patal, Vikas publishing House,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Mechatronics

ENVIRONMENTAL STUDIES

| Laboratory Code | 17CIV18/17CIV28 | IA Marks | 20 |
|-------------------------------|-----------------|------------|----|
| Number of Lecture Hours/Week | 02 | Exam Marks | 30 |
| Total Number of Lecture Hours | 25 | Exam Marks | 02 |

Course Objectives:

- To identify the major challenges in environmental issues and evaluate possible solutions.
- Develop analytical skills, critical thinking and demonstrate socio-economic skills for sustainable development.
- To analyze an overall impact of specific issues and develop environmental management plan.

Module -1 (05 – Hours)

Introduction Environment – Components of Environment Ecosystem: Types & Structure of Ecosystem, Balanced ecosystem Human Activities – Food, Shelter, And Economic & Social Security. Impacts of Agriculture & Housing Impacts of Industry, Mining & Transportation Environmental Impact Assessment, Sustainable Development

Module -2 (05 – Hours)

Natural Resources, Water resources – Availability & Quality aspects, Water borne diseases & water induced diseases, Fluoride problem in drinking water Mineral resources, Forest Wealth Material Cycles – Carbon Cycle, Nitrogen Cycle & Sulphur Cycle. Energy – Different types of energy, Conventional sources & Non Conventional sources of energy Solar energy, Hydro electric energy, Wind Energy, Nuclear energy, Biomass & Biogas Fossil Fuels, Hydrogen as an alternative energy.

Module -3 (05 – Hours)

Environmental Pollution – Water Pollution, Noise pollution, Land Pollution, Public Health Aspects. Global Environmental Issues: Population Growth, Urbanization, Land Management, Water & Waste Water Management.

Module -4 (05 – Hours)

Air Pollution & Automobile Pollution: Definition, Effects – Global Warming, Acid rain & Ozone layer depletion, controlling measures. Solid Waste Management, E – Waste Management & Biomedical Waste Management – Sources, Characteristics & Disposal methods.

Module -5 (05 – Hours)

Introduction to GIS & Remote sensing, Applications of GIS & Remote Sensing in Environmental Engineering Practices. Environmental Acts & Regulations, Role of government, Legal aspects, Role of Nongovernmental Organizations (NGOs), Environmental Education & Women Education.

Course Outcome:

Students will be able to,

• Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,
- Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components
- Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Text Books:

- Benny Joseph (2005), "Environmental Studies", Tata McGraw Hill Publishing Company Limited.
- R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), "Environmental Studies", Wiley India Private Ltd., New Delhi.
- R Rajagopalan, "Environmental Studies From Crisis to Cure", Oxford University Press, 2005,

• Aloka Debi, "Environmental Science and Engineering", Universities Press (India) Pvt. Ltd. 2012. Reference Books:

- Raman Sivakumar, "Principals of Environmental Science and Engineering", Second Edition, Cengage learning Singapore, 2005
- P. Meenakshi, "Elements of Environmental Science and Engineering", Prentice Hall of India Private Limited, New Delhi, 2006
- S.M. Prakash, "Environmental Studies", Elite Publishers Mangalore, 2007
- Erach Bharucha, "Text Book of Environmental Studies", for UGC, University press, 2005
- G.Tyler Miller Jr., "Environmental Science working with the Earth", Tenth Edition, Thomson Brooks /Cole, 2004
- G.Tyler Miller Jr., "Environmental Science working with the Earth", Eleventh Edition, Thomson Brooks /Cole, 2006
- Dr.Pratiba Sing, Dr.AnoopSingh and Dr.Piyush Malaviya, "Text Book of Environmental and Ecology", Acme Learning Pvt. Ltd. New Delhi.

Later 1974

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND HUMAN RIGHTS - 2017 SCHEME VTU CBCS 17CPH39

Module-1Introduction and Basic Information about Indian Constitution 3 hours Introduction and Basic Information about Indian Constitution

• The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, the making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) & it's present relevance in our society with examples. Fundamental Duties and its Scope and significance in Nation building. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-2 Union Excutive and State Excutive 3 hours

Union Excutive and State Excutive

- Parliamentary System, Federal System, Centre-State Relations.
- Union Executive President, Prime Minister, Union Cabinet, Parliament LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Article 370.371,371J) for some States. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-3 Elections, Amendments and Emergency Provisions 3 hours Elections, Amendments and Emergency Provisions

- Elections, Electoral Process, and Election Commission of India, Election Laws.
- Amendments Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments – 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Recent Amendments with explanation. Important Judgements with Explanation and its impact on society (from the list of Supreme Court Judgements). Emergency Provisions, types of Emergencies and it's consequences. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Module-4 Constitutional Provisions/ Local Administration/ Human Rights 3 hours Constitutional Provisions/ Local Administration/ Human Rights

Special Constitutional Provisions for SC & ST, OBC, Special Provision for Women, Children & Backward Classes, Local Administration: Powers and functions of Municipalities and Panchayats System. Co – Operative Societies and Constitutional and Non-constitutional Bodies. Human Rights/values – Meaning and Definitions, Legislative Specific Themes in Human Rights and Functions/ Roles of National Human Rights Commission of India. Human Rights (Amendment Act)2006.

Module-5 Professional / Engineering Ethics 3 hours

Professional / Engineering Ethics

• Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India) : Profession, Professionalism, Professional Responsibility. Clash of Ethics, Conflicts of Interest.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Responsibilities in Engineering

- Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliability in Engineering, IPRs (Intellectual Property Rights),
- Risks, Safety and liability in Engineering. (Duration: 03 Hours & RBT Levels: L1, L2 & L3)

Course Outcomes:

On completion of this course, students will be able to,

- 1. Have general knowledge and legal literacy about Indian Constitution and there by it helps to take up competitive examinations & to manage/face complex societal issues in society.
- 2. Understand state and central policies(Union and State Excutive), fundamental Rights & their duties.
- 3. Understand Electoral Process, Amendments and special provisions in Constitution.
- 4. Understand powers and functions of Municipalities, Panchayats and Co-operative Societies, with Human Rights and NHRC.
- 5. Understand Engineering & Professional ethics and responsibilities of Engineers.

Question paper pattern for SEE and CIE.

- The SEE question paper will be set for 30 marks and the pattern of the question paper will be objective type (MCQ).
- For the award of 20 CIE marks, refer the University Scheme and Syllabus book.

Text Books:

- 1. Durga Das Basu (DD Basu): Introduction to the Constitution on India, (Students Edition.) Prentice -Hall EEE, 19th / 20th Edn., (Latest Edition) or 2008.
- 2. Shubham Singles, Charles E. Haries, and Et al: Constitution of India and Professional Ethics by Cengage Learning India Private Limited, Latest Edition 2018.

Reference Books:

- 1. M.Govindarajan, S.Natarajan, V.S.Senthilkumar, Engineering Ethics, Prentice -Hall of India Pvt. Ltd. New Delhi, 2004
- 2. M.V.Pylee, An Introduction to Constitution of India, Vikas Publishing, 2002.
- 3. Latest Publications of NHRC Indian Institute of Human Rights, New Delhi.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Curriculum Highlighting Cross Cutting Issues - PG



SCHEME OF TEACHING AND EXAMINATION MASTER OF BUSINESS ADMINISTRATION

| | I SEMESTER | | | | | | | | | |
|-----------------|---|-------------|-----------------------|---|----------------------|----------|-----------|-----|--------------|----|
| | | Category | Teaching hours / week | | | Duration | Marks for | | | |
| Subject Code | Title of the Subject | | Lecture | Practical / Field Work / Assignment * | ld Work / Total (How | | IA Exam | | un Marks Cre | |
| 16MBA11 | Management & Organizational Behaviour | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| 16MBA12 | Managerial Economics | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| 16MBA13 | Accounting for Managers | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| 16MBA14 | Quantitative Methods | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| 16MBA15 | Marketing Management | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| 16MBA16 | Managerial Communications | Core Course | 3 | 2 | 5 | 3 | 20 | 80 | 100 | 4 |
| | Total | | 18 | 12 | 30 | | 120 | 480 | 600 | 24 |

* Practical /Field Work / Assignment is a part of contact hours for the faculty and must be considered in the workload.

SEMESTER I

MANAGEMENT & ORGANIZATIONAL BEHAVIOUR

Subject Code : 16MBA11 IA Marks : 20

No. of Lecture Hours / Week: 03 Exam Hours : 03

Number of Lecture Hours : 56 Exam Marks : 80

Practical Component : 02 Hours / Week

Course Objectives:

• To make students understand fundamental concepts and principles of management, including the basic roles, skills, and functions of management

• To make students knowledgeable of historical development, theoretical aspects and practice applications of managerial process



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

• To understand the basic concepts and theories underlying individual behavior besides developing better insights into one's own self

• To make students aware of Individual behavior in groups, dynamics of groups and team building besides developing a better awareness of how they can be better facilitators for building effective teams as leaders themselves

Course Outcomes:

At the end of the course students are able to:

_ Comprehend & correlate all the management activities which are happening around them with fundamental concepts and principles of management.

_ Get an overview of management, theory of management and practical applications of the same.

_ Effectively use their individual skill to work in groups to achieve organizational goals and ability to lead groups/teams.

_ Demonstrate their acumen in applying managerial and behavioral concept in real world/situation.

Part A - Principles of Management

Unit 1: (8 Hours)

Introduction: Management: Introduction, Definition of management, Nature, Purpose and Functions, Levels and types of managers, managerial roles, skills for managers, evolution of management thought, Fayol's fourteen principles of management, Recent trends in management.

Unit 2: (12 Hours)

Planning and Organizing:

Planning: Nature of Planning, Planning Process, Objectives, MBO, Strategies, level of strategies, policies, methods and programs, Planning Premises, Decision-making, Process of decision-making, Types of decisions, Techniques in decision-making.

Organizing: Organization structure, Formal and informal organizations, Principles of organizationschain of command, span of control, delegation, decentralization, and empowerment. Functional, divisional, geographical, customer based and matrix organizations, tram based structures, virtual organizations, boundary less organizations.

Unit 3: (5 Hours)



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Controlling: Controlling, importance of controlling, controlling process, types of control, factors

influencing control effectiveness.

RECOMMENDED BOOKS

- Essentials of Management-Koontz, 8/e, McGraw Hill
- Management: Text and Cases-VSP Rao, Excel Books
- MGMT, An Innovative approach to teaching and learning Principles of Management, Chuck

Williams, Cengage Publications, 2010

- Principles and practices of Management, Kiran Nerkar, Vilas Chopde, Dreamtech Press, 2011
- Management Theory & practice Chandan J. S, Vikas Publishing House.
- Management Theory & Practice Text & Cases Subba Rao P & Hima Bindu, Himalaya Publication.

REFERENCE BOOKS:

• Masters of Management Thought – MahanandCharati& M M

Munshi, Sapna Book House, Bangalore, 2015.

Part B - Organizational Behaviour

Unit 4: (6 hours)

Introduction: Organizational Behaviour: Introduction, definition, historical development, fundamental principles of OB, contributing disciplines, challenges and opportunities.

Unit 5: (15 Hours)

Foundations of Individual Behaviour: Individual behaviour:Foundations of individual behaviour. Ability: Intellectual abilities, Physical ability, the role of disabilities.

Personality: Meaning, formation, determinants, traits of personality, big five and MBTI, personality attributes influencing OB.

Attitude: Formation, components of attitudes, relation between attitude and behaviour.

Perception: Process of perception, factors influencing perception, link between perception and individual decision-making.

Unit 6: (10 Hours)

Motivation: Meaning, theories of motivation-needs theory, two factor theory, Theory X and Y, application of motivational theories.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Leadership: Meaning, styles of leadership, leadership theories, trait theory, behavioural theories, managerial grid, situational theories

Note: Related case studies to be discussed.

Practical Components:

• Studying organizational structures of any 10 companies and classifying them into different types of organizations which are studied in Unit 2 and justifying why such structures are chosen by those organizations.

• Preparing the leadership profiles of any 5 business leaders and studying their leadership qualities and behaviours with respects to the trait, behavioural and contingency theories studied.

• Identifying any five job profiles and listing the various types, abilities required for those jobs and also the personality traits/attributes required for the jobs identified.

Note: Faculty can either identify the organizations/ leaders/jobs or

students can be allowed to choose the same.

RECOMMENDED BOOKS:

• Organizational behaviour, Stephen P Robbins, Timothy A. Judge, Neharika Vohra, 14th Edition, Pearson, 2012.

- Introduction to Organisational Behaviour Michael Butler, Jaico Publishing House,
- Organization Behaviour Ashwathappa, Himalaya Publication House
- ORGB Nelson, Quick, Khanelwal, 2/e, Cengage Learning, 2012.
- Organizational Behaviour Anada Das Gupta, Biztantra, 2011.
- Organizational Behaviour: A modern approach Arun Kumar and Meenakshi, Vikas Publishing House, 2011.
- Organizational Behaviour Rao V. S. P, Excel BOOKS, 2009.

REFERENCE BOOKS:

- Organizational Behaviour Fred Luthans, 12/e, McGraw Hill International, 2011.
- Management and Organizational Behaviour Laurie J Mullins, Pearson education



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

HUMAN RESOURCE MANAGEMENT

Subject Code : 16MBA21 IA Marks : 20 No. of Lecture Hours / Week : 03 Exam Hours : 03 Total Number of Lecture Hours : 56 Exam Marks : 80 Practical Component : 02 Hours / Week

Objectives:

- To understand the HRM concepts and theory
- To obtain an overview of various HRM functions and practices
- To gain an insight into the various statutory provisions

Course outcome:

At the end of the course studentswillbe able to:

_ Synthesize information regarding the effectiveness of recruiting methods & selection

procedures

- _ Identify the various training methods and design a training program
- _ Design a job description and job specification for various levels of employees.
- _ List out the regulations governing employee benefit practices.

Unit 1: (8 hours)

Human Resource Management:

Introduction, meaning, nature, scope of HRM - Importance and Evolution of the concept of

HRM - Major functions of HRM - Principles of HRM

Unit 2: (10 hours)

Job Analysis: Meaning, process of Job Analysis, methods of collecting job analysis data, Job Description and Job Specification, Role Analysis.

Human Resource Planning: Objectives, Importance and process of Human Resource Planning, Effective HRP.

Unit 3: (10 hours)

Recruitment: Definition, Constraints and Challenges, Sources and Methods of Recruitment,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

New Approaches to recruitment.

Selection: Definition and Process of Selection.

Placement: Meaning, Induction/Orientation, Internal Mobility, Transfer, Promotion, Demotion and

Employee Separation.

Unit 4: (8 hours)

Training and development: Training v/s development, Training v/s Education, Systematic

Approach to Training, Training Methods.

Unit 5: (10 hours)

Performance Appraisal: Concept of Performance Appraisal, the Performance Appraisal

Process, Methods of Performance Appraisal

Compensation: Objectives of Compensation Planning, Job Evaluation, Compensation Pay

Structure in India.

Unit 6: (10 hours)

Employee Welfare: Introduction, Types of Welfare Facilities and Statutory Provisions.

Employee Grievances: Employee Grievance procedure, Grievances Management in Indian

Industry.

Discipline: Meaning, approaches to discipline, essential of a good disciplinary system, managing difficult employees.

Practical Components:

• Give a case and ask the students to prepare the recruitment advertisement for a

newspaper.

- Expose students to standard selection tests followed in various sectors.
- Exploring training and development practices.
- Exploring performance appraisal practices in various sectors.
- Exploring employee separation practices.

• Give a job analysis case and ask the students to prepare job description and job specification.

• Ask the students to prepare an appointment letter for the post of office manager of a company known to you.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

RECOMMENDED BOOKS:

• Human Resources Management: A South Asian Perspective, Denski/Griffin/Sarkar-

Cengage Learning, 2012.

- Human Resource Management Rao V. S. P, Excel BOOKS, 2010
- Human Resource Management Lawrence S. Kleeman, Biztantra, 2012.
- Human Resource Management Dr. T.P RenukaMurthy HPH

REFERENCE BOOKS:

- Human Resource Management John M. Ivancevich, 10/e, McGraw Hill.
- Human Resource Management in practice Srinivas R. Kandula, PHI, 2009
- Managing Human Resources Luis R Gomez-Mejia, David B. Balkin, Robert L.

Cardy,6/e, PHI, 2010.

• Human Resource Management & Industrial relations, P.Subba Rao, Himalaya Publishing House, Mumbai.

• Human Resource Management – Aswathappa K HPH



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

BUSINESS LAW AND POLICY

Subject Code : 16MBA24 IA Marks : 20

No. of Lecture Hours / Week : 03 Exam Hours : 03

Total Number of Lecture Hours : 56 Exam Marks : 80

Practical Component : 02 Hours / Week

Objectives:

- To understand the legal environment of business and complexities faced by businesses.
- To learn various legal provisions under Indian Companies Act.
- To understand the importance of Corporate Social Responsibility

Course Outcome:

At the end of the course students will be able to:

- _ Demonstrate awareness towards legal and regulatory context of business
- _ Recognize and appropriately respond to ethical, legal and strategic concerns relating to human resource and organizational management.

_ Gain insights into various acts and understand the significance of corporate governance **Unit 1 (10 Hours)**

Indian Contract Act, 1872-meaning of contract, agreement, essential elements of a valid contract. Law of agency-meaning, creation and termination of agency. Bailment and Pledgemeaning rights and duties of bailor and bailee.

Unit 2: (10 Hours)

Companies Act 1956- Meaning and features, kinds of companies, registration and incorporation, Memorandum of Association, & Articles of Association, Prospectus. Winding up of companies

Unit 3: (10 Hours)

Miscellaneous Acts-Meaning, scope and objectives of: (a) Intellectual Property Law (relating to patents, copyrights and trademarks): (b) Consumer Protection Act 1986 and (c) Environment Protection Act 1986,

Unit 4: (10 Hours)

Indian Partnership Act 1932 - THE NATURE OF PARTNERSHIP- Introduction of a partner- Admission of the partner -Retirement of a partner- Expulsion of a partner - Insolvency a partner - Liability of estate of deceased partner

Unit 5: (8 Hours)

Corporate Governance: Introduction, Definition, Issues in corporate governance, relevance of corporate governance, need and importance of corporate governance, benefits of good corporate governance. Obligation to society, investors, employees and customers, managerial obligation, Indian cases

Unit 6: (8 Hours)

Corporate Social Responsibility: Types and nature of social responsibilities, CSR principles and strategies, models of CSR, Best practices of CSR, Need of CSR, Arguments for and against CSR, CSR in Indian perspective, Indian examples. Latest trends in CSR



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Practical Components:

 \cdot Students are expected to study any five CSR initiatives by Indian organizations and submit a report for the same.

 \cdot A group assignment on the relationship between Business, Law and Society in Indian context

- · Case studies/Role plays related ethical issues in business with respect to Indian context.
- · Students to collect, analyse and discuss MA, AA & Prospectus of a company.
- \cdot Organize a programme on consumer awareness and consumer rights.

RECOMMENDED BOOKS:

• Business, Government, and Society: A Managerial Perspective, Text and Cases – John F. Steiner, 12/e, McGraw-Hill, 2011.

• Business and Government – Francis Cherunilam, HPH.

• Corporate Governance: principles, policies and practices – Fernando A. C, 2/e, Pearson, 2011.

- Business Ethics and Corporate Governance Ghosh B. N, Tata McGraw-Hill, 2012.
- Business Law for Managers, Goel P. K, Biztantra, 2012.

• Corporate Social Responsibility: A Study of CSR Practices in Indian Industry, Baxi C. V & Rupamanjari Sinha Ray, Vikas Publishing House, 2012.

REFERENCE BOOKS:

- Business and Society Lawrence and Weber, 12/e, Tata McGraw- Hill, 2010.
- Business Ethics Bajaj P. S & Raj Agarwal, Biztantra, 2012.
- Corporate Governance Keshoo Prasad, 2/e, PHI.
- Corporate Governance, Ethics and social responsibility Balachandran V,

&Chandrashekharan V, 2/e, PHI, 2011.

- Corporate Governance Machiraju H. R, HPH.
- Business Ethics and Corporate Governance Prabakaran S, Excel BOOKS.
- Corporate Governance Badi N. V, Vrinda Publications, 2012



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

CONFLICT AND NEGOTIATION MANAGEMENT

Subject Code : 16MBA HR306 IA Marks : 20 No. of Lecture Hours / Week : 03 Exam Hours : 03 Total Number of Lecture Hours : 56 Exam Marks : 80 Practical Component : 02 Hours / Week

Course Objectives:

- To understand the nature of various dimensions of conflict
- To learn various strategies and techniques to manage conflicts
- To understand the importance and role of negotiation in conflict resolution

• To understand the importance of cross-cultural and gender dimensions of negotiation Course Outcomes:

The students will be able to

- _ Gain insights of various dimensions of conflicts in an organization
- _ Know the various strategies and techniques of managing conflicts.
- _ Learn the process of negotiation and its relevance in conflict resolution.

Unit 1: (8 Hours)

Introduction: Understanding conflict, components, perspectives of conflict, types of conflict, models of conflict – Process and Structural Models, functional & dysfunctional conflict, relationship between conflict and performance in team, levels of conflict – intrapersonal, interpersonal, group & organizational conflicts, sources of conflict - intrapersonal, interpersonal, group & organizational sources.

Unit2: (8 Hours)

Conflict Management Design: Nature of conflict Management, contingency approach, conflict management process, the conflict domain, conflict trends, conflict distribution, conflict mapping and tracking.

Unit 3: (10Hours)

Managing Conflict: Managing interpersonal conflict: Thomas conflict resolution approach, behavioral style and conflict handling, the CosierSchank model of conflict resolution, collaboration & conflict resolution, dealing with difficult subordinates, boss & colleagues, 1 to 1 dispute resolution.

Managing team & organization conflict: techniques to resolve team conflict, strategies to resolve organizational conflict, effective listening and dialogue skills, humor and conflict resolution, negotiation as a tool for conflict resolution.

Unit 4: (8 Hours)

Conflict resolution and Cost: Conflict resolution models, framework model, classical ideas, new developments in conflict resolution. Environmental conflict resolution, gender and conflict resolution. Assessing the cost of workplace conflict.

Unit 5: (14 Hours)

Negotiations/Negotiation strategies -Types of Negotiations, negotiation process, factors for successful negotiations, essential skills for negotiation, tricks used in negotiation process, psychological advantage of negotiations, Techniques of negotiation, issues in negotiations.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Negotiation strategies: Strategy and tactics for distributive bargaining, strategy and tactics for integrative negotiation, negotiation strategy and planning. Finding and using negotiation power, sources of power, Ethics in negotiation.

Unit 6: (8Hours)

Managing difficult negotiations: Third party approaches: Third party interventions, formal intervention methods – Arbitration, Mediation and Process Consultation, Informal intervention methods, best practices in negotiation.

Practical Components

 \cdot Survey the conflict resolution techniques adopted by individuals based on individual personality types.

 \cdot Dividing students into groups and give a scenario to negotiate and reach conclusion

 \cdot Ask students to identify three unconscious factors that may affect their negotiation

effectiveness and ask them to explain why or how that phenomenon may occur.

 \cdot Management games like two dollar game, cross the line games can be played in the class to develop negotiation skills among the students.

RECOMMENDED BOOKS:

• Corporate Conflict Management - Concepts and Skills, Eirene Leela Rout, Nelson Omiko, Prentice India, 2007.

• Negotiations, Roy J. Lewicki, David M. Saunders, Bruce Barry, 5/e, Mc Graw Hill, 2005

• Contemporary Conflict Resolution, Oliver Ramsbotham, Hugh Miall, Tom Woodhouse, 3rd edition, Polity publishers, 2011.

• Handling Conflict and Negotiation, Manchester Open Learning, illustrated edition, Kogan Page, 1993.

REFERENCE BOOKS:

• Managing conflict and negotiation, B.D. Singh, 1st edition, Excel books, 2008.

• Conflict Management: Practical guide to develop negotiation strategies, Barbara A Budjac Corvette, Pearson Prentice Hall, 2006.

• Managing Conflict in Organizations, M. Afzalur Rahim, 4th Edition, Transaction Publishers, 2011.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org



SCHEME OF TEACHING AND EXAMINATION MASTER OF COMPUTER APPLICATIONS

IV SEMESTER

| S. | Subject | Title | Teachi | ng Hrs / | | Exai | minati | |
|----|---------|---------------------------|--------|-----------|----------|------|--------|-------|
| No | Code | | Theory | Practical | Duration | | Ma | r |
| • | | | | | | IA | Exa | Total |
| 1 | 13MCA41 | Analysis & Design of | 04 | - | 03 | 50 | 100 | 150 |
| 2 | 13MCA42 | Advanced Java Programming | 04 | - | 03 | 50 | 100 | 150 |
| 3 | 13MCA43 | Advanced Web Programming | 04 | - | 03 | 50 | 100 | 150 |
| 4 | 13MCA44 | Elective-2 | 04 | - | 03 | 50 | 100 | 150 |
| 5 | 13MCA45 | Elective-3 | 04 | - | 03 | 50 | 100 | 150 |
| 6 | 13MCA46 | Algorithms Lab | - | 03 | 03 | 50 | 50 | 100 |
| 7 | 13MCA47 | Advanced Java Lab | - | 03 | 03 | 50 | 50 | 100 |
| 8 | 13MCA48 | Mini Project-I | - | 03 | 03 | 50 | 50 | 100 |
| | TOTAL | | 20 | 09 | | 400 | 650 | 1050 |

| Electiv | Elective-2 | | ctive 3 |
|----------|---|----------|------------------------------------|
| 13MCA441 | Advanced Computer Networks | 13MCA451 | Cryptography & Network Security |
| 13MCA442 | Data Warehousing & Data Mining | 13MCA452 | Network Management |
| 13MCA443 | Mobile Computing and Wireless Communications | 13MCA453 | NOSQL |
| 13MCA444 | Software Testing and Practices | 13MCA454 | Software Architectures |
| 13MCA445 | Theory of Computation (FAFL) | 13MCA455 | Enterprise Resource Planning (ERP) |
| 13MCA446 | Digital Image Processing | 13MCA456 | Mobile Applications |

Cryptography&Network Security

Subject Code: 13MCA451 I.A. Marks : 50

Hours/Week: 04 Exam Hours: 03

Total Hours: 52 Exam Marks : 100

Introduction 3 Hours

OSI <mark>Security</mark> Architecture, <mark>Security</mark> Attacks, <mark>Security</mark> Services, <mark>Security</mark> Mechanism, Model for Network Security.

Classical Encryption Technique 5 Hours

Symmetric Cipher Model, Substitution Techniques, Transposition Techniques.

Block Ciphers, Data Encryption Standard and Advanced Encryption Standard 8 Hours

Block Cipher Principles, The Data Encryption Standard, Block Cipher Design Principles and Modes of operation, Evaluation Criteria for AES, AES Cipher-Encryption and Decryption, Data Structure, Encryption Round.

Public Key Cryptography and Key Management 6 Hours

Lingui reis viteit Est. 1974

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Principles of Public Key Cryptosystem, RSA algorithm, Key management, Diffie Hellman Key exchange

Message Authentication and Hash Function 6 Hours

Authentication Requirement, Authentication Functions, Message Authentication Code, Hash Functions, Digital Signatures, Digital Signature Standard

Authentication Applications 5 Hours

Kerberos, X.509 Authentication Service

Electronic Mail Security 5 Hours

Pretty Good Privacy (PGP), S/MIME

IP Security 5 Hours

IP <mark>Security</mark> Overview; IP <mark>Security</mark> Architecture; Authentication Header; Encapsulating <mark>Security</mark> Payload; Combining <mark>Security</mark> Associations; Key Management.

Web <mark>Security</mark> 5 Hours

Web Security Considerations; Secure Socket layer (SSL) and Transport layer Security (TLS); Secure Electronic Transaction (SET)

System Security 4 Hours

Intruders, Intrusion Detection, Firewall Design Principles- Characteristics, Types of Firewall and Firewall Configuration.

82

Text Books:

William Stallings, "Cryptography and NetworkSecurity – Principles and Practices", 4th Edition, Pearson Education, 2009. (Chapters: 1, 2.1-2.3, 3.1,3.2,3.5, 5.1,5.2, 6.2, 9.1,9.2, 10.1,10.2, 11.1-11.4, 13.1, 13.3, 14.1, 4.2, 15.1, 15.2, 16.1-16.6, 17.1-17.3, 18.1, 18.2, 20.1; Exclude the topic not mentioned in the syllabus)

Reference Book:

1.Behrouz A. Forouzan and DebdeepMukhopadhyay: "<mark>Cryptography</mark> and <mark>Network Security</mark>", 2nd Edition, Tata McGraw-Hill, 2010. 2.AtulKahate, "<mark>Cryptography</mark> and <mark>NetworkSecurity</mark>" 2nd Edition TMH.

1.3.1. Institution integrates cross cutting issues relevant to Gender, Environment and

Sustainability, Human Values and Professional Ethics into the Curriculum(2017-2018)

1)2nd Year / 3rd Semester

IntellectualPropertyProperty(16MCA351)



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| III Semes | III Semester CREDIT BASED | | | | | | | | |
|------------------|---|---------|-----------------------------------|---------------------|-----------|-----|----------------|---------|--|
| Subject | Name of the | Teachin | g hours/week | Duration | Marks for | | Tatal | | |
| Subject Code | Subject | Lecture | Practical / Assignment | of Exam in Hours | CIE | SEE | Total Marks | CREDITS | |
| 16MCA31 | Computer Networks | 4 | | 3 | 20 | 80 | 100 | 4 | |
| 16MCA32 | Java Programming | 4 | | 3 | 20 | 80 | 100 | 4 | |
| 16MCA33 | Analysis and Design of Algorithms | 4 | | 3 | 20 | 80 | 100 | 4 | |
| 16MCA34 | Software Engineering | 4 | | 3 | 20 | 80 | 100 | 4 | |
| 16MCA35 | Elective 1 | 3 | | 3 | 20 | 80 | 100 | 3 | |
| 16MCA36 | Computer Networks Laboratory | | 3(2 hrs lab+ 1 hr instruction) | 3 | 20 | 80 | 100 | 2 | |
| 16MCA37 | Java Programming Laboratory | | 3(2 hrs lab+ 1 hr instruction) | 3 | 20 | 80 | 100 | 2 | |
| 16MCA38 | Analysis and Design of Algorithms Laboratory | | 3(2 hrs lab+ 1 hr instruction) | 3 | 20 | 80 | 100 | 2 | |
| | Total | 19 | 09 | 24 | 160 | 640 | 800 | 25 | |

| Elective- 1 | | | | |
|--|------------------------------|--|--|--|
| 16MCA351 | Intellectual Property Rights | | | |
| 16MCA352 Enterprise Resource Planning(ERP) | | | | |
| 16MCA353 | MIS & E-Commerce | | | |
| 16MCA354 | Cyber Security | | | |

IntellectualPropertyProperty

[As per Choice Based Credit System (CBCS) scheme]

SEMESTER -- III

| Subject Code | 16MCA351 | CIE Marks | 20 |
|-------------------------------|----------|-----------|----|
| Number of Lecture Hours/Week | 03 | SEE Marks | 80 |
| Total Number of Lecture Hours | 40 | SEE Hours | 03 |

CREDITS – 03

Course Outcome (CO): At the end of this course, the students will be able to



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- **CO1:** Identify which of the four main different types of IntellectualPropertyProperty may bepresented by an output
- **CO2:** Analyse an innovative or creative output in terms of IntellectualPropertyProperty generated
- **CO3:** Discuss the appropriateness, or not, of registering an IntellectualProperty right

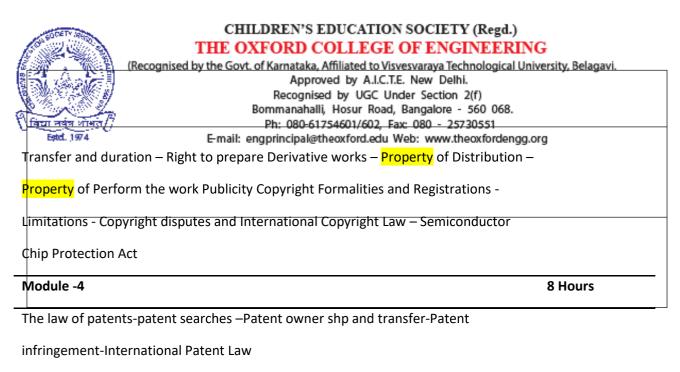
CO4: Apply the appropriate ownership rules to IntellectualProperty he / she has been involved in creating

CO5: Suggest ways of exploiting IntellectualPropertyProperty created in his / her own work.

| Modules | Teaching Hours |
|--|----------------|
| Module -1 | 8 Hours |
| Introduction to IntellectualProperty Law – The Evolutionary Past - The IPR Tool Kit- | |
| Para -Legal Tasks in IntellectualProperty Law – Ethical obligations in Para Legal Tasks | |
| in IntellectualProperty Law - Introduction to Cyber Law – Innovations and Inventions | |
| Trade related IntellectualPropertyRight | |
| Module -2 | 8 Hours |
| Introduction to Trade mark – Trade mark Registration Process – Post registration | |
| Procedures – Trade mark maintenance - Transfer of <mark>Property</mark> - Inter parties Proceeding | |
| – Infringement - Dilution Ownership of Trade mark – Likelihood of confusion - Trademarks claims – Trademarks Litigations – International Trade mark Law | |
| Module -3 | 8 Hours |

Introduction to Copy<mark>Property</mark> – – Principles of Copyright Principles - The subjects Matter

of Copy right – The Property Afforded by Copyright Law – Copy right Ownership,



| Module -5 | 8 Hours |
|-----------|---------|
| | |

Introduction to Trade Secret – Maintaining Trade Secret – Physical Secrurity –

Employee Limitation - Employee confidentiality agreement - Trade Secret Law -

Unfair Competation – Trade Secret Letigation – Breach of Contract – Applying State

Law

Question paper pattern:

- **I** The question paper will have ten questions.
- Each full question consists of 16 marks.
- There will be 2 full questions (with a maximum of four sub questions) from each module.
- 2 Each full question will have sub questions covering all the topics under a module.
- The students will have to answer 5 full questions, selecting one full question from each module.

Text Books:

- 2 DebiragE.Bouchoux: "IntellectualProperty". Cengage learning, New Delhi
- 4. M.Ashok Kumar and Mohd.Iqbal Ali: "IntellectualProperty Right" Serials Pub.
- 5. Cyber Law. Texts & Cases, South-Western's Special Topics Collections.

Reference Books:

- 3. PrabhuddhaGanguli: 'IntellectualPropertyProperty" Tata Mc-Graw –Hill, New Delhi
- J Martin and C Turner "IntellectualProperty" CRC Press Richard Stimm" IntellectualProperty" Cengage Learning



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

2)2nd Year / 4th Semester Seminar (16MCA49)

| IV Sem | IV Semester CREDIT BASED | | | | | | | |
|-----------------|--|------------|--------------------------------------|--------------------------|---------|-----------------------|--------------------|-------------|
| | | Teaching h | ours/week | Duratio | Mai | r <mark>ks for</mark> | Total Mark s | |
| Subject Code | Name of the Subject | Lecture | Practical / Assignmen t | n of Exam in Hours | CIE | SEE | | CREDIT S |
| 16MCA4 1 | Advanced Java Programming | 4 | | 3 | 20 | 80 | 100 | 4 |
| 16MCA4 2 | Advanced Web Programming | 4 | | 3 | 20 | 80 | 100 | 4 |
| 16MCA4 3 | Software Testing and Practices | 4 | | 3 | 20 | 80 | 100 | 4 |
| 16MCA4 4 | Elective-2 | 3 | | 3 | 20 | 80 | 100 | 3 |
| 16MCA4 5 | Elective-3 | 3 | | 3 | 20 | 80 | 100 | 3 |
| 16MCA4 6 | Advanced Java Programming Laboratory | | 3(2 hrs lab+ 1 hr instruction) | 3 | 20 | 80 | 100 | 2 |
| 16MCA4 7 | Advanced Web ProgrammingLaborat ory | | 3(2 hrs lab+ 1 hr instruction) | 3 | 20 | 80 | 100 | 2 |
| 16MCA4 8 | Software Testing Laboratory | | 3(2 hrs lab+ 1 hr instruction) | 3 | 20 | 80 | 100 | 2 |
| 16MCA4 9 | Seminar | | 2 | | 50 | | 50 | 1 |
| | Total | 18 | 11 | 24 | 21 0 | 640 | 850 | 25 |

16MCA49 and 16MCA59: Seminar

• Students should present the seminar on cutting edge/emerging/state of the art technologies in the field of Computer Science and Applications.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

2018 – 19



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

THE OXFORD COLLEGE OF ENGINEERING

INSTITUTIONAL CURRICULUM COMMITTEE MEETING 2018-2019 – (ODD)

The reconstitution of the Institutional curriculum committee was made and the meeting was held on 25/07/2018 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION | COMMITTEE DESIGNATION |
|--------|-----------------------|---------------------------|--------------------------|
| 1. | Dr R V Praveena Gowda | Principal | Chair Person |
| 2. | Dr Saravana Kumar E | HOD-CSE (in-charge) | Member Coordinator |
| 3. | Dr R Kanagavalli | HOD-ISE | Member |
| 4. | Dr Manju Devi | HOD-ECE | Member |
| 5. | Dr V S Bharath | HOD-EEE | Member |
| 6. | Prof T V Nagaraja | HOD-ME | Member |
| 7. | Dr B K Manjunath | HOD-BT | Member |
| 8. | Dr Amarnath K | HOD-Civil & CTM | Member |
| 9. | Dr Rohini Deshpande | HOD-MT | Member |
| 10. | Dr Raju B R | HOD-AUTO | Member |
| 11. | Dr Mallikarjuna K | HOD-Maths | Member |
| 12. | Prof. Abdul Khader | HOD-Physics (in-charge) | Member |
| 13. | Dr Surekha M | HOD-Chemistry | Member |
| 14. | Dr Dhanalakshmi R V | HOD-MBA | Member |
| 15. | Dr M S Shashidhara | HOD-MCA | Member |
| 16. | Prof Betty B Sharat | In-Charge Principal -TOSA | Member |

Agenda:

- Syllabus prescribed by VTU to be followed.
- To review implementation of time table for 2018- 19 Odd



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- To review the efforts made by the faculties in in participating in BOS/ Academic council and question paper designing evaluation and assessment
- To review on enrichment courses/Value added courses, Field visits/Industry visit and Internship/Community posting conducted and report submitted.
- To review implementation and delivery of cross cutting issues.

Summary

The committee is composed of Principal, Dean Academics and Head of all departments. The abovementioned agenda was discussed and resolutions were formed. These were circulated to all the concerned departments and were recommended to be inculcated in their respective department curriculum meeting and implementation of the same.

Resolutions:

- It has been informed to all HOD's to implement the latest prescribed syllabus by VTU in the respective department.
- All the HOD's are required to submit time table 2018 -19 Odd
- HOD's should ensure and make their maximum efforts to make their faculties to participate In BOS and academic council members in affiliated university as well as outside universities
- It is decided to implement 2 add on courses for each department and an action plan to be submitted one week after this meeting.
- It is decided to implement 2 value added courses for each department and an action plan to be submitted one week after this meeting.
- It is decided to implement 2 interdisciplinary courses for each department and an action plan to be submitted one week after this meeting.
- It is decided to implement 1 field visit for each department and an action plan to be submitted one week after this meeting.
- The cross cutting issues should be integrated into the curriculum.

Dr. R raveena Gowda

PRINCVPAL The Oxford College of Engineering Bommanahalli, Hosur Road Bengaluru-560 ges



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

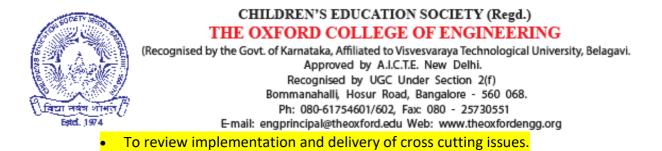
INSTITUTIONAL CURRICULUM COMMITTEE MEETING 2018-2019 – (EVEN)

The reconstitution of the Institutional curriculum committee was made and the meeting was held on 18/02/2019 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION | COMMITTEE DESIGNATION |
|--------|-----------------------|---------------------------|--------------------------|
| 1. | Dr R V Praveena Gowda | Principal | Chair Person |
| 2. | Dr Saravana Kumar E | HOD-CSE (in-charge) | Member Coordinator |
| 3. | Dr R Kanagavalli | HOD-ISE | Member |
| 4. | Dr Manju Devi | HOD-ECE | Member |
| 5. | Dr V S Bharath | HOD-EEE | Member |
| 6. | Prof T V Nagaraja | HOD-ME | Member |
| 7. | Dr B K Manjunath | HOD-BT | Member |
| 8. | Dr Amarnath K | HOD-Civil & CTM | Member |
| 9. | Dr Rohini Deshpande | HOD-MT | Member |
| 10. | Dr Raju B R | HOD-AUTO | Member |
| 11. | Dr Mallikarjuna K | HOD-Maths | Member |
| 12. | Prof. Abdul Kadar | HOD-Physics (in-charge) | Member |
| 13. | Dr Surekha M | HOD-Chemistry | Member |
| 14. | Dr Dhanalakshmi R V | HOD-MBA | Member |
| 15. | Dr M S Shashidhara | HOD-MCA | Member |
| 16. | Prof Betty B Sharat | In-Charge Principal -TOSA | Member |

Agenda: Minutes

- To review that prescribed syllabus is being followed.
- To review the implementation of the Time table to be submitted.
- To review the efforts made by the faculties in participating in BOS/ Academic council and question paper designing evaluation and assessment
- To review on Add on courses/Value added courses, Field visits/Industry visit and Internship report.



Summary: Minutes

The committee is composed of Principal, Dean Academics and Head of all departments. The abovementioned agenda was discussed and resolutions were formed. These were circulated to all the concerned departments and were recommended to be inculcated in their respective department curriculum meeting and implementation of the same.

Resolution:

- The approved syllabus is followed.
- The classes were conducted and attendance was checked.
- It was noticed that some faculties have been invited as BOS and BOE members from different some Autonomous colleges and universities
- One Add on course and one value added course has been done and the report is satisfactory.
- It has been advised to maintain an Attendance register, circular, reports and photographs for the activities conducted.

Dr. R raveena Gowda PRINCUPAL The Oxford College of Engineering Bommanahalli, Hosur Road Bengaluru-560 Deg



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (CSE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 –(ODD)

The department curriculum committee was made and the meeting was held on 25/07/2018 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|-----------------------------|------------------|
| 1 | Dr.Anandhi.R.J | Professor |
| 2 | Dr. E Saravana Kumar | Professor |
| 3 | Dr. Nirmala | Professor |
| 4 | Dr. Tamanna Jena | Professor |
| 5 | Ms. Shobha T | Assot. Professor |
| 6 | Mr. Senthil Kumar | Assot. Professor |
| 7 | Ms. SeemaPatil | Assot. Professor |
| 8 | Ms. Gousia T | Asst. Professor |
| 9 | Ms. Sowmya H K | Asst. Professor |
| 10 | Ms. Shilpa Kamman | Asst. Professor |
| 11 | Ms. Koyel Sinha Chowdhury | Asst. Professor |
| 12 | Ms. Maragatham | Asst. Professor |
| 13 | Ms. Florance G | Asst. Professor |
| 14 | Mr. Naveen H S | Asst. Professor |
| 15 | Ms. Sushma Gangadhar Gunjal | Asst. Professor |
| 16 | Ms. Jesy Janet Kumari | Asst. Professor |
| 17 | Ms. Aishwaraya N | Asst. Professor |
| 18 | Ms. AnarghaRemesh | Asst. Professor |
| 19 | Ms. KirtiTiwari | Asst. Professor |

| Estd. 1974 | PH. 000-01754001/002, Pax. 000 - 25750551 | |
|------------|---|-----------------|
| 20 | Ms. Latha R | Asst. Professor |
| 21 | Ms. Archana R | Asst. Professor |
| 22 | Ms. Sushma T Shanbhoogue | Asst. Professor |
| 23 | Ms. Anjali | Asst. Professor |
| 24 | Ms. Tintu | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1. HOD, Dr. R J Anandhi welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|---------|----------------------|--------------------------------------|
| 1 | 15CS742 | Cloud Computing and its Applications |
| 2 | 15CS754 | Storage Area Networks |
| 3 | 17KL/CPH39/49 | Kannada/Constitution of India, |
| | | Professional Ethics and Human Rights |
| 4 | 17MATDIP31 | Additional Mathematics –I |

5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 6. Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following value-added programs will be conducted during 2018 – 2019 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 11. | CSE | Soft Skill Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

HEAD OF THE DEPARTMENT DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING THE OXFORD COLLEGE OF ENGINEERING BENGALURU - 560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (CSE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 – (EVEN)

The department curriculum committee was made and the meeting was held on 18/02/2019 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|-----------------------------|------------------|
| 1 | Dr. E Saravana Kumar | Professor |
| 2 | Dr. Nirmala | Professor |
| 3 | Ms. Shobha T | Assot. Professor |
| 4 | Mr. Senthil Kumar | Assot. Professor |
| 5 | Ms. SeemaPatil | Assot. Professor |
| 6 | Ms. Gousia T | Asst. Professor |
| 7 | Ms. Sowmya H K | Asst. Professor |
| 8 | Ms. Shilpa Kamman | Asst. Professor |
| 9 | Ms. Koyel Sinha Chowdhury | Asst. Professor |
| 10 | Ms. Maragatham | Asst. Professor |
| 11 | Ms. Florance G | Asst. Professor |
| 12 | Mr. Naveen H S | Asst. Professor |
| 13 | Ms. Sushma Gangadhar Gunjal | Asst. Professor |
| 14 | Ms. Jesy Janet Kumari | Asst. Professor |
| 15 | Ms. Aishwaraya N | Asst. Professor |
| 16 | Ms. AnarghaRemesh | Asst. Professor |
| 17 | Ms. KirtiTiwari | Asst. Professor |
| 18 | Ms. Latha R | Asst. Professor |
| 19 | Ms. Archana R | Asst. Professor |
| 20 | Ms. Sushma T Shanbhoogue | Asst. Professor |
| 21 | Ms. Anjali | Asst. Professor |
| 22 | Ms. Tintu | Asst. Professor |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 11. HOD, Dr. E Saravana Kumar, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 12. Semester plan for 2018-19 even semester and mentioning the activities planned in the department.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|---------|----------------------|--|
| 1 | 15CS834 | System Modeling and Simulation |
| 2 | 17KL/CPH39/49 | Kannada/Constitution of India, Professional Ethics and Human Rights |
| 3 | 17MATDIP41 | Additional Mathematics –II |

- 13. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 14. Syllabus copy prescribed by the university circulated to the students and faculty.
- 15. Department announced to conduct the regular seminars to the students.
- 16. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 17. Department plans for Field Visit / Industrial Visit.
- 18. Planning for the Final Year's Project Works / Internships.
- 19. Mentor mentee list discussion
- 20. The following certificate programs will be conducted during 2018 2019 EVEN semester



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| Sl. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| 1 | CSE | Big Data and IOT |

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.



HOD, CSE

HEAD OF THE DEPARTMENT DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING THE OXFORD COLLEGE OF ENGINEERING BENGALURU - 560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – Information Science and Engineering

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 – (EVEN)

The department curriculum committee was made and the meeting was held on 19/02/2019 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION |
|--------|-----------------------|--------------|
| 1. | Dr.R.Kanagavalli | HOD |
| 2. | Dr.Jayaramaiah. D | Professor |
| 3. | Mrs.Vinodha K | Assot. Prof. |
| 4. | Ms. Visalini S | Assot. Prof. |
| 5. | Ms. KalaiSelvi | Asst. Prof. |
| 6. | Ms.Nalinakshi B G | Asst. Prof. |
| 7. | Ms. Kokila P | Asst. Prof. |
| 8. | Mrs.Chempavathy B | Asst. Prof. |
| 9. | Ms. Suganya R | Asst. Prof. |
| 10. | Ms. Sindhuja | Asst. Prof. |
| 11. | Mr. Channappa Gowda | Asst. Prof. |
| 12. | Mr. Yadhu Krishna M R | Asst. Prof. |
| 13. | Ms. Chitra G | Asst. Prof. |
| 14. | Ms. InduK.S | Asst. Prof. |
| 15. | Mr. Karthik S L | Asst. Prof. |
| 16. | Mrs.Halaharvi Keerthi | Asst. Prof. |
| 17. | Ms.Geethanjali | Asst. Prof. |
| 18. | Ms.VarshaNilugal | Asst. Prof. |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 19. | Mr. Amaresha | Asst. Prof. |
|-----|------------------|-------------|
| 20. | Ms. Riya Sanjesh | Asst. Prof. |
| 21. | Ms.KajalGurnani | Asst. Prof. |

Agenda:

- 7. Semester plan
- 8. Introduction of syllabus based on CBCS scheme
- 9. Conduction of seminars
- 10. Plan for Field Visit/ Industrial Visit
- 11. Plan for the (Final Year's) Project Works / Internships
- 12. Allotment the assignment topics and tutorial topics
- 13. Plan for mentoring activities

Summary: Minutes

- 1. HOD, Dr.R.Kanagavalli. D welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. Semester plan for 2016-17 even semester and mentioning the activities planned in the department.
- 3. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the (Final Year's) Project Works / Internships (with company names and details).



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

9. Mentor mentee list - discussion

10. The following certificate programs will be conducted during 2018 – 2019 EVEN semester

| Sl. No. | Name of the department | Name of the Certificate Program |
|---------|-------------------------------------|---------------------------------|
| 5. | Information Science and Engineering | Cyber Security |
| 2. | Information Science and Engineering | Big data and IoT |

11. The following value-added programs will be conducted during 2018 – 2019 EVEN semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|-------------------------------------|----------------------------------|
| 12. | Information Science and Engineering | Soft skill training |

Resolutions:

- 7. Faculty members are informed to motivate the students to involve in the Research activities.
- 8. Toppers from each semester to be motivated to get VTU ranks.
- 9. Result percentage of forthcoming semester to be improved.

22344 manahalu 68

HOD



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – Information Science and Engineering

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 – (ODD)

The department curriculum committee was made and the meeting was held on 26/07/2018 and the following members were present for the meeting.

| Sl no. | NAME | DESIGNATION |
|--------|-----------------------|--------------|
| 1. | Dr.R.Kanagavalli | HOD |
| 2. | Dr.Jayaramaiah. D | Professor |
| 3. | Mrs.Vinodha K | Assot. Prof. |
| 4. | Ms. Visalini S | Assot. Prof. |
| 5. | Ms. KalaiSelvi | Asst. Prof. |
| 6. | Ms.Nalinakshi B G | Asst. Prof. |
| 7. | Ms. Kokila P | Asst. Prof. |
| 8. | Mrs.Chempavathy B | Asst. Prof. |
| 9. | Ms. Suganya R | Asst. Prof. |
| 10. | Ms. Sindhuja | Asst. Prof. |
| 11. | Mr. Channappa Gowda | Asst. Prof. |
| 12. | Mr. Yadhu Krishna M R | Asst. Prof. |
| 13. | Ms. Chitra G | Asst. Prof. |
| 14. | Ms. InduK.S | Asst. Prof. |
| 15. | Mr. Karthik S L | Asst. Prof. |
| 16. | Mrs.Halaharvi Keerthi | Asst. Prof. |
| 17. | Ms.Geethanjali | Asst. Prof. |
| 18. | Ms.VarshaNilugal | Asst. Prof. |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 19. | Mr. Amaresha | Asst. Prof. |
|-----|------------------|-------------|
| 20. | Ms. Riya Sanjesh | Asst. Prof. |
| 21. | Ms.KajalGurnani | Asst. Prof. |

Agenda:

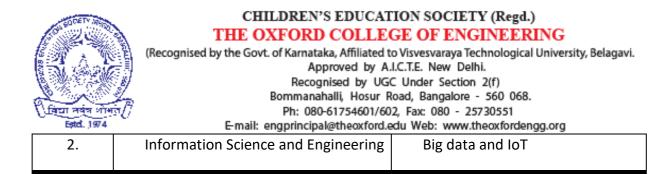
- 14. Semester plan
- 15. Value-added and certificate programs
- 16. Conduction of seminars
- 17. Plan for Field Visit/ Industrial Visit
- 18. Plan for the (Final Year's) Project Works / Internships
- 19. Allotment the assignment topics and tutorial topics

Summary: Minutes

- 10. HOD, Dr.Kanagavalli welcomed all the faculty and explained VTU, ODD semester regulations.
- 11. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 12. VTU has introduced Choice Based Credit System (CBCS)
- 13. Syllabus copy prescribed by the university circulated to the students and faculty.
- 14. Department announced to conduct the regular seminars to the students.
- 15. Department plans for Field Visit/ Industrial Visit.
- 16. Planning for the (Final Year's) Project Works / Internships (with company names and details).
- 17. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following certificate programs will be conducted during 2018 – 2019 odd semesters

| Sl. No. | Name of the department | Name of the Certificate Program |
|---------|-------------------------------------|---------------------------------|
| 6. | Information Science and Engineering | Cyber Security |

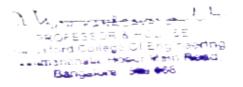


The following value-added programs will be conducted during 2018–2019 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|-------------------------------------|----------------------------------|
| 13. | Information Science and Engineering | Soft skill training |

Resolutions:

- 10. Faculty members are informed to motivate the students to involve in the Research activities.
- 11. Toppers from each semester to be motivated to get VTU ranks.
- 12. Result percentage of forthcoming semester to be improved.





(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Department of ECE

DEPARTMENTALCURRICULUMCOMMITTEEMEETING2018-2019(ODD)

The Department curriculum committee was made and the meeting was held on 26/07/2018 and the following members were present for the meeting.

| Slno. | NAME | DESIGNATION | |
|-------|---------------------|--------------------|--|
| 1 | Dr.Nagaraj.R | Director&Professor | |
| 2 | Dr.Vivek.M | Professor | |
| 3 | Dr.PreetaSharan | Professor | |
| 4 | Mr.N.Jayaraj | AssociateProf | |
| 5 | Ms.SajithraVarun | AssociateProf | |
| 6 | Mr.Piruthviraj.P | AssociateProf | |
| 7 | Mr.N.Sridhar | AssociateProf | |
| 8 | Ms.ChrispinJiji | Asst.Professor | |
| 9 | Mr.Ravindra.V.S | Asst.Professor | |
| 10 | Ms.SowmyaPadukone.G | Asst.Professor | |
| 11. | Mr.BhargavRamGowd | Asst.Professor | |
| 12. | Ms.LayaTojo | Asst.Professor | |
| 13. | Ms.Chandrakala.S | Asst.Professor | |
| 14 | Ms.Aruna.J | Asst.Professor | |
| 15. | Mr.ManjunathSheth | Asst.Professor | |
| 16 | Mr.Veeresh.H | Asst.Professor | |
| 17 | Mr.Anand.K.Warad | Asst.Professor | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 18 | Mr.RichardLincolnPaulraj | Asst.Professor |
|----|--------------------------|----------------|
| 19 | Ms.SoniyaJames | Asst.Professor |
| 20 | Ms.Lakshmi.R | Asst.Professor |
| 21 | Mr.AravindReddy | Asst.Professor |
| 22 | Dhanya | Asst.Professor |
| 23 | JagadeeshwarReddy | Asst.Professor |
| 24 | Dr.Manju Devi | Prof&HOD |
| 25 | Dr.AnilTiwari | Professor |
| 26 | VarshaParihar | Asst.Professor |
| 27 | Rani.B.A | Asst.Professor |
| 28 | Megha.M.S | Asst.Professor |
| 29 | Poojashri.C.S | Asst.Professor |
| 30 | Bindu.P | Asst.Professor |
| 31 | PraveenKumar | Asst.Professor |
| 32 | Ashwini.M | Asst.Professor |
| 33 | NithikaBhasi | Asst.Professor |
| 34 | JishaChandra | Asst.Professor |
| 35 | Vidya.S.A | Asst.Professor |
| 36 | Dr.ReemaSharma | Asst.Professor |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Agenda:

- 1.Odd Semester Plan for Academics & Co-Curricular Activities
- 2.Introduction of CBCS & orientation for Students
- 3. Arrangement of Seminars ,Field Visits & Industrial Visit to Students
- 4.Conduction of Project Work, Internship work to Students

Summary:Minutes of meeting

,Dr.Manju Devi, HOD & Pro fwelcomed all the faculty and explained VTU, ODD Semester regulations.

5. Semester plan for2018-19ODD Semester and mentioning the activities planned in the Department.

| SI.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|---------------------|-----------------------------|
| 1. | ECE | NCSEM-2019 |

6. The following value-added programs will be conducted during

2018 – 2019ODD-Semester

| SI.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|---------------------|-----------------------------|
| 1. | ECE | RTCSE-2019 |

Resolutions:

The HOD & Faculties of the Department will do the Resolution that We all wll work

towards the over all growth of the Department ,Students & Organization.

v Fofessor & HOD of E&C Engineering Tue Oxford College of Engineering Bommananalli, Bangalore-560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

DEPARTMENT OF ECE

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 (EVEN)

The Department curriculum committee was made and the meeting was held on 19/02/2019 and the following members were present for the meeting.

| Slno. | NAME | DESIGNATION | |
|-------|---------------------|----------------|--|
| 1 | Dr.Manju Devi | Professor&Head | |
| 2 | Dr.Vivek.M | Professor | |
| 3 | Dr.PreetaSharan | Professor | |
| 4 | Mr.N.Jayaraj | AssociateProf | |
| 5 | Ms.SajithraVarun | AssociateProf | |
| 7 | Mr.N.Sridhar | AssociateProf | |
| 8 | Ms.ChrispinJiji | Asst.Professor | |
| 9 | Mr.Ravindra.V.S | Asst.Professor | |
| 10 | Ms.SowmyaPadukone.G | Asst.Professor | |
| 11. | Mr.BhargavRamGowd | Asst.Professor | |
| 12. | Ms.LayaTojo | Asst.Professor | |
| 13. | Ms.Chandrakala.S | Asst.Professor | |
| 14 | Ms.Aruna.J | Asst.Professor | |
| 15. | Mr.ManjunathSheth | Asst.Professor | |
| 16 | Mr.Veeresh.H | Asst.Professor | |
| 17 | Mr.Anand.K.Warad | Asst.Professor | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | e man englemetere avenue | |
|----|--------------------------|----------------|
| 18 | Mr.RichardLincolnPaulraj | Asst.Professor |
| 19 | Ms.SoniyaJames | Asst.Professor |
| 20 | Ms.Lakshmi.R | Asst.Professor |
| 21 | Mr.AravindReddy | Asst.Professor |
| 22 | Dhanya | Asst.Professor |
| 23 | JagadeeshwarReddy | Asst.Professor |
| 24 | Dr.Manju Devi | Prof&HOD |
| 25 | Dr.AnilTiwari | Professor |
| 26 | VarshaParihar | Asst.Professor |
| 27 | Rani.B.A | Asst.Professor |
| 28 | Megha.M.S | Asst.Professor |
| 29 | Poojashri.C.S | Asst.Professor |
| 30 | Bindu.P | Asst.Professor |
| 31 | PraveenKumar | Asst.Professor |
| 32 | Ashwini.M | Asst.Professor |
| 33 | NithikaBhasi | Asst.Professor |
| 34 | JishaChandra | Asst.Professor |
| 35 | Vidya.S.A | Asst.Professor |
| 36 | Dr.ReemaSharma | Asst.Professor |
| | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Agenda:

- 1. Even Semester Plan for Academics & Co-Curricular Activities
- 2. Introduction of CBCS & orientation for Students
- 3. Arrangement of Seminars, Field Visits &IndustrialVisit to Students
- 4. Conduction of Project Work, Internship work to Students

Summary: Minutes of meeting

,Dr.ManjuDevi,HOD&Profwelcomed all the faculty and explained VTU, EvenSemesterregulations.

3. Semester plan for 2018-9 Even Semester and mentioning the activities planned in the Department.

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|---------------------|-----------------------------|
| 1. | ECE | NCSEM-2019 |

4. The following value-added programs will be conducted during 2018 – 2019Even-Semester

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|---------------------|-----------------------------|
| 1. | ECE | RTCSE-2019 |

Resolutions:

The HOD & Faculties of the Department will do the Resolution that We all wll work towards the over all growth of the Department ,Students & Organization.

HOD

Difessor & HOD of E&C Engineering Tue Oxford College of Engineering Tue Oxford College of Engineering Bommananalli, Bangatore - 560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (EEE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 -(ODD)

The department curriculum committee was made and the meeting was held on 19/07/2018 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|------------------------|--------------|
| 1 | Dr.Bharath.V.S | Prof.& HOD |
| 2 | Dr.V.Chinnappan | Prof |
| 3 | Dr.Gurumurthy | Prof |
| 4 | Mrs.SandhyaRai | Prof. |
| 5 | Mr.N.Jayakumar | Assoc. Prof. |
| 6 | Mrs.Nisha.C.Rani | Prof. |
| 7 | Mrs.B.DeviVighneshwari | Assoc. Prof. |
| 8 | Mrs.Raichel Ruby | Assoc. Prof. |
| 9 | Mrs.Manjula.C | Assoc. Prof. |
| 10 | Mrs.Viji.K | Assoc. Prof. |
| 11 | Mrs.NalinaKumari | Assoc. Prof. |
| 12 | Mr.Muniyappa.N | Assoc. Prof. |
| 13 | Mrs.Thilaga.P | Asst. Prof. |
| 14 | Mrs.NavathaKumari | Asst. Prof |
| 15 | Mrs.Sumitha.T.L | Asst. Prof. |
| 16 | Mrs.Someswari | Asst. Prof. |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | e man. engprincipal@ureourora.ex | a neer minimum ang giorg |
|----|----------------------------------|--------------------------|
| 17 | Mrs. Arutselvi Nagammai | Asst. Prof. |
| 18 | Ms. Deepa. N. Raju | Asst. Prof. |
| 19 | Mrs.Vinutha.Y.E | Asst. Prof. |
| 20 | Mrs.Thiruvonasundari.D | Asst. Prof. |
| 21 | Ms.Savitha.M | Asst. Prof. |
| 22 | Ms.Swapna.C.M | Asst. Prof. |
| 23 | Mrs.Resna.S.R | Asst. Prof. |
| 24 | Ms.Deepa.R | Asst.Prof. |
| 25 | Ms.Bhuvaneswari.M | Asst.Prof. |
| 26 | Mr.Madhusudan Reddy | Asst.Prof. |
| 27 | Mr.Raghumanth A | Asst.Prof. |
| 28 | Апоор Н К | Asst.Prof |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Minutes of Meeting:

- 1. HOD, Dr.Bharath.V.S welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|------------|----------------------|--|
| 1 | 15EE742 | Utilization of Electrical Power |
| 2 | 15EE752 | Testing and commissioning of power system Apparatus |
| 3 | 15EE764 | VLSI Circuit and Design |
| 4 | 15KL/CPH39/49 | Kannada/Constitution of India, Professional Ethics and Human Rights |
| 5 | 15MATDIP31 | Additional Mathematics –I |

- 5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.
- 6. Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following value-added programs will be conducted during 2018 – 2019 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|--|
| 1. | EEE | Technical Skill Training on "AUTOMATION (PLC&SCADA), DRIVES, LV SWITCHGEAR" |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Profess The Oxford College of Engg Bommanahalii, Hosur Road Bangalore-560 068

HOD-EEE



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (EEE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 – (EVEN)

The department curriculum committee was made and the meeting was held on 04/02/2019 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|------------------------|--------------|
| 1 | Dr.Bharath.V.S | Prof.& HOD |
| 2 | Dr.V.Chinnappan | Prof |
| 3 | Dr.Gurumurthy | Prof |
| 4 | Mrs.SandhyaRai | Prof. |
| 5 | Mr.N.Jayakumar | Assoc. Prof. |
| 6 | Mrs.Nisha.C.Rani | Prof. |
| 7 | Mrs.B.DeviVighneshwari | Assoc. Prof. |
| 8 | Mrs.Raichel Ruby | Assoc. Prof. |
| 9 | Mrs.Manjula.C | Assoc. Prof. |
| 10 | Mrs.Viji.K | Assoc. Prof. |
| 11 | Mrs.NalinaKumari | Assoc. Prof. |
| 12 | Mr.Muniyappa.N | Assoc. Prof. |
| 13 | Mrs.Thilaga.P | Asst. Prof. |
| 14 | Mrs.NavathaKumari | Asst. Prof |
| 15 | Mrs.Sumitha.T.L | Asst. Prof. |
| 16 | Mrs.Someswari | Asst. Prof. |
| 17 | Mrs.ArutselviNagammai | Asst. Prof. |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | e man engprinepaigereorrora.edu meb. m | |
|----|--|-------------|
| 18 | Ms.Deepa.N.Raju | Asst. Prof. |
| 19 | Mrs.Vinutha.Y.E | Asst. Prof. |
| 20 | Mrs.Thiruvonasundari.D | Asst. Prof. |
| 21 | Ms.Savitha.M | Asst. Prof. |
| 22 | Ms.Swapna.C.M | Asst. Prof. |
| 23 | Mrs.Resna.S.R | Asst. Prof. |
| 24 | Ms.Deepa.R | Asst.Prof. |
| 25 | Ms.Bhuvaneswari.M | Asst.Prof. |
| 26 | Mr.Madhusudan Reddy | Asst.Prof. |
| 27 | Mr.Raghumanth A | Asst.Prof. |
| 28 | Апоор Н К | Asst.Prof |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship

Minutes of Meeting:

- 1. HOD, Dr.Bharath.V.S, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 2. Semester plan for 2018-19 even semester and mentioning the activities planned in the department.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| SI. No. | CBCS ELECTIVE/MATDIP | |
|------------|----------------------|--------------------------------------|
| 1 | 15EE831 | SMART GRID |
| 2 | 15KL/CPH39/49 | Kannada/Constitution of India, |
| | | Professional Ethics and Human Rights |
| 3 | 15MATDIP41 | Additional Mathematics –II |

- 3. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Mentor mentee list discussion
- 10. The following certificate programs will be conducted during 2018–2019 EVEN semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|---|
| 1. | EEE | Technical Skill Training on "AUTOMATION |
| | | (PLC&SCADA), DRIVES, LV SWITCHGEAR" |

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

The Oxford College of Engg Bommanahalli, Hosur Road Bangalore-560 068

HOD-EEE



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting–(BRANCH): Mechanica lengineering

DEPARTMENTALCURRICULUMCOMMITTEEMEETING2018-2019-(ODD)

The department curriculum committee was made and the meeting was held on 11/08/2018 and the following members were present for the meeting.

| Slno. | NAME | DESIGNATION |
|-------|---------------------|------------------------|
| 1 | DR. MAHENDRADONGADI | HOD |
| 2 | RAVIPRAKASH | Professor |
| 3 | VIDHYADHARPOOJAR | Professor |
| 4 | PRASADNAYAK | Professor |
| 5 | VARUNK.R | Assistant Professor |
| 6 | ABHIJITH | AssistantProfessor |
| 7 | T.V.NAGARAJA | AssistantProfessor |
| 8 | SHIVAKUMAR | AssistantProfessor |
| 9 | VINAYV | AssistantProfessor |
| 10 | ANOOPUPADYAYA | AssistantProfessor |
| | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Agenda:

- 1. Finalizationofdepartmentalactivitiesfortheacademicyear.
- 2. Allocationofsubjectstofaculties.
- 3. Approvalofprojectbatch.

Summary:Minutes

- 1. HOD, Dr.MahendraDongadi welcomed all the faculty and explained VTU, ODDsemesterregulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.
- 6. Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following certificate programs will be conducted during 2018 – 2019 oddsemester

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|------------------------|----------------------------------|
| 4. | Mechanical engineering | Engineering graphics |
| 2 | Mechanical engineering | Programming with micro processor |

The following value-added programs will be conducted during 2018–2019 odds emester

| Sl.No. | Nameofthedepartment | NameoftheValue-addedprograms |
|--------|------------------------|---|
| 4. | Mechanical engineering | Design of circuit for hydraulic sfluids |
| 2 | Mechanical engineering | Programming with micro processor |

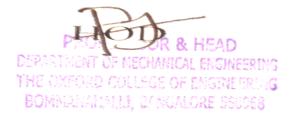
Resolutions:

Estel, 1974

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Each faculty has to take two theory subjects and one lab, out of which one subject willbechoice of faculty while theother subject will be left to the discreet of HOD.
- Departmental activities are to be planned as per calendar of institution and must begotapproval from principal.
- Fore man is given in charge to finalise the budge allocations for variouslabs/workshopsin consultation with lab in charges.





(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting-(BRANCH):mechanical engineering

DEPARTMENTALCURRICULUMCOMMITTEEMEETING2018-2019-(EVEN)

The department curriculum committee was made and the meeting was held on 1/03/2019 and the following members were present for the meeting.

| Slno. | NAME | DESIGNATION |
|-------|---------------------|---------------------|
| 1 | DR. MAHENDRADONGADI | HOD |
| 2 | RAVIPRAKASH | Professor |
| 3 | VIDHYADHARPOOJAR | Professor |
| 4 | PRASADNAYAK | Professor |
| 5 | VARUNK.R | Assistant Professor |
| 6 | ABHIJITH | AssistantProfessor |
| 7 | T.V.NAGARAJA | AssistantProfessor |
| 8 | SHIVAKUMAR | AssistantProfessor |
| 9 | VINAYV | AssistantProfessor |
| 10 | ANOOPUPADYAYA | AssistantProfessor |
| | | |

Agenda:

1. Allocation of subject to staff.

2. Identifying labincharges /mentors/classteachers.

3. Finalizing departmental activities to be conducted.

Summary:Minutes



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 1. HOD,Dr.MahendraDongadi welcomed all the faculty and explained VTU, EVENsemesterregulations.
- 2. Semester plan for 2018-19 even semester and mentioning the activities planned in thedepartment.

| Sl.No. | NameoftheDepartment | CBCS |
|--------|-----------------------|--|
| 1. | Mechanicalengineering | 4 th semester&5 th s |
| | | emester |

- 3. The discussion of the subjects of CBCS given in the above table, selected by thestudents.
- 4. As per the VTU regulation guidelines the students of B.E have to select one subjectfromtheMOOCS-I, MOOCS-II& MOOCS-III

| Sl.No | NameoftheDepartment | MOOCS-I | MOOCS – | MOOCS – |
|-------|-----------------------|---------|---------|---------|
| | | | II | III |
| 1. | Mechanicalengineering | nil | nil | |
| | | | | nil |

- 5. Syllabuscopyprescribedbytheuniversitycirculatedtothestudentsandfaculty.
- 6. Departmentannouncedtoconducttheregularseminarstothestudents.
- 7. Department plans to allot the assignment topics to the students and to allocate thetutorial topics to the students.
- 8. DepartmentplansforFieldVisit/IndustrialVisit.
- 9. Planningforthe(FinalYear's)ProjectWorks/ Internships(withcompanynamesanddetails).
- 10. Mentormenteelist-discussion
- 11. The following certificate programs will be conducted during 2018 2019



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

EVENsemester

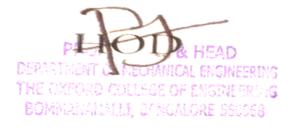
| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|-----------------------|-----------------------------|
| 1. | Mechanicalengineering | nil |
| | | |

12. The following value-added programs will be conducted during 2018–2019 (EVENsemester)

| ۰. | Li (Seillester) | | |
|----|-----------------|-----------------------|------------------------------|
| | Sl.No. | Nameofthedepartment | NameoftheValue-addedprograms |
| | 4. | Mechanicalengineering | nil |
| | | | |

Resolutions:

- Allocationofsubjectsforstaffseniorstafftotakefirstyearclasses.
- Classteachers/mentors/labinchargesaremade.
- Lab instructors to be changed on priority basis so that each should be able to handleallmechanical labs.
- Mentormenteelist approved.





(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – BIOTECHNOLOGY

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018 -2019 -(ODD)

The department curriculum committee was made and the meeting was held on 25/07/2018 and the following members were present for the meeting.

| Sl no. | NAME | DESIGNATION |
|--------|----------------------|----------------|
| 1. | Dr. B.K.Manjunath | HOD |
| 2. | Dr. T.K. Suma | Asst.Professor |
| 3. | Prof. Valarmathy | Asst.Professor |
| 4. | Prof. Divakara | Asst.Professor |
| 5. | Prof. Salma Kausar.M | Asst.Professor |
| 6. | Prof.Tanushree | Asst.Professor |
| 7. | Prof. Sindhu | Asst.Professor |

Agenda:

- 1. Commencemnet of the academic year
- 2. General instruction & working plan of the department to be discussed
- 3. Updating of course files & NBA status discussion
- 4. Action plan to execute department activity.
- 5. Other points if any to be discussed

Summary: Minutes

- 1. Faculties were allotted with coordinator workload for the new academic year
- 2. Each faculty was assigned with theory & practical subject workload

3. faculties were asked to inform students about the digital library in the college & make use of it effectively'



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 4. All faculties were informed to strictly monitor the attendance & IA performance of students.
- 5. All faculties were informed to ensure every class performs at least 2 activities.

Resolutions:

- To achieve better results and aiming for many more VTU ranks.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

the department B.K MANJUNATHA UT. Professor & Head Department of Biotechnolog Oxford College of Englas Bengaluru-560 068-

HOD (SEAL)



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – BIOTECHNOLOGY

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 – (EVEN)

The department curriculum committee was made and the meeting was held on 05/02/2019 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION |
|--------|----------------------|----------------|
| 1. | Dr. B.K.Manjunath | HOD |
| 2. | Dr. T.K. Suma | Asst.Professor |
| 3. | Prof. Valarmathy | Asst.Professor |
| 4. | Prof. Divakara | Asst.Professor |
| 5. | Prof. Salma Kausar.M | Asst.Professor |
| 6. | Prof.AratiSuvatha | Asst.Professor |
| 7. | Prof. Aswathi. U | Asst.Professor |

Agenda:

- 1. Semester planner was decided and department level coordinators work was allotted
- 2. General instruction & working plan of the department to be discussed
- 3. Updating of course files
- 4. Faculty assigning of project guides, scrutinizing of project domain & title
- 5. Action plan to execute department activity.
- 6. Other points if any to be discussed

Summary: Minutes

- 1. HOD, Dr. Kusum Paul welcomed all the faculty and explained VTU, EVEN semester regulations.
- 2. HOD informed about the Semester plan for 2017-18 even semester and mentioned the activities planned in the department.
- 3. Syllabus copy prescribed by the university circulated to the students and faculty.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 4. Faculties were informed to make students select the elective subjects for even semester.
- 5. HOD informed faculty coordinator to plan for Industrial visits/ field visit.
- 6. Planning for the (Final Year's) Project Works / Internships (with company names and details) was intimated by HOD.
- 7. Mentor mentee list discussion was done and the document updating status & deadline was informed to all the faculties.
- 8. The following value-added programs will be conducted during 2018 2019 EVEN semester
- 9. Faculties were informed about NBA visit to the department & to be prepared for the inspection.

The following value-added programs will be conducted during 2018 – 2019 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|---|
| 1. | BT | Next Generation sequencing technologies |
| 2. | BT | Soft skill & Aptitude training |

Resolutions:

- 1. To achieve better results and aiming for many more VTU ranks.
- 2. To encourage students to undergo Certificate/Value Added courses.
- 3. To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

e departme S.K AN TVI = rofess Department of Biotechn ford College of En Bengaluru-560 06

HOD (SEAL)



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (CIVIL)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 -(ODD)

The department curriculum committee was made and the meeting was held on 27/07/2018 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|---------------------|-----------------|
| 1 | Dr. T S Malleshaiah | Professor |
| 2 | Mr Shivanand C G | Assot Professor |
| 3 | Mr. Prashanth | Asst. Professor |
| 4 | Mr. Maheshkumar | Asst. Professor |
| 5 | Ms. Kavya | Asst. Professor |
| 6 | Ms. Harsha | Asst. Professor |
| 7 | Ms. Shradha | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

1.HOD, Dr. T S Malleshaiah welcomed all the faculty and explained VTU, ODD semester regulations.

2.As per the VTU regulation guidelines the students of all Odd semester should follow it.

3.VTU has introduced Choice Based Credit System (CBCS).

4.Syllabus copy prescribed by the university circulated to the students and faculty.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| SI. No. | CBCS ELECTIVE/MATDIP | |
|---------|----------------------|--------------------------|
| 1 | 18CV734 | Ground Water Hydraulics |
| 2 | 18CV745 | Urban transport planning |

5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.

6.Department announced to conduct the regular seminars to the students.

7. Department plans for Field Visit / Industrial Visit.

8. Planning for the Final Year's Project Works / Internships.

9.Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following value-added programs will be conducted during 2018 – 2019 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 1. | CIVIL | Soft Skill Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Head of the Department Department of Civil Engineering The Oxford College of Engineering Bangalore - 560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (CIVIL)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 – (EVEN)

The department curriculum committee was made and the meeting was held on 22/02/2019 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|---------------------|-----------------|
| 1 | Dr. T S Malleshaiah | Professor |
| 2 | Mr Shivanand C G | Assot Professor |
| 3 | Mr. Prashanth | Asst. Professor |
| 4 | Mr. Maheshkumar | Asst. Professor |
| 5 | Ms. Kavya | Asst. Professor |
| 6 | Ms. Harsha | Asst. Professor |
| 7 | Ms. Shradha | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

1.HOD, Dr.T S Malleshaiah welcomed all the faculty and explained VTU, EVEN semester regulations.

2.Semester plan for 2018-19 even semester and mentioning the activities planned in the department.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| SI. No. | CBCS ELECTIVE/MATDIP | |
|------------|----------------------|-----------------|
| 1 | 18CV825 | Pavement Design |

3. The discussion of the subjects of CBCS given in the above table, selected by the students.

Syllabus copy prescribed by the university circulated to the students and faculty.

4.Department announced to conduct the regular seminars to the students.

5.Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

6.Department plans for Field Visit / Industrial Visit.

7. Planning for the Final Year's Project Works / Internships.

8.Mentor mentee list – discussion **Resolutions:**

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Head of the Department Department of Civil Engineering The Oxford College of Engineering Bangatore - 560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (Automobile Engineering)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 -(ODD)

The department curriculum committee was made and the meeting was held on 25/07/2018 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|------------------------|------------------|
| 1 | Dr. Raju B R | Professor |
| 2 | Dr. Suresh R | Professor |
| 3 | Mr. Ashok Kumar Thavd | Assot. Professor |
| 4 | Mr. Sandeep K Chavan | Asst. Professor |
| 5 | Mr. Hemantha C | Asst. Professor |
| 6 | Mr. Priyankar Dhole | Asst. Professor |
| 7 | Mr. Harish Kumar M | Asst. Professor |
| 8 | Mr. Maruthi S B | Asst. Professor |
| 9 | Mr. Deepak U. S | Asst. Professor |
| 10 | Mr. Raviteja R. N | Asst. Professor |
| 11 | Mr. Mahipal Reddy | Asst. Professor |
| 12 | Mr. Prasanna. S. M | Asst. Professor |
| 13 | Mr. Joshua. F | Asst. Professor |
| 14 | Mr.Sapthagiri Prasad N | Asst. Professor |
| 15 | Mr. Karthik. K | Asst. Professor |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

1.HOD, Dr.Raju B R welcomed all the faculty and explained VTU, ODD semester

regulations.

- 2.As per the VTU regulation guidelines the students of all odd semester should follow it.
- 3.VTU has introduced Choice Based Credit System (CBCS) for 2018-19 scheme.
- 4.Syllabus copy prescribed by the university circulated to the students and faculty.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|---------|----------------------|--------------------------------------|
| 1 | 15AU741 | Earth Moving Equipment & Tractors |
| 2 | 15AU754 | Two And Three Wheeled Vehicle |
| 3 | 18KVK/KAK/39/49 | Kannada/Constitution of India, |
| | 18CPC39/49 | Professional Ethics and Human Rights |
| 4 | 18MATDIP31 | Additional Mathematics –I |

- 5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.
- 6.Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

9.Department plans to allot the assignment topics to the students and to allocate the

tutorial topics to the students.

The following value-added programs will be conducted during 2018 – 2019 odd semester.

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 14. | Automobile Engg. | Soft Skill Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Head

Professor & Head Department of Automobile Engineering The Oxford College of Engineering Bommanahalli, Hosur Road Bangalore-560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (Automobile Engineering) DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 – (EVEN)

The department curriculum committee was made and the meeting was held on 18/02/2019 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|------------------------|------------------|
| 1 | Dr. Raju B R | Professor |
| 2 | Dr. Suresh R | Professor |
| 3 | Mr. Ashok Kumar Thavd | Assot. Professor |
| 4 | Mr. Sandeep K Chavan | Asst. Professor |
| 5 | Mr. Hemantha C | Asst. Professor |
| 6 | Mr. Priyankar Dhole | Asst. Professor |
| 7 | Mr. Harish Kumar M | Asst. Professor |
| 8 | Mr. Maruthi S B | Asst. Professor |
| 9 | Mr. Deepak U. S | Asst. Professor |
| 10 | Mr. Raviteja R. N | Asst. Professor |
| 11 | Mr. Mahipal Reddy | Asst. Professor |
| 12 | Mr. Prasanna. S. M | Asst. Professor |
| 13 | Mr. Joshua. F | Asst. Professor |
| 14 | Mr.Sapthagiri Prasad N | Asst. Professor |
| 15 | Mr. Karthik. K | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

1.HOD, Dr. Raju B R, welcomed all the faculty and explained VTU, EVEN semester regulations.

2.Semester plan for 2018-19 even semester and mentioning the activities planned in the department.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|---------|----------------------|--------------------------------------|
| 1 | 15AU831 | Total Quality Management |
| 2 | 18KVK/KAK/39/49 | Kannada/Constitution of India, |
| | 18CPC39/49 | Professional Ethics and Human Rights |
| 3 | 18MATDIP41 | Additional Mathematics –II |

3. The discussion of the subjects of CBCS given in the above table, selected by the students.

4.Syllabus copy prescribed by the university circulated to the students and faculty.

5. Department announced to conduct the regular seminars to the students.

6.Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

7. Department plans for Field Visit / Industrial Visit.

8. Planning for the Final Year's Project Works / Internships.

- 9.Mentor mentee list discussion
- 10. The following certificate programs will be conducted during 2018 2019 EVEN

semester.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| SI. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| 1 | Automobile Engineering | HYPERMESH |

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.



Professor & Head Department of Automobile Engineering The Oxford College of Engineering Bommanahalli, Hosur Road Bangalore-560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (MTE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 -(ODD)

The department curriculum committee was made and the meeting was held on 14/07/2018 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|------------------------|-----------------|
| 1 | Dr. NB Doddapattar | Professor & |
| - | Di ind Doudapattai | HOD |
| 2 | Dr Shivanna | Professor & |
| 2 | Dr.Shivappa | HOD |
| 3 | Mr. Rajesh | Asst. Professor |
| 4 | Mr. Rgavendra | Asst. Professor |
| 5 | Mr. Ravi s Jadhav | Asst. Professor |
| 6 | Ms. Rekha | Asst. Professor |
| 7 | Ms. Premela | Asst. Professor |
| 9 | Ms. Vijaykumar kurubha | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 1. HOD, Dr. Rohini Deshpande welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans for Field Visit / Industrial Visit.
- 7. Planning for the Final Year's Project Works / Internships.
- 8. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following certificate programs will be conducted during 2018 – 2019 odd semester

| SI. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| 1 | | MATLAB |
| 2 | MTE | LEGO |
| 3 | | ROBOTICS |

The following value-added programs will be conducted during 2018 – 2019 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| | MTE | Soft Skill Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Prof.:& HOD Department of Mechatronics The Oxford College Of Engineering Controlnaballi Bangalore 50, 528.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (MTE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2017-2018 - (EVEN)

The department curriculum committee was made and the meeting was held on 01/02/2017 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|------------------------|-----------------|
| 1 | Dr. NB Doddapattar | Professor & |
| | - | HOD |
| 2 | Dr Chivanna | Professor & |
| 2 | Dr.Shivappa | HOD |
| 3 | Mr. Rajesh | Asst. Professor |
| 4 | Mr. Rgavendra | Asst. Professor |
| 5 | Mr. Ravi s Jadhav | Asst. Professor |
| 6 | Ms. Rekha | Asst. Professor |
| 7 | Ms. Premela | Asst. Professor |
| 9 | Ms. Vijaykumar kurubha | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

1. HOD, Dr. NB Doddapattar, welcomed all the faculty and explained VTU, EVEN semester regulations.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 2. Semester plan for 2018-19 even semester and mentioning the activities planned in the department.
- 3. Syllabus copy prescribed by the university circulated to the students and faculty.
- 4. Department announced to conduct the regular seminars to the students.
- 5. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 6. Department plans for Field Visit / Industrial Visit.
- 7. Planning for the Final Year's Project Works / Internships.
- 8. Mentor mentee list discussion
- 9. The following certificate programs will be conducted during 2018 2019 EVEN semester

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

HOD Prof.:& HOD Department of Mechatronics The Oxford College Of Engineering Constranghalii Bangalore - 00, c13.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MBA - DEPARTMENTAL CURRICULUM COMMITTEE MEETING

2018-2019 -(ODD)

The department curriculum committee was made and the meeting was held on 26/07/2018 and the following members were present for the meeting.

| SI | NAME | DESIGNATION |
|-----|---------------------|---------------------|
| no. | | |
| 1. | Dr R V Dhanalakshmi | HOD |
| 2. | Dr.PGiridhar Reddy | Associate Professor |
| 3. | Dr BalaKoteswari | Associate Professor |
| 4. | Ms. Umasharma | Assistant Professor |
| 5. | Ms. Richa Tiwari | Assistant Professor |
| 6. | Ms. Savitha | Assistant Professor |
| 7. | Ms. Sahana | Assistant Professor |
| 8. | Mr.Gokul | Assistant Professor |
| 9. | Mr.Chikkegowda | Assistant Professor |
| 10. | Ms.Chandrika | Assistant Professor |
| 11. | Ms. Paronita | Assistant Professor |

Agenda:

- 1. Syllabus discussion.
- 2. Seminars plan.
- 3. Industrial visit.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

4. Project work and internship plan.

Summary: Minutes

- 1. HOD, Dr. R V Dhanalakshmi welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduces Choice Based Credit System (CBCS)
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans for Field Visit/ Industrial Visit.
- 7. Planning for the (Final Year's)Project Works / Internships (with company names and details).
- 8. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

Resolutions:

- 1. VTU new syllabus and regulation should be discussed with students before 28th July.
- 2. Seminar plan has conducted on one topic before the 1st internal assessment.
- 3. Tutorials and assignment plan has to ready on before 5th august.
- 4. Student evaluation and mentoring record to be summit on before 10th august.

1 ph

HOD, Deptt. of Business Administration The Oxford College of Engineering Bommanahalli, Hosur Road Bangalore 560 668



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MBA -DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 – (EVEN)

The department curriculum committee was made and the meeting was held on 20/02/2019 and the following members were present for the meeting.

| Sl no. | NAME | DESIGNATION |
|-----------|---------------------|---------------------|
| 1. | Dr R V Dhanalakshmi | HOD |
| | | |
| 2. | Dr.PGiridhar Reddy | Associate Professor |
| 3. | Dr BalaKoteswari | Associate Professor |
| 4. | Ms. Umasharma | Assistant Professor |
| 5. | Ms. Richa Tiwari | Assistant Professor |
| 6. | Ms. Savitha | Assistant Professor |
| 7. | Ms. Sahana | Assistant Professor |
| 8. | Mr.Gokul | Assistant Professor |
| 9. | Mr.Chikkegowda | Assistant Professor |
| 10. | Ms.Chandrika | Assistant Professor |
| 11. | Ms. Paronita | Assistant Professor |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Agenda:

- 1. Welcome and discussion of ODD semester
- 2. Syllabus copy circulation
- 3. Tutorial Class
- 4. Industrial plan.

Summary: Minutes

- 1. HOD, Dr. R V Dhanalakshmi welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. Semester plan for 2018-19 even semester and mentioning the activities planned in the department.
- 3. Syllabus copy prescribed by the university circulated to the students and faculty.
- 4. Department announced to conduct the regular seminars to the students.
- 5. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 6. Department plans for Field Visit / Industrial Visit.
- 7. Planning for the (Final Year's) Project Works / Internships (with company names and details).

8. Mentor mentee list – discussion

Resolutions:

- 1. Syllabus copy should be circulated on or before 22nd Feb 2019.
- 2. One industrial visit to be arranged on or before 1st March 2019.
- 3. Seminar and other activities has to done each subjects on before 10th march 2019.
- 4. Students and mentors discussion and evaluation to be done before 7th March 2019.

1. Al

HOD, Deptt. of Business Administration The Oxford College of Engineering Bommanahalli, Hosur Road Bangalore 500 668



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (MCA)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 -(ODD)

The department curriculum committee was made and the meeting was held on 26/07/2018 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|-----------------------|------------------|
| 1 | Dr. M S Shashidhara | Professor |
| 2 | Dr. Praveen Kumar P U | Professor |
| 3 | Dr.Susil Kumar Sahu | Professor |
| 4 | Mr.Ashok B P | Assot. Professor |
| 5 | Mr. Dharamvir | Assot. Professor |
| 6 | Mr. JC Achutha | Assot. Professor |
| 7 | Mrs. Saritha S | Assot. Professor |
| 8 | Mrs. Mridula Shukla | Assot. Professor |
| 9 | Mrs. Selvi E | Assot. Professor |
| 10 | Ms. R Ushasree | Asst. Professor |
| 11 | Mr. Changappa M R | Asst. Professor |
| 12 | Mr. Indrakumar S S | Asst. Professor |
| 13 | Mrs. Stuti Agarwal | Asst. Professor |
| 14 | Ms. Kimmi Kumari | Asst. Professor |
| 15 | Ms. Anjana S Murthy | Asst. Professor |
| 16 | Ms. Punya V | Asst. Professor |
| 17 | Ms. Sudha K | Asst. Professor |
| 18 | Mr. Chandran M | Asst. Professor |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 19 | Mrs.Selastina Mary A | Asst. Professor |
|----|----------------------|-----------------|
| 20 | Mrs.Moumita Kali | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1. HOD, Dr. M S Shashidhara welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.

| Sl. No. | CBCS ELECTIVE/MATDIP | |
|---------|----------------------|--|
| 1 | 18MCA46 | Professional Communication & Report Writing |
| 2 | 18MCA53 | Machine Learning |
| 3 | 18MCA542 | Computer Graphics |
| 4 | 18MCA543 | Image Processing |

- 5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.
- 6. Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 8. Planning for the Final Year's Project Works / Internships.
- 9. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following value-added programs will be conducted during 2018 – 2019 odd semester

| Sl. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 15. | MCA | Soft Skill Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

HOD Signature Dr. M.S.Shashidhara Dept. of MCA



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (MCA)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 – (EVEN)

The department curriculum committee was made and the meeting was held on 18/02/2019 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|-----------------------|------------------|
| 1 | Dr. M S Shashidhara | Professor |
| 2 | Dr. Praveen Kumar P U | Professor |
| 3 | Dr.Susil Kumar Sahu | Professor |
| 4 | Mr.Ashok B P | Assot. Professor |
| 5 | Mr. Dharamvir | Assot. Professor |
| 6 | Mr. JC Achutha | Assot. Professor |
| 7 | Mrs. Saritha S | Assot. Professor |
| 8 | Mrs. Mridula Shukla | Assot. Professor |
| 9 | Mrs. Selvi E | Assot. Professor |
| 10 | Ms. R Ushasree | Asst. Professor |
| 11 | Mr. Changappa M R | Asst. Professor |
| 12 | Mr. Indrakumar S S | Asst. Professor |
| 13 | Mrs. Stuti Agarwal | Asst. Professor |
| 14 | Ms. Kimmi Kumari | Asst. Professor |
| 15 | Ms. Anjana S Murthy | Asst. Professor |
| 16 | Ms. Punya V | Asst. Professor |
| 17 | Mr. Chandran M | Asst. Professor |
| 18 | Mrs.Selastina Mary A | Asst. Professor |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 19 | Mrs.Moumita Kali | Asst. Professor |
|----|------------------|-----------------|
| 19 | | 7.6501110105001 |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1. HOD, Dr. M S Shashidhara, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 2. Semester plan for 2018-19 even semester and mentioning the activities planned in the department.

| SI. No. | CE | BCS ELECTIVE/MATDIP |
|---------|----------|-------------------------------------|
| 1 | 18MCA46 | Professional Communication & Report |
| | | Writing |
| 2 | 18MCA53 | Machine Learning |
| 3 | 18MCA542 | Computer Graphics |
| 4 | 18MCA543 | Image Processing |

- 3. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Mentor mentee list discussion
- 10. The following certificate programs will be conducted during 2018 2019 EVEN semester

| SI. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| 1 | MCA | Python with Machine Learning |

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Signature of the HOD

Signature of the HOD Dr. M.S.Shashidhara Dept. of MCA



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

List and Description of courses (1) Subject, (2) Subject Code, (3) Curriculum Objective, (4) Delivery Methodology with Number of hours, (5) PO, PSO, CO Mapping, (6) Crosscutting Issues Integrated which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

2018-19

Dept. of Computer Science & Engineering

| | | | VISVESVARAYA TECHN | OLOGICAL UNI | VERSIT | r, Bela | GAVI | | | | | |
|---------|----------------|----------|---|------------------------|----------------------|----------|-----------------------|----------------------|-----------|-----------|-------------|---------|
| | | C | Scheme of Teachir Choice Based Credit System (Cl (Effective from tl | BCS) AND Outc | ome Ba | sed Ed | | n (OBE | E) | | | |
| III SI | EMESTER | | • | | | | | | | | | |
| | | | | | Teaching Hours /Week | | | | Exami | nation | | |
| SI. Cou | | urse and | Course Title | Teaching Department | Theory Lecture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Total Marks | Credits |
| No | No Course Code | | ourse Code | | LT | | Р | | Ū | S | Ţ | |
| 1 | BSC | 18MAT31 | Transform Calculus, Fourier Series And Numerical Techniques | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18CS32 | Data Structures and Applications | CS / IS | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18CS33 | Analog and Digital Electronics | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18CS34 | Computer Organization | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18CS35 | Software Engineering | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18CS36 | Discrete Mathematical Structures | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18CSL37 | Analog and Digital Electronics Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18CSL38 | Data Structures Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18KVK39 | Vyavaharika Kannada (Kannada for communication)/ | | | | | | | | | |
| | | 18KAK39 | Aadalitha Kannada (Kannada for Administration) | | | 2 | | | 100 | | | |
| 9 | HSMC | OR | OR | HSMC | | | | | | | 100 | 1 |
| | | | Constitution of India, Professional | | 1 | | | 02 | 40 | 60 | | |
| | | 18CPC39 | Ethics and Cyber Law | | | | s by obje | , | pe ques | | | |
| | | | | | 17 | 08 | | 24 | 420 | 480 | | |
| | | | | TOTAL | OR | OR | 04 | OR | OR | OR | 900 | 24 |
| | | | | IUIAL | 18 | 10 | 04 | 26 | 360 | 540 | 900 | 24 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi.

Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B. E. Common to all Programmes

Outcome Based Education (OBE) and Choice Based Credit System (CBCS)

SEMESTER - III

| CONSTITUTION OF INDIA, P | ROFESSIONAL ETHICS AND CYBER LA | <mark>AW (CPC)</mark> | |
|-----------------------------|--|-----------------------|----|
| Course Code | 18CPC39/49 | CIE Marks | 40 |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |

Course Learning Objectives: To

• know the fundamental political codes, structure, procedures, powers, and duties of Indian government institutions, fundamental rights, directive principles, and the duties of citizens

- Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety.
- Know about the cybercrimes and cyber laws for cyber safetymeasures.

Module-1

Introduction to Indian Constitution:

The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, The Making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) and its present relevance in our society with examples. Fundamental Duties and its Scope and significance in Nation building.

Module-2

Union Executive and State Executive:

Parliamentary System, Federal System, Centre-State Relations. Union Executive – President, Prime Minister, Union Cabinet, Parliament - LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Articles 370.371,371J) for some States.

Module-3

Elections, Amendments and Emergency Provisions:

Elections, Electoral Process, and Election Commission of India, Election Laws. Amendments - Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments – 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Emergency Provisions, types of Emergencies and itsconsequences.

Constitutional special provisions:

Special Provisions for SC and ST, OBC, Women, Children and Backward Classes.

Module-4

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be able to,

CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
 - For the award of 40 CIE marks, refer the University regulations2018.

| SI. No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year |
|------------|---|---|---------------------------|------------------|
| Textboo | ok/s | | | |
| 1 | Constitution of India, | Shubham Singles, | | 2018 |
| | Professional Ethics and Human Rights | Charles E. Haries, and et al | Cengage Learning India | |
| 2 | Cyber Security and Cyber Laws | Alfred Basta and et al | Cengage Learning India | 2018 |
| Referer | ce Books | | · | · |
| 3 | Introduction tothe Constitution of India | Durga Das Basu | Prentice –Hall, | 2008. |
| 4 | Engineering Ethics | M. Govindarajan, S. Natarajan, V. S. Senthilkumar | Prentice –Hall, | 2004 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| V SEN | NESTER | Cl | Scheme of Teachir noice Based Credit System (CE (Effective from th | • | e Base | d Ed | | n (OBE |) | | | |
|-----------|---------------------------|---------|--|---|-------------------------------------|----------|-----------------------|----------------------|-----------|-----------|-------------|---|
| | | | | | Teaching Hours /Week Examination | | | | | | | |
| SI. No | Course and Course code | | Course Title | Teaching Department Theory | | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Total Marks | |
| | | | | | L | т | Р | | 0 | 0, | F | |
| 1 | HSMC | 18CS51 | Management, Entrepreneurship for IT idustry | HSMC | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18CS52 | Computer Networks and Security | CS / IS | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18CS53 | Database Management System | CS / IS | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 4 | PCC | 18CS54 | Automata theory and Computability | CS / IS | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18CS55 | Application Development using Python | CS / IS | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18CS56 | Unix Programming | CS / IS | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18CSL57 | Computer Network Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18CSL58 | DBMS Laboratory with mini project | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 9 | HSMC | 18CIV59 | Environmental Studies | Civil/ Environmental [Paper setting: Civil Engineering | 1 | | | 02 | 40 | 60 | 100 | 1 |
| | | | | Board] | | | | | | | | |
| | | | | TOTAL | 18 | 10 | 04 | 26 | 360 | 540 | 900 | 2 |

Note: PCC: Professional Core, HSMC: Humanity and Social Science.

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B. E. COMMON TO ALL PROGRAMMES

Choice Based Credit System (CBCS) and Outcome Based Education (OBE)

SEMESTER - V

| ENVIRONMENTAL STUDIES | | | | | | | | | |
|-------------------------------|---------|------------|----|--|--|--|--|--|--|
| Course Code | 18CIV59 | CIE Marks | 40 | | | | | | |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | | | | |
| Credits | 01 | Exam Hours | 02 | | | | | | |
| | | | | | | | | | |

Module - 1

Ecosystems (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake. **Biodiversity:** Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation.

Module - 2

Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind.

Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud Seeding, and Carbon Trading.

Module - 3

Environmental Pollution (Sources, Impacts, Corrective and Preventive measures, Relevant Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil Pollution and AirPollution.

Waste Management & Public Health Aspects: Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes; Industrial and Municipal Sludge.

Module - 4

Global Environmental Concerns (Concept, policies and case-studies):Ground water depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.

Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship-NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to theenvironment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| SI.No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year |
|----------|-------------------------------|-------------------------|-----------------------|---------------------|
| Textbool | <td></td> <td></td> <td></td> | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | 51 | | 55 5 | |
|--------|---|--|---|---|
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 |
| Refere | ence Books | | | |
| 1 | Principals of Environmental Science andEngineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Information Science & Engineering

Scheme

| | | | VISVESVARAYA TEC | HNOLOGICAL U | NIVERSIT | Y, BELA | GAVI | | | | | | |
|--------|-------------------|----------------------|--|------------------------|------------------|----------|----------------|-------------|----------------------|-----------|-----------|-------------|-----|
| | | | Scheme of Tea | ching and Exami | nation 20 | 018 - 19 | Э | | | | | | |
| | | | Outcome Based Education (OBE) ar | nd Choice Based | Credit Sy | /stem (O | CBCS) (I | Effective | e from | | | | |
| | | | the ac | ademic year 20 | 18 – 19) | • | | | | | | | |
| III S | EMESTER | | | • | · · | | | | | | | | |
| | | | | | Teachin /Week | g Hours | 5 | | Exan | nination | | | |
| SI. | | | Course | Teaching Department | Theory | Tutorial | Practical / | on in rs | rks | arks | 1arks | Credits | |
| N o | | Course Title | | and Title Gourse | | L | т | Р | Duration in hours | CIE Marks | SEE Marks | Total Marks | Cre |
| - | Coc | 10 | | _ | | | | Δ | 0 | S | Ĕ | | |
| 1 | BSC | 18MAT31 | Transform Calculus, Fourier Series And Numerical Techniques | Mathematic | 2 | 2 | | 03 | 40 | 60 | 100 | 3 | |
| | | | | S | | | | | | | | | |
| 2 | PCC | 18CS32 | Data Structures and Applications | CS / IS | 3 | 2 | | 03 | 40 | 60 | 100 | 4 | |
| 3 | PCC | 18CS33 | Analog and Digital Electronics | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 | |
| 4 | PCC | 18CS34 | Computer Organization | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 | |
| 5 | PCC | 18CS35 | Software Engineering | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 | |
| 6 | PCC | 18CS36 | Discrete Mathematical Structures | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 | |
| 7 | PCC | 18CSL37 | Analog and Digital Electronics Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 | |
| 8 | PCC | 18CSL38 | Data Structures Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 | |
| | | 18KVK39 | Vyavaharika Kannada (Kannada for communication)/ | | | | | | | | | | |
| | | <mark>18KAK39</mark> | Aadalitha Kannada (Kannada for Administration) | | - | 2 | | | 100 | | | | |
| 9 | <mark>HSMC</mark> | <mark>O</mark> R | OR | <mark>HSMC</mark> | | 1 | 1 | | | | 100 | 1 | |
| | | | Constitution of India, Professional | | 1 | | | 02 | 40 | 60 | | | |
| | | <mark>18CPC39</mark> | Ethics and Cyber Law | | | ination | is by ob | jective t | ype que | stions | | | |
| | | | | | 17 | 08 | | 24 | 420 | 480 | | | |
| | | | | TOTAL | OR | OR | 04 | OR | OR | OR | 000 | 24 | |
| | | | | TOTAL | 18 | 10 | 04 | 26 | 360 | 540 | 900 | 24 | |

| VISVESVARAY | A TECHNOLOGICAL UNIVER | SITY, BELAGAVI | | | | | | | |
|--|---------------------------|----------------------------|-------------|--|--|--|--|--|--|
| Scheme of Teaching and Examination 2018 – 19 | | | | | | | | | |
| Outcome Based Education (OBE) and Choice Based Credit System (CBCS) (Effective | | | | | | | | | |
| fro | om the academic year 2018 | – 19) | | | | | | | |
| V SEMESTER | | | | | | | | | |
| | υ | Teaching Hours /Week | Examination | | | | | | |



CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org Γ

 ٦

1

| SI | Co | urse | | | Theory Lecture | Tutorial | Practical / | Duration in hours | CIE Marks | SFF Marks | Total Marks | |
|---------------|-------------------|----------------------|--|---|-------------------|----------|----------------|----------------------|-----------|-----------|-------------|-----------|
| • | and | - | Course | | | _ | _ | ura: hc | ΕV | E D | tal | |
| N | Course code | | Title | | L | т | Р | Ō | D | S | 2 | |
| o 1 | нѕмс | 18CS51 | Management, Entrepreneurship for IT Industry | HSMC | 2 | 2 | | 03 | 40 | 60 | 10 0 | 3 |
| 2 | PCC | 18CS52 | Computer Networks and Security | CS / IS | 3 | 2 | | 03 | 40 | 60 | 10 0 | 4 |
| 3 | PCC | 18CS53 | Database Management System | CS / IS | 3 | 2 | | 03 | 40 | 60 | 10 0 | 4 |
| 4 | PCC | 18CS54 | Automata theory and Computability | CS / IS | 3 | | | 03 | 40 | 60 | 10 0 | 3 |
| 5 | PCC | 18CS55 | Application Development using Python | CS / IS | 3 | | | 03 | 40 | 60 | 10 0 | 3 |
| 6 | PCC | 18CS56 | Unix Programming | CS / IS | 3 | | | 03 | 40 | 60 | 10 0 | 3 |
| 7 | PCC | 18CSL57 | Computer Network Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 10 0 | 2 |
| 8 | PCC | 18CSL58 | DBMS Laboratory with mini project | <mark>CS / IS</mark> | | 2 | 2 | 03 | 40 | 60 | 10 0 | 2 |
| 9 | <mark>нѕмс</mark> | <mark>18CIV59</mark> | Environmental Studies | Civil/ Environmental [Paper setting: Civil Engineering Board] | 1 | | | 02 | 40 | 60 | 100 | 1 |
| | | | | TOTAL | 18 | 10 | 0 4 | 26 | 36 0 | 54 0 | 90 0 | 25 |
| Note: | PCC: Profe | ssional Core, | HSMC: Humanity and Social Scien | ce. | | | | | | | | |
| | | | students fail to earn the prescribed ents shall be admitted for the award | | | | | | | | | rning the |

| | B. E. Common to all Programmes ation (OBE) and Choice Based Cred | it System (CBCS) | | | | | |
|---|---|--------------------|-------------------------------|--|--|--|--|
| | SEMESTER - III | | | | | | |
| CONSTITUTION OF INDIA, P | ROFESSIONAL ETHICS AND CYBER | LAW (CPC) | | | | | |
| Course Code | 18CPC39/49 | CIE Marks | 40 | | | | |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | | |
| Credits | 01 | Exam Hours | 02 | | | | |
| Course Learning Objectives: Toknow the fundamental politic | al codes, structure, procedures, po | wers, and duties c | of Indian | | | | |
| government institutions, func | lamental rights, directive principles | , and the duties o | fcitizens | | | | |
| Understand engineering ethic | s and their responsibilities; identify | their individual r | oles and <mark>ethical</mark> | | | | |
| responsibilities towardssociety. | | | | | | | |
| Know about the cybercrimes | and cyber laws for cyber safetyme | asures. | | | | | |
| Module-1 | | | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Introduction to Indian Constitution:

The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, The Making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) and its present relevance in our society with examples. Fundamental Duties and its Scope and significance in Nation building.

Module-2

Union Executive and State Executive:

Parliamentary System, Federal System, Centre-State Relations. Union Executive – President, Prime Minister, Union Cabinet, Parliament - LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Articles 370.371,371J) for some States.

Module-3

Elections, Amendments and Emergency Provisions:

Elections, Electoral Process, and Election Commission of India, Election Laws. Amendments - Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments – 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Emergency Provisions, types of Emergencies and itsconsequences.

Constitutional special provisions:

Special Provisions for SC and ST, OBC, Women, Children and Backward Classes.

Module-4

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin

Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be able to,

CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

Rights

• The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).

| • | For the award of 40 CIE marks, refe | r the University regulation | ons2018. | |
|---------|-------------------------------------|-----------------------------|------------------|------------------|
| SI. | Title of the Book | Name of the | Name of the | Edition and Year |
| No. | | Author/s | Publisher | |
| Textboo | k/s | | | |
| 1 | Constitution of India, | Shubham Singles, | | 2018 |
| | Professional Ethics and Human | Charles E. Haries, | Cengage Learning | |

India

and et al



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 2 | Cyber Security and Cyber Laws | Alfred Basta and et al | Cengage Learning India | 2018 |
|---------|---|---|---------------------------|-------|
| Referen | ce Books | | | |
| 3 | Introduction tothe Constitution of India | Durga Das Basu | Prentice –Hall, | 2008. |
| 4 | Engineering Ethics | M. Govindarajan, S. Natarajan, V. S. Senthilkumar | Prentice –Hall, | 2004 |

| | COMMON TO ALL PROGR | ne Based Education (OBE) | | | | | |
|---|---|---|----------------------|--|--|--|--|
| | SEMESTER – V | ne based Education (ODE) | | | | | |
| ENVIRONMENTAL STUDIES | | | | | | | |
| Course Code | 18CIV59 | CIE Marks | 40 | | | | |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | | |
| Credits | 01 | Exam Hours | 02 | | | | |
| Module - 1 | | | | | | | |
| Ecosystems (Structure and Function): | Forest, Desert, Wetlands, | Riverine, Oceanic and Lake. | | | | | |
| Biodiversity: Types, Value; Hot-spots; | Threats and Conservation | of biodiversity, Forest Wea | Ith, and | | | | |
| Deforestation. | | | | | | | |
| Module - 2 | | | | | | | |
| Advances in Energy Systems (Merits, I | Demerits, Global Status an | d Applications): Hydrogen, | Solar, OTEC, Tidal | | | | |
| and Wind. | , | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | , , | | | | |
| Natural Resource Management (Conc | ept and case-studies): Dis | aster Management, Sustain | able Mining, Cloud | | | | |
| Seeding, and Carbon Trading. | • | | 0. | | | | |
| Module - 3 | | | | | | | |
| Environmental Pollution (Sources, Imp | pacts, Corrective and Prev | entive measures, Relevant | Environmental Acts, | | | | |
| Case-studies): Surface and Ground Wa | ter Pollution; Noise pollut | ion; Soil <mark>Pollution an</mark> d AirPo | ollution. | | | | |
| Waste Management & Public Health | Aspects: Bio-medical Wast | tes; Solid waste; Hazardous | wastes; E-wastes; | | | | |
| Industrial and Municipal Sludge. | | | | | | | |
| Module - 4 | | | | | | | |
| Global Environmental Concerns (Co | oncept, policies and ca <mark>se</mark> | <mark>e-studies):G</mark> round water d | lepletion/recharging | | | | |
| Climate Change; Acid Rain; Ozone Dep | pletion; Radon and Fluoric | le problem in drinking wate | er; Resettlement an | | | | |
| rehabilitation of people, Environmenta | al Toxicology. | | | | | | |
| Module - 5 | | | | | | | |
| Latest Developments in Environment | al Pollution Mitigation To | ols (Concept and Applicatio | ons): G.I.S. & Remot | | | | |
| Sensing, Environment Impact Assess | - | | - | | | | |
| Stewardship- NGOs. | | anagement systems, 1901- | | | | | |
| • | | | | | | | |

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to theenvironment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| Sl.No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year |
|---------|---|--|---|---|
| Textbo | ok/s | • | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 |
| Referer | nce Books | · | | |
| 1 | Principals of Environmental Science andEngineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Electronics & Communication Engineering

| | | | ENVELOPMENT DE LE COMPANY DE LE COMPANY | | and the second second | INTE ACT | | | | | | |
|----------------|----------|---------------------------|--|------------------------|-----------------------|-------------|-----------------------|----------------------|-----------|-----------|-------------|---------|
| | | | VISVESVARAYA TECHNOLOGIC. Scheme of Teaching and E | | | | AVI . | | | | | |
| | | | Outcome Based Education (OBE) and Ch | | | | CRCS) | | | | | |
| | | | (Effective from the acade | | | | curcuy | | | | | |
| Prog | ramme: I | B.E: Electronics & | Communication Engineering | | | | | | | | | |
| | | | III SEMES | TER | | | | | | | | |
| | | | Teach | ing Hour | Week | | Exam | ination | | | | |
| SL No | | Course and Course Code | Course Title | Teaching Department | Theory Lecture | Tutorial | Practical/ Drawing | Duration in bours | CIE Marks | SEE Marks | Tetal Marks | Credits |
| | | | | _ | L | Т | P | - | 0 | -96 | Ĥ | |
| 1 | BSC | 18MAT31 | Transform Calculus, Fourier Series and Numerical Techniques | Mathe matics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18BC32 | Network Theory | | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18BC33 | Electronic Devices | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18EC34 | Digital System Design | | 3 | 0 | | 03 | - 40 | 60 | 100 | - 3 - |
| 5 | PCC | 18EC35 | Computer Organization & Architecture | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18EC36 | Power Electronics & Instrumentation | | 3 | -0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18ECL37 | Electronic Devices & Instrumentation Laboratory | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18ECL38 | Digital System Design Laboratory | | | 2 | 2 | 03 | -40 | 60 | 100 | 2 |
| | | 18KVK39/49 | Vyovahariko Kannada (Kannada for Communication)/ | | | 2 | | | 100 | | | |
| | 2 | 18KAK39/49 | Aadalitha Kannada (Kannada for Administration) | | | - | | | 100 | | | |
| 9 S 18KAK39.49 | | | OR | HSMC | | | | | | | 100 | 1 |
| | - | 18CPC3949 | Constitution of India, Professional Ethics and Cyber | | 1 | | | 02 | -40 | 60 | | |
| | | 100103049 | Law | | | nation is b | y objectiv | ve type qu | estions | | | |
| | | | | | 17 | 10 | | 24 | 420 | 480 | | |
| | | | | TOTAL | OR | OR | 04 | OR | OR | OR | 900 | 24 |
| | | | | | 18 | 08 | | 26 | 360 | 540 | | |

| Г | | | | VISVESVARAYA TECHNOLOGIC/ | AL UNIVER | ISITY, BE | LAGAVI | 1 | | | | | |
|---|--------------|--------|--|---|-----------------|-------------------|----------|-----------------------------------|----------------------|-----------|-----------|-------------|---------|
| | | | | Scheme of Teaching and Ex | | | | | | | | | |
| | | | | Outcome Based Education (OBE) and Cl | | | tem (CB | CS) | | | | | |
| L | | | | (Effective from the acades | mic year 20 | 18 - 19) | | - | | | | | |
| E | Prog | ramme: | B.E: Electronics | & Communication Engineering | | | | | | | | | |
| | | | | IV SEMES | TER | | | | | | | | |
| | | | | | | Teachin | g Hours | Week | | Exami | ination | | 1 |
| | SL N 0 | | Course and ourse code | Course Title | Teaching | Theory Lecture | Tutorial | Practical ⁷ Drawing | Duration in bours | CIE Marks | SEE Marks | Fetsi Marks | Crodits |
| | | | | | _ | L | Т | Р | a | 5 | 22 | e. | |
| | 1 | BSC | 18MAT41 | Complex Analysis, Probability and Statistical Methods | Mathe matics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| Ē | 2 | PCC | 18EC42 | Analog Circuits | | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| Γ | 3 | PCC | 18EC43 | Control Systems | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| | 4 | PCC | 18EC44 | Engineering Statistics & Linear Algebra | | 3 | 0 | | 03 | 40 | 60 | 100 | - 3 |
| Γ | 5 | PCC | 18EC45 | Signals & Systems | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| E | 6 | PCC | 18EC46 | Microcontroller | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| E | 7 | PCC | 18ECL47 | Microcontroller Laboratory | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | 8 | PCC | 18ECL48 | Analog Circuits Laboratory | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | D | 18KVK39/49 18KAK39/49 | Vyavaharika Kannada (Kannada for Communication) Aadalitha Kannada (Kannada for Administration) | - | | 2 | | | 100 | | | |
| | 9 | HSMC | | OR | HSM | | | 100 | | | 100 | 1 | |
| | | Η | Constitution of India, Professional Ethics and Cyber | С | 1 | | | 02 | 40 | 60 | 1 | | |
| | | | 18CPC39/49 | Law | | Exc | mination | is by obj | ective typ | e questio | ns | 1 | |
| Г | | | | | | 17 | 10 | | 24 | 420 | 480 | | |
| | | | | | TOTAL | OR | OR | 04 | OR | OR | OR | 900 | 24 |
| | | | | | | 18 | 08 | | 26 | 360 | 540 | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | | | 8E) and Choice Based On the academic year 2018 | | stem (| CBCS) | | | | | |
|----------|-------------|-----------------------|---|--|-------------------|----------|-----------------------|----------------------|-----------|-----------|-------------|---|
| Progr | ramme: B.E: | Electronics & O | Communication Engineering | | | | | | | | | |
| \vdash | | | | V SEMESTER | | | | | | | | |
| | | | | | Teachin | g Hour | rs /Week | | Exam | ination | | 4 |
| SL No | | urse and arse code | Course Title | Teaching Department | Theory Locture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Fotal Marks | |
| | | | | | L | т | Р | | Ť | | - | |
| 1 | HSMC | 18ES51 | Technological Innovation Management and Entrepreneurship | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18EC52 | Digital Signal Processing | | 3 | 2 | | 03 | 40 | 60 | 100 | |
| 3 | PCC | 18EC53 | Principles of Communication Systems | | 3 | 2 | | 03 | 40 | 60 | 100 | |
| 4 | PCC | 18EC54 | Information Theory & Coding | | 3 | | | 03 | 40 | 60 | 100 | |
| 5 | PCC | 18EC55 | Electromagnetic Waves | | 3 | | | 03 | 40 | 60 | 100 | 1 |
| 6 | PCC | 18EC56 | Verilog HDL | | 3 | | | 03 | 40 | 60 | 100 | 1 |
| 7 | PCC | 18ECL57 | Digital Signal Processing Laboratory | | | 2 | 2 | 03 | 40 | 60 | 100 | 1 |
| 8 | PCC | 18ECL58 | HDL Laboratory | | | 2 | 2 | 03 | 40 | 60 | 100 | 1 |
| 9 | HSMC | 18CIV59 | Environmental Studies | Civil/Environmental [Paper setting: Civil Engineering Board] | 1 | | | 02 | 40 | 60 | 100 | |
| | | | · | TOTAL | 19 | 8 | 4 | 26 | 360 | 540 | 900 | 2 |

| | COMMON TO ALL PRO System (CBCS) and Out (OBE) SEMES | come Based Education | |
|---|---|------------------------------|--------------------------------|
| | ENVIRONMENTA STUDIES | | |
| Course Code | 18CIV59 | CIE Marks | 40 |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| Module - 1 | | | · |
| Biodiversity: Types, Value; Hot-spots, Deforestation. Module - 2 | ; Threats and Conservat | ion of blodiversity, Forest | wearth, and |
| Tidal and Wind. Natural Resource Management (Con Cloud Seeding, and Carbon Trading. Module - 3 | cept and case-studies): | Disaster Management, Su | stainable Mining, |
| Environmental Pollution (Sources, Im Environmental Acts, Case-studies): Su and AirPollution. Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 | irface and Ground Wate | er Pollution; Noise pollutio | n; Soil <mark>Pollution</mark> |
| Global Environmental Concerns (Con Climate Change; Acid Rain; Ozone Dep and rehabilitation of people, Environm | oletion; Radon and Fluo | - | |
| | 387 | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship-NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to the environment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| Sl.No. | Title of the Book | Name of the | Name of the Publisher | Edition and Year |
|---------|--|---|---|---|
| | | Author/s | | |
| Textbo | ok/s | | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 |
| Referer | ice Books | | | |
| 1 | Principals of Environmental Science and Engineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| Outcome Based E | B. E. Common to all Producation (OBE) and Choice | ogrammes Based Credit System (CBC | CS) | | | | |
|--|--|--------------------------------------|--------------------|--|--|--|--|
| SEMESTER - III CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND CYBER LAW (CPC) | | | | | | | |
| Course Code | 18CPC39/49 | CIE Marks | 40 | | | | |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | | |
| Credits | 01 | Exam Hours | 02 | | | | |
| Course Learning Objectives: To | | Examinouis | 02 | | | | |
| | olitical codes structure pro | ocedures, powers, and dution | es of Indian | | | | |
| · · · · | | ve principles, and the dutie | | | | | |
| - | - | ities; identify their individu | | | | | |
| ethical responsibilities to | | lies, identify their mulvidu | al l'ules allu | | | | |
| • | mes and <mark>cyber laws</mark> for cyb | ar safatymaasuras | | | | | |
| Module-1 | Thes and <mark>cyper laws</mark> for cyp | er saretymeasures. | | | | | |
| Introduction to Indian Constituti | on: | | | | | | |
| The Necessity of the Constitution | •••• | after the Constitution ador | ntion Introduction | | | | |
| to the Indian constitution, The | | | | | | | |
| Preamble and Salient features o | • | | | | | | |
| limitations in different Complex | | U | | | | | |
| • | Situations. Directive Princ | iples of state Policy (DPS) | P) and its present | | | | |
| relevance in our | tal Dutios and its Scope an | d significance in Nation bu | ilding | | | | |
| society with examples. Fundamer Module-2 | ital Duties and its scope an | u significance in Nation bu | nung. | | | | |
| | _ | | | | | | |
| Union Executive and State Execu | | | | | | | |
| Parliamentary System, Federal | • | | | | | | |
| Minister, Union Cabinet, Parliam | | | | | | | |
| Terminologies. Supreme Court of | | | | | | | |
| Chief Minister, State Cabinet, St | ate Legislature, High Court | t and Subordinate Courts, | Special Provisions | | | | |
| (Articles | | | | | | | |
| 370.371,371J) for some States. | | | | | | | |
| Module-3 | | | | | | | |
| Elections, Amendments and Eme | • • | | | | | | |
| Elections, Electoral Process, and | | | | | | | |
| Constitutional Amendments (How | | | | | | | |
| 7,9,10,12,42,44, 61, 73,74, ,75, | | - | nt Case Studies. | | | | |
| Emergency Provisions, types of E | • | ences. | | | | | |
| Constitutional special provisions | | | | | | | |
| Special Provisions for SC and ST, (| DBC, Women, Children and | Backward Classes. | | | | | |
| Module-4 | | | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be

able to, CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. | Title of the Book | Name of | Name of | Edition and Year |
|--------|-------------------------------|---------------------|------------------|------------------|
| No. | | the | the | |
| | | Author/s | Publisher | |
| Textbo | ok/s | | | |
| 1 | Constitution of India, | Shubham | | 2018 |
| | Professional Ethics and | Singles, Charles | Cengage | |
| | Human Rights | E. Haries, and et | Learning India | |
| | | al | _ | |
| 2 | Cyber Security and Cyber Laws | Alfred Basta and | Cengage | 2018 |
| | | et al | Learning India | |
| Refere | nce Books | | | |
| 3 | Introduction tothe | Durga Das Basu | Prentice – Hall, | 2008. |
| | Constitution of India | | | |
| 4 | Engineering Ethics | M. Govindarajan, S. | Prentice – Hall, | 2004 |
| | | Natarajan, V. | | |
| | | S. | | |
| | | Senthilkumar | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Electrical & Electronics Engineering

Course Structure for B.E- 2017 scheme Regulation

Electrical and Electronics Engineering

Visvesvaraya Technological University, Belagavi

REGULATIONS GOVERNING THE DEGREE OF BACHELOR OF ENGINEERING/ TECHNOLOGY (B.E/B.Tech) UNDER CHOICE BASED CREDIT SYSTEM (CBCS) Effective from the academic year 2017-18

Annexure -1

| | | Scher | YA TECHNOL me of Teaching Choice Based | and Examina Credit System | (CBCS | 7-2018 | GAVI | | | | |
|-----------|-------------|---|--|--|---------|-----------------------------------|----------------------|-----------|------------------|-------------|---------|
| - | | | | IP) aching rs/V ≍≒ | | Funk | ution | | Г | | |
| SL. No | Course Code | Course Title | Tesching | Board | Theory | Practicul ⁷ Drawing | Duration in hours | SEE Marks | CIE Marks | Total Marks | Credits |
| 1 | 17MAT11 | Engineering Mathematics | Mathematics | Basic Science | 04 | | 03 | 60 | 40 | 100 | 4 |
| 2 | 17PHY12 | Engineering Physics | Physics | Basic Science | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 3 | 170113 | Elements of Civil Engineering and Mechanics | Civil Engineering | Civil Engiseering | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 4 | 17EME14 | Elements of Mechanical Engineering | Mechanical Engineering | Mechanical Engineering | 04 | (#) | 03 | 60 | 40 | 100 | 4 |
| 5 | ITELEIT | Basic Electrical Engineering | E and E Engineering | E and E Engineering | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 6 | 17WSL16 | Workshop Practice | ME, Auto, IP, IEM, Mig Engineering | Mechanical Engineering | | Instruction Practical | 03 | 60 | 40 | 100 | 2 |
| 7 | 17PHYL17 | Engineering Physics Laboratory | Physics | Basic Science | | Instruction Practical | 63 | 60 | 40 | 100 | 1 |
| 8 | I7ENGI8 | Language - English (Audit Course) | Humanities | 1.046 | 01 | | | | - | | |
| | | | | TOTAL | | 21 hours al: 06 hours | 21 | 420 | 280 | 700 | 2 |
| _ | | | SEMESTER B.E.A | Tech (CHEMIS | TRY GR | OUP | | | | | - |
| 1 | 17MAT21 | Engineering Mathematics | Mathematics | Basic Science | 64 | - | 03 | 60 | 40 | 100 | 4 |
| 2 | 17CHE22 | Engineering Chemistry | Chemistry | Basic Science | 64 | | 03 | 60 | 40 | 100 | 4 |
| 3 | 17PCD23 | Programming in C and Data Structures | Any Engineering Department | Computer Science and Engineering | 64 | ** | 03 | 60 | 40 | 100 | 4 |
| 4 | 17CED24 | Computer Aided Engineering Drawing | ME, Auto, IP, IEM, Mfg Engineering | Mochanical Engineering | | Instruction Practice | 03 | 60 | 40 | 100 | |
| 5 | 17ELN25 | Basic Electronics | ECE/EEE/TC/E and I | E and C Engineering | - 04 | - | 03 | 60 | 40 | 100 | 4 |
| 6 | 17CPL26 | Computer Programming Laboratory | Any Engineering Department | Computer Science and Engineering | | Tutorial Practical | 03 | 60 | 40 | 100 | 1 |
| 7 | 17CHEL27 | Engineering Chemistry Laboratory | Chemistry | Basic Science | | Tutorial Practical | 03 | 60 | 40 | 100 | 4 |
| 8 | 17CIV28 | Environmental Studies (Audit Course) | Civil/ Environmental Engineering | Civil Engineering | 01Tuter | ial Ol hours | - | 30 | 20 | 50 | 1 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B. E. COMMON TO ALL PROGRAMMES

Choice Based Credit System (CBCS) and Outcome Based Education

(OBE) SEMESTER – V

ENVIRONMENTAL

| | STUDIES | | |
|-------------------------------|---------|------------|----|
| Course Code | 18CIV59 | CIE Marks | 40 |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| | | | |

Module - 1

Ecosystems (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake. **Biodiversity:** Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation.

Module - 2

Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind.

Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud

Seeding, and Carbon Trading.

Module - 3

Environmental Pollution (Sources, Impacts, Corrective and Preventive measures, Relevant

Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil Pollution and AirPollution.

Waste Management & Public Health Aspects: Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes;

Industrial and Municipal Sludge.

Module - 4

Global Environmental Concerns (Concept, policies and case-studies):Ground water depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.

Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship-NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to the environment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.



IV CEMECTED

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| • | The Duration of Exam will be 2 | nours. | 1 | |
|---------|--|---|---|---|
| Sl.No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year |
| Textbo | ok/s | - | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 |
| Referen | nce Books | | | |
| 1 | Principals of Environmental Science and Engineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition |

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2017-2018 Choice Based Credit System (CBCS)

| 61 | | | Teaching | Teaching Hours /Week | | | | Credits | | |
|-----------|---------------|--|-------------|---------------------------------|-----------------------|----------------------|--------------|--------------|----------------|----|
| SI. No | Course Code | Title | Department | Theory | Practical/ Drawing | Duration in hours | SEE Marks | CIE Marks | Total Marks | |
| 1 | 17MAT41 | Engineering Mathematics-IV (Core) | Mathematics | 04 | | 03 | 60 | 40 | 100 | 4 |
| 2 | 17EE42 | Power Generation and Economics (Core) | EEE | 04 | | 03 | 60 | 40 | 100 | 4 |
| 3 | 17EE43 | Transmission and Distribution (Core) | EEE | 04 | | 03 | 60 | 40 | 100 | 4 |
| 4 | 17EE44 | Electric Motors (Core) | EEE | 04 | | 03 | 60 | 40 | 100 | 4 |
| 5 | 17EE45 | Electromagnetic Field Theory (Core) | EEE | 04 | | 03 | 60 | 40 | 100 | 4 |
| 6 | 17EE46 | Operational Amplifiers and Linear ICs (Foundation course) | EEE | 03 | | 03 | 60 | 40 | 100 | 3 |
| 7 | 17EEL47 | Electrical Machines Laboratory -2 | EEE | 01-Hour Instru 02-Hour Pract | | 03 | 60 | 40 | 100 | 2 |
| 8 | 17EEL48 | Op- amp and Linear ICs Laboratory | EEE | 01-Hour Instru 02-Hour Pract | | 03 | 60 | 40 | 100 | 2 |
| 9 | 17KL/CPH39/49 | Kannada/Constitution of India, Professional Ethics and Human Rights | Humanities | 01 | | 01 | 30 | 20 | 50 | 01 |
| | | | TOTAL | Theory: 24 Practical: 06 | | 25 | 510 | 340 | 850 | 28 |

B.E: ELECTRICAL AND ELECTRONICS ENGINEERING CHOICE BASED CREDIT SYSTEM (CBCS)

1. Kannada/Constitution of India, Professional Ethics and Human Rights: 50 % of the programs of the Institution have to teach Kannada/Constitution of India, Professional Ethics and Human Rights in cycle based concept during III and IV semesters.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B. E. Common to all Programmes Outcome Based Education (OBE) and Choice Based Credit System (CBCS) SEMESTER - III

| CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND CYBER LAW (CPC) | | | | | | | | | |
|--|------------|------------|----|--|--|--|--|--|--|
| Course Code | 18CPC39/49 | CIE Marks | 40 | | | | | | |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | | | | |
| Credits | 01 | Exam Hours | 02 | | | | | | |

Course Learning Objectives: To

• know the fundamental political codes, structure, procedures, powers, and duties of Indian government institutions, fundamental rights, directive principles, and the duties of citizens

- Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety.
- Know about the cybercrimes and cyber laws for cyber safetymeasures.

Module-1

Introduction to Indian Constitution:

The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, The Making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) and its present relevance in our

society with examples. Fundamental Duties and its Scope and significance in Nation building.

Module-2

Union Executive and State Executive:

Parliamentary System, Federal System, Centre-State Relations. Union Executive – President, Prime Minister, Union Cabinet, Parliament - LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Articles

370.371,371J) for some States.

Module-3

Elections, Amendments and Emergency Provisions:

Elections, Electoral Process, and Election Commission of India, Election Laws. Amendments - Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments – 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Emergency Provisions, types of Emergencies and itsconsequences.

Constitutional special provisions:

Special Provisions for SC and ST, OBC, Women, Children and Backward Classes.

Module-4

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering Module-5



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be

able to, CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. | Title of the Book | Name of | Name of | Edition and Year |
|--------|-------------------------------|-----------------------|------------------|------------------|
| No. | | the | the | |
| | | Author/s | Publisher | |
| Textbo | ok/s | | | |
| 1 | Constitution of India, | Shubham | | 2018 |
| | Professional Ethics and | Singles, Charles | Cengage | |
| | Human Rights | E. Haries, and et | Learning India | |
| | | al | | |
| 2 | Cyber Security and Cyber Laws | Alfred Basta and | Cengage | 2018 |
| | | et al | Learning India | |
| Refere | nce Books | | | |
| 3 | Introduction tothe | Durga Das Basu | Prentice – Hall, | 2008. |
| | Constitution of India | | | |
| 4 | Engineering Ethics | M. Govindarajan, S. | Prentice – Hall, | 2004 |
| | | Natarajan <i>,</i> V. | | |
| | | S. | | |
| | | Senthilkumar | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Mechanical Engineering

| SL. No Course and Course Code Course Title Note: Serve Code Course Title Note: Serve Code SUBPLIC Serve Code | $ \frac{1}{9} = \frac{1}{9} \frac$ | $ \frac{1}{10} = \frac{1}{10} + \frac{1}{10}$ | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | | MEST | ER | | | Trends | | _ | | | | | _ |
|---|---|--|---|---|------|------------|--|-------------|-------------------|----------|---|---------------------|-----------|-----------|-------------|-------|
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | $ \frac{1}{1} 1$ | | | | | | | | ng Hour | | | Exami | ation | | |
| Image: https://image: htttps://image: https://image: https://image: https://image: https | Image: 18 MAT31 Transform calculus, fourier series and Numerical techniques Mathematics 2 2 03 40 60 100 1 2 PCC 18ME32 Mechanics of Materials 3 2 03 40 60 100 1 4 PCC 18ME33 Basic Thermodynamics 3 0 03 40 60 100 1 4 PCC 18ME33 Basic Thermodynamics 3 0 03 40 60 100 1 5 PCC 18ME35A or Material Science 3 0 03 40 60 100 3 6 PCC 18ME35B Metal Casting and Welding 3 0 03 40 60 100 3 7 PCC 18ME137A Mechanical Measurements and Mechanic | I BSC 18MAT31 Transform calculus, fourier series and Numerical techniques Mathematics 2 2 03 40 60 100 1 2 PCC 18ME32 Mechanics of Material 3 2 03 40 60 100 1 3 PCC 18ME33 Basis: Thermodynamics 3 0 03 40 60 100 1 4 PCC 18ME34 Material Science 3 0 03 40 60 100 1 5 PCC 18ME35A or Metal Casting and Welding 3 0 03 40 60 100 1 6 PCC 18ME35A or Computer Aided Machine Derwing/ 1 4 03 40 60 100 1 7 PCC 18ME137A Mechanical Measurements and Metrology lab 2 2 03 40 60 10 | 1 BSC 18MAT31 Transform calculus, fourier series and Numerical techniques Mathematics 2 2 - 03 40 60 100 2 PCC 18ME32 Mechanics of Material 3 2 - 03 40 60 100 3 PCC 18ME33 Basic Thermsdynamics 3 0 - 03 40 60 100 4 PCC 18ME34 Material Science 3 0 - 03 40 60 100 5 PCC 18ME35B Metal Cutting and Welding 3 0 - 03 40 60 100 6 PCC 18ME35B Mechanical Measurements and Metrology 3 0 - 03 40 60 100 7 PCC 18ME137A or Mechanical Measurements and Metrology lab - 2 2 03 40 60 100 8 PCC 18ME138A Practice (Consthof of Fittin | | | | Course Title | Toothing | Theory Lottere | Tutorial | | Duration in from | CIE Marks | SEE Marks | Total Marks | Crubb |
| 2 PCC 18ME32 Mechanics of Materials 3 2 03 40 60 100 3 PCC 18ME33 Basic Thermodynamics 3 0 03 40 60 100 4 PCC 18ME33 Material Science 3 0 03 40 60 100 5 PCC 18ME35A or Metal cutting and forming 3 0 03 40 60 100 6 PCC 18ME35B Metal Custing and Welding 3 0 03 40 60 100 6 PCC 18ME36B Mechanical Measurements and Mechology Iab 3 0 03 40 60 100 7 PCC 18MEL37A Material Testing lab or 2 2 03 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 <td< th=""><th>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</th><th>2 PCC 18ME32 Mechanics of Materials 3 2 03 40 60 100 3 PCC 18ME33 Basic Thermodynamics 3 0 03 40 60 100 100 4 PCC 18ME33 Basic Thermodynamics 3 0 03 40 60 100</th><th>2 PCC 18ME32 Mechanics of Materials 3 2 03 40 60 100 3 PCC 18ME33 Basic Thermodynamics 3 0 03 40 60 100 4 PCC 18ME34 Material Science 3 0 03 40 60 100 5 PCC 18ME34A Material Science 3 0 03 40 60 100 6 PCC 18ME36A or Computer Aided Machine Drawing/ 1 4 - - 03 40 60 100 6 PCC 18ME137A Methal cutting and Wecking 3 0 03 40 60 100 7 PCC 18ME137A Mechanical Measurements and Metrology lab 2 03 40 60 100 8 PCC 18ME137B Mechanical Measurements and Metrology lab 2</th><th></th><th>BSC</th><th>18MAT31</th><th></th><th>Mathematics</th><th></th><th>-</th><th></th><th>03</th><th>40</th><th>60</th><th>100</th><th>3</th></td<> | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 2 PCC 18ME32 Mechanics of Materials 3 2 03 40 60 100 3 PCC 18ME33 Basic Thermodynamics 3 0 03 40 60 100 100 4 PCC 18ME33 Basic Thermodynamics 3 0 03 40 60 100 | 2 PCC 18ME32 Mechanics of Materials 3 2 03 40 60 100 3 PCC 18ME33 Basic Thermodynamics 3 0 03 40 60 100 4 PCC 18ME34 Material Science 3 0 03 40 60 100 5 PCC 18ME34A Material Science 3 0 03 40 60 100 6 PCC 18ME36A or Computer Aided Machine Drawing/ 1 4 - - 03 40 60 100 6 PCC 18ME137A Methal cutting and Wecking 3 0 03 40 60 100 7 PCC 18ME137A Mechanical Measurements and Metrology lab 2 03 40 60 100 8 PCC 18ME137B Mechanical Measurements and Metrology lab 2 | | BSC | 18MAT31 | | Mathematics | | - | | 03 | 40 | 60 | 100 | 3 |
| 4 PCC 18ME34 Material Science 3 0 03 40 60 100 5 PCC 18ME35A or 18ME35B Metal Curing and Welding 3 0 03 40 60 100 6 PCC 18ME36A or 18ME36B Metal Curing and Welding 3 0 03 40 60 100 7 PCC 18ME36B Mechanical Measurements and Metrology 3 0 03 40 60 100 7 PCC 18ME137A or Material Testing lab or - 2 2 03 40 60 100 8 PCC 18ME137B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 8 PCC 18ME138B Foundry, Forging and Welding lab 2 2 03 40 60 100 9 9 18KAK39/49 Asalifna Kanrada (Kanrada for OR < | 4 PCC 18ME34 Material Science 3 0 03 40 60 100 3 5 PCC 18ME35A or 18ME35B Metal Casting and Welding 3 0 03 40 60 100 3 6 PCC 18ME36A or 18ME36B Computer Aided Machine Drawing/ 1 4 03 40 60 100 3 7 PCC 18ME36B Mechanical Measurements and Metrology 3 0 03 40 60 100 3 7 PCC 18ME137A or Material Testing lab or 2 03 40 60 100 3 8 PCC 18ME137B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 3 8 PCC 18ME138A Foundry, Forging and Mechine Shop Practice (Consists of Fitting, and Machining) 2 2 03 40 60 10 | 4 PCC 18ME34 Material Science 3 0 03 40 60 100 5 PCC 18ME35A or 18ME35B Metal Casting and Welding 3 0 03 40 60 100 3 6 PCC 18ME36A or 18ME36B Mechanical Measurements and Metrology 1 4 03 40 60 100 3 7 PCC 18ME137A or Material Testing lab or 03 40 60 100 3 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 03 40 60 100 3 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 03 40 60 100 3 9 V 18MEL38B Foundry, Forging and Welding lab 2 03 40 60 100 3 9 V 18KeL384 Constitution | 4 PCC 18ME34 Material Science 3 0 03 40 60 100 5 PCC 18ME35A or 18ME35B Metal Custing and Welding 3 0 03 40 60 100 6 PCC 18ME36A or 18ME36B Computer Aided Machine Drawing/ 1 4 - 03 40 60 100 7 PCC 18ME36B Mechanical Measurements and Metrology 3 0 03 40 60 100 7 PCC 18ME137A Material Testing lab or 2 2 03 40 60 100 8 PCC 18ME137B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 8 PCC 18ME138B Foundry, Forging and Welding lab 2 2 03 40 60 100 9 9 1 18KEX8949 Asalitha Kanrada (Kanrad | 2 | PCC | 18ME32 | | | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 5 PCC 18ME35A or 18ME35B Metal cutting and forming Metal Custing and Welding 3 0 03 40 60 100 6 PCC 18ME36A or 18ME36B Computer Aided Machine Drawing/ 1 4 - 03 40 60 100 7 PCC 18ME137A Machanical Measurements and Metrology 3 0 03 40 60 100 7 PCC 18MEL37A or 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 9 I8MEL38B Foundry, Forging and Welding lab 2 100 100 9 I8KAK39/49 Asabilitha Kanrada (Kanrada for Administration) HSMC 2 | 5 PCC 18ME35A or 18ME35B Metal cutting and forming Metal Cutting and Welding 3 0 03 40 60 100 3 6 PCC 18ME36A or 18ME36B Computer Aided Machine Drawing/ 1 4 03 40 60 100 3 6 PCC 18ME36A or 18ME36B Computer Aided Machine Drawing/ 1 4 0 03 40 60 100 3 7 PCC 18ME137A Material Testing lab or 2 03 40 60 100 3 8 PCC 18ME137B Mechanical Measurements and Metrology lab 2 03 40 60 100 3 8 PCC 18ME138A Mechanical Measurements and Metrology lab 2 03 40 60 100 3 9 1 18ME138B Foundry, Forging and Welding lab 2 03 40 60 100 3 9 1 18KAK39/49 Ashlitha Kannada for Administration) 2 | 5 PCC 18ME35A or 18ME35B Metal cutting and forming Metal Custing and Welding 3 0 03 40 60 100 3 6 PCC 18ME36A or 18ME36B Computer Aided Machine Drawing/ Methology 1 4 03 40 60 100 3 7 PCC 18MEL37A or 18MEL37B Material Testing lab Methology lab 2 2 03 40 60 100 3 8 PCC 18MEL37B Mechanical Measurements and Methology lab 2 2 03 40 60 100 3 8 PCC 18MEL37B Mechanical Measurements and Methology lab 2 2 03 40 60 100 3 9 VE 18MEL38B Foundry, Forging and Welding lab 2 2 03 40 60 100 3 9 VE 18KeL390 Asalitha Kanrada (Kanrada for OR 2 100 100 100 100 | 5 PCC 18ME35A or 18ME35B Metal cutting and forming Metal cutting and Welding 3 0 0.3 40 60 100 6 PCC 18ME36A or 18ME36B Computer Aided Machine Drawing/ Methology 1 4 0.3 40 60 100 7 PCC 18ME137A or 18MEL37B Mechanical Measurements and Methology lab 3 0 0.3 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Methology lab 2 2 0.3 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Methology lab 2 2 0.3 40 60 100 9 V 18MEL38B Foundry, Forging and Machine Shop Fitting, and Machining) 2 2 0.3 40 60 100 9 V 18MEL38B Foundry, Forging and Welding lab - 2 - 100 100 100 100 100 100 | 3 | PCC | 18ME33 | Basic Thermodynamics | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| Interm ISME35B Metal Casting and Welding 3 0 03 00 03 00 100 6 PCC ISME35B Mechanical Measurements and Methology 1 4 - 03 40 60 100 7 PCC ISMEL37A (or) Mechanical Measurements and Methology lab 3 0 03 40 60 100 8 PCC ISMEL37B Mechanical Measurements and Methology lab 2 2 03 40 60 100 8 PCC ISMEL38A Practice (Consists of Fitting, and Machine Shop Practice (Consists of Fitting, and Machine Jiege) lab 2 2 03 40 60 100 9 Vertice ISKEL38B Foundry, Forging and Welding lab 2 2 03 40 60 100 9 Vertice ISKAK39/49 Vyavaharika Kanrada (Kanrada for communication) 2 100 100 9 Vertice OR HSMC 100 100 | 1 1 3 0 03 0 03 0 100 6 PCC 18ME35B Metal Caving and Welding 1 4 - 03 40 60 100 3 7 PCC 18ME137A Mechanical Measurements and Metrology 3 0 03 40 60 100 3 7 PCC 18ME137A Material Testing lab or 2 2 03 40 60 100 3 8 PCC 18ME138A Workshop and Machine Shop Practice (Consists of Fitting, and Machining) 2 2 03 40 60 100 3 9 0 18ME138B Foundry, Forging and Welding Lab 2 2 03 40 60 100 3 9 0 18KAK39/49 Varvaharika Kanrada (Kanrada for Administration) 2 2 03 40 60 100 1 9 0 1 02 40 60 100 1 1 02 40 60 100 1 1 9 0 18KAK39/49 Constitution of India, Professional Eth | 18ME35B Metal Casting and Welding 3 0 03 0 03 0 100 6 PCC 18ME36A or Computer Aided Machine Drawing/ 1 4 - 03 40 60 100 100 7 PCC 18MEL37A Mechanical Measurements and Metrology 3 0 03 40 60 100 | IEEE I8ME35B Metal Casting and Welding 3 0 03 00 03 00 03 00 100 6 PCC I8ME36B Mechanical Measurements and Methology 1 4 03 40 60 100 7 PCC I8MEL37A or Mechanical Measurements and Methology 2 03 40 60 100 8 PCC I8MEL37B Mechanical Measurements and Methology lab 2 03 40 60 100 8 PCC I8MEL38A Workshop and Machine Shop Practice (Consists of Fitting, and Machining) 2 03 40 60 100 9 ISMEL38B Foundry, Forging and Welding lab 2 2 03 40 60 100 9 I8KVK39/49 Vyavaharika Kanrada (Kanrada for communication) 2 100 100 9 I8C I8KOK39/49 Constitution of India, Professional Ethics | 4 | PCC | 18ME34 | Material Science | | 3 | 0 | - | 03 | 40 | 60 | 100 | 3 |
| IEE ISME36B Mechanical Measurements and Metrology 3 0 03 40 60 100 7 PCC 18MEL37A Material Testing lab or 2 2 03 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 8 PCC 18MEL38B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 8 PCC 18MEL38B Foundry, Forging and Welding lab 2 2 03 40 60 100 9 VM 18KAK3949 Asalitha Kanrada (Kanrada for Administration) 2 100 100 | ISME 36B Machanical Measurements and Metrology 3 0 03 40 60 100 3 7 PCC I8MEL37A or Material Testing lab or 2 2 03 40 60 100 3 8 PCC I8MEL37B Machanical Measurements and Metrology lab 2 2 03 40 60 100 3 8 PCC I8MEL38A Practice (Consists of Fitting, and Machine Shop Practice (Consists of Fitting, and Maching) 2 2 03 40 60 100 3 9 I I8KVK39/49 Vyavaharika Kannada (Kannada for communication) 2 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 <td< td=""><td>ISME36B Mechanical Measurements and Metrology 3 0 03 40 60 100 1 7 PCC 18MEL37A or Material Testing lab or 2 2 03 40 60 100 1 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 1 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 1 8 PCC 18MEL38B Foundry, Forging and Machine Shop Fritting, and Machine Shop 2 2 03 40 60 100 1 9 ISMEL38B Foundry, Forging and Welding lab 2 100 100 9 ISK 18KAK39/49 Asalithu Kanrada (Kanrada for Administration) 100 100 100 100<!--</td--><td>IEE IEE Mechanical Measurements and Metrology 3 0 03 40 60 100 7 PCC 18MEL37A or Material Testing lab or 2 2 03 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 8 PCC 18MEL38B Foundry, Forging and Welding lab 2 2 03 40 60 100 9 Image: Processing in the instruction of india, Professional Ethics and Cyber Law 2 100 100 9 Image: Processin and Cyber Law Constitution of India, Profession</td><td>5</td><td>PCC</td><td></td><td></td><td></td><td>3</td><td>0</td><td>-</td><td>03</td><td>40</td><td>60</td><td>100</td><td>3</td></td></td<> | ISME36B Mechanical Measurements and Metrology 3 0 03 40 60 100 1 7 PCC 18MEL37A or Material Testing lab or 2 2 03 40 60 100 1 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 1 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 1 8 PCC 18MEL38B Foundry, Forging and Machine Shop Fritting, and Machine Shop 2 2 03 40 60 100 1 9 ISMEL38B Foundry, Forging and Welding lab 2 100 100 9 ISK 18KAK39/49 Asalithu Kanrada (Kanrada for Administration) 100 100 100 100 </td <td>IEE IEE Mechanical Measurements and Metrology 3 0 03 40 60 100 7 PCC 18MEL37A or Material Testing lab or 2 2 03 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 8 PCC 18MEL38B Foundry, Forging and Welding lab 2 2 03 40 60 100 9 Image: Processing in the instruction of india, Professional Ethics and Cyber Law 2 100 100 9 Image: Processin and Cyber Law Constitution of India, Profession</td> <td>5</td> <td>PCC</td> <td></td> <td></td> <td></td> <td>3</td> <td>0</td> <td>-</td> <td>03</td> <td>40</td> <td>60</td> <td>100</td> <td>3</td> | IEE IEE Mechanical Measurements and Metrology 3 0 03 40 60 100 7 PCC 18MEL37A or Material Testing lab or 2 2 03 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 8 PCC 18MEL38B Foundry, Forging and Welding lab 2 2 03 40 60 100 9 Image: Processing in the instruction of india, Professional Ethics and Cyber Law 2 100 100 9 Image: Processin and Cyber Law Constitution of India, Profession | 5 | PCC | | | | 3 | 0 | - | 03 | 40 | 60 | 100 | 3 |
| 18ME36B Metrology Metrology <thm< td=""><td>ISME36B Metrology <thm< td=""><td>18ME30B Metrology <thm< td=""><td>I8ME36B Metrology Metrology or ISM ISM<!--</td--><td>6</td><td>PCC</td><td>18ME36A or</td><td>Computer Aided Machine Drawing/</td><td></td><td>1</td><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td></td></thm<></td></thm<></td></thm<> | ISME36B Metrology Metrology <thm< td=""><td>18ME30B Metrology <thm< td=""><td>I8ME36B Metrology Metrology or ISM ISM<!--</td--><td>6</td><td>PCC</td><td>18ME36A or</td><td>Computer Aided Machine Drawing/</td><td></td><td>1</td><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td></td></thm<></td></thm<> | 18ME30B Metrology Metrology <thm< td=""><td>I8ME36B Metrology Metrology or ISM ISM<!--</td--><td>6</td><td>PCC</td><td>18ME36A or</td><td>Computer Aided Machine Drawing/</td><td></td><td>1</td><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td></td></thm<> | I8ME36B Metrology Metrology or ISM ISM </td <td>6</td> <td>PCC</td> <td>18ME36A or</td> <td>Computer Aided Machine Drawing/</td> <td></td> <td>1</td> <td>4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | 6 | PCC | 18ME36A or | Computer Aided Machine Drawing/ | | 1 | 4 | | | | | | |
| or or< | or or 2 2 03 40 60 100 2 18MEL37B Mechanical Measurements and Metrology lab 2 2 03 40 60 100 2 8 PCC 18MEL38A Workshop and Machine Shop Practice (Consists of Fitting, and Machining) 2 2 03 40 60 100 2 9 18MEL38B Foundry, Forging and Welding, lab 2 2 03 40 60 100 2 9 18KKVK39/49 Vyavaharika Kannada (Kannada for communication) 2 100 100 9 0 18KAK39/49 Ashlithus Kannada (Kannada for communication) HSMC 2 100 100 100 100 100 100 100 100 100 100 100 100 </td <td>or mechanical Measurements and Methology lab 2 2 03 40 60 100 1 8 PCC 18MEL37B Mechanical Measurements and Methology lab 2 2 03 40 60 100 1 8 PCC 18MEL38A Workohop and Machine Shop Practice (Consists of Fitting, and Machining) 2 2 03 40 60 100 1 9 ISMEL38B Foundry, Forging and Welding lab 2 2 03 40 60 100 1 9 ISMEL38B Foundry, Forging and Welding lab 2 100 100 9 ISMEL38B Foundry, Forging and Welding lab 2 100 100 100 100 100 100 100 100 100 100 100</td> <td>or interview Michanical Measurements and Methology lab 2 2 0.3 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Methology lab 2 2 0.3 40 60 100 8 PCC 18MEL38A Workshop and Machine Shop Practice (Consists of Fitting, and Machinig) 2 2 0.3 40 60 100 9 J8 I8KVK39/49 Vyavaharika Kanrada (Kanrada for communication) 2 2 0.3 40 60 100 9 J8 I8KVK39/49 Vyavaharika Kanrada (Kanrada for communication) 2 100 9 J8 I8KAK39/49 Asalifus Kanrada (Kanrada for Administration) 2 100 100 9 J8 I8KOC39 Constitution of India, Professional Ethics and Cyber Law HSMC 1 100 100 </td> <td></td> <td></td> <td>18ME36B</td> <td></td> <td></td> <td>3</td> <td>0</td> <td>-</td> <td>03</td> <td>40</td> <td>60</td> <td>100</td> <td>3</td> | or mechanical Measurements and Methology lab 2 2 03 40 60 100 1 8 PCC 18MEL37B Mechanical Measurements and Methology lab 2 2 03 40 60 100 1 8 PCC 18MEL38A Workohop and Machine Shop Practice (Consists of Fitting, and Machining) 2 2 03 40 60 100 1 9 ISMEL38B Foundry, Forging and Welding lab 2 2 03 40 60 100 1 9 ISMEL38B Foundry, Forging and Welding lab 2 100 100 9 ISMEL38B Foundry, Forging and Welding lab 2 100 100 100 100 100 100 100 100 100 100 100 | or interview Michanical Measurements and Methology lab 2 2 0.3 40 60 100 8 PCC 18MEL37B Mechanical Measurements and Methology lab 2 2 0.3 40 60 100 8 PCC 18MEL38A Workshop and Machine Shop Practice (Consists of Fitting, and Machinig) 2 2 0.3 40 60 100 9 J8 I8KVK39/49 Vyavaharika Kanrada (Kanrada for communication) 2 2 0.3 40 60 100 9 J8 I8KVK39/49 Vyavaharika Kanrada (Kanrada for communication) 2 100 9 J8 I8KAK39/49 Asalifus Kanrada (Kanrada for Administration) 2 100 100 9 J8 I8KOC39 Constitution of India, Professional Ethics and Cyber Law HSMC 1 100 100 | | | 18ME36B | | | 3 | 0 | - | 03 | 40 | 60 | 100 | 3 |
| IsMEL37B Mechanical Measurements and Metrology lab Image: Construction of the lag state of the lag | 18MEL 37B Mechanical Measurements and Metrology lab 1 1 1 1 1 8 PCC 18MEL 38A Workshop and Machine Shop Practice (Consists of Fitting, and Machining) 2 2 03 40 60 100 3 9 0 18MEL 38B Foundry, Forging and Welding, lab 2 2 03 40 60 100 3 9 0 18KAK39/49 Vyavaharika Kannada (Kannada for communication) 2 100 100 100 100 9 0 18KAK39/49 Administration) HSMC 2 100 100 100 100 100 100 9 0 18KAK39/49 Administration) HSMC 2 100 100 100 <td>I8MEL37B Mechanical Measurements and Metrology lab Image: Constitution of India, Professional Examination is by objective type questions Image: Constitution of India, Professional Examination is by objective type questions 8 PCC I8MEL38A Workohop and Machine Shop Practice (Consists of Fitting, and Machining) I8MEL38B 2 2 03 40 60 100 100 9 Image: Constitution of India, Professional I8CPC39 Vyavalaritia Kannada (Kannada for Administration) 2 100</td> <td>I8MEL37B Mechanical Measurements and Methology lab Image: Construction of the state of the</td> <td>7</td> <td>PCC</td> <td></td> <td>Material Testing lab</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>40</td> <td>-</td> <td>100</td> <td>2</td> | I8MEL37B Mechanical Measurements and Metrology lab Image: Constitution of India, Professional Examination is by objective type questions Image: Constitution of India, Professional Examination is by objective type questions 8 PCC I8MEL38A Workohop and Machine Shop Practice (Consists of Fitting, and Machining) I8MEL38B 2 2 03 40 60 100 100 9 Image: Constitution of India, Professional I8CPC39 Vyavalaritia Kannada (Kannada for Administration) 2 100 | I8MEL37B Mechanical Measurements and Methology lab Image: Construction of the state of the | 7 | PCC | | Material Testing lab | | | | | | 40 | - | 100 | 2 |
| ISMEL38A Practice (Consists of Fitting, and Machining) 2 2 03 40 60 100 18MEL38B Foundry, Forging and Welding lab 2 2 03 40 60 100 9 ISK ISKAK3949 Vyavaharika Kannada (Kannada for communication) 2 100 100 9 ISK ISKAK3949 Asdalitha Kannada (Kannada for Administration) 2 100 100 | 18MEL38A Practice (Consists of Fitting, and Machining) 2 2 0.3 40 60 100 2 9 18MEL38B Foundry, Forging and Welding lab 2 2 0.3 40 60 100 2 9 18MEL38B Foundry, Forging and Welding lab 2 2 0.3 40 60 100 2 9 18KVK39/49 Vsyvaharika Kannada (Kannada for Administration) 2 100 | ISMEL38A Practice (Consists of Fitting, and Machining) 2 2 03 40 60 100 18MEL38B Foundry,Forging and Welding lab 2 2 03 40 60 100 9 18MEL38B Foundry,Forging and Welding lab 2 2 03 40 60 100 9 18KVK39/49 Vyavaharika Kanrada (Kanrada for Administration) 2 100 18KPC39 Constitution of India, Professional Ethics and Cyber Law HSMC 2 100 17 10 24 420 480 480 480 | 18MEL38A Practice (Consists of Fitting, and Machining) 2 2 03 40 60 100 18MEL38B Foundry,Forging and Welding lab 2 2 03 40 60 100 9 18KEVK3949 Vyavahatika Kanrada (Kanrada for communication) 2 100 100 9 18KEVK3949 Asalitha Kanrada (Kanrada for Administration) 2 100 100 9 18KE 08 Constitution of India, Professional Ethics and Cyber Law HSMC 2 100 100 | | | 18MEL37B | | | | - | - | | 40 | 60 | 100 | - |
| 9 V Vyavaharika Kanrada (Kanrada for communication)' 18KAK3949 Asdalitha Kanrada (Kanrada for Administration) OR 2 100 100 | 9 18KVK39/49 Vyavaharika Kanrada (Kanrada for communication)' HSMC - 2 100 - 1 | 9 18KVK39/49 Vyavaharika Kanrada (Kanrada for communication)/ 18KAK39/49 Aadalitha Kanrada (Kannada for Administration) 0R 18CPC39 Constitution of India, Professional Ethics and Cyber Law 17 10 24 420 480 | 9 18KVK39/49 Vyavaharika Kanrada (Kanrada for communication) 2 100 100 9 18KAK39/49 Asalitha Kanrada (Kanrada for Administration) 2 100 100 0R 0R 02 40 60 18CPC39 Constitution of India, Professional Ethics and Cyber Law 1 02 40 60 17 10 24 420 480 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 | 8 | PCC | | Practice (Consists of Fitting, and Machining) | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 9 2 18KAK3949 communication) 2 100 - 100 18KAK3949 Asdalitha Kannada (Kannada for Administration) HSMC - 100 - 100 | 9 9 18KAK39/49 Communication)' | 9 9 18K VK 3949 communication) 18K AK 3949 Asdalitha Kanrada (Kanrada for Administration) 18K AK 3949 Asdalitha Kanrada (Kanrada for Administration | 9 15K VK3949 communication)/ 2 100 <t< td=""><td></td><td></td><td>18MEL38B</td><td></td><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<> | | | 18MEL38B | | 1 | | | | | | | | |
| 9 S 18KAK3949 Asdalitha Kanrada (Kanrada for Administration) HSMC 100 | 9 2 18KAK39/49 Aadulitha Kanrada (Kanrada for Administration) HSMC 100 100 18CPC39 Constitution of India, Professional Ethics and Cyber Law Examination is by objective type questions | 9 9 18KAK3949 Asdalitha Kanrada (Kanrada for Administration) HSMC 1 100 18CPC39 Constitution of India, Professional Ethics and Cyber Law 1 - 02 40 60 17 10 24 420 480 | 9 0 18KAK39/49 Aadalifua Kannada (Kannada for Administration) HSMC 100 100 18CPC39 Constitution of India, Professional Ethics and Cyber Law 17 10 24 420 480 | | | 18KVK39/49 | communication)/ | | | | | | 100 | | | |
| UK | Image: Image state state Constitution of India, Professional 1 02 40 60 18CPC39 Effics and Cyber Law Examination is by objective type questions | IscPc39 Constitution of India, Professional Ethics and Cyber Law 1 02 40 60 18CPC39 Ethics and Cyber Law 17 10 24 420 480 | IscPC39 Constitution of India, Professional Ethics and Cyber Law 1 02 40 60 18CPC39 Ethics and Cyber Law Examination is by objective type questions 17 10 24 420 480 | 9 | SMC | 18KAK39/49 | | HSMC | | - | - | | | - | 100 | 1 |
| 0 11 1 D C 1 | 18CPC39 Ethics and Cyber Law Examination is by objective type questions | 18CPC39 Ethics and Cyber Law Examination is by objective type questions 17 10 24 420 480 | I8CPC39 Ethics and Cyber Law Examination is by objective type questions 17 10 24 420 480 | | - | | | | | | _ | | | | | |
| | Ethics and Cyber Law Examination is by objective type questions | Ethics and Cyber Law Examination is by objective type questions 17 10 24 420 480 | Ethics and Cyber Law Examination is by objective type questions 17 10 24 420 480 | | | 18CPC39 | | | 1 | - | | | | | | |

| T aL | MESTER | | | | | ting II Week | OBITS | | Exami | ination | | |
|----------|--------|----------------------|------------------------------|--|-------------------|-----------------|----------------------|----------------------|------------|-----------|------------|--------|
| SL No | | irse and rse code | Course Title | Tooching Reportment | Theory Locture | Tutorid | Practical/ Dawing | Duration in hours | C IE Marks | SEE Marks | Food Marks | Crofib |
| | | | | | L | T P | | - | - × | ~ | - | |
| 1 | PCC | 18ME51 | Management and Economics | | 2 | 2 | - | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18ME52 | Design of Machine Elements I | | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18ME53 | Dynamics of Machines | | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 4 | PCC | 18ME54 | Turbo Machines | | 3 | - | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18ME55 | Fluid Power Engineering | | 3 | - | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18ME56 | Operations Management | | 3 | - | - | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18MEL57 | Fluid Mechanics/Machines lab | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18MEL58 | Energy Conversion Lab | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | | | Civil/ Environmental | | | | | | | | |
| 9 | HSMC | 18CIV59 | Environmental Studies | [Paper setting: Civil Engineering Board] | 1 | - | - | 02 | 40 | 60 | 100 | 1 |
| | | | | TOTAL | 18 | 10 | 04 | 26 | 360 | 540 | 900 | 25 |



| | B. E. Common to all Progr | ammes | |
|---|---|----------------------------|---------------------|
| Outcome Based Ed | ucation (OBE) and Choice Ba | | S) |
| CONSTITUTION OF INDIA | SEMESTER - III A, PROFESSIONAL ETHICS AN | D CYBER LAW (CPC) | |
| Course Code | 18CPC39/49 | CIE Marks | 40 |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| Course Learning Objectives: To | | | |
| know the fundamental pol | itical codes, structure, proce | dures, powers, and dution | es of Indian |
| government institutions, f | undamental rights, directive | principles, and the dutie | s ofcitizens |
| Understand engineering et | hics and their responsibilitie | s; identify their individu | al roles and |
| ethical responsibilities tow | ardssociety. | | |
| Know about the cybercrim | nes and <mark>cyber laws</mark> for cyber : | safetymeasures. | |
| Module-1 | | | |
| Introduction to Indian Constitutio | n: | | |
| The Necessity of the Constitution, | The Societies before and after | er the Constitution adop | otion. Introduction |
| to the Indian constitution, The N | - | | • |
| Preamble and Salient features of | | | |
| limitations in different Complex S | Situations. Directive Principle | es of State Policy (DPS | P) and its present |
| relevance in our | | | |
| society with examples. Fundament | al Duties and its Scope and s | ignificance in Nation bui | ilding. |
| Module-2 | | | |
| Union Executive and State Execution | | | |
| Parliamentary System, Federal S | • | | |
| Minister, Union Cabinet, Parliame | | | |
| Terminologies. Supreme Court of Ir | | | |
| Chief Minister, State Cabinet, Sta | te Legislature, High Court ai | nd Subordinate Courts, | Special Provisions |
| (Articles | | | |
| 370.371,371J) for some States. | | | |
| Module-3 Elections, Amendments and Emer | anov Brovisions: | | |
| Elections, Electoral Process, and El | | Election Laws Amondm | onto Mathadain |
| Constitutional Amendments (How | | | |
| 7,9,10,12,42,44, 61, 73,74, ,75, 8 | | | |
| Emergency Provisions, types of Em | | • | in case studies. |
| Constitutional special provisions: | ergencies and itsconsequent | .= | |
| Special Provisions for SC and ST, O | BC. Women. Children and Ba | ckward Classes. | |
| Module-4 | -, , | | |
| Professional / Engineering Ethics: | | | |
| Scope & Aims of Engineering & Pr | ofessional Ethics - Business | Ethics, Corporate Ethic | s, Personal Ethics. |
| Engineering and Professionalism, | | - | |
| defined in the website of Instituti | on of Engineers (India): Prot | fession, Professionalism | , and Professional |
| Responsibility. Clash of Ethics, Co | onflicts of Interest. Respons | ibilities in Engineering | Responsibilities in |
| Engineering and Engineering Stand | lards, the impediments to Re | sponsibility. Trust and R | eliabilityin |
| Engineering, IPRs (Intellectual Prop | erty Rights), Risks, Safety an | d liability in Engineering | |
| Module-5 | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be

able to, CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. | Title of the Book | Name of | Name of | Edition and Year |
|--------|-------------------------------|-----------------------|------------------|------------------|
| No. | | the | the | |
| | | Author/s | Publisher | |
| Textbo | ok/s | | | |
| 1 | Constitution of India, | Shubham | | 2018 |
| | Professional Ethics and | Singles, Charles | Cengage | |
| | Human Rights | E. Haries, and et | Learning India | |
| | | al | | |
| 2 | Cyber Security and Cyber Laws | Alfred Basta and | Cengage | 2018 |
| | | et al | Learning India | |
| Refere | nce Books | | | |
| 3 | Introduction tothe | Durga Das Basu | Prentice – Hall, | 2008. |
| | Constitution of India | | | |
| 4 | Engineering Ethics | M. Govindarajan, S. | Prentice – Hall, | 2004 |
| | | Natarajan <i>,</i> V. | | |
| | | S. | | |
| | | Senthilkumar | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B. E. COMMON TO ALL PROGRAMMES

Choice Based Credit System (CBCS) and Outcome Based Education

(OBE) SEMESTER – V

ENVIRONMENTAL

| | STUDIES | | |
|-------------------------------|---------|------------|----|
| Course Code | 18CIV59 | CIE Marks | 40 |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| | | | |

Module - 1

Ecosystems (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake. **Biodiversity:** Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation.

Module - 2

Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind.

Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud

Seeding, and Carbon Trading.

Module - 3

Environmental Pollution (Sources, Impacts, Corrective and Preventive measures, Relevant

Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil Pollution and AirPollution.

Waste Management & Public Health Aspects: Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes;

Industrial and Municipal Sludge.

Module - 4

Global Environmental Concerns (Concept, policies and case-studies):Ground water depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.

Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship-NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to the environment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| • | The Duration of Exam will be 2 | | | |
|---------|---|---|---|---|
| SI.No. | Title of the Book | Name of the | Name of the Publisher | Edition and Year |
| | | Author/s | | |
| Textbo | ok/s | | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 |
| Referer | ice Books | | | |
| 1 | Principals of Environmental Science andEngineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E. Mechanical Engineering

III SEMESTER

| | | | | Tea | ching Hours | /Week | | Exam | ination | | Credit |
|-----------|-------------------|---|------------------------|-------------|-------------|-----------|---------------------|-----------|-----------|-------------|--------|
| SI. No | Subject Code | Title | Teaching Department | Lecture | Tutorial | Practical | Duration (Hours) | SEE Marks | CIE Marks | Total Marks | |
| 1 | 17MAT31 | Engineering Mathematics – III | Maths | 04 | Ę | ;; | 03 | 60 | 40 | 100 | 4 |
| 2 | 17ME32 | Materials Science | ME | 04 | | | 03 | 60 | 40 | 100 | 4 |
| 3 | 17ME33 | Basic Thermodynamics | ME | 03 | 02 | · · · · · | 03 | 60 | 40 | 100 | 4 |
| 4 | 17ME34 | Mechanics of Materials | ME | 03 | 02 | | 03 | 60 | 40 | 100 | 4 |
| | 17ME35A/ | Metal Casting and Welding | ME | | | | | 60 | 40 | 400 | |
| 5 | 17ME35B | Machine Tools and Operations | ME | 04 | | | 03 | | | 100 | 4 |
| 6 | 17ME36 A/ | Computer Aided Machine Drawing | ME | 01 | | 4 | 03 | 60 | 40 | 100 | 3 |
| 0 | 17ME368 | Mechanical Measurements and Metrology | ME | 03 | | | U3 | | | 100 | 3 |
| | 17MEL37A/ | Materials Testing Lab/ | ME | | <u>.</u> | <u> </u> | | 60 | 40 | | |
| 7 | 17MEL37B | Mechanical Measurements and Metrology Lab | ME | 1 | | 2 | 03 | | | 100 | 2 |
| 8 | 17MEL38A/ | Foundry and Forging Lab | ME | 1 | | 2 | 03 | 60 | 40 | 100 | 2 |
| 503 | 17MEL38B | Machine Shop/ | ME | 8 - 31. | | 02 | 9556 | | | | 1253 |
| 9 | 17KL/CPH39 /49 | Kannada/Constitution of India, Professional Ethics and Human Rights | Humanities | 1 | S | 8 | 01 | 30 | 20 | 50 | 1 |
| 2 | | TOTAL | (j. | 22/24 | 04 | 08/04 | | 510 | 340 | 850 | 28 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E. Mechanical Engineering

| | 19612 (COLUMNIC) | | Te | aching Hou | rs /Week | · | Examin | ation | | Credits |
|-----------|------------------|--------------------------------------|---------|-------------|-------------------|---------------------|-------------------------------|---------------|----------------|---------|
| SI. No | Subject Code | Title | Lecture | Tutoria | | Duration (Hours) | Theory/ Practical Marks | I.A. Marks | Total Marks | |
| 1 | 15ME51 | Management and Engineering Economics | 3 | 2 | 0 | 03 | 80 | 20 | 100 | 4 |
| 2 | 15ME52 | Dynamics of Machinery | 3 | 2 | 0 | 03 | 80 | 20 | 100 | 4 |
| 3 | 15ME53 | Turbo Machines | 3 | 2 | 0 | 03 | 80 | 20 | 100 | 4 |
| 4 | 15ME54 | Design of Machine Elements - I | 3 | 2 | 0 | 03 | 80 | 20 | 100 | 4 |
| 5 | 15ME55X | Professional Elective-I | 3 | 0 | 0 | 03 | 80 | 20 | 100 | 3 |
| 6 | 15ME56X | Open Elective-I | 3 | 0 | 0 | 03 | 80 | 20 | 100 | 3 |
| 7 | 15MEL57 | Fluid Mechanics & Machinery Lab | 1 | 0 | 2 | 03 | 80 | 20 | 100 | 2 |
| 8 | 15MEL58 | Energy Lab | 1 | 0 | 2 | 03 | 80 | 20 | 100 | 2 |
| | | TOTAL | 21 | 06 | 04 | | 640 | 160 | 800 | 26 |
| 1 | Professional | Elective-1 | Op | en Elective | 4 | 0. 0 | 5 | i i | | |
| | 15ME551 | Refrigeration and Air-conditioning | 15 | ME561 (| Optimization Tech | hniques | | | | |
| | 15ME552 | Theory of Elasticity | 15 | ME562 I | inergy and Enviro | onment | | | | |
| | 15ME553 | Human Resource Management | 15 | ME563 / | Automation and R | lobotics | | | | |
| | 15ME554 | Non Traditional Machining | 15 | ME564 I | roject Managem | et | | | | |

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Professional Elective: Elective relevant to chosen specialization/ branch

3. OpenElective: Electives from other technical and/or emerging subject areas.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MANAGEMENT AND ENGINEERING ECONOMICS

| Courses | Code | Credits | L-T-P | Asses | sment | Exam |
|--------------------------------------|--------|---------|-------|-------|-------|----------|
| Course | Code | Credits | L-1-P | SEE | CIA | Duration |
| Management And Engineering Economics | 15ME51 | 04 | 3-2-0 | 80 | 20 | 3Hrs |

MODULE - 1

Management: Introduction - Meaning - nature and characteristics of Management, Scope and Functional areas of management - Management as ascience, art of profession - Management & Administration - Roles of Management, Levels of Management, Development of Management Thought- early management approaches - Modern management approaches.

Planning: Nature, importance and purpose of planning process Objectives -Types of plans (Meaning Only) - Decision making Importance of planning steps in planning & planning premises - Hierarchy of plans. 10 Hours

MODULE - 2

Organizing And Staffing: Nature and purpose of organization Principles of organization - Types of organization - Departmentation Committees-Centralization Vs Decentralization of authority and responsibility - Span of control - MBO and MBE (Meaning Only) Nature and importance of staffing--Process of Selection & Recruitment (in brief)

Directing & Controlling: Meaning and nature of directing Leadershipstyles, Motivation Theories, Communication - Meaning and importance coordination, meaning and importance and Techniques of Co Ordination. Meaning and steps in controlling - Essentials of a sound control system -Methods of establishing control (in brief) 10 Hours

MODULE -3

Introduction: Engineering and economics, Problem solving and decision making, Laws of demand and supply, Difference between Microeconomics & Macroeconomics, equilibrium between demand & supply, elasticity of demand, price elasticity, income elasticity. Law of Returns, Interest and interest factors, simple and compound interest, Cash flow diagrams, personal loans and EMI payment calculation with flexible interest rates, Discussion and problems 10 Hours

MODULE -4

Present, future and annual worth and rate of returns: Basic present worth comparisons, Present worth-equivalence, Assets with unequal lives and infinites lives, future worth comparisons, payback comparisons, Equivalent annual worth comparisons, situations for annual worth comparisons. Asset life, Rate of return, minimum acceptable rate of return, IRR anomalies and misconceptions, Cost of capital, comparisons of all present future and annual worth with IRR, product costing, Discussions and problems 10 Hours

MODULE -5

Costing and depreciation: Components of costs, estimation of selling price, marginal cost, first cost, all kinds of overheads, indirect cost estimation with depreciation, mensuration and estimation of material cost, cost estimation of mechanical process, idling time.

Product costing (approaches to product costing), causes of depreciation, methods of computing depreciation charges, straight line method, declining balance method, sum of years method, sinking fund method, service output methods, taxation concepts, personal income taxes and corporate taxes, Discussions and problems. 10 Hours

Course outcomes

- On completion of this subject students will be able to
- 1. Understand needs, functions, roles, scope and evolution of Management
- 2. Understand importance, purpose of Planning and hierarchy of planning and also analyze its types
- 3. Discuss Decision making, Organizing, Staffing, Directing and Controlling
- 4 Select the best economic model from various available alternatives
- 5. Understand various interest rate methods and implement the suitable one.
- 6. Estimate various depreciation values of commodities
- 7. Prepare the project reports effectively.

TEXT BOOKS

- 1. Principles of Management by Tripathy and Reddy
- Mechanical estimation and costing, T.R. Banga& S.C. Sharma, 17th edition 2015
 Engineering Economy, Riggs J.L. McGraw Hill, 2002
- Engineering Economy, Thuesen H.G. PHI, 2002

REFERENCE BOOKS

- Management Fundamentals- Concepts, Application, Skill Development RobersLusier Thomson
- Basics of Engineering Economy, Leland Blank & Anthony Tarquin, McGraw Hill Publication (India) Private Limited
- Engineering Economics, R.Paneerselvam, PHI publication 3
- 4. Fundamentals of Management: Essential Concepts and Applications, Pearson Education, Robbins S.P. and Decenzo David A.
- 5. Economics: Principles of Economics, N Gregory Mankiw, Cengage Learning
- 6. Modern Economic Theory, By Dr. K. K. Dewett& M. H. Navalur, S. Chand Publications



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

ENERGY AND ENVIRONMENT (OPEN ELECTIVE - I)

| Courses | Cada | Credits | LTD | Asses | sment | Exam |
|------------------------|---------|---------|-------|-------|-------|----------|
| Course | Code | Credits | L-1-P | SEE | CIA | Duration |
| Energy And Environment | 15ME562 | 03 | 3-0-0 | 80 | 20 | 3Hrs |

Course Objectives

- 1. Understand energy scenario, energy sources and their utilization
- 2. Learn about methods of energy storage, energy management and economic analysis
- 3. Have proper awareness about environment and eco system.
- 4. Understand the environment pollution along with social issues and acts.

Module - I

Basic Introduction to Energy: Energy and power, forms of energy, primary energy sources, energy flows, world energy production and consumption, Key energy trends in India:Demand, Electricity, Access to modern energy, Energy production and trade, Factors affecting India's energy development:Economy and demographics Policy and institutional framework, Energy prices and affordability, Social and environmental aspects, Investment. 8 Hours

Module - II

Energy storage systems: Thermal energy storage methods, Energy saving, Thermal energy storage systems
Energy Management: Principles of Energy Management, Energy demand estimation, Energy pricing
Energy Audit: Purpose, Methodology with respect to process Industries, Characteristic method employed in Certain Energy Intensive Industries
Economic Analysis: Scope, Characterization of an Investment Project 10 Hours

Module - III

Environment: Introduction, Multidisciplinary nature of environmental studies- Definition, scope and importance, Need for public awareness. Ecosystem: Concept, Energy flow, Structure and function of an ecosystem. Food chains, food webs and ecological pyramids, Forest ecosystem, Grassland ecosystem, Desert ecosystem and Aquatic ecosystems, Ecological succession. Module – IV

Environmental Pollution: Definition, Cause, effects and control measures of - Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution and Nuclear hazards, Solid waste Management, Disaster management Role of an individual in prevention of pollution, Pollution case studies. 8 Hours



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Module - V

Social Issues and the Environment: Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies. Wasteland reclamation, Consumerism and waste products, Environment Protection Act, Air (Prevention and Control of Pollution) Act, Water (Prevention and control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act, Issues involved in enforcement of environmental legislation.

8 Hours

Course Outcomes

At the end of the course, the student will be able to:

- 1. Summarize the basic concepts of energy, its distribution and general Scenario.
- 2. Explain different energy storage systems, energy management, audit and economic analysis.
- 3. Summarize the environment eco system and its need for awareness.
- 4. Identify the various types of environment pollution and their effects.
- 5. Discuss the social issues of the environment with associated acts.

TEXT BOOKS:

- Textbook for Environmental Studies For Undergraduate Courses of all Branches of Higher Education by University grant commission and Bharathi Vidyapeeth Institute of environment education and Research Pune
- 2. De, B. K., Energy Management audit & Conservation, 2nd Edition, Vrinda Publication, 2010.

REFERENCE BOOKS:

- 1. Turner, W. C., Doty, S. and Truner, W. C., Energy Management Hand book, 7th edition, Fairmont Press, 2009.
- 2. Murphy, W. R., Energy Management, Elsevier, 2007.
- 3. Smith, C. B., Energy Management Principles, Pergamum, 2007
- 4. Environment pollution control Engineering by C S rao, New Age Instermational, 2006, reprint 2015, 2nd edition
- 5. Environmental studies, by Benny Joseph, Tata McGraw Hill, 2008, 2nd edition.

E-Learning

- India Energy Outlook 2015(www.iea.org/.../IndiaEnergyOutlook WEO2015.pdf)
- · Open courseware



PROJECT MANAGEMENT (OPEN ELECTIVE - I)

| Course | 0.4 | (1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 | LTD | Asses | sment | Exam |
|--------------------|---------|---|-------|-------|-------|----------|
| Course | Code | Credits | L-1-P | SEE | CIA | Duration |
| Project Management | 15ME564 | 03 | 3-0-0 | 80 | 20 | 3Hrs |

MODULE - 1

Fedel 1974

Introduction: Definition of project, characteristics of projects, understandprojects, types of projects, scalability of project tools, project roles

Project Selection And Prioritization - Strategic planning process, Strategicanalysis, strategic objectives, portfolio alignment - identifying potentialprojects, methods of selecting projects, financial mode / scoring models toselect projects, prioritizing projects, securing and negotiating projects. 08 Hours

MODULE - 2

Planning Projects: Defining the project scope, Project scope checklist, Project priorities, Work Breakdown Structure (WBS), Integrating WBS with organisation, coding the WBS for the information system.

Scheduling Projects: Purpose of a project schedule, historical development, how project schedules are limited and created, develop project schedules, uncertainty in project schedules, Gantt chart. Hours

MODULE - 3

MODULE -4

Resourcing Projects: Abilities needed when resourcing projects, estimateresource needs, creating staffing management plant, project teamcomposition issues, Budgeting Projects: Cost planning, cost estimating, cost budgeting, establishing cost control. Project Risk Planning: Risk Management Planning, risk identification, riskanalysis, risk response planning, Project Quality Planning and ProjectKickoff: Development of quality concepts, project quality management plan, project quality tools, kickoff project, baseline and communicate projectmanagement plan, using Microsoft Project for project baselines.

Performing Projects: Project supply chain management: - Plan purchasingand acquisitions, plan contracting, contact types, project partnering and collaborations, project supply chain management. 27

Project Progress and Results: Project Balanced ScorecardApproach, Internal project, customer, financial issues, Finishing the project: Terminateproject early, finish projects on time, secure customer feedback and approval knowledge management, perform administrative and contract closure

MODULE - 5 Network Analysis

Introduction, network construction - rules, Fulkerson's rule for numbering the events, AON and AOA diagrams; Critical path method (CPM) to find the expected completion time of a project, floats; PERTfor finding expected duration of an activity and project, determining the probability of completing a project, predicting the completion time of project; crashing of simple projects. 10 Hours

Course Outcomes

On completion of the course the student will be able to

Understand the selection, prioritization and initiation of individual projects and strategic role of project management.

- 2 Understand the work breakdown structure by integrating it with organization. 3
- Understand the scheduling and uncertainty in projects. Students will be able to understand risk management planning using project quality tools.
- Understand the activities like purchasing, acquisitions, contracting, partnering and collaborations related to performing projects. 5
- Determine project progress and results through balanced scorecard approach
 Draw the network diagram to calculate the duration of the project and reduce it using crashing.

TEXT BOOKS

- Project Management, Timothy J Kloppenborg, Cengage Learning, Edition 2009.
- Project Management, A systems approach to planning scheduling and controlling by Harold kerzner, CBS publication.
 Project Management by S Choudhury, Mc Graw Hill Education (India) Pvt. Ltd. New Delhi, 2016

REFERENCE BOOKS

- 1. Project Management, Pennington Lawrence, Mc Graw hill
- Project Management, A Moder Joseph and Phillips New Yark Van Nostrand, Reinhold.
- 3. Project Management, Bhavesh M. Patal, Vikas publishing House,

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

08 Hours

08 Hours



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Biotechnology

| Outcome Based Edu | B. E. Common to all Programmes cation (OBE) and Choice Based Cre SEMESTER - III | | 5) |
|--|--|--|--|
| CONSTITUTION OF INDIA, | PROFESSIONAL ETHICS AND CYBE | R LAW (CPC) | |
| Course Code | 18CPC39/49 | CIE Marks | 40 |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| government institutions, fur Understand engineering eth ethical responsibilities towar Know about the cybercrime | cal codes, structure, procedures, p damental rights, directive principl ics and their responsibilities; ident rdssociety. s and cyber laws for cyber safetyn | es, and the duties ify their individua | s ofcitizens |
| Module-1 | | | |
| The Necessity of the Constitution, The Ma to the Indian constitution, The Ma Preamble and Salient features of the limitations in different Complex Site relevance in our society with examples. Fundamental Module-2 | iking of the Constitution, The Ro ne Constitution of India. Fundame uations. Directive Principles of S | ble of the Consti Intal Rights and i tate Policy (DPSF | tuent Assembly - ts Restriction and ?) and its present |
| Union Executive and State Executive Parliamentary System, Federal Sys Minister, Union Cabinet, Parliamen Terminologies. Supreme Court of Ind Chief Minister, State Cabinet, State (Articles 370.371,371J) for some States. Module-3 Elections, Amendments and Emerge Elections, Electoral Process, and Elec Constitutional Amendments (How a | tem, Centre-State Relations. Un t - LS and RS, Parliamentary Con ia, Judicial Reviews and Judicial Ac Legislature, High Court and Sub ency Provisions: ction Commission of India, Electio nd Why) and Important Constituti | nmittees, Importa tivism. State Exect ordinate Courts, a n Laws. Amendm onal Amendment | ant Parliamentary utives – Governor, Special Provisions ents - Methods in ts. Amendments – |
| 7,9,10,12,42,44, 61, 73,74, ,75, 86, Emergency Provisions, types of Emer Constitutional special provisions: Special Provisions for SC and ST, OBC Module-4 | rgencies and itsconsequences. | · | it case studies. |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be

able to, CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. | Title of the Book | Name of | Name of | Edition and Year |
|--------|-------------------------------|---------------------|------------------|------------------|
| No. | | the | the | |
| | | Author/s | Publisher | |
| Textbo | ok/s | • | | · |
| 1 | Constitution of India, | Shubham | | 2018 |
| | Professional Ethics and | Singles, Charles | Cengage | |
| | Human Rights | E. Haries, and et | Learning India | |
| | | al | | |
| 2 | Cyber Security and Cyber Laws | Alfred Basta and | Cengage | 2018 |
| | | et al | Learning India | |
| Refere | nce Books | | | |
| 3 | Introduction tothe | Durga Das Basu | Prentice – Hall, | 2008. |
| | Constitution of India | | | |
| 4 | Engineering Ethics | M. Govindarajan, S. | Prentice – Hall, | 2004 |
| | | Natarajan, V. | | |
| | | S. | | |
| | | Senthilkumar | | |



| | . COMMON TO ALL PRO | | |
|--|---|--|---|
| Choice Based Credit | System (CBCS) and Out (OBE) SEMES | tcome Based Education | |
| | | | |
| | STUDIES | - | |
| Course Code | 18CIV59 | CIE Marks | 40 |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| Module - 1 | | | |
| Ecosystems (Structure and Function) | : Forest, Desert, Wetlar | nds, Riverine, Oceanic and I | Lake. |
| Biodiversity: Types, Value; Hot-spots | ; Threats and Conserva | tion of biodiversity, Forest | Wealth, and |
| Deforestation. | | | |
| Module - 2 | | | |
| Advances in Energy Systems (Merits, | , Demerits, Global Statu | s and Applications): Hydro | gen, Solar, OTEC, |
| Tidal and Wind. | ,, | | 0-,,, |
| Natural Resource Management (Con | cept and case-studies): | Disaster Management, Su | stainable Mining |
| Cloud | | | |
| Seeding, and Carbon Trading. | | | |
| Module - 3 | | | |
| Environmental Pollution (Sources, In | npacts. Corrective and F | Preventive measures, Relev | /ant |
| Environmental Acts, Case-studies): Su | • | | |
| and AirPollution. | | | r onation |
| | | | |
| | Aspects: Bio-medical \ | Nastes: Solid waste: Hazarı | dous wastes: F- |
| Waste Management & Public Health | Aspects: Bio-medical V | Vastes; Solid waste; Hazaro | dous wastes; E- |
| Waste Management & Public Health wastes; | Aspects: Bio-medical \ | Wastes; Solid waste; Hazaro | dous wastes; E- |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. | Aspects: Bio-medical V | Vastes; Solid waste; Hazaro | dous wastes; E- |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 | | | |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor | ncept, policies and ca <mark>se</mark> | - <mark>studies):G</mark> round water dep | pletion/recharging |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global <mark>Environmental Concerns</mark> (Cor Climate Change; Acid Rain; Ozone De | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc | - <mark>studies):G</mark> round water dep | pletion/recharging |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc | - <mark>studies):G</mark> round water dep | pletion/recharging |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc mental Toxicology. | - <mark>studies):G</mark> round water dep pride problem in drinking w | pletion/recharging ater; Resettlemen |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc mental Toxicology. ntal Pollution Mitigatio | -studies):Ground water dep oride problem in drinking w n Tools (Concept and App | pletion/recharging ater; Resettlemen plications): G.I.S. 8 |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc mental Toxicology. ntal Pollution Mitigatio | -studies):Ground water dep oride problem in drinking w n Tools (Concept and App | pletion/recharging ater; Resettlemen plications): G.I.S. 8 |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc mental Toxicology. ntal Pollution Mitigatio act Assessment, Enviro | -studies):Ground water dep pride problem in drinking w n Tools (Concept and App ponmental Management Sy | pletion/recharging ater; Resettlemen Dications): G.I.S. 8 ystems, ISO14001 |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc mental Toxicology. Intal Pollution Mitigatio act Assessment, Enviro | -studies):Ground water deported problem in drinking w n Tools (Concept and App nmental Management So y or Green Building or Wat | pletion/recharging ater; Resettlemen Dications): G.I.S. & ystems, ISO14001 er Treatment Plan |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impe Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; o | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc mental Toxicology. Intal Pollution Mitigatio act Assessment, Enviro | -studies):Ground water deported problem in drinking w n Tools (Concept and App nmental Management So y or Green Building or Wat | pletion/recharging ater; Resettlemen Dications): G.I.S. & ystems, ISO14001 er Treatment Plan |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impo Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc mental Toxicology. Intal Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed | -studies):Ground water dep oride problem in drinking w n Tools (Concept and App onmental Management So y or Green Building or Wat by understanding of pro | pletion/recharging ater; Resettlemen Dications): G.I.S. & ystems, ISO14001 er Treatment Plan |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the | ncept, policies and case- pletion; Radon and Fluc mental Toxicology. Ital Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be | -studies):Ground water deported problem in drinking work of the problem in drinking work of the problem in drinking work of the problem of th | pletion/recharging vater; Resettlemen Dications): G.I.S. & ystems, ISO14001 er Treatment Plan ocess and its brie |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impe Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the • CO1: Understand the principle | ncept, policies and case pletion; Radon and Fluc mental Toxicology. Intal Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be les of ecology and <mark>envir</mark> | -studies):Ground water deported problem in drinking work of the problem in drinking work of the problem in drinking work of the problem of th | pletion/recharging rater; Resettlement Dications): G.I.S. & ystems, ISO14001 er Treatment Plant ocess and its brie |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the • CO1: Understand the principl and water issues on a globals | ncept, policies and case pletion; Radon and Fluc mental Toxicology. Ital Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be les of ecology and <mark>envir</mark> scale, | -studies):Ground water dep oride problem in drinking w on Tools (Concept and App onmental Management So y or Green Building or Wat by understanding of pro e able to: onmental issues that apply | pletion/recharging ater; Resettlemen Dications): G.I.S. 8 ystems, ISO14001 er Treatment Plan ocess and its brie |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the CO1: Understand the principl and water issues on a globals CO2: Develop critical thinking | ncept, policies and case- pletion; Radon and Fluc mental Toxicology. Intal Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be les of ecology and envir scale, g and/or observation sk | -studies):Ground water dep oride problem in drinking w on Tools (Concept and App onmental Management So y or Green Building or Wat by understanding of pro e able to: onmental issues that apply | pletion/recharging rater; Resettlement Dications): G.I.S. & ystems, ISO14001 er Treatment Plant ocess and its brie |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the • CO1: Understand the principle and water issues on a globals • CO2: Develop critical thinking problem or question related | ncept, policies and case pletion; Radon and Fluc mental Toxicology. ntal Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be les of ecology and envir scale, g and/or observation sk to theenvironment. | -studies):Ground water deported problem in drinking work of the problem in drinking work of the problem in drinking work of the problem in drinking of problem and apply them to the problem of the probl | pletion/recharging ater; Resettlemen Dications): G.I.S. & ystems, ISO14001 er Treatment Plan ocess and its brie y to air, land, analysis of a |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the CO1: Understand the principl and water issues on a globals CO2: Develop critical thinking problem or question related CO3: Demonstrate ecology ki | ncept, policies and case pletion; Radon and Fluc mental Toxicology. ntal Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be les of ecology and envir scale, g and/or observation sk to theenvironment. | -studies):Ground water deported problem in drinking work of the problem in drinking work of the problem in drinking work of the problem in drinking of problem and apply them to the problem of the probl | pletion/recharging ater; Resettlement Dications): G.I.S. & ystems, ISO14001 er Treatment Plant ocess and its brie y to air, land, analysis of a |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the • CO1: Understand the principle and water issues on a globals • CO2: Develop critical thinking problem or question related | ncept, policies and case pletion; Radon and Fluc mental Toxicology. ntal Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be les of ecology and envir scale, g and/or observation sk to theenvironment. | -studies):Ground water deported problem in drinking work of the problem in drinking work of the problem in drinking work of the problem in drinking of problem and apply them to the problem of the probl | pletion/recharging ater; Resettlemen Dications): G.I.S. & ystems, ISO14001 er Treatment Plan ocess and its brie y to air, land, analysis of a |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the CO1: Understand the principl and water issues on a globals CO2: Develop critical thinking problem or question related CO3: Demonstrate ecology ki | ncept, policies and case pletion; Radon and Fluc mental Toxicology. ntal Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be les of ecology and envir scale, g and/or observation sk to theenvironment. nowledge of a complex | -studies):Ground water deported problem in drinking work of the problem in drinking work of the problem in drinking work of the problem and App on the problem and depondent of the problem an | pletion/recharging ater; Resettlemen Dications): G.I.S. & ystems, ISO14001 er Treatment Plan ocess and its brie y to air, land, analysis of a ic and |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Question paper pattern:

- The Question paper will have 100 objective questions. •
- Each question will be for 01marks •
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| - | The Duration of Exam will be 2 | | | |
|---------|--|---|---|---|
| SI.No. | Title of the Book | Name of the | Name of the Publisher | Edition and Year |
| | | Author/s | | |
| Textboo | ok/s | | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 |
| Referer | ice Books | | | |
| 1 | Principals of Environmental Science and Engineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition |

| BIOTECHI | NOLOGY FOR SUSTAINABLE EN | NVIRONMENT | | | |
|--|---------------------------------|----------------|----|--|--|
| [As per Choic | e Based Credit System (CBCS) so | cheme]SEMESTER | | | |
| | -V | | | | |
| Sub.Code: | 15BT563 | I.AMarks: | 20 | | |
| Hours/week: | 3 | ExamHrs. : | 4 | | |
| TotalHours: | 40 | ExamMarks : | 80 | | |
| | CREDITS-03 | | | | |
| Courseobjectives: | | | | | |
| Thiscoursewillenablestudentsto | blearn | | | | |
| TheunderlyingconceptsofEnvironmentand its pollution. | | | | | |
| Treatmentofwastewaterandsolidwaste. | | | | | |
| TheimportanceofBic | ofuelsagainstconservativefuels | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| WATERPOLLUTIONANDTREATMENTOF | |
|--|-----|
| WASTEWATER:WaterasResource,Drinkingwater quality, water consumption | |
| standards, Types of Water Pollutants and sources, State and central wastewater quality | |
| and its various discharge standards.Wastewater Sampling and Characteristics - | |
| Physical, Chemical and Biological characteristics of wastewater: Solving numerical on | |
| the sampling, characteristics | |
| andestimationofwastewaterflowrates.Biotechnological | |
| approach forwaterpurification | |
| MODULE-2 | |
| TERTIARY/ADVANCED WASTEWATER | |
| TREATMENT: Secondary/Biological treatment process, a erobic/anaerobicatt a chedan | |
| dsuspendedgrowthprocess,Sludgetreatment&Disposal.Ultrafiltration,Filtration,Ads | |
| orptiononActivatedCarbon,IonExchange,ReverseOsmosis,Electrodialysis cell. | L4 |
| Wastewater treatment in Industries: | |
| PaperandPulp, distillery, Leather, Food processing such dairy and fruit processing and Tex | |
| tileprocessing. | |
| MODULE– 3 | |
| | |
| AIRPOLLUTIONANDNOISEPOLLUTION | |
| Sources, Classification, Properties of air pollutants, and Effects of air pollution on health, v | 1.2 |
| egetationandmaterials. Airpollutions ampling: Ambients ampling and | L2, |
| Stacksampling. Analysis of | L3, |

Stacksampling, Analysis of airpollutants, Control methods and Equipment for particulates and gaseous pollutants, A pplicationstoIndustries:Thermalpowerplants,MetallurgicalandCementindustries.So urces, Effects of Noise, Equipment for Noise Measurement,

andApproachesforNoiseControl

MODULE-4

BIOFUELS: Renewable and non-renewable resources. Conventional fuels and their environmental impacts. An imalo ils. Modern fuels and their environmental impacts. Biot echnological inputsinproducing good quality natural fibres. Plant sourceslikeJetropha, Pongamia etc. Waste as an energy core, energy recovery for systems urban waste, technologyevaluation, conceptof gasification of wastes with molten salt to produce low-L BTUgas;pipelinegasfromsolidwastesbysyngasrecyclingprocess;conversion of feedlot wastes into pipeline gas; fuelsandchemicalsfromcrops,productionofoilfromwoodwaste,fuelsfromwoodwaste ,methanol production from organic wastes

L4



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| MODULE– 5 | |
|---|------------------|
| SOLIDWASTEMANAGEMENT: Definitions, Characteristics and perspectives, Typesofso lidwastes, Sourcesof Solidwaste, Properties of solidwaste— Numerical problems, Solidwaste Management –An Overview:- Material flow insociety, Reduction in raw material usage, Solidwastegeneration, and reu sewith materials, energy recovery. Solidwastemanagement through Biotechnological p rocesses involving Hazardous wastes, Biomedical wastes, Dairy wastes, Pulp industry wastes, Textile industry wastes, leather industry wastes and pharmaceutical industry wastes, petroleum wastes treatment | L1, L2, L3 |
| Courseoutcomes: | |
| Afterstudyingthis course, students will beableto: | |
| Applyreasoningtoidentifythecomponentsofenvironmentalecosystemsandeffect nt on environment. | tofpolluta |
| Characterizethevariousparametersfortreatmentofwater,wastewaterandsolid | |
| wastefromtheirsourcestoprovidevalid conclusions. | |
| adopting advanced techniques to demonstrate the need for sustainable deve Identify and demonstrate the knowledge to use suitable equipment for abate control of air & noise pollution | - |
| Graduate Attributes (as per NBA): | |
| Design / development of solutions (environmental) | |
| Engineer and society | |
| Professional Ethics. | |
| Lifelong learning. | |
| Problem analysis | |
| Question paper pattern: | |
| The question paper will have ten questions. | |
| Each full question consists of 16 marks. | _ |
| There will be 2 full questions (with a maximum of four sub questions) from ea module. | ach |
| Each full question will have sub questions covering all the topics under a mod | |
| The students will have to answer 5 full questions, selecting one full question | from |

each module.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

TEXT BOOKS

- 6. Environmental Engineering by Howard S. Peavey, Donald R. Rowe, George Techobanolous, McGraw-Hill International Editions.
- 7. Wastewater Engineering Treatment, Disposal and Reuse, METCALF AND EDDY, INC. 3rd Edition Tata McGraw-Hill Publishing Company Limited.
- 8. Environmental Biotechnology by Foster C.F., John ware D.A., Ellis Horwood Limited.
- 9. ENVIRONMENTAL BIOTECHNOLOGY by INDU SHEKHAR THAKUR, IK Publishers.
- 10. Industrial Microbiology by L.E. Casida, Willey Eastern Ltd. Industrial Microbiology

by Prescott & Dunn, CBS Publishers.

REFERENCE BOOKS

- 6. Fuels from Waste by Larry Anderson and David A Tillman, Academic Press.
- 7. Bioprocess Technology- fundamentals and applications, S O Enfors& L Hagstrom, RIT, Stockholm.
- 8. Comprehensive Biotechnology by M.Y. Young (Eds.), Pergamon Press.
- 9. Biotechnology, Economic & Social Aspects by E.J. Dasilva, C Ratledge& A Sasson, Cambridge Univ. Press, Cambridge.
- **10.** Environmental Biotechnology by Pradipta Kumar Mahopatra.

| BIO-BUSINESSANDENTREPRENEURSHIP [AsperChoiceBasedCreditSystem(CBCS)scheme]SEMESTER–VI | | | | | | | |
|--|---|-----------|-------|--|--|--|--|
| Sub.Code: | 15BT61 | I.AMarks: | 20 | | | | |
| Hours/week: | 4 | ExamHrs.: | 3 | | | | |
| TotalHours: | 50 | ExamMarks | s: 80 | | | | |
| | C | REDITS-04 | | | | | |
| | Course objectives: This course will enable students to learn about the project management, entrepreneurshipandIPR. | | | | | | |
| | MODULES TEACHINGHO REVISEDBLOOM'STA | | | | | | |
| URS XONOMY | | | | | | | |
| (RBT)LEVEL | | | | | | | |
| MODULE-1 | MODULE-1 | | | | | | |



| BIOENTERPREUNERSHIP Introduction to bio-business, fromtheIndiancontext,SWOTanalysisofbio- business.ConceptofEntrepreneurship- | | |
|---|----|----------|
| EvolutionofEntrepreneurship,DevelopmentofEntrepreneurship;Stag esinentrepreneurialprocess;RoleofentrepreneursinEconomicDevelo pment;EntrepreneurshipinIndia;Entrepreneurship- itsbarriers.Smallscaleindustries:Definition;Characteristics;Needandr ationale;Objectives; Scope; Market Feasibility Study; TechnicalFeasibility Study; Financial Feasibility Study &SocialFeasibility Study. Global bio business and industry futuretrends. | 10 | L1,L2 |
| MODULE-2 | | |
| ENTREPRENEURSHIP OPPORTUNITY IN AGRIBIOTECHNOLOGYBusinessopportunity,Essentialrequirement,marketing,strategies,schemes,challengesandscope-withcasestudyonPlant cell and tissue culture technique, polyhouse culture.Herbal bulkdrugproduction,Nutraceuticals,valueaddedherbalproducts.BioethanolproductionusingAgriwaste,Algalsource.Integrationofsystembiologyforagriculturalapplications.BiosensordevelopmentinAgrimanagementMODULE-3 | 10 | L1,L2, |
| ENTREPRENEURSHIPOPPORTUNITYININDUSTRIALBIOTECHNOLOG | | |
| Y Business opportunity, Essential requirement, marketingstrategies,schemes,challengesandscope-withcasestudy- Pollution monitoring and Bioremediation for Industrialpollutants, Pesticides, Herbicides etc. Integrated compostproduction- microbeenrichedcompost. Biopesticide/insecticide production. Fermented products-probiotic and prebiotics. Stem cell production, stem cellbank,contractresearch.Productionofmonoclonal/polyclonalantib odies,Singlecellproteinandsecondarymetaboliteproduction Contactresearchinmicrobialgenomics | 10 | L1,L2,L3 |



| E mail engphilispheuroratea res. | mmmmeownorden | 99.0.9 |
|--|---------------|--------|
| PROJECTMANAGEMENT, INTELLECTUALPROPERTY, TECHNOLOGY | | |
| MANAGEMENT ANDSTARTUPSCHEMES | | |
| Building Biotech business challenges in Indian context- | | |
| biotechpartners(BICEPS,BIRAC,DBT,Incubationcenters. Etc.,), | | |
| operational biotech parks in India.IndianCompanyactforBiobusiness- | | |
| schemesandsubsidie | | |
| MeaningofProject;ProjectIdentification;ProjectSelection;ProjectRep | | |
| ort;NeedandSignificanceofReport; Contents; Formulation; | | |
| Guidelines by PlanningCommission for Project report; Network | | |
| Analysis; | | |
| ErrorsofProjectReport;ProjectAppraisal.Identificationofbusinessopp | 10 | L1,L2 |
| ortunities:MarketFeasibilityStudy;TechnicalFeasibilityStudy;Financial | | |
| FeasibilityStudy&SocialFeasibilityStudy. | | |
| Patent expiry and Entrepreneurship opportunity, | | |
| Principles of Technology leasing, licensing and transfer, Startups chemesi | | |
| nIndiangovernment, Business incubation supports chemes, Successfuls | | |
| tartups-casestudy. | | |
| MODULE-5 | | |
| Regulatoryaffairs,Bioethics&Bio-safety: | | |
| Regulatory affairs in Bio business-regulatory bodies andtheir regulations (ex.FDA, EU, DSIR, AYUSH, FSSAletc.,) Publiceducationoftheprocessofbiotechnologyinvolvedin generating new forms of life for informed decision-making. Ethical concerns of biotechnology research andinnovation- Interference with nature, fear of unknown, unequal distribution of risks. | 10 | L1,L2 |
| Rational vs. subjective perceptions of risks and | | |
| benefits, relationship between risk, hazard, exposure and safeguards. | | |
| biosafety concerns at the level of individuals, institutions, society, region, country and the world. | | |
| region, country and the world. TheCartagenaprotocolonbiosafety.Biosafetymanagement. | | |
| Courseoutcomes: | | |
| Afterstudyingthiscourse, students will be able to: | | |
| Identifypotentialentrepreneurshipopportunityinbiotechnology | | |
| Effectivelyplanaprojectwithaworkplan, budgetandschedule | | |
| Assessthegovernmentstrategiesandschemesforstartups | | |
| | | |
| Understandtheconceptsofbioethics, biosafetyandRegulatorynorms | c | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

GraduateAttributes(asperNBA):

- Engineeringknowledge
- Conductinvestigationofcomplexproblem
- Engineerandsociety
- Environmentandsustainability
- ProfessionalEthics
- Projectmanagementandfinance
- .Lifelonglearning.

Questionpaperpattern:

- Thequestionpaperwillhavetenquestions.
- Eachfullquestionconsistsof16marks.
- Therewillbe2fullquestions(withamaximumoffoursubquestions)fromeachmodule.
- Eachfullquestionwillhavesubquestionscoveringallthetopicsunderamodule.
- Thestudentswillhavetoanswer5fullquestions, selecting one fullquestion from each module.

TEXTBOOKS

- 4. PrinciplesofManagement–P.C.Tripathi,P.N.Reddy–TataMcGrawHill,
- 5. EntrepreneurshipDevelopment-S.S.Khanka-S.Chand&Co.

yparameters of thesafetyandgualitystandards in the biotech industry.

6. PracticalApproachtoIPRbyRachanaSinghPuri,IKIntl.Ltd.

REGULATORYAFFAIRSINBIOTECHINDUSTRY

[As per Choice Based Credit System (CBCS) scheme]SEMESTER --VIII

| CREDITS – 04 Courseobjectives: The objective of this course is to educate students about regulatory rules and guidelines that specif | | | | | |
|---|--------|-------------|----|--|--|
| TotalHours: | 50 | ExamMarks : | 80 | | |
| Hours/week: | 4 | ExamHrs. : | 3 | | |
| Sub.Code: | 15BT82 | I.AMarks: | 20 | | |

| MODULES | TEACHINGH | REVISEDBLOOM'ST |
|------------|-----------|------------------------|
| | OURS | AXONOMY |
| | | (RBT)LEVEL |
| | | |
| MODULE – 1 | | |



| Validation and Regulatory Affairs in Bio (Pharmaceutical)Manufacturing:AnIntroductiontoFDAOperations& IndustryComplianceRegulations,TheFundamentalsofRegulatoryCompliancewithrespecttoGoodClinicalPractice(GCP),GoodManufacturingPractice(GMP)&GoodLaboratoryPractice(GLP)AnIntroductionto 10 L1,L2,L3 IndustryComplianceRegulations,TheFundamentalsofRegulatoryCompliancewithrespecttoGoodClinicalPractice(GCP),GoodManufacturingPractice(GMP)&GoodLaboratoryPractice(GCP),GoodManufacturingPractice(GMP)&GoodLaboratoryPractice(GLP)AnIntroductionto 10 L1,L2,L3 fromQualification(ILQ,OQ&PQ)Procedures,AReviewofProspective,Concurrent,RetrospectiveValidation & how it Differs 10 L1,L2,L3 Control(SPC)Techniques,ISO9000Series&InternationalHarmonization n&theireffect upon GMP's, 10 L1,L2,L3 MODULE -2 VALIDATION Validation of Water & Thermal Systems, including 10 L1,L2,L3 Validation of Water & Thermal Systems, including 10 L1,L2,L3 10 L1,L2,L3 Developmentandvalidation,Basicstatisticalconcepts,Outliers,Specificity:detectors 10 L1,L2,L3 10 L1,L2,L3 Systemsuitability,StatisticalprocesscontrolforHPLC,Sustainablevalid 10 L1,L2,L3 10 L1,L2,L3 MODULE - 3 Systemsuitability,StatisticalprocesscontrolforHPLC,Sustainablevalid 10 | INTRODUCTION | | |
|--|---|----|----------|
| VALIDATIONValidation of Water & Thermal Systems, including HVACFacilities&CleaningValidation.ValidationofActivePharmaceuti callngredients(APIs)&AsepticProcesses.ValidationofNon- SterileProcesses(usedinthemanufactureofSolids,Liquids,&Semisolid DosageForms).Overviewofmethodevolution,FDAandICHguidelines, Developmentandvalidation,Basicstatisticalconcepts,Outliers,Specifi city:samplepreparation,Specificity:separations,Specificity:detectors ,Linearity,Accuracy,Precision,Limitsofdetection(LOD)andquantificat ion(LOQ),Minimumdetectableamount(MDA), Samplestabilityandmethodrobustness,Windowdiagrams,10L1,L2,L3 | Validation and Regulatory Affairs in Bio (Pharmaceutical)Manufacturing:AnIntroductiontoFDAOperations& IndustryComplianceRegulations,TheFundamentalsofRegulatoryCo mpliancewithrespecttoGoodClinicalPractice(GCP),GoodManufactur ingPractice(GMP)&GoodLaboratoryPractice(GLP).AnIntroductionto theBasic Concepts of Process Validation & how it Differs fromQualification(IQ,OQ&PQ)Procedures,AReviewofProspective,C oncurrent,RetrospectiveValidation&Revalidation including the use of Statistical Process Control(SPC)Techniques.ISO9000Series&InternationalHarmonizatio | 10 | L1,L2,L3 |
| ValidationofWater& ThermalSystems, includingHVACFacilities&CleaningValidation.ValidationofActivePharmaceuti callngredients(APIs)&AsepticProcesses.ValidationofNon- SterileProcesses(usedinthemanufactureofSolids,Liquids,&Semisolid DosageForms).Overviewofmethodevolution,FDAandICHguidelines, Developmentandvalidation,Basicstatisticalconcepts,Outliers,Specific icity:samplepreparation,Specificity:separations,Specificity:detectors ,Linearity,Accuracy,Precision,Limitsofdetection(LOD)andquantificat ion(LOQ),Minimumdetectableamount(MDA), Samplestabilityandmethodrobustness,Windowdiagrams,10L1,L2,L3Systemsuitability,StatisticalprocesscontrolforHPLC,Sustainablevalid ation,Troubleshootingout-of-controlsystems,Case studies10L1,L2,L3 | MODULE –2 | | |
| ation, Troubleshootingout-of-controlsystems, Case studies | Validation of Water & Thermal Systems, including HVACFacilities&CleaningValidation.ValidationofActivePharmaceuti calIngredients(APIs)&AsepticProcesses.ValidationofNon- SterileProcesses(usedinthemanufactureofSolids,Liquids,&Semisolid DosageForms).Overviewofmethodevolution,FDAandICHguidelines, Developmentandvalidation,Basicstatisticalconcepts,Outliers,Specifi city:samplepreparation,Specificity:separations,Specificity:detectors ,Linearity,Accuracy,Precision,Limitsofdetection(LOD)andquantificat ion(LOQ),Minimumdetectableamount(MDA), | 10 | L1,L2,L3 |
| MODULE – 3 | | | |
| | MODULE – 3 | 1 | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

STANDARDS ISO9000Seriesof Introduction, Standards, Management Responsibility, Quality System, Contract Revi ew,DesignControl,DocumentandDataControl,PreservationandDeliv ery,ControlofQualityRecords,InternalQualityAudits,Training,Servici 10 L1,L2,L3 ng,StatisticalTechniques,ISO-9001-2000, Scope, Normative Reference, Terms and Definitions, Quality Man agement,System,DocumentsRequirements,Management'sResponsi bility,ResourceManagement,Infrastructure,ProductRealization,Me asurement, Analysis and Improvement, ISO-14001, Environmental Management Systems. MODULE – 4 QUALITYANDIMPLEMENTATION TerminologyRelatingtoQuality,QualityRequirement,CustomerSatisf action, Capability; Terms Relating to Management, Management Syste m,QualityManagementSystem,QualityPolicy,QualityObjectives,Qua lityPlanning,QualityControl,QualityAssurance,QualityImprovement, ContinualImprovement,Effectiveness,Efficiency,TermsrelatingtoCh aracteristics, Quality Characteristics; Terms Relating to Conformity, No n-Conformity, Defect. Preventive Action. Corrective L1,L2,L3, Action, Correction, Rework, Repair, Scrap, Concession, 10 DeviationPermit,Release;ObjectiveEvidence,Inspection,Test,Metrol ogicalConfirmation.QualitySystem,ContractReview,DesignControl, DocumentandDataControl,Purchasing, Control of Customer Supplied Product, ProductIdentification and Traceability, Process Control, Inspectionand Testing, Final Inspection and Testing, Inspection and Test Status, Handling, Storage, Packaging, Preservation andDelivery,ControlofQualityRecords,InternalQualityAudits,Trainin g,Servicing,StatisticalTechniques MODULE – 5 QUALITYMANAGEMENT The development of regulatory requirements for validation, The V 10 L1,L2,L3 model and Life Cycle model approach to validationanddocumentation, RiskAnalysisTechniques: ImpactAssess ment; Failure Mode and Effects Analysis (FMEA), Validation Master Plans, Commissioning and Qualification,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| ProcessValidation,Routinevalidationandrevalidation,Contaminatio nControl,RiskManagementinthePharmaceutical Industry, Solid | |
|---|--|
| | |
| Dose Manufacture Principlesand Practices, Liquid and Cream | |
| Manufacture Principles | |
| andPractices,GoodLaboratoryPractices(forNon- | |
| ClinicalLaboratories), Computer Systems Validation Principles | |
| and Practices, Good Aseptic Practices and Sterile Products, Clinical Trials | |
| QualityAssuranceManagement,GxPandQuality Auditing | |
| Practices, Pharmaceutical Engineering- | |
| Facility, Equipment and Process Design, Fundamentals of | |
| ProcessAnalyticalTechnology,QualityandContinuousImprovementi | |
| ntheBiotech Industry. | |
| | |

COURSEOUTCOMES:

Afterstudyingthis course, students will beableto:

- Outlinetheimportanceofthequalityandcomplianceinthebiotech industry
- Comprehend the various regulatory guidelines and rules as well as the organizationsgoverningthe same.

GraduateAttributes(asperNBA):

- Engineerand society
- ProfessionalEthics.
- Lifelonglearning.

Questionpaperpattern:

- Thequestionpaperwillhavetenquestions.
- Eachfullquestionconsists of 16 marks.
- Therewillbe2fullquestions(withamaximumoffoursubquestions)fromeachmodule.
- Eachfullquestionwillhavesubquestionscoveringallthetopicsundera module.
- Thestudentswillhavetoanswer5fullquestions, selecting one fullquestion from each module.

TEXTBOOKS

- PharmaceuticalProcessValidationbyRobertNashandAlfredWachter,MarcelDekker.
- GoodManufacturingPracticesforPharmaceuticals:APlanforTotalQualityControlFromManufacture rtoConsumer, SidneyJ.Willig,Marcel Dekker.
- ValidationofPharmaceuticalProcesses:SterileProducts,FrederickJ.Carlton(Ed.)andJamesAgalloco (Ed.), Marcel Dekker.
- Validation Standard Operating Procedures: A Step by Step Guide for AchievingCompliance in the Pharmaceutical, Medical Device, and Biotech Industries, Syed ImtiazHaider,Saint Lucie Press.
- PharmaceuticalBiotechnologybySPVyasandVKDixit,CBSPublishers.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

REFERENCEBOOKS

- PharmaceuticalEquipmentValidation:TheUltimateQualificationHandbook,PhillipA.Cloud,Interpharm Press.
- Commissioning and Qualification, ISPEPharmaceutical Engineering Baseline Guides Series.
- ICHguidelineQ6B,FreelancePublishing.

ENVIRONMENTALBIOTECHNOLOGY

[As per Choice Based Credit System (CBCS) scheme]SEMESTER –VIII

| CREDITS-03 | | | | |
|-------------|---------|-------------|----|--|
| TotalHours: | 40 | ExamMarks : | 80 | |
| Hours/week: | 3 | ExamHrs. : | 3 | |
| Sub.Code: | 15BT833 | I.AMarks: | 20 | |
| | r | F | • | |

Courseobjectives:Thisobjectiveofthiscourseistounderstandthebasicconceptsofenvironmentalbiotechnol ogy.

MODULE-1 **INTRODUCTIONTOENVIRONMENTALPOLLUTANTS** Water, SoilandAir: their sources and effects. Removal of SpecificP ollutants:SourcesofHeavyMetal Pollution, Microbial Systems 08 for L1,L2,L3 Heavy MetalAccumulation, Biosorption&detoxificationmechanisms. MODULE-2 MICROBIOLOGYANDBIOCHEMISTRYOFWASTEWATER TREATMENT BiologicalTreatmentofanaerobicandaerobic; methanogenesis ,methanogenic,acetogenic,andfermentativebacteriatechnicalprocessandconditions; Use of Genetically 08 L2,L3,L4 Engineered Organisms.emerging biotechnological processes in waste - watertreatment; Applications include treatment of municipalandindustrial wastewaters, MODULE-3



| BIODEGRADATIONOFXENOBIOTICCOMPOUNDS&BIOREME DIATION: | | |
|--|----------------|-------------|
| Xenobioticcompounds:Aliphatic,Aromatics,PolyaromaticHyd rocarbons,Polycyclicaromaticcompounds,Pesticides,Surfacta ntsandmicrobialtreatmentof oil pollution. Introduction to Bioremediation, Types of | 08 | L2,L3,L4 |
| Bioremediation,Bioremediationofsurfacesoilandsludges, Bioremediation of subsurface material, In situtechnologies,Ex-situtechnologies,Phytoremediation, | | |
| MODULE– 4 | | |
| BIOTRANSFORMATIONS&BIOCATALYSTS: | | |
| Basicorganicreactionmechanism- CommonprejudicesagainstEnzymes Advantages&DisadvantagesofBiocatalysts- IsolatedEnzymesversus whole cell systems Mechanistic Aspects andEnzyme Sources Biocatalytic Application - CatalyticAntibodies;Stoichiometry,kinetics,andthermodynam icsofmicrobialprocessesforthetransformationof environmental contaminants. | 08 | L1,L2,L3,L4 |
| MODULE– 5 | | |
| BIOOXIDATION&MICROBIALLEACHING: Biooxidation–DirectandIndirectMechanisms– BiooxidationKinetics;BacterialoxidationofSphalerite,Chalcop yriteandPyrite.;Extractionofmetals from ores; Recovery of metals from solutions;Microbesinpetroleumextraction;Microbialdesulfuri zationofcoal,geneclosing- useofgeneticallyalteredmicroorganismsforfieldbiodegradatio nofhazardous materials. | 08 | L1,L2,L3 |
| Courseoutcomes: | | |
| Afterstudyingthis course, students will beableto: Understand the role of various environment | al pollutants, | |
| biooxidation, biotransformation | | |
| Explaintheinvolvementofmicrobesinwastewatertreatm | ent, chemicals | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

GraduateAttributes(asperNBA):

- Engineerand society
- ProfessionalEthics.
- Lifelonglearning.

Questionpaperpattern:

- Thequestionpaperwillhavetenquestions.
- Eachfullquestionconsists of 16 marks.
- Therewillbe2fullquestions(withamaximumoffoursubquestions)fromeachmodule.
- Eachfullquestionwillhavesubquestionscoveringallthetopicsundera module.
- Thestudentswillhavetoanswer5fullquestions, selecting one fullquestion from each module.

TEXT BOOKS

- **Environmental Microbiology, W.D. Grant & P.E. Long, Blakie, Glassgow and London.**
- **Microbial Gene Technology, H. Polasa (ED.) South Asian Publishers, New Delhi.**
- **Provision Provision Press Pre**
- Biotransformations : K. Faber (1995), Springer- Verlag.

REFERENCE BOOKS

- **Biotreatment Systems, Vol. 22, D. L. Wise (Ed.), CRC Press, INC.**
- Standard Methods for the Examination of Water and Waste Water (14 th Education), 1985.
 American Public health Association



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Civil Engineering

| Outcome Based Edu | B. E. Common to all Pr cation (OBE) and Choice SEMESTER - II | e Based Credit System (CBC | S) |
|--|---|---|---|
| CONSTITUTION OF INDIA, | PROFESSIONAL ETHICS | AND CYBER LAW (CPC) | |
| Course Code | 18CPC39/49 | CIE Marks | 40 |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| Course Learning Objectives: To know the fundamental polit government institutions, fur Understand engineering eth ethical responsibilities towa Know about the cybercrime | ndamental rights, direct ics and their responsibi <mark>rdssociety</mark> . | ive principles, and the dutie lities; identify their individua | s ofcitizens |
| Module-1 | | | |
| to the Indian constitution, The Ma Preamble and Salient features of th limitations in different Complex Sit relevance in our society with examples. Fundamenta Module-2 | ne Constitution of India cuations. Directive Prin | . <mark>Fundamental Rights</mark> and i ciples of State Policy (DPSF | its Restriction and P) and its present |
| Union Executive and State Executive Parliamentary System, Federal System, Federal System, Federal System, Federal System, Terminologies. Supreme Court of Ind Chief Minister, State Cabinet, State (Articles 370.371,371J) for some States. Module-3 | tem, Centre-State Rel t - LS and RS, Parliamo lia, Judicial Reviews and | entary Committees, Import Judicial Activism. State Exec | ant Parliamentary utives – Governor, |
| Elections, Amendments and Emerge | ancy Provisions: | | |
| Elections, Amendments and Emerge Elections, Electoral Process, and Ele Constitutional Amendments (How a 7,9,10,12,42,44, 61, 73,74, ,75, 86, Emergency Provisions, types of Eme Constitutional special provisions: Special Provisions for SC and ST, OBC Module-4 | ction Commission of Ind nd Why) and Important and 91,94,95,100,101 rgencies and itsconsequ | : Constitutional Amendmen ,118 and some importar iences. | ts. Amendments – |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be

able to, CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. | Title of the Book | Name of | Name of | Edition and Year |
|--------|-------------------------------|---------------------|------------------|------------------|
| No. | | the | the | |
| | | Author/s | Publisher | |
| Textbo | ok/s | | | · |
| 1 | Constitution of India, | Shubham | | 2018 |
| | Professional Ethics and | Singles, Charles | Cengage | |
| | Human Rights | E. Haries, and et | Learning India | |
| | | al | _ | |
| 2 | Cyber Security and Cyber Laws | Alfred Basta and | Cengage | 2018 |
| | | et al | Learning India | |
| Refere | nce Books | | | |
| 3 | Introduction tothe | Durga Das Basu | Prentice – Hall, | 2008. |
| | Constitution of India | | | |
| 4 | Engineering Ethics | M. Govindarajan, S. | Prentice – Hall, | 2004 |
| | | Natarajan, V. | | |
| | | S. | | |
| | | Senthilkumar | | |



| | COMMON TO ALL PRO | | |
|---|---|--|--------------------------------|
| Choice Based Credit | System (CBCS) and Ou OBE) SEMES(| tcome Based Education | |
| | ENVIRONMENTA | | |
| | STUDIES | | |
| Course Code | 18CIV59 | CIE Marks | 40 |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| Module - 1 | | | |
| Ecosystems (Structure and Function): | Forest, Desert, Wetlar | nds, Riverine, Oceanic and I | _ake. |
| Biodiversity: Types, Value; Hot-spots, | ; Threats and Conserva | tion of biodiversity, Forest | Wealth, and |
| Deforestation. | | | |
| Module - 2 | | | |
| Advances in Energy Systems (Merits, | Demerits, Global Statu | s and Applications): Hydro | gen, Solar, OTEC, |
| Tidal and Wind. | | | |
| Natural Resource Management (Con | cept and case-studies): | Disaster Management, Su | stainable Mining, |
| Cloud | | • | 0. |
| Seeding, and Carbon Trading. | | | |
| Module - 3 | | | |
| wastes; Industrial and Municipal Sludge. | | | |
| Module - 4 | | | 1 / 1 |
| Global Environmental Concerns (Con | | | |
| Climate Change; Acid Rain; Ozone Dep | | nde problem in drinking w | aler, Resettiemen |
| and rehabilitation of people, Environment | nental toxicology. | | |
| Module - 5 | | | |
| Latest Developments in Environmen | • | • • • | • |
| Remote Sensing, Environment Impa | act Assessment, Enviro | onmental Management Sy | stems, ISO14001 |
| Environmental Stewardship- NGOs. | | | |
| Field work: Visit to an Environmental | | | |
| or Waste water treatment Plant; c | ought to be Followed | by understanding of pro | cess and its brief |
| documentation. | | | |
| | sourco, studonts will be | abla ta: | |
| | course, students will be | | to air land |
| CO1: Understand the principl | es of ecology and <mark>envir</mark> | | v to air, land, |
| • CO1: Understand the principl and water issues on a globals | es of ecology and <mark>envir</mark> cale, | onmental issues that apply | |
| CO1: Understand the principl and water issues on a globals CO2: Develop critical thinking | es of ecology and <mark>envir</mark> cale, ; and/or observation sk | onmental issues that apply | to air, land, analysis of a |
| CO1: Understand the principl and water issues on a globals CO2: Develop critical thinking problem or question related to | es of ecology and <mark>envir</mark> cale, and/or observation sk to theenvironment. | onmental issues that apply ills, and apply themtothe | analysis of a |
| CO1: Understand the principl and water issues on a globals CO2: Develop critical thinking problem or question related to CO3: Demonstrate ecology kr | es of ecology and <mark>envir</mark> cale, and/or observation sk to theenvironment. | onmental issues that apply ills, and apply themtothe | analysis of a |
| CO1: Understand the principl and water issues on a globals CO2: Develop critical thinking problem or question related to CO3: Demonstrate ecology kr abioticcomponents. | es of ecology and <mark>envir</mark> cale, and/or observation sk to theenvironment. nowledge of a complex | onmental issues that apply ills, and apply themtothe relationship between bioti | analysis of a c and |
| CO1: Understand the principl and water issues on a globals CO2: Develop critical thinking problem or question related to CO3: Demonstrate ecology kr | es of ecology and <mark>envir</mark> cale, ; and/or observation sk to theenvironment. nowledge of a complex nowledge to illustrate a | onmental issues that apply ills, and apply themtothe relationship between bioti nd graph a problem and de | analysis of a c and |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| • | The Duration of Exam will be 2 | | | |
|---------|---|---|---|---|
| SI.No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year |
| Textbo | ok/s | | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 |
| Referer | ice Books | | | |
| 1 | Principals of Environmental Science andEngineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition |

CONSERVATION OF NATURAL RESOURCES

Choice Based Credit System (CBCS) and Outcome Based Education (OBE) SEMESTER – VI Subject Code 18CV656 CIE Marks 40 Teaching Hours/Week(L:T:P) 3:0:0 SEE Marks 60 Credits 03 Exam Hours 03

Course learning objectives: This course will enable the students to

• Learn types of land forms, soil conservation and sustainable land use planning.

• Apprehend water resources, types, distribution, planning and conservation.

• Know the atmospheric composition of air, pollution and effects on human beings, animals and plants. Air pollution control.

• Apprehend basics of biodiversity and ecosystems.

•

Module -1

Land: Land as a resource, types of lands, conservation of land forms, deforestation, effect of land use changes. Soil health, ecological and economic importance of soil, impact of soil degradation on agriculture and food security, need for soil conservation, sustainable land use planning.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Module -2

Water: Global water resources, Indian water resources, Resources system planning. Water use sectors- domestic, industrial, agriculture. Water deficit and water surplus basins in India, equitable distribution, Inter-basin water transfers, Interlinking of rivers – Himalayan component, peninsular component, issues involved. Ground water, its potential in India, conjunctive use, recharge of ground water. Contamination of ground water, sea water ingress, problems and solutions. Module -3

Air: Introduction, composition, sources and classification of air pollutants, National Ambient Air quality standards (NAAQS), Air quality index, effects of air pollution on human health. Economic effects of air pollution. Control of air pollution by equipment, smoke and its control. Ozone depletion –impacts, photochemical changes.

Minerals and rocks: Minerals, important rock forming minerals like Quartz, Mica, Feldspar and Amphibole, lithification & metamorphism, weathering: physical, biogeochemical processes, erosion, agents of erosion.

Module -4

Biodiversity: Introduction, Flora and Fauna, Importance of biodiversity, Economic values-medicinal plants, drugs, fisheries biogeochemical cycling. Threat to biodiversity, natural & anthropogenic disturbance, habitat loss. Conservation of biodiversity, National parks, wild life sanctuaries, zoological gardens, gene banks, pollen culture, ecological restoration, social forestry. Ecosystem: Definition, Types: forest, grass land, marine, desert, wetlands, estuarine, lotic, lentic. Abiotic & biotic components of eco system.

Module -5

Global warming: concept, indicators, factors and effects. Global climate change-indicators, health impacts, effect on biodiversity. Introduction to global efforts in conservation of biodiversity. EIA: Regulations in India, status of EIA in India, list of projects needing environmental clearance under EIA notifications. Case study of hydro power/ thermal power projects.

Updated on 29.03.2021 2/2

Course Outcomes(CO):

At the end of the course, students will be able to

- 1. Apprehend various components of land as a natural resource and land use planning.
- 2. Know availability and distribution for water resources as applied to India.
- 3. Analyse the components of air as resource and its pollution.
- 4. Discuss biodiversity & its role in ecosystem functioning.
- 5. Critically appreciate the environmental concerns of today.

Question paper pattern:

- 1. The question paper will have ten questions, carrying equal marks.
- 2. There will be two full questions with a maximum four sub questions from each module.

Students shall answer five full questions selecting one full question from each module. Text Books:

1. Modi, P.N., "Irrigation Water Resources and Water Power Engineering". Standard Book House, New Delhi. 10th Edition, 2019.

2. Raghunath, H.M., "Groundwater", 3rd Edition, New Age International Publishers, New Delhi, 2007.

- 3. Krishnan, M.S., "Geology of India & Burma". CBS publishers, New Delhi, 2017.
- 4. P.Jaya Rami Reddy, "A Textbook of Hydrology", University Science Press, New Delhi, 2011.
- 5. M N Rao and H V N Rao, "Air pollution", McGraw Hill Publications, 2017.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

6. Krishnamurthy K.V., "An advanced textbook of Biodiversity- Principle & Practices." Oxford and IBH publications, New Delhi. 2004.

Reference Books :

1. Odum, E.P., "Fundamentals of Ecology", W.B sounders, Philadelphia, USA, 1971

2. Singh J.S, Singh S.P & Gupta, S.R., "Ecology, environment and resource

conservation", Anamaya publications, 2006.

3. Edmond A. Mathez& Jason E. Smerdon, "Climate Change: The science of Global warming and our energy feature", Columbia University Press, 2009.

4. National Council of Applied Economic Research, "Economic Impact of Interlinking of Rivers Program", Revised Final Report, April 2008.

5. http://nwda.gov.in/content.

6. Madhav Gadagil, "Biodiversity and India's degraded lands", Indian Academy of Sciences, Volume 22- No 2/3, http://www.jstor.org/pss/4314063

B. E. CIVIL ENGINEERING Choice Based Credit System (CBCS) and Outcome Based Education (OBE) SEMESTER - VII

ENVIRONMENTAL PROTECTION AND MANAGEMENT

Course Code 18CV753 CIE Marks 40

Teaching Hours/Week(L:T:P) (3:0:0) SEE Marks 60

Credits 03 Exam Hours 03

Course Learning Objectives: This course will enable students to gain knowledge in Environmental protection and Management systems

Module -1

Environmental Management Standards: Unique Characteristics of Environmental Problems – Systems approach to Corporate environmental management - Classification of Environmental Impact Reduction Efforts - Business Charter for Sustainable Production and Consumption – Tools, Business strategy drivers and Barriers - Evolution of Environmental Stewardship. Environmental Management Principles - National policies on environment, abatement of pollution and conservation of resources - Charter on Corporate responsibility for Environmental protection.

Module -2

Environmental Management Objectives: Environmental quality objectives – Rationale of Environmental standards: Concentration and Mass standards, Effluent and stream standards, Emission and ambient standards, Minimum national standards, environmental performance evaluation: Indicators, benchmarking. Pollution control Vs Pollution Prevention - Opportunities and Barriers – Cleaner production and Clean technology, closing the loops, zero discharge technologies. Module -3

Environmental Management System: EMAS, ISO 14000 - EMS as per ISO 14001– benefits and barriers of EMS – Concept of continual improvement and pollution prevention - environmental policy

Estd. 1974

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

– initial environmental review – environmental aspect and impact analysis – legal and other requirements- objectives and targets – environmental management programs – structure and responsibility – training awareness and competence- communication – documentation and document control – operational control – monitoring and measurement – management review. Module -4

Environmental Audit: Environmental management system audits as per ISO 19011- – Roles and qualifications of auditors - Environmental performance indicators and their evaluation – Non conformance – Corrective and preventive actions -compliance audits – waste audits and waste minimization planning – Environmental statement (form V) - Due diligence audit. Module -5

Applications: Applications of EMS, Waste Audits and Pollution Prevention Control: Textile, Sugar, Pulp & Paper, Electroplating, , Tanning industry. Hazardous Wastes - Classification, characteristics Treatment and Disposal Methods, Transboundary movement, disposal.

Course outcomes: After studying this course, students will be able to:

1. Appreciate the elements of Corporate Environmental Management systems complying to international

environmental management system standards.

2. Lead pollution prevention assessment team and implement waste minimization options.

3. Develop, Implement, maintain and Audit Environmental Management systems for Organizations. Question paper pattern:

• The question paper will have ten full questions carrying equal marks.

• Each full question will be for 20 marks.

• There will be two full questions (with a maximum of four sub- questions) from each module.

• Each full question will have sub- question covering all the topics under a module.

• The students will have to answer five full questions, selecting one full question from each module. Reference Books:

1. Christopher Sheldon and Mark Yoxon, "Installing Environmental management Systems – a step by step

guide" Earthscan Publications Ltd, London, 1999.

2. ISO 14001/14004: Environmental management systems – Requirements and Guidelines – International

Organisation for Standardisation, 2004

3. ISO 19011: 2002, "Guidelines for quality and/or Environmental Management System auditing, Bureau of

Indian Standards, New Delhi, 2002

4. Paul L Bishop "Pollution Prevention: Fundamentals and Practice, McGraw- Hill International, Boston, 2000.

5. Environmental Management Systems: An Implementation Guide for Small and Medium-Sized Organizations,

Second Edition, NSF International, Ann Arbor, Michigan, January 2001.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Automobile Engineering

| SEMESTER - III CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND CYBER LAW (CPC) Course Code 18CPC39/49 CIE Marks 40 Teaching Hours/Week (L:T:P) (1:0:0) SEE Marks 60 Credits 01 Exam Hours 02 Course Learning Objectives: To • know the fundamental political codes, structure, procedures, powers, and duties of Indian government institutions, fundamental rights, directive principles, and the duties of citizens • Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety. of cyber laws for cyber safetymeasures. | |
|---|--------|
| Course Code 18CPC39/49 CIE Marks 40 Teaching Hours/Week (L:T:P) (1:0:0) SEE Marks 60 Credits 01 Exam Hours 02 Course Learning Objectives: To • know the fundamental political codes, structure, procedures, powers, and duties of Indian government institutions, fundamental rights, directive principles, and the duties of citizens • Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety. • Know about the cybercrimes and cyber laws for cyber safetymeasures. | |
| Credits 01 Exam Hours 02 Course Learning Objectives: To • know the fundamental political codes, structure, procedures, powers, and duties of Indian government institutions, fundamental rights, directive principles, and the duties ofcitizens • Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety. • Know about the cybercrimes and cyber laws for cyber safetymeasures. | |
| Course Learning Objectives: To know the fundamental political codes, structure, procedures, powers, and duties of Indian government institutions, fundamental rights, directive principles, and the duties of citizens Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety. Know about the cybercrimes and cyber laws for cyber safetymeasures. | |
| know the fundamental political codes, structure, procedures, powers, and duties of Indian government institutions, fundamental rights, directive principles, and the duties of citizens Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety. Know about the cybercrimes and cyber laws for cyber safetymeasures. | |
| government institutions, fundamental rights, directive principles, and the duties of citizens Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety. Know about the cybercrimes and cyber laws for cyber safetymeasures. | |
| Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety. Know about the cybercrimes and cyber laws for cyber safetymeasures. | |
| ethical responsibilities towardssociety. Know about the cybercrimes and cyber laws for cyber safetymeasures. | |
| ethical responsibilities towardssociety. Know about the cybercrimes and cyber laws for cyber safetymeasures. | |
| Know about the cybercrimes and cyber laws for cyber safetymeasures. | |
| | |
| Module-1 | |
| Introduction to Indian Constitution: | |
| The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introd | uction |
| to the Indian constitution, The Making of the Constitution, The Role of the Constituent Asser | |
| Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction | - |
| limitations in different Complex Situations. Directive Principles of State Policy (DPSP) and its p | |
| relevance in our | |
| society with examples. Fundamental Duties and its Scope and significance in Nation building. | |
| Module-2 | |
| Union Executive and State Executive: | |
| Parliamentary System, Federal System, Centre-State Relations. Union Executive – President, | Prime |
| Minister, Union Cabinet, Parliament - LS and RS, Parliamentary Committees, Important Parliament | |
| Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives - Gov | - |
| Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Prov | |
| (Articles | |
| 370.371,371J) for some States. | |
| Module-3 | |
| Elections, Amendments and Emergency Provisions: | |
| Elections, Electoral Process, and Election Commission of India, Election Laws. Amendments - Meth | ods in |
| Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendm | ents – |
| 7,9,10,12,42,44, 61, 73,74, 75, 86, and 91,94,95,100,101,118 and some important Case St | |
| Emergency Provisions, types of Emergencies and its consequences. | |
| Constitutional special provisions: | |
| Special Provisions for SC and ST, OBC, Women, Children and Backward Classes. | |
| Module-4 | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be

able to, CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. | Title of the Book | Name of | Name of | Edition and Year |
|--------|-------------------------------|---------------------|------------------|------------------|
| No. | | the | the | |
| | | Author/s | Publisher | |
| Textbo | ok/s | | | |
| 1 | Constitution of India, | Shubham | | 2018 |
| | Professional Ethics and | Singles, Charles | Cengage | |
| | Human Rights | E. Haries, and et | Learning India | |
| | | al | _ | |
| 2 | Cyber Security and Cyber Laws | Alfred Basta and | Cengage | 2018 |
| | | et al | Learning India | |
| Refere | nce Books | | | |
| 3 | Introduction tothe | Durga Das Basu | Prentice – Hall, | 2008. |
| | Constitution of India | | | |
| 4 | Engineering Ethics | M. Govindarajan, S. | Prentice – Hall, | 2004 |
| | | Natarajan, V. | | |
| | | S. | | |
| | | Senthilkumar | | |



| | COMMON TO ALL PRO | | |
|--|---|--|---|
| Choice Based Credit | System (CBCS) and Out (OBE) SEMES | tcome Based Education | |
| | | | |
| | STUDIES | | |
| Course Code | 18CIV59 | CIE Marks | 40 |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| Module - 1 | | | |
| Ecosystems (Structure and Function) | : Forest, Desert, Wetlar | ds, Riverine, Oceanic and | Lake. |
| Biodiversity: Types, Value; Hot-spots | ; Threats and Conservat | tion of biodiversity, Forest | Wealth, and |
| Deforestation. | | | |
| Module - 2 | | | |
| Advances in Energy Systems (Merits, | , Demerits, Global Statu | s and Applications): Hydro | gen, Solar, OTEC, |
| Tidal and Wind. | | | |
| Natural Resource Management (Con | cept and case-studies): | Disaster Management, Su | stainable Mining, |
| Cloud | | | |
| Seeding, and Carbon Trading. | | | |
| Module - 3 | | | |
| Environmental Pollution (Sources, In | | | |
| Environmental Acts, Case-studies): Su | urface and Ground Wat | er Pollution; Noise pollutio | n; Soil <mark>Pollution</mark> |
| and AirPollution. | | | |
| | | | |
| Waste Management & Public Health | Aspects: Bio-medical V | Vastes; Solid waste; Hazar | dous wastes; E- |
| Waste Management & Public Health wastes; | Aspects: Bio-medical V | Vastes; Solid waste; Hazaro | dous wastes; E- |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. | Aspects: Bio-medical V | Vastes; Solid waste; Hazaro | dous wastes; E- |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 | | | |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor | ncept, policies and ca <mark>se</mark> | <mark>-studies):G</mark> round water de | pletion/recharging |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global <mark>Environmental Concerns</mark> (Cor Climate Change; Acid Rain; Ozone De | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluo | <mark>-studies):G</mark> round water de | pletion/recharging |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluo | <mark>-studies):G</mark> round water de | pletion/recharging |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluo mental Toxicology. | <mark>studies):G</mark> round water de ride problem in drinking w | pletion/recharging ater; Resettlement |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluo mental Toxicology. | <mark>studies):G</mark> round water de ride problem in drinking w | pletion/recharging ater; Resettlemen |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluo mental Toxicology. ntal Pollution Mitigatio | studies):Ground water deprice of the studies of | pletion/recharging ater; Resettlement plications): G.I.S. 8 |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluo mental Toxicology. ntal Pollution Mitigatio | studies):Ground water deprice of the studies of | pletion/recharging ater; Resettlement plications): G.I.S. 8 |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental | ncept, policies and ca <mark>se-</mark> pletion; Radon and Fluo mental Toxicology. Ital Pollution Mitigatio act Assessment, Enviro | studies):Ground water de ride problem in drinking w n Tools (Concept and App onmental Management So y or Green Building or Wat | pletion/recharging ater; Resettlement Dications): G.I.S. 8 ystems, ISO14001 er Treatment Plant |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; or | ncept, policies and ca <mark>se-</mark> pletion; Radon and Fluo mental Toxicology. Ital Pollution Mitigatio act Assessment, Enviro | studies):Ground water de ride problem in drinking w n Tools (Concept and App onmental Management So y or Green Building or Wat | pletion/recharging ater; Resettlement Dications): G.I.S. 8 ystems, ISO14001 er Treatment Plant |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluo mental Toxicology. Ital Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed | studies):Ground water deprive problem in drinking w n Tools (Concept and App onmental Management So y or Green Building or Wat by understanding of pro | pletion/recharging ater; Resettlemen Dications): G.I.S. & ystems, ISO14001 er Treatment Plan |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the | ncept, policies and ca <mark>se- pletion; Radon and Fluo mental Toxicology. Ital Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be</mark> | studies):Ground water de ride problem in drinking w n Tools (Concept and App onmental Management So y or Green Building or Wat by understanding of pro | pletion/recharging ater; Resettlement Dications): G.I.S. & ystems, ISO14001 er Treatment Plant ocess and its brie |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the OC1: Understand the principl | ncept, policies and case- pletion; Radon and Fluo mental Toxicology. Intal Pollution Mitigatio act Assessment, Enviro l Engineering Laborator ought to be Followed course, students will be les of ecology and envir | studies):Ground water de ride problem in drinking w n Tools (Concept and App onmental Management So y or Green Building or Wat by understanding of pro | pletion/recharging ater; Resettlement Dications): G.I.S. & ystems, ISO14001 er Treatment Plant ocess and its brie |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the | ncept, policies and case- pletion; Radon and Fluo mental Toxicology. Intal Pollution Mitigatio act Assessment, Enviro l Engineering Laborator ought to be Followed course, students will be les of ecology and envir | studies):Ground water de ride problem in drinking w n Tools (Concept and App onmental Management So y or Green Building or Wat by understanding of pro | pletion/recharging ater; Resettlement Dications): G.I.S. & ystems, ISO14001 er Treatment Plant ocess and its brie |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the OC1: Understand the principl | ncept, policies and case- pletion; Radon and Fluo mental Toxicology. Ital Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be les of ecology and <mark>envir</mark> scale, | studies):Ground water deprive problem in drinking work of the problem in drinking work of the problem in drinking work of the problem in drinking of the problem of the pro | pletion/recharging ater; Resettlement Dications): G.I.S. & ystems, ISO14001 er Treatment Plant ocess and its brie |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmert Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; or documentation. Course Outcomes: At the end of the CO1: Understand the principl and water issues on a globals | ncept, policies and case- pletion; Radon and Fluo mental Toxicology. Intal Pollution Mitigatio act Assessment, Enviro l Engineering Laborator ought to be Followed course, students will be les of ecology and envir scale, g and/or observation sk | studies):Ground water deprive problem in drinking work of the problem in drinking work of the problem in drinking work of the problem in drinking of the problem of the pro | pletion/recharging ater; Resettlement Dications): G.I.S. 8 ystems, ISO14001 er Treatment Plant ocess and its brie y to air, land, |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Corr Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the CO1: Understand the principl and water issues on a globals CO2: Develop critical thinking | ncept, policies and case- pletion; Radon and Fluo mental Toxicology. Intal Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be les of ecology and envir scale, g and/or observation sk to theenvironment. | studies):Ground water deprive problem in drinking weight of the problem in drinking of the problem | pletion/recharging ater; Resettlement Dications): G.I.S. & ystems, ISO14001 er Treatment Plant ocess and its brief y to air, land, analysis of a |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Corr Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the CO1: Understand the principil and water issues on a globals CO2: Develop critical thinking problem or question related for CO3: Demonstrate ecology kn | ncept, policies and case- pletion; Radon and Fluo mental Toxicology. Intal Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be les of ecology and envir scale, g and/or observation sk to theenvironment. | studies):Ground water deprive problem in drinking weight of the problem in drinking of the problem | pletion/recharging ater; Resettlement Dications): G.I.S. & ystems, ISO14001 er Treatment Plant ocess and its brief y to air, land, analysis of a |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the OC1: Understand the principle and water issues on a globals CO2: Develop critical thinking problem or question related | ncept, policies and case- pletion; Radon and Fluo mental Toxicology. Intal Pollution Mitigatio act Assessment, Enviro l Engineering Laborator ought to be Followed course, students will be les of ecology and envir scale, g and/or observation sk to theenvironment. nowledge of a complex | studies):Ground water deprive problem in drinking we may be a state of the problem in drinking we may be a state of the problem in drinking we we were a state of the problem in drinking of the problem | pletion/recharging ater; Resettlemen Dications): G.I.S. & ystems, ISO14001 er Treatment Plan ocess and its brie y to air, land, analysis of a ic and |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| | The Duration of Exam will be 2 | | | |
|--------------------------|--|---|---|---|
| Sl.No. Title of the Book | | Name of the | Name of the Publisher | Edition and Year |
| | | Author/s | | |
| Textboo | ok/s | | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 |
| Referer | ce Books | | | |
| 1 | Principals of Environmental Science and Engineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Mechatronics

| | B. E. Common to all Pro | ogrammes | | | | | | |
|--|--|-------------------------------|---------------------|--|--|--|--|--|
| Outcome Based E | ducation (OBE) and Choice | - | S) | | | | | |
| | SEMESTER - III | | | | | | | |
| | IA, PROFESSIONAL ETHICS | AND CYBER LAW (CPC) | | | | | | |
| Course Code18CPC39/49CIE Marks40 | | | | | | | | |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | | | |
| Credits | 01 | Exam Hours | 02 | | | | | |
| Course Learning Objectives: To | | | | | | | | |
| · · · · | olitical codes, structure, pro | • | | | | | | |
| government institutions, | <mark>fundamental rights</mark> , directiv | ve principles, and the dutie | s ofcitizens | | | | | |
| Understand engineering | ethics and their responsibili | ties; identify their individu | al roles and | | | | | |
| <mark>ethical responsibilities to</mark> | | | | | | | | |
| | mes and <mark>cyber laws</mark> for cybe | er safetymeasures. | | | | | | |
| Module-1 | | | | | | | | |
| Introduction to Indian Constituti | | | | | | | | |
| The Necessity of the Constitution | , The Societies before and a | after the Constitution adop | otion. Introduction | | | | | |
| to the Indian constitution, The | Making of the Constitutio | n, The Role of the Const | ituent Assembly - | | | | | |
| Preamble and Salient features o | f the Constitution of India. | Fundamental Rights and | its Restriction and | | | | | |
| limitations in different Complex | Situations. Directive Princ | iples of State Policy (DPS | P) and its present | | | | | |
| relevance in our | | | | | | | | |
| society with examples. Fundamer | ntal Duties and its Scope and | d significance in Nation bui | lding. | | | | | |
| Module-2 | | | | | | | | |
| Union Executive and State Execu | tive: | | | | | | | |
| Parliamentary System, Federal | System, Centre-State Rela | tions. Union Executive – | President, Prime | | | | | |
| Minister, Union Cabinet, Parlian | ent - LS and RS, Parliame | ntary Committees, Import | ant Parliamentary | | | | | |
| Terminologies. Supreme Court of | India, Judicial Reviews and J | udicial Activism. State Exec | utives – Governor, | | | | | |
| Chief Minister, State Cabinet, St | ate Legislature, High Court | and Subordinate Courts, | Special Provisions | | | | | |
| (Articles | | | | | | | | |
| 370.371,371J) for some States. | | | | | | | | |
| Module-3 | | | | | | | | |
| Elections, Amendments and Eme | ergency Provisions: | | | | | | | |
| Elections, Electoral Process, and | Election Commission of Ind | ia, Election Laws. Amendm | ents - Methods in | | | | | |
| Constitutional Amendments (How | v and Why) and Important | Constitutional Amendmen | ts. Amendments – | | | | | |
| 7,9,10,12,42,44, 61, 73,74, ,75, | 86, and 91,94,95,100,101,1 | 118 and some importa | nt Case Studies. | | | | | |
| Emergency Provisions, types of E | mergencies and itsconseque | ences. | | | | | | |
| Constitutional special provisions | | | | | | | | |
| Special Provisions for SC and ST, (| OBC, Women, Children and | Backward Classes. | | | | | | |
| Module-4 | | | | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be

able to, CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. | Title of the Book | Name of | Name of | Edition and Year |
|--------|-------------------------------|---------------------|------------------|------------------|
| No. | | the | the | |
| | | Author/s | Publisher | |
| Textbo | ok/s | | | |
| 1 | Constitution of India, | Shubham | | 2018 |
| | Professional Ethics and | Singles, Charles | Cengage | |
| | Human Rights | E. Haries, and et | Learning India | |
| | | al | _ | |
| 2 | Cyber Security and Cyber Laws | Alfred Basta and | Cengage | 2018 |
| | | et al | Learning India | |
| Refere | nce Books | | | |
| 3 | Introduction tothe | Durga Das Basu | Prentice – Hall, | 2008. |
| | Constitution of India | | | |
| 4 | Engineering Ethics | M. Govindarajan, S. | Prentice – Hall, | 2004 |
| | | Natarajan, V. | | |
| | | S. | | |
| | | Senthilkumar | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | . COMMON TO ALL PRO | | |
|--|---|--|---|
| Choice Based Credit | System (CBCS) and Out (OBE) SEMES | tcome Based Education | |
| | ENVIRONMENT/ | | |
| | STUDIES | | |
| Course Code | 18CIV59 | CIE Marks | 40 |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| Module - 1 | | | |
| Ecosystems (Structure and Function) | : Forest, Desert, Wetlar | nds, Riverine, Oceanic and I | Lake. |
| Biodiversity: Types, Value; Hot-spots | ; Threats and Conserva | tion of biodiversity, Forest | Wealth, and |
| Deforestation. | | | |
| Module - 2 | | | |
| Advances in Energy Systems (Merits, | , Demerits, Global Statu | s and Applications): Hydro | gen, Solar, OTEC, |
| Tidal and Wind. | | | |
| Natural Resource Management (Con | cept and case-studies): | Disaster Management, Su | stainable Mining. |
| Cloud | | | |
| Seeding, and Carbon Trading. | | | |
| Module - 3 | | | |
| Environmental Pollution (Sources, In | npacts. Corrective and F | Preventive measures, Relev | vant |
| Environmental Acts, Case-studies): Su | • | | |
| and AirPollution. | | | n, son <mark>ronation</mark> |
| | | | |
| Waste Management & Public Health | Aspects: Bio-medical \ | Mastes: Solid waste: Hazar | dous wastes: F- |
| - | Aspects: Bio-medical V | Vastes; Solid waste; Hazaro | dous wastes; E- |
| wastes; | Aspects: Bio-medical V | Vastes; Solid waste; Hazaro | dous wastes; E- |
| wastes; Industrial and Municipal Sludge. | Aspects: Bio-medical V | Vastes; Solid waste; Hazaro | dous wastes; E- |
| wastes; Industrial and Municipal Sludge. Module - 4 | | | |
| wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor | ncept, policies and ca <mark>se</mark> | - <mark>studies):G</mark> round water dep | oletion/recharging |
| wastes; Industrial and Municipal Sludge. Module - 4 Global <mark>Environmental</mark> Concerns (Cor Climate Change; Acid Rain; Ozone De | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc | - <mark>studies):G</mark> round water dep | pletion/recharging |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc | - <mark>studies):G</mark> round water dep | pletion/recharging |
| wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc mental Toxicology. | - <mark>studies):G</mark> round water dep ride problem in drinking w | pletion/recharging ater; Resettlemen |
| wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc mental Toxicology. ntal Pollution Mitigatio | -studies):Ground water dep oride problem in drinking w n Tools (Concept and App | pletion/recharging ater; Resettlemen plications): G.I.S. & |
| wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc mental Toxicology. ntal Pollution Mitigatio | -studies):Ground water dep oride problem in drinking w n Tools (Concept and App | pletion/recharging ater; Resettlemen plications): G.I.S. 8 |
| wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc mental Toxicology. ntal Pollution Mitigatio act Assessment, Enviro | -studies):Ground water dep pride problem in drinking w n Tools (Concept and App ponmental Management Sy | pletion/recharging ater; Resettlemen Dications): G.I.S. 8 ystems, ISO14001 |
| wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc mental Toxicology. Intal Pollution Mitigatio act Assessment, Enviro | -studies):Ground water dep oride problem in drinking w n Tools (Concept and App onmental Management Sy y or Green Building or Wat | pletion/recharging ater; Resettlemen Dications): G.I.S. & ystems, ISO14001 er Treatment Plan |
| wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; o | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc mental Toxicology. Intal Pollution Mitigatio act Assessment, Enviro | -studies):Ground water dep oride problem in drinking w n Tools (Concept and App onmental Management Sy y or Green Building or Wat | pletion/recharging ater; Resettlemen Dications): G.I.S. & ystems, ISO14001 er Treatment Plan |
| wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. | ncept, policies and ca <mark>se</mark> pletion; Radon and Fluc mental Toxicology. Intal Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed | -studies):Ground water dep oride problem in drinking w n Tools (Concept and App onmental Management So y or Green Building or Wat by understanding of pro | pletion/recharging ater; Resettlemen Dications): G.I.S. & ystems, ISO14001 er Treatment Plan |
| wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the | ncept, policies and case pletion; Radon and Fluc mental Toxicology. Ital Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be | -studies):Ground water deported problem in drinking work of the problem in drinking work of the problem in drinking work of the problem of th | pletion/recharging ater; Resettlemen Dications): G.I.S. & ystems, ISO14001 er Treatment Plan ocess and its brie |
| wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the • CO1: Understand the princip | ncept, policies and case pletion; Radon and Fluc mental Toxicology. Intal Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be les of ecology and <mark>envir</mark> | -studies):Ground water deported problem in drinking work of the problem in drinking work of the problem in drinking work of the problem of th | pletion/recharging ater; Resettlemen Dications): G.I.S. & ystems, ISO14001 er Treatment Plan ocess and its brie |
| wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the • CO1: Understand the principle and water issues on a globals | ncept, policies and case pletion; Radon and Fluc mental Toxicology. Ital Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be les of ecology and <mark>envir</mark> scale, | -studies):Ground water dep oride problem in drinking w on Tools (Concept and App onmental Management Sy y or Green Building or Wat by understanding of pro e able to: onmental issues that apply | pletion/recharging ater; Resettlemen Dications): G.I.S. 8 ystems, ISO14001 er Treatment Plan pcess and its brie |
| wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the CO1: Understand the principl and water issues on a globals CO2: Develop critical thinking | ncept, policies and case- pletion; Radon and Fluc mental Toxicology. Intal Pollution Mitigatio act Assessment, Enviro l Engineering Laborator ought to be Followed course, students will be les of ecology and envir scale, g and/or observation sk | -studies):Ground water dep oride problem in drinking w on Tools (Concept and App onmental Management Sy y or Green Building or Wat by understanding of pro e able to: onmental issues that apply | pletion/recharging ater; Resettlemen Dications): G.I.S. & ystems, ISO14001 er Treatment Plan ocess and its brie |
| wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the • CO1: Understand the principl and water issues on a globals • CO2: Develop critical thinking problem or question related | ncept, policies and case pletion; Radon and Fluc mental Toxicology. ntal Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be les of ecology and envir scale, g and/or observation sk to theenvironment. | -studies):Ground water depride problem in drinking w on Tools (Concept and App onmental Management Sy y or Green Building or Wat by understanding of pro e able to: onmental issues that apply ills, and apply themtothe | pletion/recharging ater; Resettlemen plications): G.I.S. & ystems, ISO14001 er Treatment Plan pcess and its brie y to air, land, analysis of a |
| wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the CO1: Understand the principl and water issues on a globals CO2: Develop critical thinking problem or question related CO3: Demonstrate ecology king | ncept, policies and case pletion; Radon and Fluc mental Toxicology. ntal Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be les of ecology and envir scale, g and/or observation sk to theenvironment. | -studies):Ground water depride problem in drinking w on Tools (Concept and App onmental Management Sy y or Green Building or Wat by understanding of pro e able to: onmental issues that apply ills, and apply themtothe | pletion/recharging ater; Resettlement plications): G.I.S. & ystems, ISO14001 er Treatment Plant pcess and its brie y to air, land, analysis of a |
| wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the • CO1: Understand the principl and water issues on a globals • CO2: Develop critical thinking problem or question related | ncept, policies and case pletion; Radon and Fluc mental Toxicology. ntal Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be les of ecology and envir scale, g and/or observation sk to theenvironment. | -studies):Ground water depride problem in drinking w on Tools (Concept and App onmental Management Sy y or Green Building or Wat by understanding of pro e able to: onmental issues that apply ills, and apply themtothe | pletion/recharging ater; Resettlemen plications): G.I.S. & ystems, ISO14001 er Treatment Plan pcess and its brie y to air, land, analysis of a |
| wastes; Industrial and Municipal Sludge. Module - 4 Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 Latest Developments in Environmer Remote Sensing, Environment Impa Environmental Stewardship- NGOs. Field work: Visit to an Environmental or Waste water treatment Plant; of documentation. Course Outcomes: At the end of the CO1: Understand the principl and water issues on a globals CO2: Develop critical thinking problem or question related CO3: Demonstrate ecology ki | ncept, policies and case pletion; Radon and Fluc mental Toxicology. ntal Pollution Mitigatio act Assessment, Enviro I Engineering Laborator ought to be Followed course, students will be les of ecology and envir scale, g and/or observation sk to theenvironment. nowledge of a complex | -studies):Ground water dep oride problem in drinking w on Tools (Concept and App onmental Management So y or Green Building or Wat by understanding of pro e able to: onmental issues that apply ills, and apply themtothe relationship between bioti and graph a problem and de | pletion/recharging ater; Resettlemen plications): G.I.S. & ystems, ISO14001 er Treatment Plan ocess and its brie y to air, land, analysis of a ic and |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| - | The Duration of Exam will be 2 | | | |
|---------|---|---|---|---|
| Sl.No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year |
| Textbo | nk/s | Autiorys | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 |
| Referer | nce Books | | | |
| 1 | Principals of Environmental Science andEngineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Curriculum Highlighting Cross Cutting Issues - PG

<mark>MBA</mark>

| | I SEMESTER | | | | | | | | | | | |
|-----------------|---|-------------|----------|-----------------------|----|--------------------|----------|-----|----------------|---------|--|--|
| | | Category | Teaching | Teaching hours / week | | | Duration | | | for | | |
| Subject Code | Title of the Subject | | Lecture | ecture Component | | of Exam (Hours) | CIE | SEE | Total Marks | Credits | | |
| 18MBA11 | Management & Organizational Behavior | Core Course | 4 | | 4 | 3 | 40 | 60 | 100 | 4 | | |
| 18MBA12 | Managerial Economics | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 | | |
| 18MBA13 | Accounting for Managers | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 | | |
| 18MBA14 | Business Statistics & Analytics | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 | | |
| 18MBA15 | Marketing Management | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 | | |
| 18MBA16 | Managerial Communications | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 | | |
| | Total | | 24 | - | 24 | - | 240 | 360 | 600 | 24 | | |

I SEMESTER

Course Management and Behavioural Process

Course Code 18MBA11 Total No. of Lecture Hours: 52

Credits 4 L-T-P-S hours 4-0-0-0 Total No.

Of practical Hours -Nil

COURSE OBJECTIVES:

1. To make students understand fundamental concepts and principles of management, including the basic

roles, skills, and functions of management

2. To make students knowledgeable of historical development, theoretical aspects and practice applications of managerial process

3. To understand the basic concepts and theories underlying individual behavior besides developing better

insights into one's own self.

4. To make students aware of Individual behavior in groups, dynamics of groups, team building and interpersonal effectiveness besides developing a better awareness of how they can be better facilitators for building effective teams as leaders themselves

PART A - PRINCIPLES OF MANAGEMENT

Unit 1: (8 Hours)

Introduction: Management: Introduction, Definition of management, Nature, Purpose and Functions, Levels and types of managers, managerial roles, skills for managers, evolution of management thought, Fayol's fourteen principles of management, Recent trends in management.

Unit 2: (10 Hours)

Planning and Organizing:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Planning: Meaning, Nature of Planning, Planning Process, Objectives, MBO, Strategies, level of strategies, policies, methods and programs, Planning Premises, Decision-making, Process of decision-making, Types of decisions, Techniques in decision-making.

Organizing: Organization structure, Formal and informal organizations, Functional, divisional, geographical, customer based and matrix organizations, tram based structures, virtual organizations, boundary less organizations. Principles of organizations-chain of command, span of control, delegation, decentralization, and empowerment.

Case Study: Principles of Management, Cengagelearning , William , Manjunath , Sandhya Unit 3: (4 Hours)

Controlling: Meaning, importance of controlling, controlling process, types of control, factors influencing

control effectiveness.

RECOMMENDED BOOKS

• MGMT and ORGB, Chuck Williams, James Cambell, Manjunath & Sandhya Cengage Publications, 2018

- Essentials of Management-Koontz, 8/e, McGraw Hill
- Management: Text and Cases-VSP Rao, Excel Books

REFERENCE BOOKS:

• Masters of Management Thought – MahanandCharati& M MMunshi, Sapna Book House, Bangalore, 2015.

- Principles and practices of Management, KiranNerkar, Vilas Chopde, Dreamtech Press, 2011
- Management Theory & practice Chandan J. S, Vikas Publishing House.

PART B - ORGANIZATIONAL BEHAVIOUR

Unit 4: (6 hours)

Introduction: Organizational Behaviour: Introduction, definition, fundamental principles of OB, contributing disciplines, challenges and opportunities. Evolution & Organizational Behavior in India.

Case study: Organizational Behavior by Steven L McShane, Mary Ann Von Glinow and Radha R Sharma, TaTa McGraw Hill companies, Fouth Edition, Pg-6.

Unit 5: (14 Hours)

Foundations of Individual Behaviour: Individual behaviour: Foundations of individual behaviour. Ability:Intellectual abilities, Physical ability, the role of disabilities.

Personality: Meaning, formation, determinants, traits of personality, big five and MBTI, personality attributes influencing OB.

Perception: Meaning, Process of perception, factors influencing perception, link between perception and individual decision-making.

Attitude: Meaning, Formation, components of attitudes, relation between attitude and behaviour.

Unit 6: (10 Hours)

Motivation: Meaning, theories of motivation-needs theory, two factor theory, Theory X and Y, application of motivational theories.

Leadership: Meaning, styles of leadership, leadership theories, trait theory, behavioural theories, managerial grid, situational theories.

Case Study: "Nuts and Bolts", Principles of Management, Cengagelearning , William , Manjunath , Sandhya Page no 531-532

PRACTICAL COMPONENTS:

• Studying organizational structures of any 10 companies and classifying them into different types of organizations which are studied in Unit 2 and justifying why such structures are chosen by those



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

organizations.

• Preparing the leadership profiles of any 5 business leaders and studying their leadership qualities and behaviors with respects to the trait, behavioural and contingency theories studied.

• Identifying any five job profiles and listing the various types, abilities required for those jobs and also the personality traits/attributes required for the jobs identified.

Note: Faculty can either identify the organizations/ leaders/job profile or students can be allowed to choose the same.

COURSE OUTCOMES:

1. Comprehend & correlate all the management functions which are happening around with fundamental concepts and principles of management.

2. Understand the overview of management, theory of management and practical applications of the same.

3. Effectively use their skills for self-grooming, working in groups and to achieve organizational goals4. Demonstrate their acumen in applying managerial and behavioral concept in real world/situation.

5. Understand and demonstrate their exposure on recent trends in management.

RECOMMENDED BOOKS:

· Organizational behaviour, Stephen P Robbins, Timothy A. Judge, NeharikaVohra, 14th Edition, Pearson, 2012.

· Introduction to OrganisationalBehaviour – Michael Butler, Jaico Publishing House,

· Organizational Behaviour - Anada Das Gupta, Biztantra, 2011.

REFERENCE BOOKS:

· Organizational Behaviour - Fred Luthans, 12/e, McGraw Hill International, 2011.

- · Management and Organizational Behaviour Laurie J Mullins, Pearson education
- · Organizational Behaviour, Aquinas P. G, Excel Books.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Course Legal and Business Environment

Course Code 18MBA24 Total No. Of Lecture Hours 52

Credits 4 L-T-P-S hours

4-0-0-0 Total No. Of practical Hours - N

Course Objectives:

1. To provide insights into the core concepts of incorporation of company.

2. To understand various policies and procedures of the company Act.

3. To gain insights into various procedure of Investigation & Winding up of Companies

Part-A (Legal Environment)

Unit I: (4 Hours)

Indian Contract Act, 1872-Meaning of contract, agreement, essential elements of a valid contract. Law of agencymeaning, creation and termination of agency.

Unit 2:

Corporate Incorporation and Management .(10 Hours)

Definition of company, characteristics , types of company, lifting of corporate veil (i) Incorporation of company (ii) Memorandum and Articles of Association (iii) Doctrine of Ultra Vires (iv) Doctrine of Indoor Management and constructive notices **Management** - (i) Directors: Appointment, Removal, Position, Powers and Duties of Directors. (ii) Auditor and audit Committee: Its Role. **Directors** – qualification and Appointment, Liabilities and duties

Mini case Presentation and Discussion on Saloman v/s A Soloman& Company Ltd Unit 3: (12 Hours)

Oppression, Mismanagement and Investigation:

(i) Prospectus, membership and shareholding in an company.(ii) Prevention of Oppression (iii) Prevention of Mismanagement (iv) Role & Powers of the Company Law Board (v) Role & Powers of Central Government.

Meeting :(i) Types of Meetings (ii) Procedure of calling for a meeting (iii) Company's resolutions and its kinds, proxies.

Corporate Liquidation: (i). Winding up of Companies (ii). Mode of winding up of the companies (iii). Compulsory Winding up under the Order of the Tribunal (iv). Voluntary winding up (v). Contributories (vi). Payment of liabilities

Mini case Presentation and Discussion on Rule in Foss v. Harbottle PRACTICAL COMPONENTS:

• Students to collect analyze and discuss MOA, AOA & Prospectus of a company.

• Students to produce a report on the working of reputed agency including its formation, nature of relations with the outside world and such other issues of relevance.

COURSE OUTCOME:

1. Students should get clear idea about the concept of incorporation of company, its relevance, characteristics, types of company, lifting of corporate.

2. Student to acquire knowledge about conducting meeting, duties of directors and Investigation of the company

Part-B (Business Environment)

Course Objectives:

- 1. To provide an understanding about the Macro Economic Environment of Business.
- 2. To have an understanding of the basic macro-economic concepts.
- 3. To study the various economic policies of our country.

Unit-4 (10Hours)



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Indian Business environment: Nature and Scope, Structure of the Business Environment – Internal and External environment. Political and Legal Environment, Economic Environment, Socio – Cultural Environment, Global environment: WTO and global relations.

Basic economic Concepts: Open and Closed Economies, Primary, secondary and Tertiary sectors and their contribution to the economy. SWOT Analysis for the Indian economy. Measuring the Economy: Measuring GDP and GDP Growth rate, Components of GDP, Business Cycle- Features, and Phases.

Unit-5 (8 Hours)

Industrial Policies and Structure: Planning- Problems in industrial development during the plan

period, Classification of industries based on ownership. Industrial policies, Industrial strategy for the future, New Industrial policy 1991. Structure of Indian Industry: Public and Private Sector Enterprises, Objectives of PSUs, Performance and shortcomings. Private Sector – growth, problems and prospects. SSI – Role in Indian Economy. Startups and their current state in India. Privatisation-Problems and prospects, Disinvestments in Indian

public sector Units since 1991.

Case Study: Privatization of Airport and Airline Industry, Source: Business Environment: Text and cases – Justin Paul, 2/e, McGraw Hill. 2008. Pp 166-168.

Unit-6 (8 Hours)

Economic policies: Fiscal Policy: Objectives, Instruments, Union Budget, Taxes, Role of Government.

Monetary Policy: Money, Measures of money supply, Monetary system inIndia, Tools for credit control. Structure of the Banking system, RBI and its functions, Banking structure reforms - Narasimham committee recommendations. India Foreign Trade Policy:Objectives, Features, Policy of 2015-2020salient features.

PRACTICAL COMPONENTS:

· Students are expected to give a report on how the economic environment has affected the performance of any five large Indian Business Houses.

• Students are expected to analyze the major economic and financial indicators such as GDP, Inflation, CPI, BSE, NSE, Currency, Gold rate, Oil barrel price etc., for a particular period of time and submit the report on the same.

COURSE OUTCOMES:

1. To student will have an understanding of the macro environment of Business and various macroeconomic concepts.

2. The student will understand the industrial policies of the past and the present and the evolution over time, and how Indian Industrial structure evolved over time.

3. The student will be exposed to various economic policies of the country and the state of economy. **RECOMMENDED BOOKS:**

• Economic Environment of Business – Misra S. K & Puri V. K. , 6/e, Himalaya publishing house, 2010.

Business Environment :Text and Cases



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | | - | V SEMEST al Speciali | | | | | | | |
|--|------------------------------|-------------------|---------------------|-------------------------|--|-------|--------------------------------|-----|-----|----------------|--------|
| Category Teaching hours / week Marks for | | | | | | | | | | | |
| Marketing & Finance | Subject Code Finance & HR | HR & Marketing | | Lecture | Practical / Field Work / Assignment ** | Total | Duration of Exam (Hours) | CIE | SEE | Total Marks | Credit |
| 18MBAMM401 | 18MBAFM401 | 18MBAHR401 | Elective Course | 3 | - | 3 | 3 | 40 | 60 | 100 | 3 |
| 18MBAMM402 | 18MBAFM402 | 18MBAHR402 | Elective Course | 3 | - | 3 | 3 | 40 | 60 | 100 | 3 |
| 18MBAMM403 | 18MBAFM403 | 18MBAHR403 | Elective Course | 3 | - | 3 | 3 | 40 | 60 | 100 | 3 |
| 18MBAFM401 | 18MBAHR401 | 18MBAMM401 | Elective Course | 3 | - | 3 | 3 | 40 | 60 | 100 | 3 |
| 18MBAFM402 | 18MBAHR402 | 18MBAMM402 | Elective Course | 3 | - | 3 | 3 | 40 | 60 | 100 | 3 |
| 18MBAFM403 | 18MBAHR403 | 18MBAMM403 | Elective Course | 3 | - | 3 | 3 | 40 | 60 | 100 | 3 |
| | 18MBAPR407 | | Project Work * | 0 | - | 12 | | 50 | 150 | 200 | 6 |
| | | | Industrial Visit | 0 | - | 0 | | 0 | | - | - |
| | | | | 18 | - | 30 | - | 290 | 510 | 800 | 24 |

SEMESTER IV MARKETING SPECIALISATION

Course Sales Management

Course Code 18MBA MM401 Total No. Of Lecture Hours 39 Credits 3 L-T-P-S hours 3-0-0-0 Total No. Of practical Hours -Nil

Course Objectives:

- 1. To provide an understanding of the concepts, techniques and approaches in Sales Management.
- 2. To emphasize on the Sales Manager's problems and dilemmas.
- 3. To develop skills for generating, evaluating and selecting sales strategies.

Unit 1: (6 hours)

Introduction to sales management: Meaning, Evaluation, Importance, Personal Selling, Emerging Trends in Sales Management, elementary study of sales organizations, qualities and responsibilities of sales manager.Types of sales organizations.

Unit 2: (5 hours)

Selling skills & selling strategies: Selling and buying Styles, selling skills, situations, selling process, sales presentation, Handling customer objections, Follow-u action.

Unit 3: (6hours)

Management of Sales Territory & Sales Quota: Sales territory, meaning, size, designing, sales quota, procedure for sales quota. Types of sales quota, Methods of setting quota. Recruitment and selection of sales force, Training of sales force.

Unit 4: (8 hours)

Sales force motivation and compensation: Nature of motivation, Importance, Process and factors in the motivation, Compensation-Meaning, Types of compensation plans and evaluation of sales force by



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

performance and appraisal process. Sales management job: Standard sales management processinternational sales management -international market selection market survey approach or strategy

Unit 5: (6 hours)

Sales Manager and Sales Person: Role of sales manager and sales people; functions of sales manager, functions of sales person, types and characteristics of sales manager and sales people-Time management for sales manager and sales person.

Unit 6: (8 hours)

Selling on the internet: Selling agents for internet trading-net selling, advertising in net trading, payment system in internet trading-smart card, credit card, debit card- payment by card: advantages and disadvantages; How to make internet selling safe-Digital signature, biometric method and legal or regulatory environment; Growth of internet trading in India.

PRACTICAL COMPONENT:

• Interview a salesperson and write a brief report about what they like and dislike about their jobs, their salary, travelling allowances, sales quotas, why chose sales career, and what does it take to succeed in this profession.

• Ask your friends if they would buy certain goods like groceries, vegetables, socks, mobile, pens etc from the roadside vendor as against a regular shop. Group the products into low risk and high risk ones. Does this buying behaviour also depend on the personality of the individual doing the buying? Or the one doing theselling?

• Students can make a presentation on any product or the services of student choice, covering selling strategies and one day work exposure towards merchandising in any big retail outlets of respective places where the institute if operating. Rural colleges can send the students to the city nearby to observe the merchandising planning in retail outlets and to make a small report.

• Roles and functions of sales manager and sales people are different in every organization Sales people view the roles of sales managers in their own way and vice versa. You are the sales manager of a company. You make an analysis of what you feel should be roles of a sales manager and a salesperson for maximizing sales of the organization.

• Your company is active in internet trading. A current issue in internet trading is : how to make internet selling safe. Different methods have been suggested for safety or security of internet trading. You have to analyze

different methods and recommend a method for your company.

COURSE OUTCOMES: Student should be able to

- 1. Understand the apply the selling techniques in an organisation.
- 2. Develop a plan for organising, staffing & training sales force.
- 3. Organise sakes territories to maximize selling effectiveness.
- 4. Evaluate sales management strategies.

RECOMMENDED BOOKS:

- Sales Management by Charles, Futrell, 6/e, Thomson South Western, 2003.
- Sales & Distribution Management, TapanK.Panda& Sunil Sahadev, 6/e, OxfordUniversity Press.
- Managing of Sales Force by Spiro Stanton Rich, 11/e, TMH, 2003.

REFERENCE BOOKS:

- Sales & Retail Management, an Indian perspective by Dr.S.L Gupta, 1/e, Excel Books, 2007.
- Salesmanship and Sales Management-P.KSahu& K C Raut, 3/e, Vikas PublishingHouse3.
- Sales Management-Douglas J Dalrymple, William L Crowe-John Wiley & Co.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org



VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Under Outcome Based Education (OBE) AndChoice Based Credit System (CBCS) Scheme Scheme of Teaching and Examination – 2018-19 Master of Computer Applications

IV SEMESTER

| SL. | | | Teaching | Tea | hing Hours / | Week | | Exami | nation | | |
|-----|-------------|--|------------|---------------|---------------------------------------|------------------|----------------------|--------------|--------------|----------------|---------|
| No | Course Code | Title | Department | Theory (L) | Tutorial (T) | Practical (P) | Duration in hours | SEE Marks | CIE Marks | Total Marks | Credits |
| 1 | 18MCA41 | Advanced Java Programming | MCA | 03 | - | - | 03 | 60 | 40 | 100 | 03 |
| 2 | 18MCA42 | Advanced Web Programming | MCA | 03 | - | - | 03 | 60 | 40 | 100 | 03 |
| 3 | 18MCA43 | Object Oriented Modeling and Design | MCA | 03 | - | - | 03 | 60 | 40 | 100 | 03 |
| 4 | 18MCA44X | Elective II | MCA | 03 | - | - | 03 | 60 | 40 | 100 | 03 |
| 5 | 18MCA45X | Elective III | MCA | 03 | - | - | 03 | 60 | 40 | 100 | 03 |
| 6 | 18MCA46 | Professional Communication & Report Writing | MCA | 02 | - | - | 03 | 60 | 40 | 100 | 02 |
| 7 | 18MCA47 | Advanced Java Programming Lab | MCA | - | 01 | 03 | 03 | 60 | 40 | 100 | 02 |
| 8 | 18MCA48 | Advanced Web Programming Lab | MCA | - | 01 | 03 | 03 | 60 | 40 | 100 | 02 |
| 9 | 18MCA49 | Object Oriented Modeling and Design Lab | MCA | - | 01 | 03 | 03 | 60 | 40 | 100 | 02 |
| | TOTAL | | | | Theory: Practica Tutorial/Instr | d: 09 hours | urs | 540 | 360 | 900 | 23 |

ProfessionalCommunication&ReportWriting

[As per Choice Based Credit System (CBCS) scheme]

SEMESTER – IV

Subject Code: 18MCA46 CIE Marks: 40 SEE Marks: 60 SEE Hours: 03 Number of Lecture Hours/Week: 03 Hours Theory & 01 Hour Tutorial/ Instructions Total Number of Lecture Hours: 45 Total Number of Teaching Hours/Module: 9 CREDITS – 02

Course learning objectives: This course (18MCA46) will enable student to

□ □ Learn the role of communication and standard for grammer, numbers and spellings

□ □ Realize the business Etiquites and oraganizing the Reports.

□ □ Understand the aspects of group communication.

□ □ Exposure to the various business and technological ethics.

Course Outcomes (CO): At the end of this course, the students will be able to

CO1: Understand the Professional communication at work place.

CO2: Acquire the knowledge technical Writing and business Reporting.

CO3: Develop the leadership qualities.

CO4: Understand and implement ethical behavior at work place.

Module 1:

Communication in the workplace- Role of communication in Business, Process of Human

Communication. Informal Communication- Listening, NonverbalCommunication. Correctness Of Communication- Nature of correctness, Standard for Punctuation, Standards for Grammar, Standards for the use of numbers, Spelling, Capitalization.

Module 2:

Writing for Effect- Business Etiquette, conversational style, view point, positive language, and courtesy. Basics ReportWriting- Determine the Factors, Gathering the Information, Organizing the



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Report, WritingTheReport. Physical Presentation Of Letters, Memos, And Reports- document preparation, Form of Business Letters. Strategies in the job search Process- Preparing application, Resume, Cover letter, Facing an Interview.

Module 3:

Group Communication- Introduction, Group discussion, Organizational group discussion, group discussion as part of selection process meetings. Effective Presentation strategies-

Introduction, Defining purpose, Analyzing audience and place, organizing contents, preparing outline, Visual Aids, Understanding Nuances of delivery, Kinesics, Proxemics, Paralinguistics, Chronemics, Sample speech.

Module 4:

Motivation-Motivation and Motivators, Motivation: The Carrot and the stick, The Hierarchy of needs Theory, The Motivation – Hygiene Approach to Motivation. Leadership- Defining Leadership, Ingredients of Leadership, Trait Approaches to Leadership, Leadership behavior and styles, Situational or contingency, Approaches to Leadership.

Module 5:

Ethics: An overview of Ethics- What are Ethics? Ethics in the business World, Ethics in Information Technology (IT). Ethics for IT Professionals and IT users- IT Professionals, The Ethical behavior of IT

Professionals, IT Users.

Question paper pattern:

□ □ The question paper will have ten questions.

□ □ Each full question consists of 20 marks.

 \Box There will be 2 full questions from each module.

□ □ Each question will have questions covering all the topics under a module.

□ □ The students will have to answer 5 full questions, selecting one full question from each module **Text Books**

1. Meenakshi Raman and Sangeeta Sharma: Technical Communication-Principles and Practices, Oxford University Press, 2004.

2. George Reynolds: Ethics in Information Technology, 2nd Edition, Thomson Course Technology, 2007

Reference Books

1. Lesikar and Flatley: Communication-Basic Business Communication Skills for Empowering the Internet Generation 9th Edition, Tata McGraw-Hill Edition, 2002

2. Harold Koonlz and Heinz Weihrich: Management-Essentials of Management, 9th Edition, McGraw-Hill International Edition, 2012

2)1st Year / 1st Semester Basics of Programming & CO (Bridge course-20MCA19-BC)fornon Computer science Background



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

2019 – 20



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

INSTITUTIONAL CURRICULUM COMMITTEE MEETING 2019-2020 -(ODD)

The reconstitution of the Institutional curriculum committee was made and the meeting was held on 22/07/2019 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION | COMMITTEE DESIGNATION |
|--------|-------------------------|-------------------------|--------------------------|
| 1. | Dr A S Aravind | Principal | Chair Person |
| 2. | Dr R China Appala Naidu | HOD-CSE | Member Coordinator |
| 3. | Dr R Kanagavalli | HOD-ISE | Member |
| 4. | Dr Manju Devi | HOD-ECE | Member |
| 5. | Dr V S Bharath | HOD-EEE | Member |
| 6. | Prof Madhusudhan Reddy | HOD-ME | Member |
| 7. | Dr B K Manjunath | HOD-BT | Member |
| 8. | Dr Malleshaiah T S | HOD-Civil & CTM | Member |
| 9. | Dr B S Yashodha | HOD-MT | Member |
| 10. | Dr K Sathish Babu | HOD-AUTO | Member |
| 11. | Dr Mallikarjuna K | HOD-Maths | Member |
| 12. | Prof Abdul Khader | HOD-Physics (in-charge) | Member |
| 13. | Dr Surekha M | HOD-Chemistry | Member |
| 14. | Dr Dhanalakshmi R V | HOD-MBA | Member |
| 15. | Dr M S Shashidhara | HOD-MCA | Member |
| 16. | ArGurudutt S | Principal (B-Arch)-TOSA | Member |

Agenda:

- Syllabus prescribed by Visvesvaraya Technical University to be followed.
- Implementation of UG and PG time table



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Faculties to participate in BOS / Academic council and question paper designing evaluation and assessment.
- Implementation of Certificate courses Diploma / Add-on Courses.
- Implementation of Interdisciplinary/ Interdepartmental courses.
- Integration of cross cutting issues into syllabus.
- Implementation of Value-added courses.
- Implementation of Field visits / industry visits.
- Implementation of action on Feedback analysis report.

Summary: Minutes

The committee is composed of Principal, Dean Academics and Head of all departments. The abovementioned agenda was discussed and resolutions were formed. These were circulated to all the concerned departments and were recommended to be inculcated in their respective department curriculum meeting and implementation of the same.

Resolutions:

- It has been informed to all HOD's to implement the latest prescribed syllabus by VTU in the respective department.
- It was noticed that some faculties have been invited as BOS and BOE members from different Autonomous colleges and universities
- It is decided to implement 2 add-on courses for each department and an action plan to be submitted one week after this meeting.
- It is decided to implement 2 value added courses for each department and an action plan to be submitted within one week after this meeting.
- It is decided to implement 2 interdisciplinary courses for each department and an action plan to be submitted one week after this meeting.
- It is decided to implement one field visit for each department and an action plan to be submitted within one week after this meeting.
- The cross-cutting issues should be integrated into the curriculum.

Fraveena Gowda PRINCUPAL

The Oxford College of Engineering Bommanahalii, Hosur Road Bengaluru-560 9eg



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

INSTITUTIONAL CURRICULUM COMMITTEE MEETING 2019-2020 – (EVEN)

The reconstitution of the Institutional curriculum committee was made and the meeting was held on 07/02/2020 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION | COMMITTEE DESIGNATION |
|--------|-------------------------|---------------------------|--------------------------|
| 1. | Dr A S Aravind | Principal | Chair Person |
| 2. | Dr R China Appala Naidu | HOD-CSE | Member Coordinator |
| 3. | Dr R Kanagavalli | HOD-ISE | Member |
| 4. | Dr Manju Devi | HOD-ECE | Member |
| 5. | Dr V S Bharath | HOD-EEE | Member |
| 6. | Prof Madhusudhan Reddy | HOD-ME | Member |
| 7. | Dr B K Manjunath | HOD-BT | Member |
| 8. | Dr Malleshaiah T S | HOD-Civil & CTM | Member |
| 9. | Dr B S Yashodha | HOD-MT | Member |
| 10. | Dr K Sathish Babu | HOD-AUTO | Member |
| 11. | Dr Mallikarjuna K | HOD-Maths | Member |
| 12. | Prof Abdul Khader | HOD-Physics (in-charge) | Member |
| 13. | Dr Surekha M | HOD-Chemistry | Member |
| 14. | Dr Dhanalakshmi R V | HOD-MBA | Member |
| 15. | Dr M S Shashidhara | HOD-MCA | Member |
| 16. | Prof Kirti P | In-Charge Principal -TOSA | Member |

Agenda: Minutes

- To review that prescribed syllabus is being followed.
- To review implementation of theory and practical are held as per time table submitted.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- To review the efforts made by the faculties in in participating in BOS/ Academic council and question paper designing evaluation and assessment
- To review on Add on courses/Value added courses, Field visits/Industry visit and Internship.
- To review implementation and delivery of cross cutting issues.

Summary: Minutes

The committee is composed of Principal, Dean Academics and Head of all departments. The abovementioned agenda was discussed and resolutions were formed. These were circulated to all the concerned departments and were recommended to be inculcated in their respective department curriculum meeting and implementation of the same.

Resolution:

- The approved syllabus is followed.
- The classes were conducted in online mode as per the lesson plan, due to pandemic and attendance was checked twice a week and report was sent
- Online meetings were conducted to monitor the classes and HODs were instructed to login to the class and monitor.
- It has been advised to maintain the Attendance register of online classes and reports should be sent to the undersigned.
- All departments conducted various webinars related to academic topics.

raveena Gowda Dr. R PRINCYPAL The Oxford College of Engineering Bommanahalli, Hosur Road

Bengaluru-560 pes:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (CSE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 - (ODD)

The department curriculum committee was made and the meeting was held on 22/07/2019 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------------------|--------------------------|------------------|
| 1 | Dr R Ch A Naidu | Professor |
| 2 | Dr. E Saravana Kumar | Professor |
| 3 | Dr. Nirmala | Professor |
| 4 | Ms. Shobha T | Assot. Professor |
| 5 | Mr. Senthil Kumar | Assot. Professor |
| 6 | Ms. SeemaPatil | Assot. Professor |
| 7 | Ms. Gousia T | Asst. Professor |
| 8 | Ms. Sowmya H K | Asst. Professor |
| 9 | Ms. Florance G | Asst. Professor |
| 10 | Mr. Naveen H S | Asst. Professor |
| 11 | Ms. Jesy Janet Kumari | Asst. Professor |
| 12 | Ms. Latha R | Asst. Professor |
| 13 | Ms. Sushma T Shanbhoogue | Asst. Professor |
| 14 Ms.Sonika Sharma | | Asst. Professor |
| 15 | Ms. Anjali | Asst. Professor |
| 16 | Ms. Ashwini | Asst. Professor |
| 17 | Ms. Tintu | Asst. Professor |

Agenda:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1. HOD, Dr. R Ch. A Naidu welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).

| 4. Syllabus copy prescribed by the university circulated to the students and facult | 4. | Syllabus copy | prescribed by the | university circu | lated to the students | and faculty. |
|---|----|---------------|-------------------|------------------|-----------------------|--------------|
|---|----|---------------|-------------------|------------------|-----------------------|--------------|

| SI. No. | CBCS Elective/Humanity and Social Science | |
|---------|---|---|
| 1 | 17CS551 | Object Oriented Modeling and Design |
| 2 | 17CS563 | Embedded Systems |
| 3 | 18KVK39 | Vyavaharika Kannada (Kannada for communication) |
| 4 | 18KAK39 | Aadalitha Kannada (Kannada for Administration) |
| 5 | 18CPC39 | Constitution of India, Professional Ethics and Cyber Law |

- 5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.
- 6. Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 10. The following certificate programs will be conducted during 2019 2020 ODD semester



Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Notth

HOD, CSE

HEAD OF THE DEPARTMENT DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING THE OXFORD COLLEGE OF ENGINEERING BENGALURU - 560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (CSE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 – (EVEN)

The department curriculum committee was made and the meeting was held on 07/02/2020 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|--------------------------|------------------|
| 1 | Dr R Ch A Naidu | Professor |
| 2 | Dr. E Saravana Kumar | Professor |
| 3 | Dr. Nirmala | Professor |
| 4 | Ms. Shobha T | Assot. Professor |
| 5 | Mr. Senthil Kumar | Assot. Professor |
| 6 | Ms. SeemaPatil | Assot. Professor |
| 7 | Ms. Gousia T | Asst. Professor |
| 8 | Ms. Sowmya H K | Asst. Professor |
| 9 | Ms. Florance G | Asst. Professor |
| 10 | Mr. Naveen H S | Asst. Professor |
| 11 | Ms. Jesy Janet Kumari | Asst. Professor |
| 12 | Ms. Latha R | Asst. Professor |
| 13 | Ms. Sushma T Shanbhoogue | Asst. Professor |
| 14 | Ms.Sonika Sharma | Asst. Professor |
| 15 | Ms. Anjali | Asst. Professor |
| 16 | Ms. Ashwini | Asst. Professor |
| 17 | Ms. Tintu | Asst. Professor |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1. HOD, Dr. R Ch. A Naidu, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 2. Semester plan for 2019-20 even semester and mentioning the activities planned in the department.

| SI. No. | CBCS Elec | CBCS Elective/Humanity and Social Science | |
|---------|-----------|---|--|
| 1 | 17CS651 | Data Mining and Data Warehousing | |
| 2 | 17CS664 | Python Application Programming | |
| 3 | 18KVK49 | Vyavaharika Kannada (Kannada for communication) | |
| 4 | 18KAK49 | Aadalitha Kannada (Kannada for Administration) | |
| 5 | 18CPC39 | Constitution of India, Professional Ethics and Cyber Law | |

- 3. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Mentor mentee list discussion



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

NovelBh

HOD, CSE



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – Information Science and Engineering

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 – (EVEN)

The department curriculum committee was made and the meeting was held on 08/02/2020 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION |
|--------|-----------------------|--------------|
| 1. | Dr.R.Kanagavalli | HOD |
| 2. | Dr.Jayaramaiah. D | Professor |
| 3. | Dr.A.Francis | Professor |
| 4. | Dr.Vinodha K | Assot. Prof. |
| 5. | Ms. Visalini S | Assot. Prof. |
| 6. | Mr. Yadhu Krishna M R | Assot. Prof. |
| 7. | Ms. KalaiSelvi | Assot. Prof. |
| 8. | Ms.Nalinakshi B G | Assot. Prof. |
| 9. | Ms. Kokila P | Asst. Prof. |
| 10. | Mrs.Chempavathy B | Asst. Prof. |
| 11. | Mrs.Sindhuja | Asst. Prof. |
| 12. | Ms. Suganya R | Asst. Prof. |
| 13. | Mr. Channappa Gowda | Asst. Prof. |
| 14. | Ms. Chitra G | Asst. Prof. |
| 15. | Ms. InduK.S | Asst. Prof. |
| 16. | Mrs.Prathiba.K.N | Asst. Prof. |
| 17. | Mr. Karthik S L | Asst. Prof. |
| 18. | Mrs.Halaharvi Keerthi | Asst. Prof. |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 19. | Ms.Radha.D.N | Asst. Prof. |
|-----|----------------|-------------|
| 20. | Ms.Geethanjali | Asst. Prof. |
| 21. | Mr. Amaresha | Asst. Prof. |

Agenda:

- 1. Semester plan
- 2. Introduction of syllabus based on CBCS scheme
- 3. Conduction of seminars
- 4. Plan for Field Visit/ Industrial Visit
- 5. Plan for the (Final Year's)Project Works / Internships
- 6. Allotment the assignment topics and tutorial topics
- 7. Plan for mentoring activities

Summary: Minutes

- 1. HOD, Dr.Kanagavalliwelcomed all the faculty and explained VTU, ODD semester regulations.
- 2. Semester plan for 2019-20 even semesterand mentioning the activities planned in the department.
- 3. The discussion of the subjects of CBCS selected by the students.
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the (Final Year's) Project Works / Internships (with company names and details).
- 9. Mentor mentee list discussion
- 10. The following certificate programs will be conducted during 2019 2020 EVEN semester



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| SI. No. | Name of the department | Name of the Certificate Program |
|---------|--|---|
| 7. | Information Science and Engineering | Programming language(C,C++,JAVA,HTML,Python) and advanced concepts(ML and AI) |

11. The following value-added programs will be conducted during 2019 – 2020 EVEN semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|-------------------------------------|----------------------------------|
| 16. | Information Science and Engineering | Soft skill training |

Resolutions:

- 1. Research activity to be improved.
- 2. Result percentage to be improved.

- E -mani 9 🕶 🖥 RADIONE

HOD



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – Information Science and Engineering

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 – (ODD)

The department curriculum committee was made and the meeting was held on 25/07/2019 and the following members were present for the meeting.

| SI | NAME | DESIGNATION |
|-----|-----------------------|--------------|
| no. | | |
| 1. | Dr.R.Kanagavalli | HOD |
| 2. | Dr.Jayaramaiah. D | Professor |
| 3. | Dr.A.Francis | Professor |
| 4. | Dr.Vinodha K | Assot. Prof. |
| 5. | Ms. Visalini S | Assot. Prof. |
| 6. | Mr. Yadhu Krishna M R | Assot. Prof. |
| 7. | Ms. KalaiSelvi | Assot. Prof. |
| 8. | Ms.Nalinakshi B G | Assot. Prof. |
| 9. | Ms. Kokila P | Asst. Prof. |
| 10. | Mrs.Chempavathy B | Asst. Prof. |
| 11. | Mrs.Sindhuja | Asst. Prof. |
| 12. | Ms. Suganya R | Asst. Prof. |
| 13. | Mr. Channappa Gowda | Asst. Prof. |
| 14. | Ms. Chitra G | Asst. Prof. |
| 15. | Ms. InduK.S | Asst. Prof. |
| 16. | Mrs.Prathiba.K.N | Asst. Prof. |
| 17. | Mr. Karthik S L | Asst. Prof. |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 18. | Mrs.Halaharvi Keerthi | Asst. Prof. |
|-----|-----------------------|-------------|
| 19. | Ms.Radha.D.N | Asst. Prof. |
| 20. | Ms.Geethanjali | Asst. Prof. |
| 21. | Mr. Amaresha | Asst. Prof. |

Agenda:

- 1. Semester plan
- 2. Value-added and certificate programs
- 3. Conduction of seminars
- 4. Plan for Field Visit/ Industrial Visit
- 5. Plan for the (Final Year's) Project Works / Internships
- 6. Allotment the assignment topics and tutorial topics

Summary: Minutes

- 1. HOD, Dr.Kanagavalli welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS)
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans for Field Visit/ Industrial Visit.
- 7. Planning for the (Final Year's) Project Works / Internships (with company names and details).
- 8. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following certificate programs will be conducted during 2019 – 2020 odd semesters



The following value-added programs will be conducted during 2019–2020 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|-------------------------------------|----------------------------------|
| 17. | Information Science and Engineering | Soft skill training |

Resolutions:

13. Result percentage to be improved.

14. Research activity to be improved.

-eenng 68 Banuar



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

DEPARTMENT CURRICULUM COMMITTEE -ECE

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2018-2019 (EVEN)

The department curriculum committee was made and the meeting was held on 19/02/2019 and the following members were present for the meeting.

| Slno. | NAME | DESIGNATION |
|-------|--------------------------|----------------|
| 1 | Dr.Manju Devi | Professor&Head |
| 2 | Dr.Vivek.M | Professor |
| 3 | Dr.PreetaSharan | Professor |
| 4 | Mr.N.Jayaraj | AssociateProf |
| 5 | Ms.SajithraVarun | AssociateProf |
| 7 | Mr.N.Sridhar | AssociateProf |
| 8 | Ms.ChrispinJiji | Asst.Professor |
| 9 | Mr.Ravindra.V.S | Asst.Professor |
| 10 | Ms.SowmyaPadukone.G | Asst.Professor |
| 11. | Mr.BhargavRamGowd | Asst.Professor |
| 12. | Ms.LayaTojo | Asst.Professor |
| 13. | Ms.Chandrakala.S | Asst.Professor |
| 14 | Ms.Aruna.J | Asst.Professor |
| 15. | Mr.ManjunathSheth | Asst.Professor |
| 16 | Mr.Veeresh.H | Asst.Professor |
| 17 | Mr.Anand.K.Warad | Asst.Professor |
| 18 | Mr.RichardLincolnPaulraj | Asst.Professor |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 19 | Ms.SoniyaJames | Asst.Professor |
|----|-------------------|----------------|
| 20 | Ms.Lakshmi.R | Asst.Professor |
| 21 | Mr.AravindReddy | Asst.Professor |
| 22 | Dhanya | Asst.Professor |
| 23 | JagadeeshwarReddy | Asst.Professor |
| 24 | Dr.Manju Devi | Prof&HOD |
| 25 | Dr.AnilTiwari | Professor |
| 26 | VarshaParihar | Asst.Professor |
| 27 | Rani.B.A | Asst.Professor |
| 28 | Megha.M.S | Asst.Professor |
| 29 | Poojashri.C.S | Asst.Professor |
| 30 | Bindu.P | Asst.Professor |
| 31 | PraveenKumar | Asst.Professor |
| 32 | Ashwini.M | Asst.Professor |
| 33 | NithikaBhasi | Asst.Professor |
| 34 | JishaChandra | Asst.Professor |
| 35 | Vidya.S.A | Asst.Professor |
| 36 | Dr.ReemaSharma | Asst.Professor |
| | | |

Agenda:

1.EvenSemester Plan for Academics & Co-Curricular

Activities 2. Introduction of CBCS & orientation for Students

5. Arrangement of Seminars, Field Visits & Industrial Visit to Students



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

6. ConductionofProjectWork,Internshipworkto Students

Summary: Minutes of meeting

,Dr.ManjuDevi,HOD&Profwelcomed all the faculty and explained VTU, EvenSemesterregulations.

7. Semesterplanfor2018-

19EvenSemesterandmentioningtheactivitiesplannedinthe Department.

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|---------------------|-----------------------------|
| 1. | ECE | NCSEM-2019 |

8. The following value-added programs will be conducted during

2018 – 2019Even-Semester

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|---------------------|-----------------------------|
| 1. | ECE | RTCSE-2019 |

Resolutions:

The HOD&Faculties of the Department will do the Resolution that We all will work towards the overall growth of the Department, Students&Organization.

HOD

OD of E&C Engineering The Oxford College of Engineering Bommananalli, Bangalore-560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

DEPARTMENT CURRICULUM COMMITTEE -ECE

DEPARTMENTAL CURRICULUM COMMITTEEMEETING 2019-2020 (ODD)

The Department curriculum committee was made and the meeting was held on23/07/2019 and the following members were present for the meeting.

| Slno. | NAME | DESIGNATION |
|-------|---------------------|----------------|
| 1 | Dr.Manju Devi | Professor&Head |
| 2 | Dr.Vivek.M | Professor |
| 3 | Dr.PreetaSharan | Professor |
| 4 | Mr.N.Jayaraj | AssociateProf |
| 5 | Ms.ChrispinJiji | Asst.Professor |
| 6 | Ms.SowmyaPadukone.G | Asst.Professor |
| 7. | Mr.BhargavRamGowd | Asst.Professor |
| 8. | Ms.LayaTojo | Asst.Professor |
| 9. | Ms.Chandrakala.S | Asst.Professor |
| 10 | Ms.Aruna.J | Asst.Professor |
| 11 | Mr.ManjunathSheth | Asst.Professor |
| 12 | Mr.Veeresh.H | Asst.Professor |
| 13 | Mr.Anand.K.Warad | Asst.Professor |
| 14 | Harshini.N.M | Asst.Professor |
| 15 | Mr.Shivaprasad | Asst.Professor |
| 16 | Ms.Lakshmi.R | Asst.Professor |
| 17 | Mr.AravindReddy | Asst.Professor |
| 18 | Dhanya | Asst.Professor |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 19 | JagadeeshwarReddy | Asst.Professor |
|----|-------------------|----------------|
| 20 | Dr.AnilTiwari | Professor |
| 21 | Poojashri.C.S | Asst.Professor |
| 22 | Mohanti | Asst.Professor |
| 23 | PraveenKumar | Asst.Professor |
| 24 | Ashwini.M | Asst.Professor |
| 25 | NithikaBhasi | Asst.Professor |
| 26 | JishaChandra | Asst.Professor |
| 27 | Vidya.S.A | Asst.Professor |
| 28 | Sunitha.L | Asst.Professor |
| 29 | Srividya.G | Asst.Professor |
| | | |

Agenda:

1.ODDSemester Plan for Academics & Co-Curricular Activities

2.Introduction of CBCS & orientation for Students

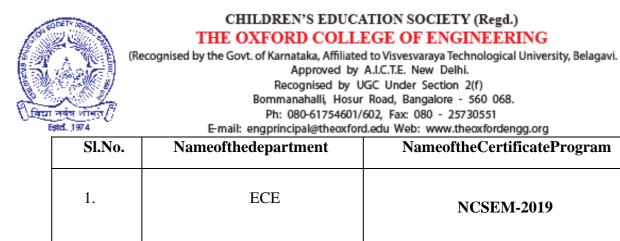
3.Arrangement of Seminars, Field Visits & Industrial Visit to Students

4. Conductiono fProject Work, Internship work to Students

Summary:Minutes of meeting

,Dr.Manju Devi,HOD & Prof welcomed all the faculty and explained VTU, Even Semeste. rregulations.

5. Semester plan for 2019- 20 ODD Semester and mentioning the activities planned in the Department.



6. The following value-added programs will be conducted during

2019-2020 ODD-Semester

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|---------------------|-----------------------------|
| 1. | ECE | Workshop onQuantum-Dot |

Resolutions:

The HOD & Faculties of the Department will do the Resolution that We all wll work towards the overall growth of the Department, Students & Organization.

. 22

Professor & HOD of E&C Engineering True Oxford College of Engineering Bommananalli, Bangatore-560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (EEE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 - (ODD)

The department curriculum committee was made and the meeting was held on 08/07/2019 and the following members were present for the meeting.

| SI. No. Name | | Designation | |
|--------------|------------------------|--------------|--|
| 1 | Dr.Bharath.V.S | Prof.& HOD | |
| 2 | Dr.V.Chinnappan | Prof | |
| 3 | Dr.Gurumurthy | Prof | |
| 4 | Mrs.SandhyaRai | Prof. | |
| 5 | Mr.N.Jayakumar | Assoc. Prof. | |
| 6 | Mrs.Nisha.C.Rani | Prof. | |
| 7 | Mrs.B.DeviVighneshwari | Assoc. Prof. | |
| 8 | Mrs.Raichel Ruby | Assoc. Prof. | |
| 9 | Mrs.Manjula.C | Assoc. Prof. | |
| 10 | Mrs.Viji.K | Assoc. Prof. | |
| 11 | Mrs.NalinaKumari | Assoc. Prof. | |
| 12 | Mr.Muniyappa.N | Assoc. Prof. | |
| 13 | Mrs.Thilaga.P | Asst. Prof. | |
| 14 | Mrs.NavathaKumari | Asst. Prof | |
| 15 | Mrs.Sumitha.T.L | Asst. Prof. | |
| 16 | Mrs.Someswari | Asst. Prof. | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| advanta (1 av -4 | Ernan, engprincipal@crieokrord.edd we | is. WWW.fileoxioideilgg.org |
|------------------|---------------------------------------|-----------------------------|
| 17 | Mrs. Arutselvi Nagammai | Asst. Prof. |
| 18 | Ms.Deepa.N.Raju | Asst. Prof. |
| 19 | Mrs.Vinutha.Y.E | Asst. Prof. |
| 20 | Mrs.Thiruvonasundari.D | Asst. Prof. |
| 21 | Ms.Savitha.M | Asst. Prof. |
| 22 | Ms.Swapna.C.M | Asst. Prof. |
| 23 | Mrs.Resna.S.R | Asst. Prof. |
| 24 | Ms.Deepa.R | Asst.Prof. |
| 25 | Ms.Bhuvaneswari.M | Asst.Prof. |
| 26 | Mr.Madhusudan Reddy | Asst.Prof. |
| 27 | Mr.Raghumanth A | Asst.Prof. |
| 28 | Апоор Н К | Asst.Prof |
| | | |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship

Minutes of Meeting:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 1. HOD, Dr.Bharath.V.S welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|------------|----------------------|--|
| 1 | 15EE742 | Utilization of Electrical Power |
| 2 | 15EE752 | Testing and commissioning of power system Apparatus |
| 4 | 18KL/CPH39/49 | Kannada/Constitution of India, Professional Ethics and Human Rights |
| 5 | 18MATDIP31 | Additional Mathematics –I |

- 5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.
- 6. Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following value-added programs will be conducted during 2019 – 2020 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|--|
| 1. | EEE | Technical Skill Training on "AUTOMATION (PLC&SCADA), DRIVES, LV SWITCHGEAR" |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Profess The Oxford College of Engg Bommanahalli, Hosur Road Bangalore-560 068

HOD-EEE



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (EEE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 – (EVEN)

The department curriculum committee was made and the meeting was held on 18/02/2020 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|------------------------|--------------|
| 1 | Dr.Bharath.V.S | Prof.& HOD |
| 2 | Dr.V.Chinnappan | Prof |
| 3 | Dr.Gurumurthy | Prof |
| 4 | Mrs. Sandhya Rai | Prof. |
| 5 | Mr.N.Jayakumar | Assoc. Prof. |
| 6 | Mrs.Nisha.C.Rani | Prof. |
| 7 | Mrs.B.DeviVighneshwari | Assoc. Prof. |
| 8 | Mrs.Raichel Ruby | Assoc. Prof. |
| 9 | Mrs.Manjula.C | Assoc. Prof. |
| 10 | Mrs.Viji.K | Assoc. Prof. |
| 11 | Mrs.NalinaKumari | Assoc. Prof. |
| 12 | Mr.Muniyappa.N | Assoc. Prof. |
| 13 | Mrs.Thilaga.P | Asst. Prof. |
| 14 | Mrs. Navatha Kumari | Asst. Prof |
| 15 | Mrs.Sumitha.T.L | Asst. Prof. |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| and and the second second | Ennan, engprincipal@dieoxioid.edu w | con minine contractinggiong |
|---------------------------|-------------------------------------|-----------------------------|
| 16 | Mrs.Someswari | Asst. Prof. |
| 17 | Mrs.ArutselviNagammai | Asst. Prof. |
| 18 | Ms.Deepa.N.Raju | Asst. Prof. |
| 19 | Mrs.Vinutha.Y.E | Asst. Prof. |
| 20 | Mrs. Thiruvonas undari. D | Asst. Prof. |
| 21 | Ms.Savitha.M | Asst. Prof. |
| 22 | Ms.Swapna.C.M | Asst. Prof. |
| 23 | Mrs.Resna.S.R | Asst. Prof. |
| 24 | Ms.Deepa.R | Asst.Prof. |
| 25 | Ms.Bhuvaneswari.M | Asst.Prof. |
| 26 | Mr.Madhusudan Reddy | Asst.Prof. |
| 27 | Mr.Raghumanth A | Asst.Prof. |
| 28 | Апоор Н К | Asst.Prof |
| | | |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Minutes of Meeting:

- 1. HOD, Dr.Bharath.V.S, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 2. Semester plan for 2019-20 even semester and mentioning the activities planned in the department.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|------------|----------------------|--|
| 1 | 15EE831 | SMART GRID |
| 2 | 15KL/CPH39/49 | Kannada/Constitution of India, Professional Ethics and Human Rights |
| 3 | 15MATDIP41 | Additional Mathematics –II |

- 3. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Mentor mentee list discussion
- 10. The following certificate programs will be conducted during 2019–2020 EVEN semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|--|
| 1. | EEE | Technical Skill Training on "AUTOMATION (PLC&SCADA), DRIVES, LV SWITCHGEAR" |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Profe The Oxford College of Engg Bommanahalli, Hosur Road Bangalore-560 068

HOD- EEE



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental CommitteeMeeting–(BRANCH):Mechanical engineering

DEPARTMENTALCURRICULUMCOMMITTEEMEETING2019-2020-(ODD)

The department curriculum committee was made and the meeting washeldon 01/8/2019 and the following members were present for the meeting.

| Slno. | NAME | DESIGNATION |
|-------|----------------------|------------------------|
| 1 | DR. MADHUSUDHANREDDY | HOD |
| 2 | RAVIPRAKASH | Professor |
| 3 | VIDHYADHARPOOJAR | Professor |
| 4 | PRASADNAYAK | Professor |
| 5 | RAGHAVENDRAN | Assistant Professor |
| 6 | RAHULD | AssistantProfessor |
| 7 | RANGU P, | AssistantProfessor |
| 8 | SHIVASHESHDRI | AssistantProfessor |
| 9 | VINAYV | AssistantProfessor |
| 10 | ANOOPUPADYAYA | AssistantProfessor |
| | | |

Agenda:

- 1. Finalizationofdepartmentalactivitiesfortheacademicyear.
- 2. Allocationofsubjectstofaculties.
- 3. Approvalofprojectbatch.

Summary:Minutes

- 1. HOD, Dr.Madhusudhan Reddy welcomed all the faculty and explained VTU, ODDsemesterregulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should followit.
- 3. VTUhasintroducedChoiceBasedCreditSystem(CBCS)



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 4. Syllabuscopyprescribedbytheuniversitycirculatedtothestudentsandfaculty.
- 5. Departmentannouncedtoconduct the regularseminarstothestudents.
- 6. DepartmentplansforFieldVisit/IndustrialVisit.
- 7. Planningforthe(FinalYear's)ProjectWorks/Internships(withcompanynamesanddetails).
- 8. Department plans to allot the assignment topics to the students and to allocate thetutorial topics to the students.

The following certificate programs will be conducted during 2019 – 2020 oddsemester

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|-----------------------|-------------------------------|
| 1 | Mechanicalengineering | Engineeringgraphics |
| 2 | Mechanicalengineering | Programmingwithmicroprocessor |

Thefollowingvalue-addedprograms willbeconductedduring2019–2020oddsemester

| Sl.No. | Nameofthedepartment | NameoftheValue-addedprograms |
|--------|-----------------------|------------------------------------|
| 1 | Mechanicalengineering | Designofcircuitforhydraulicsfluids |
| 2 | Mechanicalengineering | Programmingwithmicroprocessor |

- Each faculty has to take two theory subjects and one lab, out of which one subject willbechoiceof faculty while theother subject willbe left to the discreet of HOD.
- Departmental activities are to be planned as per calendar of institution and must begotapproval from principal.
- Fore man is given in charge to finalise the budge allocations for variouslabs/workshopsin consultation with lab in charges.

PROFESSSHQD DEPARTMENT OF MECHANICAL ENGINEERING THE OXFORD COLLECT OF ENGINEERING BOMMANAHALLI, BANGALORE-560068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

DepartmentalCommitteeMeeting-(BRANCH):mechanicalengineering

DEPARTMENTALCURRICULUMCOMMITTEEMEETING2019-2020-(EVEN)

The department curriculum committee was made and the meeting was held on 18/02/2020 and the following members were present for the meeting.

| Slno. | NAME | DESIGNATION |
|-------|---------------------|---------------------|
| 1 | DR.MADHUSUDHANREDDY | HOD |
| 2 | RAVIPRAKASH | Professor |
| 3 | VIDHYADHARPOOJAR | Professor |
| 4 | PRASADNAYAK | Professor |
| 5 | RAGHAVENDRAN | Assistant Professor |
| 6 | RAHULD | AssistantProfessor |
| 7 | RANGU P, | AssistantProfessor |
| 8 | SHIVASHESHDRI | AssistantProfessor |
| 9 | VINAYV | AssistantProfessor |
| 10 | ANOOPUPADYAYA | AssistantProfessor |
| | | |

Agenda:

- 1. Allocationofsubjecttostaff.
- 2. Identifyinglabincharges/mentors/classteachers.
- 3. Finalizingdepartmentalactivitiestobeconducted.

Summary:Minutes

- 1. HOD,Dr.Madhusudhan Reddy welcomed all the faculty and explained VTU, EVENsemesterregulations.
- 2. Semester plan for 2019-20 even semester and mentioning the activities planned in thedepartment.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| Sl.No. | NameoftheDepartment | CBCS |
|--------|-----------------------|---|
| 1. | Mechanicalengineering | 7 th semester&8 th semester |

- 3. The discussion of the subjects of CBCS given in the above table, selected by thestudents.
- 4. As per the VTU regulation guidelines the students of B.E have to select one subjectfromtheMOOCS-I, MOOCS-II& MOOCS-III

| Sl.No | NameoftheDepartment | MOOCS-I | MOOCS –II | MOOCS –III |
|-------|-----------------------|---------|-----------|------------|
| 1. | Mechanicalengineering | nil | nil | nil |

- 5. Syllabuscopyprescribedbytheuniversitycirculatedtothestudentsandfaculty.
- 6. Departmentannouncedtoconducttheregularseminarstothestudents.
- 7. Department plans to allot the assignment topics to the students and to allocate thetutorialtopics to thestudents.
- 8. DepartmentplansforFieldVisit/IndustrialVisit.
- 9. Planningforthe(FinalYear's)ProjectWorks/ Internships(withcompanynamesanddetails).
- 10. Mentormenteelist-discussion
- 11. The following certificate programs will be conducted during 2019 2020 EVENsemester

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|-----------------------|-----------------------------|
| 1. | Mechanicalengineering | Nil |
| | | |

12. The following value-added programs will be conducted during 2019-2020

(EVENsemester)

| Sl.No. | Nameofthedepartment | NameoftheValue-addedprograms |
|--------|-----------------------|------------------------------|
| 5. | Mechanicalengineering | nil |
| | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Allocation of subjects for staff senior staff to take first year classes.
- Classteachers/mentors/labinchargesaremade.
- Lab instructors to be changed on priority basis so that each should be able to handleall mechanical labs.
- Mentor menteelist approved.

PROFESSE DEPARTMENT OF MECHANICAL ENGINEERING THE OXFORD COLLECT OF ENGINEERING BOMMANAHALLI, BAHGALORE-560068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – BIOTECHNOLOGY

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019 -2020 -(ODD)

The department curriculum committee was made and the meeting was held on 02/08/2019 and the following members were present for the meeting.

| | r | |
|--------|------------------------|----------------|
| SI no. | NAME | DESIGNATION |
| 1. | Dr. B.K.Manjunath | HOD |
| 2. | Dr. Gangadhar gouripur | Asst.Professor |
| 3. | Prof. Valarmathy | Asst.Professor |
| 4. | Prof. Divakara | Asst.Professor |
| 5. | Prof. Salma Kausar.M | Asst.Professor |
| 6. | Prof. Ramya D L | Asst.Professor |
| 7. | Prof. Aswathi. U | Asst.Professor |

Agenda:

- 1. Semester planner was decided and department level coordinators work was allotted
- 2. General instruction & working plan of the department to be discussed
- 3. Updating of course files & NBA status discussion
- 4. Action plan to execute department activity.
- 5. Other points if any to be discussed

Summary: Minutes

1. Faculties were allotted with coordinator workload for the new academic year



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 2. Each faculty was assigned with theory & practical subject workload
- 3. faculties were asked to inform students about the digital library in the college & make use of it

effectively'

- 4. All faculties were informed to strictly monitor the attendance & IA performance of students.
- 5. All faculties were informed to ensure every class performs at least 2 activities.

- 6. To achieve better results and aiming for many more VTU ranks.
- 7. To encourage students to undergo Certificate/Value Added courses.
- 8. To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

departm Bat. Va 1 rofessor 1-ipad epartment Sictoonn OF Oxford College 1.5 560 068 Bengaluru-HOD (SEAL)



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – BIOTECHNOLOGY

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 – (EVEN)

The department curriculum committee was made and the meeting was held on 07/02/2020 and the following members were present for the meeting.

| Sl no. | NAME | DESIGNATION |
|--------|------------------------|----------------|
| 1. | Dr. B.K.Manjunath | HOD |
| 2. | Dr. Gangadhar gouripur | Asst.Professor |
| 3. | Dr. Valarmathy | Asst.Professor |
| 4. | Prof. Divakara | Asst.Professor |
| 5. | Prof. Salma Kausar.M | Asst.Professor |
| 6. | Prof. Mamatha B | Asst.Professor |
| 7. | Prof. Aswathi. U | Asst.Professor |

Agenda:

1. Semester planner was decided and department level coordinators work was allotted

- 2. General instruction & working plan of the department to be discussed
- 3. Updating of course files
- 4. Faculty assigning of project guides, scrutinizing of project domain & title
- 5. Action plan to execute department activity.
- 6. Other points if any to be discussed

Summary: Minutes

1. HOD, Dr. Kusum Paul welcomed all the faculty and explained VTU, EVEN semester regulations.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 2. HOD informed about the Semester plan for 2019-20 even semester and mentioned the activities planned in the department.
- 3. Syllabus copy prescribed by the university circulated to the students and faculty.
- 4. Faculties were informed to make students select the elective subjects for even semester.
- 5. HOD informed faculty coordinator to plan for Industrial visits/ field visit.
- 6. Planning for the (Final Year's) Project Works / Internships (with company names and details) was intimated by HOD.
- 7. Mentor mentee list discussion was done and the document updating status & deadline was informed to all the faculties.

8. The following value-added programs will be conducted during 2019 – 2020 EVEN semester. The following value-added programs will be conducted during 2019 – 2020 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|------------------------------------|
| 1 | ВТ | C, C++ programming OOPS, biopython |
| 2. | ВТ | Soft skill & Aptitude training |

Resolutions:

- 1. To achieve better results and aiming for many more VTU ranks.
- 2. To encourage students to undergo Certificate/Value Added courses.
- 3. To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

he departmen .K ANJ IVI Professor & Head Department of Sictochnol xford College of Englin Bengaluru-560 0665 Bengaluru-

HOD



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (CIVIL)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 -(ODD)

The department curriculum committee was made and the meeting was held on 24/07/2019 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|---------------------|-----------------|
| 1 | Dr. T S Malleshaiah | Professor |
| 2 | Mr Shivanand C G | Assot Professor |
| 3 | Mr. Prashanth | Asst. Professor |
| 4 | Mr. Maheshkumar | Asst. Professor |
| 5 | Ms. Kavya | Asst. Professor |
| 6 | Ms. Harsha | Asst. Professor |
| 7 | Ms. Shradha | Asst. Professor |
| 8. | Mrs.Nayana B S | Asst .Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

1.HOD, Dr. T S Malleshaiah welcomed all the faculty and explained VTU, ODD semester regulations.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

2.As per the VTU regulation guidelines the students of all Odd semester should follow it.

3.VTU has introduced Choice Based Credit System (CBCS).

4.Syllabus copy prescribed by the university circulated to the students and faculty.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|------------|----------------------|--------------------------|
| 1 | 18CV734 | Ground Water Hydraulics |
| 2 | 18CV745 | Urban transport planning |

5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.

6.Department announced to conduct the regular seminars to the students.

7. Department plans for Field Visit / Industrial Visit.

8. Planning for the Final Year's Project Works / Internships.

9.Department plans to allot the assignment topics to the students and to allocate the tutorial topics

to the students.

The following value-added programs will be conducted during 2019 – 2020 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 1. | CIVIL | Revit Architecture |

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Head of the Department Department of Civil Engineering The Oxford College of Engineering Bangalore - 560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (CIVIL)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 – (EVEN)

The department curriculum committee was made and the meeting was held on 10/02/2020 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|---------------------|-----------------|
| 1 | Dr. T S Malleshaiah | Professor |
| 2 | Mr Shivanand C G | Assot Professor |
| 3 | Mr. Prashanth | Asst. Professor |
| 4 | Mr. Maheshkumar | Asst. Professor |
| 5 | Ms. Kavya | Asst. Professor |
| 6 | Ms. Harsha | Asst. Professor |
| 7 | Ms. Shradha | Asst. Professor |
| | | |
| 8. | Mrs.Nayana B S | Asst .Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

1.HOD, Dr.T S Malleshaiah welcomed all the faculty and explained VTU, EVEN semester regulations.

2.Semester plan for 2019-20 even semester and mentioning the activities planned in the department.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|------------|----------------------|-----------------|
| 1 | 18CV825 | Pavement Design |

3. The discussion of the subjects of CBCS given in the above table, selected by the students.

4.Syllabus copy prescribed by the university circulated to the students and faculty.

5.Department announced to conduct the regular seminars to the students.

6.Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

7.Department plans for Field Visit / Industrial Visit.

8. Planning for the Final Year's Project Works / Internships.

9.Mentor mentee list - discussion

10. The following certificate programs will be conducted during 2019 – 2020 EVEN semester

| SI. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| 1 | CIVIL | Soft Skill and Training |

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Head of the Department Department of Civil Engineering The Oxford College of Engineering Bangatore - 560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (Automobile Engineering)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 -(ODD)

The department curriculum committee was made and the meeting was held on 25/07/2019 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|------------------------|------------------|
| 1 | Dr. Raju B R | Professor |
| 2 | Dr.K.Sathish Babu | Professor |
| 3 | Mr. Sandeep K Chavan | Assot. Professor |
| 4 | Mr. Maruthi S B | Asst. Professor |
| 5 | Mr. Deepak U. S | Asst. Professor |
| 6 | Mr. Raviteja R. N | Asst. Professor |
| 7 | Mr.Sapthagiri Prasad N | Asst. Professor |
| 8 | Mr.Prasanna S M | Asst. Professor |
| 9 | Mr. Karthik. K | Asst. Professor |
| 10 | Mr.Shivrudrappa Desai | Asst. Professor |
| 11 | Mr.VikasBevoor | Asst. Professor |
| 12 | Mr.Santhosh K | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

• Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1.HOD, Dr.Raju B R welcomed all the faculty and explained VTU, ODD semester regulations.
- 2.As per the VTU regulation guidelines the students of all odd semester should follow it.
- 3.VTU has introduced Choice Based Credit System (CBCS) 2018-19 scheme.
- 4.Syllabus copy prescribed by the university circulated to the students and faculty.

| SI. No. | CBCS ELECTIVE/MATDIP | | |
|---------|-------------------------------|---|--|
| 1 | 15AU741 | Earth Moving Equipment & Tractors | |
| 2 | 15AU754 | Two And Three Wheeled Vehicle | |
| 3 | 17AU551 CAD/CAM | | |
| 4 | 17AU562 | Alternative Energy Sources for Automobiles | |
| 5 | 18KVK/KAK/39/49 18CPC39/49 | Kannada/Constitution of India, Professiona Ethics and Human Rights | |
| 6 | 18MATDIP31 | Additional Mathematics –I | |

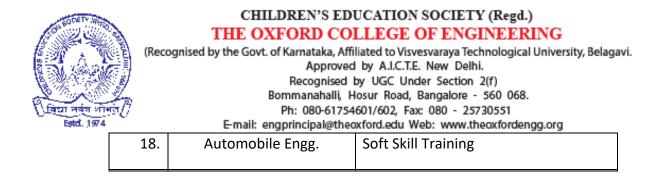
5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.

- 6.Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.

9.Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following value-added programs will be conducted during 2019 – 2020 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| | | |



Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.



Professor & Head Department of Automobile Engineering The Oxford College of Engineering Bommanahalli, Hosur Road Bangalore-560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (Automobile Engineering)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 – (EVEN)

The department curriculum committee was made and the meeting was held on 14/02/2020 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|------------------------|------------------|
| 1 | Dr. Raju B R | Professor |
| 2 | Dr.K.Sathish Babu | Professor |
| 3 | Mr. Sandeep K Chavan | Assot. Professor |
| 4 | Mr. Maruthi S B | Asst. Professor |
| 5 | Mr. Deepak U. S | Asst. Professor |
| 6 | Mr. Raviteja R. N | Asst. Professor |
| 7 | Mr.Sapthagiri Prasad N | Asst. Professor |
| 8 | Mr.Prasanna S M | Asst. Professor |
| 9 | Mr. Karthik. K | Asst. Professor |
| 10 | Mr.Shivrudrappa Desai | Asst. Professor |
| 11 | Mr.VikasBevoor | Asst. Professor |
| 12 | Mr.Santhosh K | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

1.HOD, Dr. Raju B R, welcomed all the faculty and explained VTU, EVEN semester regulations.

2.Semester plan for 2019-20 even semester and mentioning the activities planned in the department.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|---------|---|--------------------------------|
| 1 | 15AU831 | Total Quality Management |
| 2 | 17AU653 | Composite Materials |
| 3 | 17AU663 | Non-destructive Testing |
| 4 | 18KVK/KAK/39/49 | Kannada/Constitution of India, |
| | 18CPC39/49 Professional Ethics and Human Righ | |
| 5 | 18MATDIP41 | Additional Mathematics –II |

3. The discussion of the subjects of CBCS given in the above table, selected by the students.

4.Syllabus copy prescribed by the university circulated to the students and faculty.

5. Department announced to conduct the regular seminars to the students.

6.Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

7. Department plans for Field Visit / Industrial Visit.

8. Planning for the Final Year's Project Works / Internships.

9.Mentor mentee list - discussion

10.The following certificate programs will be conducted during 2019 – 2020 EVEN semester.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| SI. No. | Name of the department | Name of the Certificate Program | |
|---------|------------------------|---------------------------------|--|
| 1 | Automobile Engineering | CREO 3.0 | |

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

5R

Professor & Head Department of Automobile Engineering The Oxford College of Engineering Bommanahalli, Hosur Road Bangalore-560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (MTE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 -(ODD)

The department curriculum committee was made and the meeting was held on 14/07/2019 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|------------------------|--------------------|
| 1 | Dr. NB Doddapattar | Professor & HOD |
| 2 | Dr.Shivappa | Professor & HOD |
| 3 | Mr. Rajesh | Asst. Professor |
| 4 | Mr. Rgavendra | Asst. Professor |
| 5 | Mr. Ravi s Jadhav | Asst. Professor |
| 6 | Ms. Rekha | Asst. Professor |
| 7 | Ms. Premela | Asst. Professor |
| 9 | Ms. Vijaykumar kurubha | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 9. HOD, Dr. Yashoda welcomed all the faculty and explained VTU, ODD semester regulations.
- 10. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 11. VTU has introduced Choice Based Credit System (CBCS).



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 12. Syllabus copy prescribed by the university circulated to the students and faculty.
- 13. Department announced to conduct the regular seminars to the students.
- 14. Department plans for Field Visit / Industrial Visit.
- 15. Planning for the Final Year's Project Works / Internships.
- 16. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following certificate programs will be conducted during 2019 - 2020 odd semester

| Sl. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| 1 | | MATLAB |
| 2 | MTE | LEGO |
| 3 | | ROBOTICS |

The following value-added programs will be conducted during 2019 - 2020 odd semester

| Sl. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| | MTE | Soft Skill Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Prof.:& HOD Department of Mechatronics The Oxford College Of Engineering Dominanahalii Bangalore - 00, 228.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (MTE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 - (EVEN)

The department curriculum committee was made and the meeting was held on 01/02/2020 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|------------------------|--------------------|
| 1 | Dr. NB Doddapattar | Professor & HOD |
| 2 | Dr.Shivappa | Professor & HOD |
| 3 | Mr. Rajesh | Asst. Professor |
| 4 | Mr. Rgavendra | Asst. Professor |
| 5 | Mr. Ravi s Jadhav | Asst. Professor |
| 6 | Ms. Rekha | Asst. Professor |
| 7 | Ms. Premela | Asst. Professor |
| 9 | Ms. Vijaykumar kurubha | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 10. HOD, Dr.Yashoda, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 11. Semester plan for 2019-20 even semester and mentioning the activities planned in the department.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 12. Syllabus copy prescribed by the university circulated to the students and faculty.
- 13. Department announced to conduct the regular seminars to the students.
- 14. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 15. Department plans for Field Visit / Industrial Visit.
- 16. Planning for the Final Year's Project Works / Internships.
- 17. Mentor mentee list discussion
- 18. The following certificate programs will be conducted during 2019 2020 EVEN semester

- To achieve VTU Ranks.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Prof.:& HOD Department of Mechatronics The Oxford College Of Engineering Dominanghalii Bangalore - 55, s.28.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MBA- DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 – (ODD)

The department curriculum committee was made and the meeting was held on 23/07/2019 and the following members were present for the meeting.

| SI | NAME | DESIGNATION |
|-----|-----------------------|---------------------|
| no. | | |
| 1. | Dr R V Dhanalakshmi | HOD |
| 2. | Dr.kTaraka Rami Reddy | Professor |
| 3. | Dr Kathiravan | Associate Professor |
| 4. | Dr. R K Prema | Assistant Professor |
| 5. | Ms.Sahana | Assistant Professor |
| 6. | Ms.Sireesha B | Assistant Professor |

Agenda

- 1. Welcome faculty and discussion of new regulation.
- 2. Syllabus copy circulation.
- 3. Plan of Industrial visit.
- 4. Project work.

Summary: Minutes

- 1. HOD, Dr. R V Dhanalakshmi welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. Syllabus copy prescribed by the university circulated to the students and faculty.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 4. Department announced to conduct the regular seminars to the students.
- 5. Department plans for Field Visit/ Industrial Visit.
- 6. Planning for the (Final Year's)Project Works / Internships (with company names and details).
- 7. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

Resolutions:

- 1. Syllabus copy has be discussed and circulated on before 25th July.
- 2. Seminars and presentations by department has to be conducted within 5th august 2019.
- 3. Industrial visit for the study of organization has be done on before 15th august 2019.

1. Al

HOD, Deptt. of Business Administration The Oxford College of Engineering Bommanahalh, Hogur Road Bangalore 569 668



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MBA-DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 – (EVEN)

The department curriculum committee was made and the meeting was held on 10/02/2020 and the following members were present for the meeting.

| Sl no. | NAME | DESIGNATION |
|--------------|-----------------------|---------------------|
| 1. | Dr R V Dhanalakshmi | HOD |
| 2. | Dr.kTaraka Rami Reddy | Professor |
| 3. | Dr Kathiravan | Associate Professor |
| 4. | Dr. R K Prema | Assistant Professor |
| 5. | Ms.Sahana | Assistant Professor |
| 6. | Ms.Sireesha B | Assistant Professor |
| 7. | Ms Padmaja P | Assistant Professor |
| \ a a a da . | | |

Agenda:

- 1. Welcome faculty and regulation discussion.
- 2. Syllabus copy and new regulations.
- 3. Industrial visit.
- 4. Internship and project.

Summary: Minutes

- 1. HOD, Dr. R V Dhanalakshmi welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. Semester plan for 2019-20 even semester and mentioning the activities planned in the department.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 3. Syllabus copy prescribed by the university circulated to the students and faculty.
- 4. Department announced to conduct the regular seminars to the students.
- 5. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 6. Department plans for Field Visit / Industrial Visit.
- 7. Planning for the (Final Year's) Project Works / Internships (with company names and details).
- 8. Mentor mentee list discussion

Resolutions:

- 1. Syllabus has to be circulated before 12th Feb.
- 2. Seminars and other activities plan by all faculty should be submit on before 20thFeb.
- 3. Project work /Internship topic should be finalised within 22nd Feb.
- 4. Students and mentee meeting and report of feedback on before 20th Feb.

1. All

HOD, Deptt. of Business Administration The Oxford College of Engineering Bommanahalli, Hosur Road Bangalore 500 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (MCA)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 - (ODD)

The department curriculum committee was made and the meeting was held on 26/07/2019 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|-----------------------|------------------|
| 1 | Dr. M S Shashidhara | Professor |
| 2 | Dr. Praveen Kumar P U | Professor |
| 3 | Dr.Susil Kumar Sahu | Professor |
| 4 | Mr.Ashok B P | Assot. Professor |
| 5 | Mr. Dharamvir | Assot. Professor |
| 6 | Mr. JC Achutha | Assot. Professor |
| 7 | Mrs. Saritha S | Assot. Professor |
| 8 | Mrs. Mridula Shukla | Assot. Professor |
| 9 | Mrs. Selvi E | Assot. Professor |
| 10 | Ms. R Ushasree | Asst. Professor |
| 11 | Mr. Changappa M R | Asst. Professor |
| 12 | Mr. Indrakumar S S | Asst. Professor |
| 13 | Mrs. Stuti Agarwal | Asst. Professor |
| 14 | T Sreevani | Asst. Professor |
| 15 | Divyasree Nayak | Asst. Professor |
| 16 | Mr. Chandran M | Asst. Professor |
| 17 | Mrs.Selastina Mary A | Asst. Professor |
| 18 | Mrs.Moumita Kali | Asst. Professor |

Agenda:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 9. HOD, Dr. M S Shashidhara welcomed all the faculty and explained VTU, ODD semester regulations.
- 10. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 11. VTU has introduced Choice Based Credit System (CBCS).
- 12. Syllabus copy prescribed by the university circulated to the students and faculty.

| SI. No. | CBCS ELECTIVE/MATDIP | | | | | |
|---------|----------------------|--|--|--|--|--|
| 1 | 18MCA46 | Professional Communication & Report Writing | | | | |
| 2 | 18MCA53 | Machine Learning | | | | |
| 3 | 18MCA542 | Computer Graphics | | | | |
| 4 | 18MCA543 | Image Processing | | | | |

- 13. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.
- 14. Department announced to conduct the regular seminars to the students.
- 15. Department plans for Field Visit / Industrial Visit.
- 16. Planning for the Final Year's Project Works / Internships.
- 17. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 18. The following certificate programs will be conducted during 2019 2020 EVEN semester

| SI. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| | | |



 (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

 1
 MCA

The following value-added programs will be conducted during 2019 – 2020 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 19. | MCA | Soft Skill Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Signature of the HOD Dr. M.S.Shashidhara Dept. of MCA



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (MCA)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 - (EVEN)

The department curriculum committee was made and the meeting was held on 19/02/2020 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|-----------------------|------------------|
| 1 | Dr. M S Shashidhara | Professor |
| 2 | Dr. Praveen Kumar P U | Professor |
| 3 | Dr.Susil Kumar Sahu | Professor |
| 4 | Mr.Ashok B P | Assot. Professor |
| 5 | Mr. Dharamvir | Assot. Professor |
| 6 | Mr. JC Achutha | Assot. Professor |
| 7 | Mrs. Saritha S | Assot. Professor |
| 8 | Mrs. Mridula Shukla | Assot. Professor |
| 9 | Mrs. Selvi E | Assot. Professor |
| 10 | Ms. R Ushasree | Asst. Professor |
| 11 | Mr. Changappa M R | Asst. Professor |
| 12 | Mr. Indrakumar S S | Asst. Professor |
| 13 | Mrs. Stuti Agarwal | Asst. Professor |
| 14 | T Sreevani | Asst. Professor |
| 15 | Divyasree Nayak | Asst. Professor |
| 16 | Mr. Chandran M | Asst. Professor |
| 17 | Mrs.Selastina Mary A | Asst. Professor |
| 18 | Mrs.Moumita Kali | Asst. Professor |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1. HOD, Dr. M S Shashidhara, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 2. Semester plan for 2019-20 even semester and mentioning the activities planned in the department.

| SI. No. | CBCS ELECTIVE/MATDIP | | | | | |
|---------|----------------------|-------------------------------------|--|--|--|--|
| 1 | 18MCA46 | Professional Communication & Report | | | | |
| | | Writing | | | | |
| 2 | 18MCA53 | Machine Learning | | | | |
| 3 | 18MCA542 | Computer Graphics | | | | |
| 4 | 18MCA543 | Image Processing | | | | |

- 3. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Mentor mentee list discussion

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Signature of the HOD

Signature of the HOD Dr. M.S.Shashidhara Dept. of MCA



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

List and Description of courses (1) Subject, (2) Subject Code, (3) Curriculum Objective, (4) Delivery Methodology with Number of hours, (5) PO, PSO, CO Mapping, (6) Crosscutting Issues Integrated which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Dept. of Computer Science & Engineering

2019-20

| | | | VISVESVARAYA TECH | NOLOGICAL U | NIVERS | ITY, BE | LAGA | VI | | | | |
|-------|--|---------|---|------------------------|--|-----------|-----------------------|-------------------|-----------|-----------|-------------|---------|
| | | | Scheme of Teach | ing and Exami | nation | 2018 - | - 19 | | | | | |
| | | C | hoice Based Credit System ((| CBCS) AND Ou | tcome | Based | Educa | tion (| (OBE) | | | |
| | (Effective from the academic year 2018 – 19) | | | | | | | | | | | |
| III S | III SEMESTER | | | | | | | | | | | |
| | | | | | Teachin | g Hours / | 'Week | | Exam | ination | | |
| sı. | Co | urse | Course | Teaching Department | Theory Lecture | Tutorial | Practical/ Drawing | Duration in hours | | S | ks | s |
| No | and | I | | Teaching Departmen | L | т | Р | tion | CIE Marks | SEE Marks | Total Marks | Credits |
| | Cou | ırse | Title | Te Dep | | | Р | urat | Σ | ≥ E | tal | ō |
| | | | | - | | | | ā | Ū | SE | To | |
| | Coc | le | Transform Calculus, Fourier | | | | | | | | | |
| 1 | BSC | 18MAT31 | Series And Numerical Techniques | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18CS32 | Data Structures and Applications | CS / IS | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18CS33 | Analog and Digital Electronics | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18CS34 | Computer Organization | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18CS35 | Software Engineering | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18CS36 | Discrete Mathematical Structures | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18CSL37 | Analog and Digital Electronics Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18CSL38 | Data Structures Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18KVK39 | Vyavaharika Kannada (Kannada for communication)/ | | | | | | | | | |
| | | 18KAK39 | Aadalitha Kannada (Kannada for Administration) | | - | 2 | - | | 100 | | | |
| 9 | HSMC | OR | OR | HSMC | - | | - | | | | 100 | 1 |
| | | UK | - | | | | | | | | 100 | - |
| | | 180000 | Constitution of India, | | 1 | | | 02 | 40 | 60 | | |
| | | 18CPC39 | Professional Ethics and Cyber Law | | Examination is by objective type questions | | | | | | | |
| | | | | | 17 | 08 | | 24 | 420 | 480 | | |
| | TOTAL OR OR OR OR OR OR OR | | | | | | 900 | 24 | | | | |
| | TOTAL 18 10 04 26 360 540 900 | | | | | | | 900 | 24 | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi.

Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B. E. Common to all Programmes

Outcome Based Education (OBE) and Choice Based Credit System (CBCS)

SEMESTER - III

| CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND CYBER LAW (CPC) | | | | | | |
|--|------------|------------|----|--|--|--|
| Course Code | 18CPC39/49 | CIE Marks | 40 | | | |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | |
| Credits | 01 | Exam Hours | 02 | | | |

Course Learning Objectives: To

• know the fundamental political codes, structure, procedures, powers, and duties of Indian government institutions, fundamental rights, directive principles, and the duties of citizens

- Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety.
- Know about the cybercrimes and cyber laws for cyber safetymeasures.

Module-1

Introduction to Indian Constitution:

The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, The Making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) and its present relevance in our society with examples. Fundamental Duties and its Scope and significance in Nation building.

Module-2

Union Executive and State Executive:

Parliamentary System, Federal System, Centre-State Relations. Union Executive – President, Prime Minister, Union Cabinet, Parliament - LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Articles 370.371,371J) for some States.

Module-3

Elections, Amendments and Emergency Provisions:

Elections, Electoral Process, and Election Commission of India, Election Laws. Amendments - Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments – 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Emergency Provisions, types of Emergencies and itsconsequences.

Constitutional special provisions:

Special Provisions for SC and ST, OBC, Women, Children and Backward Classes.

Module-4

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be able to,

CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
 - For the award of 40 CIE marks, refer the University regulations2018.

| SI. No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year |
|------------|-------------------------------|-------------------------|--------------------------|------------------|
| Textboo | ok/s | | | |
| 1 | Constitution of India, | Shubham Singles, | | 2018 |
| | Professional Ethics and Human | Charles E. Haries, | Cengage Learning | |
| | Rights | and et al | India | |
| 2 | Cyber Security and Cyber Laws | Alfred Basta and et | Cengage Learning | 2018 |
| | | al | India | |
| Referen | ce Books | | | |
| 3 | Introduction tothe | Durga Das Basu | Prentice – Hall, | 2008. |
| | Constitution of India | | | |
| 4 | Engineering Ethics | M. Govindarajan, S. | Prentice – Hall, | 2004 |
| | | Natarajan, V. S. | | |
| | | Senthilkumar | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | | bice Based Credit System (Cl Effective from tl) | • | | | | | , | | | |
|-----------|---------------|----------------------|--|---|-------------------|------------------|-----------------------|----------------------|-----------|-----------|-------------|----|
| | NESTER | | (Effective from th | ne academic yea | 11 201 | 0-1 | 9) | | | | | |
| 02. | | | | | | hing Ho 'Week | ours | | Exam | ination | | |
| SI. No | Cor and | urse | Course | Teaching Department | Theory Lecture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Total Marks | |
| | Cou cod | irse e | Title | | L | т | Р | G B | SE | To | | |
| 1 | HSMC | 18CS51 | Management, Entrepreneurship for IT idustry | HSMC | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18CS52 | Computer Networks and Security | CS / IS | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18CS53 | Database Management System | CS / IS | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 4 | PCC | 18CS54 | Automata theory and Computability | CS / IS | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18CS55 | Application Development using Python | CS / IS | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18CS56 | Unix Programming | CS / IS | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18CSL57 | Computer Network Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18CSL58 | DBMS Laboratory with mini project | CS / IS | - | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 9 | нѕмс | <mark>18CIV59</mark> | Environmental Studies | Civil/ Environmental [Paper setting: Civil Engineering Board] | 1 | - | | 02 | 40 | 60 | 100 | 1 |
| | | | | TOTAL | 18 | 10 | 04 | 26 | 360 | 540 | 900 | 25 |

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B. E. COMMON TO ALL PROGRAMMES

Choice Based Credit System (CBCS) and Outcome Based Education

(OBE) SEMESTER – V

ENVIRONMENTAL

STUDIES

| 18CIV59 | CIE Marks | 40 |
|---------|------------|-------------------|
| (1:0:0) | SEE Marks | 60 |
| 01 | Exam Hours | 02 |
| | (1:0:0) | (1:0:0) SEE Marks |

Module - 1

Ecosystems (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake. **Biodiversity:** Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation.

Module - 2

Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind.

Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud

Seeding, and Carbon Trading.

Module - 3

Environmental Pollution (Sources, Impacts, Corrective and Preventive measures, Relevant

Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil Pollution and AirPollution.

Waste Management & Public Health Aspects: Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes;

Industrial and Municipal Sludge.

Module - 4

Global Environmental Concerns (Concept, policies and case-studies):Ground water depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.

Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship-NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to theenvironment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| Sl.No. | Title of the Book | Name of the | Name of the Publisher | Edition and Year |
|---------|--|---|---|---|
| | | Author/s | | |
| Textboo | ok/s | | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 |
| Referer | ice Books | | | |
| 1 | Principals of Environmental Science and Engineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Information Science & Engineering

Scheme

| | | | Outcome Based Education (OBE | • | | • | | .5) (LII | ective | | | |
|--------------|-------------------|----------------------|--|------------------------|------------------|----------|-----------|---------------|-----------|-----------|-------------|---------|
| I SF | MESTER | | from the | e academic year 2 | 2018 - 1 | 9) | | | | | | |
| J | | | | | Teachii /Week | ng Hours | | | Exan | nination | | |
| 5 1 . | | burse | Course | Teaching Department | Theory | Tutorial | Practical | Duration in | irks | SEE Marks | Total Marks | Credite |
| lo | an | | Title | e pa | L | т | Р | rati | CIE Marks | ŝ | al N | a.C |
| | Co | urse | | ' ă | - | • | ſ | Du | CE | SEE | Tot | |
| | Co | de | | | | | | | | | | |
| 1 | BSC | 18MAT31 | Transform Calculus, Fourier Series And Numerical Techniques | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18CS32 | Data Structures and Applications | CS / IS | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18CS33 | Analog and Digital Electronics | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18CS34 | Computer Organization | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18CS35 | Software Engineering | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18CS36 | Discrete Mathematical Structures | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18CSL37 | Analog and Digital Electronics Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18CSL38 | Data Structures Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18KVK39 18KAK39 | Vyavaharika Kannada (Kannada for communication)/ Aadalitha Kannada (Kannada for Administration) | | | 2 | 1 | 1 | 100 | | | |
| 9 | <mark>HSMC</mark> | OR | OR | <mark>HSMC</mark> | | | | | | | 100 | 1 |
| | | | Constitution of India, | | 1 | | | 02 | 40 | 60 | | |
| | | <mark>18CPC39</mark> | Professional Ethics and Cyber Law | | Exam gues | | s by o | bjective type | | | | |
| | | | Law | | 17 | 08 | | 24 | 420 | 480 | | |
| | | | | | OR | OR | | OR | OR | OR | | |
| | | | | TOTAL | 18 | 10 | 04 | 26 | 360 | 540 | 900 | 24 |
| ote | : BSC: Bas | sic Science, PC | CC: Professional Core, HSMC: Huma | nity and Social Sci | ence. NC | MC: Non | -cred | t man | datory co | ourse | | |

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

Scheme of Teaching and Examination 2018 – 19

Outcome Based Education (OBE) and Choice Based Credit System (CBCS) (Effective

from the academic year 2018 – 19)

IV SEMESTER



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | | | nncipalætneoxi | Teachi | ng Hours | | | | nination | | |
|--|---|--|---|--|--|---|--|---|--|--|--|--|
| SI. No | an Co | ourse Id ourse ode | Course Title | Teaching Department | /Week ↓ ⊥ ↓ L | L Tutorial | ъ Рractical | Duration in | CIE Marks | SEE Marks | Total Marks | Credits |
| 1 | BSC | 18MAT41 | Complex Analysis, Probability And Statistical Methods | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18CS42 | Design and Analysis of Algorithms | CS / IS | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18CS43 | Operating Systems | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18SC44 | Microcontroller and Embedded Systems | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18CS45 | Object Oriented Concepts | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18CS46 | Data Communication | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18CSL47 | Design and Analysis of Algorithm Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18CSL48 | Microcontroller and Embedded Systems Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18KVK49 | Vyavaharika Kannada (Kannada for communication)/ | | | | | | | | | |
| 9 | | <mark>18KAK49</mark> | Aadalitha Kannada (Kannada for Administration) | | - | 2 | | | 100 | | | |
| | | | OR | <mark>HSMC</mark> | | | | | | | 100 | 1 |
| | <mark>HSMC</mark> | OR | | | | | | Constitution of India,1024060Professional Ethics and CyberExamination is by objective type | | | | |
| | HSMC | OR 18CPC39 | Constitution of India, Professional Ethics and Cyber | | Exan | | s by c | - | - | 60 | | |
| | HSMC | | Constitution of India, | | Exan | nination i tions 08 | s by c | - | - | 60 480 | | |
| | HSMC | | Constitution of India, Professional Ethics and Cyber | | Exan ques | tions | | bjectiv | ve type | | | |
| | HSMC | | Constitution of India, Professional Ethics and Cyber | TOTAL | Exan ques 17 | tions 08 | s by c 04 | bjectiv 24 | ve type 420 | 480 | 900 | 24 |
| 18K\ | : BSC: Ba | 18CPC39 sic Science, PC vaharika Kann nada for Admi | Constitution of India, Professional Ethics and Cyber Law C: Professional Core, HSMC: Huma ada (Kannada for communication) i nistration) is for students who spec | nity and Social Sc is for non-Kannad ak, read and write | Exan ques 17 OR 18 ence, NC a speakin Kannada | tions 08 0R 10 CMC: Non g, readin a. | 04 -cred g and | 24 OR 26 it man writin | 420 OR 360 datory co g studen | 480 OR 540 Durse ts and 18 | | |
| 18KV Kann | e: BSC: Ba / K49 Vyav hada (Kani | 18CPC39 sic Science, PC vaharika Kann nada for Admi Course pre | Constitution of India, Professional Ethics and Cyber Law CC: Professional Core, HSMC: Huma ada (Kannada for communication) in inistration) is for students who spec scribed to lateral entry Diploma | nity and Social Sci is for non-Kannad ak, read and write holders admitted | Exan ques 17 OR 18 ence, NC a speakin Kannada | tions 08 0R 10 CMC: Non g, readin a. | 04 -cred g and | 24 OR 26 it man writin | 420 OR 360 datory cc g studen | 480 OR 540 Durse ts and 18 rams | 3KAK49 / | Aadalitha |
| 18K\ | : BSC: Ba | 18CPC39 sic Science, PC vaharika Kann nada for Admi | Constitution of India, Professional Ethics and Cyber Law C: Professional Core, HSMC: Huma ada (Kannada for communication) i nistration) is for students who spec | nity and Social Sc is for non-Kannad ak, read and write | Exan ques 17 OR 18 ence, NC a speakin Kannada | tions 08 0R 10 CMC: Non g, readin a. | 04 -cred g and | 24 OR 26 it man writin | 420 OR 360 datory co g studen | 480 OR 540 Durse ts and 18 | | |
| 18KV Kann 10 (a) Th hold the c of th subs | E: BSC: Bai IK49 Vyav hada (Kan NCMC NCMC ne manda ers admit course and e prescrit equent se heseCour | sic Science, PC raharika Kann nada for Admi Course pre 18MATDIP2 tory non – cre ted to III seme d appear for t ped CIE marks emester/s to a rsesshallnotbe | Constitution of India, Professional Ethics and Cyber Law CC: Professional Core, HSMC: Huma ada (Kannada for communication) i inistration) is for students who spea scribed to lateral entry Diploma 1 Additional Mathematics - II dit courses Additional Mathematics ester of BE/B.Tech programs, shall a he University examination. In case, , he/she shall be deemed to have | nity and Social Sci is for non-Kannada ak, read and write holders admitted Mathematics a I and II prescribe attend the classes any student fails secured F grade. I putcompletionofth | Exan ques 17 OR 18 ence, NC a speakin Kannada d to III se 02 d for III an during th to regist n such a necourses | tions 08 0R 10 MC: Non g, readin a. mester (01 mester (01 mester (of the case, the case, the case, the case) | 04 -cred g and of Eng ester tive se said e stud | 24 OR 26 it man writin gineer 03 s respe emeste course ent ha toryfo | 420 OR 360 datory co g studen ing prog 40 ectively, t ers to cor c/ fails to ve to full rtheawa | 480 OR 540 Durse ts and 18 rams 60 to the late nplete al secure t fil the ree rdofdegre | 3KAK49 A 100 eral entr I the forr he minir quiremen | Aadalitha 0 y Diploma nalities of num 40 % |

| VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI | | | | | | | |
|---|--|------------------|----------|-------------|--|--|--|
| Scheme of Teaching and Examination 2018 – 19 | | | | | | | |
| Outco | Outcome Based Education (OBE) and Choice Based Credit System (CBCS) (Effective | | | | | | |
| | from the ac | ademic year 2018 | – 19) | | | | |
| V SEMESTER | | | | | | | |
| | | | Teaching | | | | |
| | | | Hours | Examination | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | | | | / | Week | | | | | | |
|---------|-------------------|----------------------|--|---|-------------------|----------|----------------|----------------------|-----------|-----------|-------------|-----------|
| SI N | and | urse | Course Title | | Theory Lecture | Tutorial | Practical / | Duration in hours | CIE Marks | SEE Marks | Total Marks | |
| 0 | cod | le | | | L | т | Р | D | C | S | Ţ | |
| 1 | HSMC | 18CS51 | Management, Entrepreneurship for IT Industry | HSMC | 2 | 2 | | 03 | 40 | 60 | 10 0 | 3 |
| 2 | PCC | 18CS52 | Computer Networks and Security | CS / IS | 3 | 2 | | 03 | 40 | 60 | 10 0 | 4 |
| 3 | PCC | 18CS53 | Database Management System | CS / IS | 3 | 2 | | 03 | 40 | 60 | 10 0 | 4 |
| 4 | PCC | 18CS54 | Automata theory and Computability | CS / IS | 3 | | | 03 | 40 | 60 | 10 0 | 3 |
| 5 | PCC | 18CS55 | Application Development using Python | CS / IS | 3 | | | 03 | 40 | 60 | 10 0 | 3 |
| 6 | PCC | 18CS56 | Unix Programming | CS / IS | 3 | | | 03 | 40 | 60 | 10 0 | 3 |
| 7 | PCC | 18CSL57 | Computer Network Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 10 0 | 2 |
| 8 | PCC | 18CSL58 | DBMS Laboratory with mini project | <mark>CS / IS</mark> | | 2 | 2 | 03 | 40 | 60 | 10 0 | 2 |
| 9 | <mark>HSMC</mark> | <mark>18CIV59</mark> | Environmental Studies | Civil/ Environmental [Paper setting: Civil Engineering Board] | 1 | | | 02 | 40 | 60 | 100 | 1 |
| | | | | TOTAL | 18 | 10 | 0 4 | 26 | 36 0 | 54 0 | 90 0 | 25 |
| Note | : PCC: Profe | essional Core, | HSMC: Humanity and Social Scien | nce. | | | | | | | | |
| | | | students fail to earn the prescribed ents shall be admitted for the award | | | | | | | | | rning the |

| Outcome Based E | B. E. Common to all Pro ducation (OBE) and Choice SEMESTER - III | - | S) |
|---|--|--------------------|----------------|
| CONSTITUTION OF IND | A, PROFESSIONAL ETHICS A | ND CYBER LAW (CPC) | |
| Course Code | 18CPC39/49 | CIE Marks | 40 |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| Course Learning Objectives: To | | | C • • • |
| • | plitical codes, structure, pro- fundamental rights, directiv | · · · | |
| - | ethics and their responsibilit | | |
| ethical responsibilities to | wardssociety. | | |
| Know about the cybercri | mes and <mark>cyber laws</mark> for cybe | er safetymeasures. | |

Module-1



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Introduction to Indian Constitution:

The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, The Making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) and its present relevance in our

society with examples. Fundamental Duties and its Scope and significance in Nation building.

Module-2

Union Executive and State Executive:

Parliamentary System, Federal System, Centre-State Relations. Union Executive – President, Prime Minister, Union Cabinet, Parliament - LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Articles

370.371,371J) for some States.

Module-3

Elections, Amendments and Emergency Provisions:

Elections, Electoral Process, and Election Commission of India, Election Laws. Amendments - Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments – 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Emergency Provisions, types of Emergencies and itsconsequences.

Constitutional special provisions:

Special Provisions for SC and ST, OBC, Women, Children and Backward Classes.

Module-4

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be

able to, CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. | Title of the Book | Name of | Name of | Edition and Year |
|---------|-------------------|----------|-----------|------------------|
| No. | | the | the | |
| | | Author/s | Publisher | |
| Textboo | k/s | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theorford.edu Web: www.theorfordengo.org

| | Esta. 1974 E-mail: e | ngprincipal@theoxford.edu | web: www.theoxforde | ngg.org |
|---------|-------------------------------|---------------------------|---------------------|---------|
| 1 | Constitution of India, | Shubham | | 2018 |
| | Professional Ethics and | Singles, Charles | Cengage | |
| | <mark>Human Rights</mark> | E. Haries, and et | Learning India | |
| | | al | | |
| 2 | Cyber Security and Cyber Laws | Alfred Basta and | Cengage | 2018 |
| | | et al | Learning India | |
| Referen | ice Books | | | |
| 3 | Introduction tothe | Durga Das Basu | Prentice – Hall, | 2008. |
| | Constitution of India | | | |
| 4 | Engineering Ethics | M. Govindarajan, S. | Prentice – Hall, | 2004 |
| | | Natarajan, V. | | |
| | | S. | | |
| | | Senthilkumar | | |

| | COMMON TO ALL PRO | GRAMMES | | | | | | |
|---|---------------------------|------------------------------|--------------------------------|--|--|--|--|--|
| Choice Based Credit System (CBCS) and Outcome Based Education | | | | | | | | |
| | (OBE) SEMESTER – V | | | | | | | |
| | ENVIRONMENTA | ۱ <mark>۱</mark> | | | | | | |
| Course Code | STUDIES 18CIV59 | CIE Marks | 40 | | | | | |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | | | |
| Credits | 01 | Exam Hours | 02 | | | | | |
| Module - 1 | 01 | Examinours | 02 | | | | | |
| | · Forest Desert Matler | de Diverine Oceanie and I | | | | | | |
| Ecosystems (Structure and Function) | | | | | | | | |
| Biodiversity: Types, Value; Hot-spots | ; Threats and Conservat | ion of biodiversity, Forest | Wealth, and | | | | | |
| Deforestation. | | | | | | | | |
| Module - 2 | | | | | | | | |
| Advances in Energy Systems (Merits, | , Demerits, Global Status | s and Applications): Hydro | gen, Solar, OTEC, | | | | | |
| Tidal and Wind. | | | | | | | | |
| Natural Resource Management (Con | cept and case-studies): | Disaster Management, Su | stainable Mining, | | | | | |
| Cloud | | | | | | | | |
| Seeding, and Carbon Trading. | | | | | | | | |
| Module - 3 | | | | | | | | |
| Environmental Pollution (Sources, In | • | | | | | | | |
| Environmental Acts, Case-studies): Su | urface and Ground Wate | er Pollution; Noise pollutio | n; Soil <mark>Pollution</mark> | | | | | |
| and AirPollution. | | | | | | | | |
| Waste Management & Public Health | Aspects: Bio-medical W | Vastes; Solid waste; Hazaro | dous wastes; E- | | | | | |
| wastes; | | | | | | | | |
| Industrial and Municipal Sludge. | | | | | | | | |
| Module - 4 | | | | | | | | |
| Global Environmental Concerns (Cor | | | | | | | | |
| Climate Change; Acid Rain; Ozone De | • | ride problem in drinking w | ater; Resettlemen | | | | | |
| and rehabilitation of people, Environ | mental Toxicology. | | | | | | | |
| Module - 5 | | | | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship- NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to the environment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| Sl.No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year |
|--------|--|---|---|---|
| Textbo | ok/s | | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 |
| Refere | nce Books | | | |
| 1 | Principals of Environmental Science and Engineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Electronics & Communication Engineering

| | B. E. Common to all Pr | ogrammes | |
|---|--|--|--|
| Outcome Based F | Education (OBE) and Choice | Based Credit System | (CBCS) |
| | SEMESTER - II | | |
| | DIA, PROFESSIONAL ETHICS | AND CYBER LAW (CPC |) |
| Course Code | 18CPC39/49 | CIE Marks | |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Mark | s 60 |
| Credits | 01 | Exam Hou | ırs 02 |
| Course Learning Objectives: To | | | |
| know the fundamental p | olitical codes, structure, pro | ocedures, powers, and | duties of Indian |
| government institutions, | , <mark>fundamental rights</mark> , directi | ve principles, and the | duties ofcitizens |
| Understand engineering | ethics and their responsibil | ities; identify their indi | vidual roles and |
| ethical responsibilities to | owardssociety. | | |
| Know about the cybercr | rimes and <mark>cyber laws</mark> for cyb | er safetymeasures. | |
| Module-1 | · · · | • | |
| Introduction to Indian Constitut | ion: | | |
| The Necessity of the Constitution | n, The Societies before and | after the Constitution | adoption. Introductio |
| to the Indian constitution, The | | | • |
| Preamble and Salient features of | - | | |
| | | | anu nis nestriction an |
| | | | |
| limitations in different Complex | | | |
| limitations in different Complex relevance in our | Situations. Directive Princ | ciples of State Policy | (DPSP) and its presen |
| limitations in different Complex | Situations. Directive Princ | ciples of State Policy | (DPSP) and its presen |
| limitations in different Complex relevance in our society with examples. Fundame Module-2 | Situations. Directive Print ental Duties and its Scope ar | ciples of State Policy | (DPSP) and its presen |
| limitations in different Complex relevance in our society with examples. Fundame Module-2 Union Executive and State Execu | Situations. Directive Print ental Duties and its Scope ar utive: | ciples of State Policy | (DPSP) and its presen n building. |
| limitations in different Complex relevance in our society with examples. Fundame Module-2 Union Executive and State Execu Parliamentary System, Federal | Situations. Directive Print ental Duties and its Scope ar utive: System, Centre-State Relation | ciples of State Policy ad significance in Natio ations. Union Executiv | (DPSP) and its presen n building. ve – President, Prim |
| limitations in different Complex relevance in our society with examples. Fundame Module-2 Union Executive and State Execut Parliamentary System, Federal Minister, Union Cabinet, Parlian | Situations. Directive Prince Initial Duties and its Scope ar Initial Duties Initial Duties | ciples of State Policy ad significance in Natio ations. Union Executiv entary Committees, Im | (DPSP) and its preser n building. ve – President, Prim nportant Parliamentar |
| limitations in different Complex relevance in our society with examples. Fundame Module-2 Union Executive and State Execu Parliamentary System, Federal Minister, Union Cabinet, Parlian Terminologies. Supreme Court of | k Situations. Directive Prink ental Duties and its Scope ar utive: System, Centre-State Rela ment - LS and RS, Parliame f India, Judicial Reviews and | ciples of State Policy ad significance in Natio ations. Union Executiv entary Committees, Im Judicial Activism. State | (DPSP) and its presen n building. ve – President, Prim nportant Parliamentar Executives–Governo |
| limitations in different Complex relevance in our society with examples. Fundame Module-2 Union Executive and State Execu Parliamentary System, Federal Minister, Union Cabinet, Parlian Terminologies. Supreme Court of Chief Minister, State Cabinet, St | k Situations. Directive Prink ental Duties and its Scope ar utive: System, Centre-State Rela ment - LS and RS, Parliame f India, Judicial Reviews and | ciples of State Policy ad significance in Natio ations. Union Executiv entary Committees, Im Judicial Activism. State | (DPSP) and its presen n building. ve – President, Prim nportant Parliamentar Executives–Governo |
| limitations in different Complex relevance in our society with examples. Fundame Module-2 Union Executive and State Execu Parliamentary System, Federal Minister, Union Cabinet, Parlian Terminologies. Supreme Court of Chief Minister, State Cabinet, St (Articles | k Situations. Directive Prink ental Duties and its Scope ar utive: System, Centre-State Rela ment - LS and RS, Parliame f India, Judicial Reviews and | ciples of State Policy ad significance in Natio ations. Union Executiv entary Committees, Im Judicial Activism. State | (DPSP) and its presen n building. ve – President, Prim nportant Parliamentar Executives–Governo |
| limitations in different Complex relevance in our society with examples. Fundame Module-2 Union Executive and State Execu Parliamentary System, Federal Minister, Union Cabinet, Parlian Terminologies. Supreme Court of Chief Minister, State Cabinet, St (Articles 370.371,371J) for some States. | k Situations. Directive Prink ental Duties and its Scope ar utive: System, Centre-State Rela ment - LS and RS, Parliame f India, Judicial Reviews and | ciples of State Policy ad significance in Natio ations. Union Executiv entary Committees, Im Judicial Activism. State | (DPSP) and its presen n building. ve – President, Prim nportant Parliamentar Executives–Governo |
| limitations in different Complex relevance in our society with examples. Fundame Module-2 Union Executive and State Execu Parliamentary System, Federal Minister, Union Cabinet, Parlian Terminologies. Supreme Court of Chief Minister, State Cabinet, St (Articles 370.371,371J) for some States. Module-3 | k Situations. Directive Prink ental Duties and its Scope ar utive: System, Centre-State Rela ment - LS and RS, Parliame f India, Judicial Reviews and tate Legislature, High Cour | ciples of State Policy ad significance in Natio ations. Union Executiv entary Committees, Im Judicial Activism. State | (DPSP) and its presen n building. ve – President, Prim nportant Parliamentar Executives–Governo |
| limitations in different Complex relevance in our society with examples. Fundame Module-2 Union Executive and State Execu Parliamentary System, Federal Minister, Union Cabinet, Parlian Terminologies. Supreme Court of Chief Minister, State Cabinet, St (Articles 370.371,371J) for some States. Module-3 Elections, Amendments and Eme | k Situations. Directive Prink ental Duties and its Scope ar utive: System, Centre-State Rela ment - LS and RS, Parliame f India, Judicial Reviews and tate Legislature, High Cour ergency Provisions: | ciples of State Policy ad significance in Natio ations. Union Executiv entary Committees, Im Judicial Activism. State t and Subordinate Co | (DPSP) and its presen n building. ve – President, Prim nportant Parliamentar Executives – Governo urts, Special Provision |
| limitations in different Complex relevance in our society with examples. Fundame Module-2 Union Executive and State Execu Parliamentary System, Federal Minister, Union Cabinet, Parlian Terminologies. Supreme Court of Chief Minister, State Cabinet, St (Articles 370.371,371J) for some States. Module-3 Elections, Amendments and Eme Elections, Electoral Process, and | A Situations. Directive Print ental Duties and its Scope ar utive: System, Centre-State Rela ment - LS and RS, Parliame f India, Judicial Reviews and tate Legislature, High Cour ergency Provisions: Election Commission of Ind | ciples of State Policy ad significance in Natio ations. Union Executiv entary Committees, Im Judicial Activism. State t and Subordinate Cou | (DPSP) and its presen n building. ve – President, Prim portant Parliamentar Executives – Governo urts, Special Provision |
| limitations in different Complex relevance in our society with examples. Fundame Module-2 Union Executive and State Execu Parliamentary System, Federal Minister, Union Cabinet, Parlian Terminologies. Supreme Court of Chief Minister, State Cabinet, St (Articles 370.371,371J) for some States. Module-3 Elections, Amendments and Eme Elections, Electoral Process, and Constitutional Amendments (Hor | A Situations. Directive Print ental Duties and its Scope ar utive: System, Centre-State Rela- ment - LS and RS, Parliame f India, Judicial Reviews and tate Legislature, High Cour ergency Provisions: Election Commission of Ind w and Why) and Important | ations. Union Executiventary Committees, Im Judicial Activism. State t and Subordinate Con dia, Election Laws. Ame Constitutional Amend | (DPSP) and its presen n building. ve – President, Prim portant Parliamentar Executives – Governo urts, Special Provision endments - Methods i ments. Amendments |
| limitations in different Complex relevance in our society with examples. Fundame Module-2 Union Executive and State Execu Parliamentary System, Federal Minister, Union Cabinet, Parlian Terminologies. Supreme Court of Chief Minister, State Cabinet, St (Articles 370.371,371J) for some States. Module-3 Elections, Amendments and Eme Elections, Electoral Process, and Constitutional Amendments (Hor 7,9,10,12,42,44, 61, 73,74, ,75, | k Situations. Directive Prink ental Duties and its Scope ar utive: System, Centre-State Rela- ment - LS and RS, Parliame f India, Judicial Reviews and tate Legislature, High Cour ergency Provisions: Election Commission of Ind w and Why) and Important 86, and 91,94,95,100,101, | ciples of State Policy ad significance in Natio ations. Union Executiv entary Committees, Im Judicial Activism. State t and Subordinate Con dia, Election Laws. Ame Constitutional Amend 118 and some imp | (DPSP) and its preser n building. ve – President, Prim portant Parliamentar Executives – Governo urts, Special Provision endments - Methods i ments. Amendments |
| limitations in different Complex relevance in our society with examples. Fundame Module-2 Union Executive and State Execut Parliamentary System, Federal Minister, Union Cabinet, Parlian Terminologies. Supreme Court of Chief Minister, State Cabinet, St (Articles 370.371,371J) for some States. Module-3 Elections, Amendments and Eme Elections, Electoral Process, and Constitutional Amendments (Hor 7,9,10,12,42,44, 61, 73,74, ,75, Emergency Provisions, types of E | k Situations. Directive Prink ental Duties and its Scope ar utive: System, Centre-State Rela- ment - LS and RS, Parliame f India, Judicial Reviews and tate Legislature, High Cour ergency Provisions: Election Commission of Ind w and Why) and Important 86, and 91,94,95,100,101, Emergencies and itsconsequ | ciples of State Policy ad significance in Natio ations. Union Executiv entary Committees, Im Judicial Activism. State t and Subordinate Con dia, Election Laws. Ame Constitutional Amend 118 and some imp | (DPSP) and its presen n building. ve – President, Prim portant Parliamentar Executives – Governo urts, Special Provision endments - Methods i ments. Amendments |
| limitations in different Complex relevance in our society with examples. Fundame Module-2 Union Executive and State Execu Parliamentary System, Federal Minister, Union Cabinet, Parliam Terminologies. Supreme Court of Chief Minister, State Cabinet, St (Articles 370.371,371J) for some States. Module-3 Elections, Amendments and Eme Elections, Electoral Process, and Constitutional Amendments (Hor 7,9,10,12,42,44, 61, 73,74, ,75, | A Situations. Directive Print ental Duties and its Scope ar utive: System, Centre-State Rela- ment - LS and RS, Parliame f India, Judicial Reviews and tate Legislature, High Cour ergency Provisions: Election Commission of Ind w and Why) and Important 86, and 91,94,95,100,101, Emergencies and itsconsequ s: | ciples of State Policy of ad significance in Natio ations. Union Executiv entary Committees, Im Judicial Activism. State t and Subordinate Con dia, Election Laws. Ame Constitutional Amend 118 and some imp ences. | (DPSP) and its presen n building. ve – President, Prim portant Parliamentar Executives – Governo urts, Special Provision endments - Methods i ments. Amendments |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be

able to, CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. No. | Title of the Book | Name of the | Name of the | Edition and Year |
|------------|---|--|---------------------------|------------------|
| Textbo | bk/s | Author/s | Publisher | |
| 1 | Constitution of India, Professional Ethics and Human Rights | Shubham Singles, Charles E. Haries, and et al | Cengage Learning India | 2018 |
| 2 | Cyber Security and Cyber Laws | Alfred Basta and et al | Cengage Learning India | 2018 |
| Referer | ce Books | | | |
| 3 | Introduction tothe Constitution of India | Durga Das Basu | Prentice – Hall, | 2008. |
| 4 | Engineering Ethics | M. Govindarajan, S. Natarajan, V. S. Senthilkumar | Prentice –Hall, | 2004 |

| B. E. COMMON TO ALL PROGRAMMES Choice Based Credit System (CBCS) and Outcome Based Education (OBE) SEMESTER – V | | | | | | |
|---|----------------|-----------|----|--|--|--|
| ENVIRONMENTAL | | | | | | |
| | STUDIES | | | | | |
| Course Code | 18CIV59 | CIE Marks | 40 | | | |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | |
| Credits 01 Exam Hours 02 | | | | | | |
| Module - 1 | | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Ecosystems (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake. **Biodiversity:** Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation.

Module - 2

Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind.

Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud

Seeding, and Carbon Trading.

Module - 3

Environmental Pollution (Sources, Impacts, Corrective and Preventive measures, Relevant

Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil Pollution and AirPollution.

Waste Management & Public Health Aspects: Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes;

Industrial and Municipal Sludge.

Module - 4

Global Environmental Concerns (Concept, policies and case-studies):Ground water depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.

Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship-NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to the environment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| SI.No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year |
|---------|-----------------------|----------------------------|---|---|
| Textboo | ok/s | | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 |

Estel. 1974

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | n. engprincipal@dieoxio | | |
|-------|---|---|---------------------------------------|--------------------------------|
| 3 | Environmental Studies- | RRajagopalan | Oxford Publisher | 2005 |
| | From Crisis to Cure | | | |
| Refer | ence Books | | | |
| 1 | Principals of Environmental Science andEngineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Electrical & Electronics Engineering

Course Structure for B.E- 2018 scheme Regulation

Electrical and Electronics Engineering

| 3 PCC 18EE33 Transformers and Generators EEE 3 0 03 40 60 100 3 4 PCC 18 EE 34 Analog Electronic Circuits EEE 2 2 03 40 60 100 3 5 PCC 18 EE 35 Digital System Design EEE 3 0 03 40 60 100 3 6 PCC 18 EE 36 Electrical and Electronic Measurements EEE 3 0 03 40 60 100 3 7 PCC 18 EE 137 Electrical Machines Laboratory -1 EEE 2 03 40 60 100 2 8 PCC 18 EE L38 Electronics Laboratory EEE 2 2 03 40 60 100 2 9 Image: PCC 18 EE L38 Electronics Laboratory EEE 2 | | | | VISVESVARAYA TECHNOL | OGICAL UN | IVER | SITY, | BELA | GAV | [| | | |
|--|------|--|-----------|---|----------------------------------|---------|----------|-----------------------|----------------------|-------|-----------|-------------|---------|
| (Effective from the academic year 2018 - 19) III SEMESTER SL Course and Course Code Course Title Teaching Hours Week Examination SL Course Code Course Title Image: second gene and course Title Teaching Hours Week Examination 1 BSC 18MAT31 Transform Calculus, Fourier Series and Numerical Techniques (Common to all Branches) Mathematics 2 2 03 40 60 100 3 2 PCC 18EE32 Electric Circuit Analysis EEE 3 0 03 40 60 100 3 4 PCC 18EE33 Transformers and Generators EEE 3 0 03 40 60 100 3 5 PCC 18 EE 36 Digital System Design EEE 3 0 03 40 60 100 3 6 PCC 18 EE 36 Electrical Machines Laboratory-1 EEE | | | | Scheme of Teaching | and Examin | ation (| 2018 - | 19 | | | | | |
| (Effective from the academic year 2018 - 19) III SEMESTER SL Course and Course Code Course Title Teaching Hour: Neek Examination SL Course Code Course Title Transform Calculus, Fourier Series and Numerical Techniques (Common to all Branches) Mathematics 2 2 03 40 60 100 3 2 PCC 18EE32 Electric Circuit Analysis EEE 3 2 03 40 60 100 3 2 PCC 18EE33 Transformets and Generators EEE 3 0 03 40 60 100 3 4 PCC 18EE33 Transformets and Generators EEE 3 0 03 40 60 100 3 5 PCC 18 EE 36 Digital System Design EEE 3 0 03 40 60 100 3 6 PCC 18 EE 36 Electrical Machines Laboratory-1 EEE 3 0 | | Outcome Based Education(OBE) and Choice Based Credit System (CBCS) | | | | | | | | | | | |
| III SEMESTER Course and Course Code Course Title Image: Course Code Transform Calculus, Fourier Series and Numerical Techniques (Course to the Course Code Transform Calculus, Fourier Series and Numerical Techniques (Common to all Branches) Mathematics 2 2 03 40 60 100 3 2 PCC 18EE32 Electric Circuit Analysis EEE 3 0 03 40 60 100 3 4 PCC 18 EE33 Transformers and Generators EEE 3 0 03 40 60 100 3 5 PCC 18 EE 34 Analog Electronic Circuits EEE 3 0 03 40 60 100 3 6 PCC 18 EE 36 Electrical and Electronic Measurements EEE 3 0 03 40 60 100 3 7 PCC 18 EE 137 Electrical Machines Laboratory EEE 2 03 40 60 100 3 9 PC 18 EE 138 Electronics Laboratory | | | | | | | | | | | | | |
| SL NoCourse and Course CodeCourse TitleTransform Calculus, Fourier Series and Numerical Techniques (Common to all Branches)Transform Calculus, Fourier Series and Numerical Techniques (Common to all Branches)Mathematics22Course Title1BSC18MAT31Transform Calculus, Fourier Series and Numerical Techniques (Common to all Branches)Mathematics2203406010032PCC18EE32Electric Creuit AnalysisEEE3203406010034PCC18 EE 34Analog Electronic CircuitsEEE3003406010035PCC18 EE 36Digital System DesignEEE3003406010036PCC18 EE 137Electrical and Electronic MeasurementsEEE3003406010028PCC18 EE 138Electrical Laboratory-1EEE2203406010029VM FUMathematic Carcuit AnalysisEEE2203406010037PCC18 EE 137Electrical and Electronic MeasurementsEEE2203406010029VM FUMathemate Kan | IIIS | EMES | TER | (| | | | | | | | | |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | | | | | | | | 5 | | Exami | ination | | |
| $\frac{1}{1} BSC 18MAT31 \qquad Transform Calculus, Fourier Series and Numerical Techniques (Common to all Branches) \\ 1 BSC 18MAT31 \qquad Transform Calculus, Fourier Series and Numerical Techniques (Common to all Branches) \\ 2 PCC 18EE32 \qquad Electric Circuit Analysis \qquad EEE 3 2 03 40 60 100 43 \\ 3 PCC 18EE33 Transformers and Generators \\ 4 PCC 18EE33 Transformers and Generators \\ 4 PCC 18EE33 Transformers and Generators \\ 5 PCC 18EE35 Digital System Design \\ 6 PCC 18EE35 Digital System Design \\ 6 PCC 18EE 36 Measurements \\ FEE 3 0 03 40 60 100 33 \\ 6 PCC 18EE 137 Electrical and Electronic \\ 8 PCC 18EE 137 Electrical Machines Laboratory -1 \\ 8 PCC 18EE 138 Electronics Laboratory -1 \\ 8 PCC 18EE 138 Electronics Laboratory -1 \\ 18KAK39/49 Vavaharka Kannada (Kannada for communication) \\ \hline Mathematics Machines and Cyber Law \\ \hline Mathematics Machines and Cyber Law \\ \hline Mathematics Mathabarators is by objective type questions \\ \hline Mathematics Mathabarators is by objective type questions \\ \hline Mathematics Mathabaratory = 1 \\ \hline Mathabarator Mathabaratory = 1 \\ \hline Mat$ | | | | Course Title | Teaching Department Theory | | Tutorial | Practical/ Drawing | Duration in hours | | SEE Marks | Fotal Marks | Credits |
| 1 BSC 18MAT31 and Numerical Techniques (Common to all Branches) Mathematics 2 2 03 40 60 100 3 2 PCC 18EE32 Electric Circuit Analysis EEE 3 2 03 40 60 100 4 3 PCC 18EE32 Electric Circuit Analysis EEE 3 0 03 40 60 100 4 3 PCC 18EE33 Transformers and Generators EEE 3 0 03 40 60 100 3 4 PCC 18 EE 34 Analog Electronic Circuits EEE 2 2 03 40 60 100 3 5 PCC 18 EE 36 Digital System Design EEE 3 0 03 40 60 100 3 6 PCC 18 EE 137 Electrical Machines Laboratory -1 EEE 2 03 40 60 100 2 9 Y <t< td=""><td></td><td></td><td></td><td></td><td></td><td>L</td><td>Т</td><td>P</td><td></td><td>-</td><td></td><td></td><td></td></t<> | | | | | | L | Т | P | | - | | | |
| 3 PCC 18EE33 Transformers and Generators EEE 3 0 03 40 60 100 3 4 PCC 18 EE 34 Analog Electronic Circuits EEE 2 2 03 40 60 100 3 5 PCC 18 EE 35 Digital System Design EEE 3 0 03 40 60 100 3 6 PCC 18 EE 35 Digital System Design EEE 3 0 03 40 60 100 3 6 PCC 18 EE 36 Electrical and Electronic Measurements EEE 3 0 03 40 60 100 2 7 PCC 18 EE L37 Electrical Machines Laboratory -1 EEE 2 2 03 40 60 100 2 8 PCC 18 EE L38 Electronics Laboratory EEE 2 2 03 40 60 100 2 9 V 1 | 1 | BSC | 18MAT31 | and Numerical Techniques | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 4 PCC 18 EE 34 Analog Electronic Circuits EEE 2 2 03 40 60 100 3 5 PCC 18 EE 35 Digital System Design EEE 3 0 03 40 60 100 3 6 PCC 18 EE 36 Electrical and Electronic Measurements EEE 3 0 03 40 60 100 3 7 PCC 18 EE 137 Electrical Machines Laboratory -1 EEE 2 2 03 40 60 100 2 8 PCC 18 EE L38 Electronics Laboratory EEE 2 2 03 40 60 100 2 9 Y 18KVK39/49 Vyavaharika Kannada (Kannada for Administration)/ EEE 2 2 03 40 60 100 2 9 Y 18KAK39/49 Aadalitha Kannada (Kannada for Administration) HSMC 2 100 100 1 | | | | · · · · · · · · · · · · · · · · · · · | | - | 2 | | | | | | 4 |
| 5 PCC 18 EE 35 Digital System Design EEE 3 0 03 40 60 100 3 6 PCC 18 EE 36 Electrical and Electronic Measurements EEE 3 0 03 40 60 100 3 7 PCC 18 EE 137 Electrical Machines Laboratory -1 EEE 2 2 03 40 60 100 2 8 PCC 18 EE L38 Electronics Laboratory EEE 2 2 03 40 60 100 2 8 PCC 18 EE L38 Electronics Laboratory EEE 2 2 03 40 60 100 2 9 Y 18KVK39/49 Aadalitha Kannada (Kannada for Administration) 2 100 100 100 1 100 100 1 100 | 3 | | | | | - | - | | | | | | _ |
| 6 PCC 18 EE 36 Electrical and Electronic Measurements EEE 3 0 03 40 60 100 3 7 PCC 18 EE 137 Electrical Machines Laboratory -1 EEE 2 2 03 40 60 100 2 8 PCC 18 EE L38 Electronics Laboratory EEE 2 2 03 40 60 100 2 9 Y 18 KKX39/49 Vyavaharka Kannada (Kannada for communication)/ EEE 2 2 03 40 60 100 2 9 Y 18KAK39/49 Aadalitha Kannada (Kannada for communication)/ 2 100 100 100 1 9 Y 18KAK39/49 Aadalitha Kannada (Kannada for Administration) HSMC 2 100 100 1 1 02 | 4 | | | Analog Electronic Circuits | | 2 | 2 | | | | | | |
| Image: Second | 5 | | 18 EE 35 | 5 , 5 | EEE | 3 | 0 | | 03 | 40 | 60 | 100 | - |
| $\frac{18 \text{ EE D37}}{8 \text{ PCC}} = \frac{18 \text{ EE D37}}{18 \text{ EE D38}} = \frac{18 \text{ Electronics Laboratory} - 1}{18 \text{ Electronics Laboratory}} = \frac{18 \text{ Ele D37}}{18 \text{ Ele D37}} = \frac{18 \text{ Ele D37}}{18 \text{ Electronics Laboratory}} = \frac{18 \text{ Ele D37}}{18 \text{ Ele D37}} = \frac{18 \text{ Ele D37}}{100 \text{ Ele D37}} = \frac{100 \text{ Ele D37}}{100 $ | 6 | | 18 EE 36 | | EEE | 3 | 0 | | 03 | | | | 3 |
| 9 18 EE L38 Electronics Laboratory EEE 0 0 00 00 9 18KVK39/49 Vyavaharika Kannada (Kannada for communication)/ 2 100 18KAK39/49 Aadalitha Kannada (Kannada for Administration) 2 100 1 02 40 60 18CPC39 Constitution of India, Professional Ethics and Cyber Law HSMC 02 40 60 100 1 02 40 60 | | | 18 EE L37 | Electrical Machines Laboratory -1 | EEE | | - | - | 03 | | | | 2 |
| 9 9 ISKVK39/49 communication)/ Administration) 2 100 100 1 9 ISKAK39/49 Aadalitha Kannada (Kannada for Administration) HSMC 2 100 100 1 1 02 40 60 Examination is by objective type questions Examination is by objective type questions 100 1 1 02 40 60 Examination is by objective type questions 16 10 24 420 480 OR OR OR OR 0R OR 0R 900 24 | 8 | PCC | 18 EE L38 | | EEE | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| Image: Constitution of India, Professional Ethics and Cyber Law 1 02 40 60 18CPC39 Ethics and Cyber Law I 02 40 60 10 Ethics and Cyber Law It 02 40 60 10 Ethics and Cyber Law It 02 40 60 10 It | 0 | MC | | communication)/ Aadalitha Kannada (Kannada for | HSMC | | 2 | | - | 100 | | 100 | , |
| ISCPC39 Constitution of India, Professional Ethics and Cyber Law 1 0.2 40 60 Examination is by objective type questions Examination is by objective type questions 1 0.2 40 60 TOTAL OR OR 04 OR 0R 900 24 | | | | | | | | | I | 100 | 1 | | |
| ISCPC39 Ethics and Cyber Law Examination is by objective type questions 16 10 24 420 480 TOTAL OR OR 04 OR OR 900 24 | | | | | 1 | | | | 02 | 40 | 60 | | |
| 16 10 24 420 480 TOTAL OR OR 04 OR OR 900 24 | | | 18CPC39 | | | Exan | ination | is by ob | | | | | |
| TOTAL OR OR 04 OR OR 900 24 | | | | | 1 | | | | | | | | |
| | | | | | TOTAL | | | 04 | | | | 900 | 24 |
| 1/ 12 20 300 340 | | | | | | 17 | 12 | | 26 | 360 | 540 | | |

| B. E. Common to all Programmes Outcome Based Education (OBE) and Choice Based Credit System (CBCS) SEMESTER - III | | | | | | | | |
|---|--|-----------|----|--|--|--|--|--|
| CONSTITUTION OF INDIA, | CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND CYBER LAW (CPC) | | | | | | | |
| Course Code | 18CPC39/49 | CIE Marks | 40 | | | | | |
| Teaching Hours/Week (L:T:P) (1:0:0) SEE Marks 60 | | | | | | | | |
| Credits 01 Exam Hours 02 | | | | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Course Learning Objectives: To

- know the fundamental political codes, structure, procedures, powers, and duties of Indian government institutions, fundamental rights, directive principles, and the duties ofcitizens
- Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety.

• Know about the cybercrimes and cyber laws for cyber safetymeasures.

Module-1

Introduction to Indian Constitution:

The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, The Making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) and its present relevance in our

society with examples. Fundamental Duties and its Scope and significance in Nation building.

Module-2

Union Executive and State Executive:

Parliamentary System, Federal System, Centre-State Relations. Union Executive – President, Prime Minister, Union Cabinet, Parliament - LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Articles

370.371,371J) for some States.

Module-3

Elections, Amendments and Emergency Provisions:

Elections, Electoral Process, and Election Commission of India, Election Laws. Amendments - Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments – 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Emergency Provisions, types of Emergencies and itsconsequences.

Constitutional special provisions:

Special Provisions for SC and ST, OBC, Women, Children and Backward Classes.

Module-4

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliability in Engineering IDEC (Intellectual Property Pights). Picks, Safety and Liability in Engineering

Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be

able to, CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

| CHILDREN'S EDUCATION SOCIETY (Regd.) | | | | | | | | | |
|--------------------------------------|--|--|--|--|--|--|--|--|--|
| Z THE OX | XFORD COLLEGI | E OF ENGINEE | RING | | | | | | |
| (Recognised by the Govt. | of Karnataka, Affiliated to V | isvesvaraya Technologic | al University, Belagavi. | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| std. 1974 E-mail: o | | | | | | | | | |
| | ngphhcipal@theoxfold.edu | web. www.trieoxioide | angglorg | | | | | | |
| | for 100 marks and the | marks seared by th | o studonts will | | | | | | |
| | | • | | | | | | | |
| , | The pattern of the que | estion paper will be | objective | | | | | | |
| | | | | | | | | | |
| | | | - | | | | | | |
| Title of the Book | | | Edition and Year | | | | | | |
| | | | | | | | | | |
| | Author/s | Publisher | | | | | | | |
| | | 1 | 1 | | | | | | |
| | Shubham | | 2018 | | | | | | |
| Professional Ethics and | Singles, Charles | Cengage | | | | | | | |
| <mark>Human Rights</mark> | E. Haries, and et | Learning India | | | | | | | |
| | al | | | | | | | | |
| Cyber Security and Cyber Laws | Alfred Basta and | Cengage | 2018 | | | | | | |
| | et al | Learning India | | | | | | | |
| ce Books | | | | | | | | | |
| Introduction tothe | Durga Das Basu | Prentice – Hall, | 2008. | | | | | | |
| Constitution of India | | | | | | | | | |
| Engineering Ethics | M. Govindarajan, S. | Prentice – Hall, | 2004 | | | | | | |
| - | Natarajan, V. | | | | | | | | |
| | S. | | | | | | | | |
| | Senthilkumar | | | | | | | | |
| | THE OX (Recognised by the Govt. (Recognised by the Govt. The SEE question paper will be set proportionately be reduced to 60. type(MCQ). For the award of 40 CIE marks, ref Title of the Book (K/s Constitution of India, Professional Ethics and Human Rights Cyber Security and Cyber Laws (Constitution to the Constitution of India) | THE OXFORD COLLEGI (Recognised by the Govt. of Karnataka, Affiliated to W Approved by A.I.C. Recognised by UGC U Recognised by UGC U Bommanahali, Hosur Roa Ph: 080-61754601/602, E-mail: engprincipal@theoxford.edu n paper pattern for SEE and CIE: The SEE question paper will be set for 100 marks and the proportionately be reduced to 60. The pattern of the queetype(MCQ). For the award of 40 CIE marks, refer the University regul Title of the Book Name of the queetype(MCQ). For the award of 40 CIE marks, refer the University regul Title of the Book Name of the Author/s k/s Constitution of India, Professional Ethics and Human Rights Close Security and Cyber Laws Introduction tothe Constitution of India Durga Das Basu Constitution of India Engineering Ethics M. Govindarajan, S. Natarajan, V. S. | In paper pattern for SEE and CIE: The SEE question paper will be set for 100 marks and the marks scored by th proportionately be reduced to 60. The pattern of the question paper will be type(MCQ). For the award of 40 CIE marks, refer the University regulations2018. Title of the Book Name of the Author/s Publisher k/s Constitution of India, Professional Ethics and Human Rights Shubham Singles, Charles E. Haries, and et al Cyber Security and Cyber Laws Alfred Basta and et al Cengage Learning India ce Books Durga Das Basu Prentice –Hall, Natarajan, V. S. | | | | | | |

101100000

| B. E. COMMON TO ALL PROGRAMMES Choice Based Credit System (CBCS) and Outcome Based Education (OBE) SEMESTER – V | | | | | | | | |
|---|---------|------------|----|--|--|--|--|--|
| ENVIRONMENTAL | | | | | | | | |
| STUDIES | | | | | | | | |
| Course Code | 18CIV59 | CIE Marks | 40 | | | | | |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | | | |
| Credits | 01 | Exam Hours | 02 | | | | | |
| Module - 1 | | • | · | | | | | |

Biodiversity: Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation.

Module - 2

Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind.

Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud

Seeding, and Carbon Trading.

Module - 3

Environmental Pollution (Sources, Impacts, Corrective and Preventive measures, Relevant Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil Pollution and AirPollution.

Waste Management & Public Health Aspects: Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes;

Industrial and Municipal Sludge.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Module - 4

Global Environmental Concerns (Concept, policies and case-studies):Ground water depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.

Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship-NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to the environment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| - | The Duration of Exam will be 2 | | | | | |
|---------|--|---|---|---|--|--|
| SI.No. | Title of the Book | Name of the | Name of the Publisher | Edition and Year | | |
| | | Author/s | | | | |
| Textbo | ok/s | | | | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 | | |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 | | |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 | | |
| Referer | nce Books | | | | | |
| 1 | Principals of Environmental Science and Engineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 | | |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 | | |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 – 19)

| | | | | | | hing H Week | ours | | Exam | ination | | |
|-----------|--------------|-------------------------|---|---|----------|-----------------------|----------------------|-----------|-----------|-------------|-----------|----|
| SI. No | | Course and Course Title | | Theory Lecture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Total Marks | Credits | |
| | | _ | | | L | Τ | P | - | ~ | <i>•</i> | L | |
| 1 | PCC | 18 EE51 | Management and Entrepreneurship | EEE | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18 EE52 | Microcontroller | EEE | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18 EE53 | Power Electronics | EEE | 3 | 2 | - | 03 | 40 | 60 | 100 | 4 |
| 4 | PCC | 18 EE54 | Signals and Systems | EEE | 3 | | - | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18 EE55 | Electrical Machine Design | EEE | 3 | | - | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18 EE56 | High Voltage Engineering | EEE | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18 EEL57 | Microcontroller Laboratory | EEE | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18 EEL58 | Power Electronics Laboratory | EEE | - | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 9 | HSMC | 18CIV59 | Environmental Studies | Civil/ Environmental [Paper setting: Civil Engineering Board] | 1 | - | | 02 | 40 | 60 | 100 | 1 |
| | | | | TOTAL | 18 | 10 | 4 | 26 | 360 | 540 | 900 | 25 |
| AICT | E activity I | oints: In case | ISMC: Humanity and Social Science students fail to earn the prescribed a s shall be admitted for the award of d | ctivity Points, Eighth s | | | Card sh | | | | arning tl | be |

MANAGEMENT AND ENTREPRENEURSHIP (Core Course):

18EE51

MANAGEMENT AND ENTREPRENEURSHIP

Course Code 18EE51 CIE Marks 40

Number of Lecture Hours/Week (L:T:P) 3:0:0 SEE Marks 60

Credits 03 Exam Hours 03

Course Learning Objectives:

- **1.** To introduce the field of management, task of the manager, importance of planning and types of planning, staff recruitment and selection process.
- 2. To discuss the ways in which work is allocation, structure of organizations, modes of communication and importance of managerial control in business.
- **3.** To explain need of coordination between the manager and staff, the social responsibility of business

and leadership.

Module-1 -Management: Definition, Importance – Nature and Characteristics of Management, Management Functions, Roles of Manager, Levels of Management, Managerial Skills, Management & Administration, Management as a Science, Art & Profession. Planning: Nature, Importance and



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Purpose Of Planning, Types of Plans, Steps in Planning, Limitations of Planning, Decision Making – Meaning, Types of Decisions- Steps in Decision Making.

Teaching Hours 10

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L4 – Analysing.

Module-2 Organizing and Staffing: Meaning, Nature and Characteristics of Organization – Process of Organization, Principles of Organization, Departmentalization, Committees – meaning, Types of Committees, Centralization Versus Decentralization of Authority and Responsibility, Span of Control (Definition only), Nature and Importance of Staffing, Process of Selection and Recruitment. Directing and Controlling: Meaning and Nature of Directing-Leadership Styles, Motivation Theories Communication – Meaning and Importance, Coordination- Meaning and Importance, Techniques of Coordination. Controlling – Meaning, Steps in Controlling.

Teaching Hours 10

Revised Bloom's Taxonomy Level L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-3 Social Responsibilities of Business: Meaning of Social Responsibility, Social Responsibilities of Business towards Different Groups, Social Audit, Business Ethics and Corporate Governance. Entrepreneurship: Definition of Entrepreneur, Importance of Entrepreneurship, concepts of Entrepreneurship, Characteristics of successful Entrepreneur, Classification of Entrepreneurs, Intrapreneur – An Emerging Class, Comparison between Entrepreneur and Intrapreneur, Myths of Entrepreneurship, Entrepreneurial Development models, Entrepreneurial development cycle, Problems faced by Entrepreneurs and capacity building for Entrepreneurship. Teaching Hours 10

Revised Bloom's Taxonomy Level L3 – Applying.

Module-4 Teaching Hours Modern Small Business Enterprises: Role of Small Scale Industries, Concepts and definitions of SSI Enterprises, Government policy and development of the Small Scale sector in India, Growth and Performance of Small Scale Industries in India, Sickness in SSI sector, Problems for Small Scale Industries, Impact of Globalization on SSI, Impact of WTO/GATT on SSIs, Ancillary Industry and Tiny Industry (Definition only). Institutional Support for Business Enterprises: Introduction, Policies & Schemes of Central–Level Institutions, State-Level Institutions Teaching Hours 10

Revised Bloom's Taxonomy Level L3 – Applying.

Module-5 Project Management: Meaning of Project, Project Objectives & Characteristics, Project IdentificationMeaning& Importance; Project Life Cycle, Project Scheduling, Capital Budgeting, Generating an Investment Project Proposal, Project Report-Need and Significance of Report, Contents, Formulation, Project Analysis-Market, Technical, Financial, Economic, Ecological, Project Evaluation and Selection, Project Financing, Project Implementation Phase, Human & Administrative aspects of Project Management, Prerequisites for Successful Project Implementation. New Control Techniques- PERT and CPM, Steps involved in developing the network, Uses and Limitations of PERT and CPM

Teaching Hours 10

Revised Bloom's Taxonomy Level L3 – Applying, L4 – Analysing. L2 – Understanding, L4 – Analysing



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

ELECTRICAL ESTMATION AND COSTING:

Module-1 Principles of Estimation: Introduction to Estimation and Costing, Electrical Schedule, Catalogues, Market Survey and Source Selection, Recording of Estimates, Determination of Required Quantity of Material, LabourConditions, Determination of Cost Material and Labour, Contingencies, Overhead Charges, Profit, Purchase System, Purchase Enquiry and Selection of Appropriate Purchase Mode, Comparative Statement, Purchase Orders, Payment Of Bills, Tender Form, General Idea about IE Rule, Indian Electricity(IE) Act and IE Rules -29,30,45,46,47,50,51,54,55,77 and79.

Teaching Hours 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding.

Module-2 Wiring: Introduction, Distribution of energy in a Building, PVC Casing and Capping, Conduit Wiring, Desirabilities of Wiring. Types of cables used in Internal Wiring, Multi Strand Cables, Voltage Grading and Specification of Cables Wiring (continued): Main Switch and Distribution Board, Conduits and its accessories and Fittings. Lighting Accessories and Fittings, Types of Fuses, Size of Fuse, Fuse Units, Earthing Conductor. Internal Wiring: General rules for wiring, Design of Lighting Points (Refer to Seventh Chapter of the Textbook), Number of Points, Determination of Total Load, Number of Sub –Circuits, Ratings Main Switch and Distribution Board and Size of Conductor. Current Density, Layout.

Teaching Hours 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-3 Service Mains: Introduction, Types, Estimation of Underground and Overhead Service Connections. Design and Estimation of Power Circuits: Introduction, Important Considerations Regarding Motor Installation Wiring, Input Power, Input Current to Motors, Rating of Cables, Rating of Fuse, Size of Condit, Distribution Board Main Switch and Starter.

Teaching Hours 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-4 Estimation of Overhead Transmission and Distribution Lines: (Review of Line Supports, Conductor Materials, Size of Conductor for Overhead Transmission Line, Types of Insulators)[No Question Shall be Set From the Review Portion]. Cross Arms, Pole Brackets and Clamps, Guys and Stays, Conductors Configuration Spacing and Clearances, Span Lengths, Lightning Arrestors, Phase Plates, Danger Plates, Anti Climbing Devices, Bird Guards, Beads of Jumpers, Muffs, Points to be Considered at the Time of Erection of Overhead Lines, Erection of Supports, Setting of Stays, Fixing of Cross Arms, Fixing of Insulators, Conductor Erection. Repairing and Jointing of Conductors, Dead End Clamps, Positioning of Conductors and Attachment to Insulators, Jumpers, Tee-Offs, Earthing of Transmission Lines, Guarding of Overhead Lines, Clearances of Conductor From Ground, Spacing Between Conductors, Important Specifications.

Teaching Hours 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding. L3 – Applying, L4 – Analysing

Module-5 Estimation of Substations: Main Electrical connection, Graphical Symbols for Various Types of Apparatus and Circuit Elements on Substation main Connection Diagram, Single Line



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Diagram of Typical Substations, Equipment for Substation, Substation Auxiliaries Supply, Substation Earthing.

Teaching Hours 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding

RENEWABLE ENERGY RESOURCES

Module-1 Introduction: Causes of Energy Scarcity, Solution to Energy Scarcity, Factors Affecting Energy Resource Development, Energy Resources and Classification, Renewable Energy – Worldwide Renewable Energy Availability, Renewable Energy in India. Energy from Sun: Sun- earth Geometric Relationship, Layer of the Sun, Earth – Sun Angles and their Relationships, Solar Energy Reaching the Earth's Surface, Solar Thermal Energy Applications.

Teaching Hours 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying.

Module-2 Solar Thermal Energy Collectors: Types of Solar Collectors, Configurations of Certain Practical Solar Thermal Collectors, Material Aspects of Solar Collectors, Concentrating Collectors, Parabolic Dish – Stirling Engine System, Working of Stirling or Brayton Heat Engine, Solar Collector Systems into Building Services, Solar Water Heating Systems, Passive Solar Water Heating Systems, Applications of Solar Water Heating Systems, Active Solar Space Cooling, Solar Air Heating, Solar Dryers, Crop Drying, Space Cooing, Solar Cookers, Solar pond. Solar Cells: Components of Solar Cell System, Elements of Silicon Solar Cell, Solar Cell materials, Practical Solar Cells, I – V Characteristics of Solar Cells, Efficiency of Solar Cells, Photovoltaic Panels, Applications of Solar Cell Systems.

Teaching Hours 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-3 Hydrogen Energy: Benefits of Hydrogen Energy, Hydrogen Production Technologies, Hydrogen Energy Storage, Use of Hydrogen Energy, Advantages and Disadvantages of Hydrogen Energy, Problems Associated with Hydrogen Energy. Wind Energy: Windmills, Wind Turbines, Wind Resources, Wind Turbine Site Selection. Geothermal Energy: Geothermal Systems, Classifications, Geothermal Resource Utilization, Resource Exploration, Geothermal Based Electric Power Generation, Associated Problems, environmental Effects. Solid waste and Agricultural Refuse: Waste is Wealth, Key Issues, Waste Recovery Management Scheme, Advantages and Disadvantages of Waste Recycling, Sources and Types of Waste, Recycling of Plastics.

Teaching Hours 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-4 Biomass Energy:Biomass Production, Energy Plantation,Biomass Gasification, Theory of Gasification, Gasifier and Their Classifications, Chemistry of Reaction Process in Gasification, Updraft, Downdraft and Cross-draft Gasifiers, Fluidized Bed Gasification, Use of Biomass Gasifier, Gasifier Biomass Feed Characteristics, Applications of Biomass Gasifier, Cooling and Cleaning of Gasifiers. Biogas Energy: Introduction, Biogas and its Composition, Anaerobic Digestion, Biogas Production, Benefits of Biogas, Factors Affecting the Selection of a Particular Model of a Biogas Plant, Biogas Plant Feeds and their Characteristics. Tidal Energy: Introduction, Tidal Energy Resource, Tidal Energy Availability, Tidal Power Generation in India, Leading Country in Tidal



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Power Plant Installation, Energy Availability in Tides, Tidal Power Basin, Turbines for Tidal Power, Advantages and Disadvantages of Tidal Power, Problems Faced in Exploiting Tidal Energy.

Teaching Hours 08 Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-5 Sea Wave Energy:Introduction, Motion in the sea Waves, Power Associated with Sea Waves, Wave Energy Availability, Devices for Harnessing Wave Energy, Advantages and Disadvantages of Wave Power. Ocean Thermal Energy:Introduction,Principles of Ocean Thermal Energy Conversion (OTEC), Ocean Thermal Energy Conversion plants, Basic Rankine Cycle and its Working, Closed Cycle, Open Cycle and Hybrid Cycle, Carnot Cycle, Application of OTEC in Addition to Produce Electricity, Advantages, Disadvantages and Benefits of OTEC.

Teaching Hours 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Mechanical Engineering

| 11 5 | EMEST | | | | | | | | | | | |
|-----------|-------|---------------------------|---|------------------------|-------------------|--|-----------|----------------------|-----------|------------|--------------------|---------|
| | | EK | | | Teachin /Week | ng Hour | s | | Exami | nation | | Γ |
| SI. No | | Course and Course Code | Course Title | Teaching Department | Theory Lecture | Theory Lecture Tutorial Practical/ Drawing | | Duration in hours | CIE Marks | SEE Marks | Fotal Marks | Credits |
| | | | | | L | Т | Р | - | Ŭ | 9 2 | - | , |
| 1 | BSC | 18MAT31 | Mathematics | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18ME32 | Mechanics of Materials | | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18ME33 | Basic Thermodynamics | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18ME34 | Material Science | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18ME35A or 18ME35B | Metal cutting and forming Metal Casting and Welding | | 3 | 0 | - | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18ME36A or | Computer Aided Machine Drawing/ | | 1 | 4 | ÷ | - | ÷ | - | ; | _ |
| 0 | ree | 18ME36B | Mechanical Measurements and Metrology | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18MEL37A or | Material Testing lab | | | 2 | | 02 | 10 | (0 | 100 | 2 |
| | | 18MEL37B | Mechanical Measurements and Metrology lab | | | | 2 | 03 | 40 | 60 | 100 | 12 |
| 8 | PCC | 18MEL38A | Workshop and Machine Shop Practice (Consists of Fitting, and Machining) | | - | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18MEL38B | Foundry,Forging and Welding lab | | | | | | | | | |
| | 200 | 18KVK39/49 | Vyavaharika Kannada (Kannada for communication)/ | | | 2 | 92 101 | 9 (20) | 100 | | | 1 |
| 9 | HSMC | 18KAK39/49 | Aadalitha Kannada (Kannada for Administration) | HSMC | - | 2 | | - | 100 | | 100 | |
| | Ŧ | | OR | | · · · · · · | 8 | 89 | S6 - 7 | 90 97 | | 6 | |
| | | 18CPC39 | Constitution of India, Professional | | 1 | | | 02 | 40 | 60 | ģ | |
| | | 1861 657 | Ethics and Cyber Law | | | | is by obj | | | | | |
| | | | | | 17 10 | | 100000 | 24 | 420 | 480 | 000000 | 1.23 |
| | | | | TOTAL | OR 19 | OR 14 | 04 | OR 26 | OR 360 | OR 540 | 900 | 24 |

18KVK39 Vyavaharika Kannada (Kannada for communication) is for non-Kannada speaking, reading and writing students and 18KAK39 Aadalitha Kannada (Kannada for Administration) is for students who speak, read and write Kannada.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E. Mechanical Engineering

| | | | Т | eaching Ho | urs /Week | | Examina | tion | | Credity |
|----------|-----------------|--------------------------------------|---------|---------------------------------|------------------------------|---------------------|-----------|--------------|----------------|---------|
| SL No | Subject Code | Title | Lecture | e Tutori | al Practical | Duration (Hours) | SEE Marks | CIE Marks | Total Marks | |
| 1 | 17ME51 | Management and Engineering Economics | 3 | 2 | 0 | 03 | 60 | 40 | 100 | 4 |
| 2 | 17ME52 | Dynamics of Machinery | 3 | 2 | 0 | 03 | 60 | 40 | 100 | 4 |
| 3 | 17ME53 | Turbo Machines | 3 | 2 | 0 | 03 | 60 | 40 | 100 | 4 |
| 4 | 17ME54 | Design of Machine Elements - I | 3 | 2 | 0 | 03 | 60 | 40 | 100 | 4 |
| 5 | 17ME55X | Professional Elective-I | 3 | 0 | 0 | 03 | 60 | 40 | 100 | 3 |
| 6 | 17ME56X | Open Elective-I | 3 | 0 | 0 | 03 | 60 | 40 | 100 | 3 |
| 7 | 17MEL57 | Fluid Mechanics & Machinery Lab | 1 | 0 | 2 | 03 | 60 | 40 | 100 | 2 |
| 8 | 17MEL58 | Energy Lab | 1 | 0 | 2 | 03 | 60 | 40 | 100 | 2 |
| | | TOTAL | 20 | 08 | 04 | | 480 | 320 | 60 | 40 |
| | Professional | l Elective-I | 0 | pen Elective | 2-I | | | | | |
| | 17ME551 | Refrigeration and Air-conditioning | 1 | 17ME561 Optimization Techniques | | | | | | |
| | 17ME552 | Theory of Elasticity | 1 | 7ME562 | 1E562 Energy and Environment | | | | | |
| | 17ME553 | Human Resource Management | 1 | 7ME563 | Automation and F | lobotics | | | | |
| | 17ME554 | Non Traditional Machining | 1 | 7ME564 | Project Managem | ent | | | | |

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study. 2. Professional Elective: Elective relevant to chosen specialization/ branch

Professional Elective: Elective relevant to chosen specialization/ branch
 Open Elective: Electives from other technical and/or emerging subject areas.

| B. E. Common to all Programmes Outcome Based Education (OBE) and Choice Based Credit System (CBCS) SEMESTER - III | | | | | | | | |
|--|-----------------------|--------------------|----|--|--|--|--|--|
| CONSTITUTION OF INDIA, | PROFESSIONAL ETHICS A | ND CYBER LAW (CPC) | | | | | | |
| Course Code | 18CPC39/49 | CIE Marks | 40 | | | | | |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | | | |
| Credits | 01 | Exam Hours | 02 | | | | | |
| Course Learning Objectives: To know the fundamental political codes, structure, procedures, powers, and duties of Indian government institutions, fundamental rights, directive principles, and the duties of citizens Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety. Know about the cybercrimes and cyber laws for cyber safetymeasures. | | | | | | | | |
| Introduction to Indian Constitution: The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, The Making of the Constitution, The Role of the Constituent Assembly - | | | | | | | | |

to the Indian constitution, The Making of the Constitution, The Role of the Constituent Assembly -Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) and its present



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

relevance in our

society with examples. Fundamental Duties and its Scope and significance in Nation building.

Module-2

Union Executive and State Executive:

Parliamentary System, Federal System, Centre-State Relations. Union Executive – President, Prime Minister, Union Cabinet, Parliament - LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Articles

370.371,371J) for some States.

Module-3

Elections, Amendments and Emergency Provisions:

Elections, Electoral Process, and Election Commission of India, Election Laws. Amendments - Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments – 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Emergency Provisions, types of Emergencies and itsconsequences.

Constitutional special provisions:

Special Provisions for SC and ST, OBC, Women, Children and Backward Classes.

Module-4

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be

able to, CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year | | | | | | | |
|------------|-------------------------|----------------------------|-----------------------------|------------------|--|--|--|--|--|--|--|
| Textboo | Textbook/s | | | | | | | | | | |
| 1 | Constitution of India, | Shubham | | 2018 | | | | | | | |
| | Professional Ethics and | Singles, Charles | Cengage | | | | | | | | |
| | Human Rights | E. Haries, and et | | | | | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | al | Learning India | | | | | |
|---------|---|--|------------------|-------|--|--|--|--|
| 2 | Cyber Security and Cyber Laws | Alfred Basta and | Cengage | 2018 | | | | |
| | | et al | Learning India | | | | | |
| Referer | Reference Books | | | | | | | |
| 3 | Introduction tothe Constitution of India | Durga Das Basu | Prentice – Hall, | 2008. | | | | |
| 4 | Engineering Ethics | M. Govindarajan, S. Natarajan, V. S. Senthilkumar | Prentice –Hall, | 2004 | | | | |

| B. E. COMMON TO ALL PROGRAMMES Choice Based Credit System (CBCS) and Outcome Based Education (OBE) SEMESTER – V ENVIRONMENTAL STUDIES | | | | | | | |
|--|-----------------------|----------------------------|-----------------|--|--|--|--|
| | | | | | | | |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | | |
| Credits | 01 | Exam Hours | 02 | | | | |
| Module - 1 | | | | | | | |
| Ecosystems (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake. Biodiversity: Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation. | | | | | | | |
| Module - 2 Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, | | | | | | | |
| Tidal and Wind. | | | | | | | |
| Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, | | | | | | | |
| Cloud | | | | | | | |
| Seeding, and Carbon Trading. | | | | | | | |
| Module - 3 | | | | | | | |
| Environmental Pollution (Sources, Im | pacts, Corrective and | Preventive measures, Relev | vant | | | | |
| Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil Pollution | | | | | | | |
| and AirPollution. | | | | | | | |
| Waste Management & Public Health | Aspects: Bio-medical | Wastes; Solid waste; Hazar | dous wastes; E- | | | | |
| wastes; | | | | | | | |
| Industrial and Municipal Sludge. | | | | | | | |
| Module - 4 | | | | | | | |
| Global Environmental Concerns (Concept, policies and case-studies):Ground water depletion/recharging, | | | | | | | |
| Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement | | | | | | | |
| and rehabilitation of people, Environmental Toxicology. | | | | | | | |
| Module - 5 | | | | | | | |
| Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & | | | | | | | |
| Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship- NGOs. | | | | | | | |
| Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief | | | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

documentation.

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to the environment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| Sl.No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year |
|---------|--|---|---|---|
| Textbo | ok/s | | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 |
| Referen | nce Books | · | | |
| 1 | Principals of Environmental Science and Engineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MANAGEMENT AND ENGINEERING ECONOMICS B.E, V Semester, Mechanical Engineering [As per Choice Based Credit System (CBCS) scheme] 17ME51 **CIE Marks** 40 **Course Code** Number of Lecture Hours/Week 04 **SEE Marks** 60 **Total Number of Lecture Hours** 50(10 Hours per Module) **Exam Hours** 03 Credits - 04

Course Objectives:

- Examine the meaning, importance, nature of management, its difference between management and administration and role of managers in management.
- Examine the meaning characteristics principles and process of organizing.
- Describe effective communication process, its importance, types and purpose for running an organization.
- Explain the importance of engineering economics, Law of demand and supply in engineering decision making.
- Describe various interest rate factors and implement the same for economic decision making.
- Examine different economic analysis methods-NPW, EAW, IRR, FW for decision making.
- Discuss different component of costs and methods of cost estimation.
- · Explain depreciation, different methods of computing depreciation.
- · Discuss taxation concepts-income tax and corporate taxes.

Module - 1

Management: Introduction - Meaning - nature and characteristics of Management, Scope and Functional areas of management - Management as ascience, art of profession - Management & Administration - Roles of Management, Levels of Management, Development of Management Thoughtearly management approaches - Modern management approaches.

Planning: Nature, importance and purpose of planning process Objectives -Types of plans (Meaning Only) - Decision making Importance of planning -steps in planning & planning premises - Hierarchy of plans.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Module - 2

Organizing And Staffing: Nature and purpose of organization Principles of organization - Types of organization - Departmentation Committees-Centralization Vs Decentralization of authority and responsibility - Span of control - MBO and MBE (Meaning Only) Nature and importance of staffing--: Process of Selection & Recruitment (in brief).

Directing & Controlling: Meaning and nature of directing Leadershipstyles, Motivation Theories, Communication - Meaning and importance - coordination, meaning and importance and Techniques of Co Ordination. Meaning and steps in controlling - Essentials of a sound control system - Methods of establishing control (in brief)

Module - 3

Introduction: Engineering and economics, Problem solving and decision making, Laws of demand and supply, Difference between Microeconomics & Macroeconomics, equilibrium between demand & supply, elasticity of demand, price elasticity, income elasticity. Law of Returns, Interest and interest factors, simple and compound interest, Cash flow diagrams, personal loans and EMI payment calculation with flexible interest rates, Discussion and problems

Module - 4

Present, future and annual worth and rate of returns: Basic present worth comparisons, Present worth-equivalence, Assets with unequal lives and infinites lives, future worth comparisons, payback comparisons, Equivalent annual worth comparisons, situations for annual worth comparisons. Asset life, Rate of return, minimum acceptable rate of return, IRR anomalies and misconceptions, Cost of capital, comparisons of all present future and annual worth with IRR, product costing, Discussions and problems

Module - 5

Costing and depreciation: Components of costs, estimation of selling price, marginal cost, first cost, all kinds of overheads, indirect cost estimation with depreciation, mensuration and estimation of material cost, cost estimation of mechanical process, idling time.

Product costing (approaches to product costing), causes of depreciation, methods of computing depreciation charges, straight line method, declining balance method, sum of years method, sinking fund method, service output methods, taxation concepts, personal income taxes and corporate taxes, Discussions and problems.

Course outcomes:

On completion of this subject students will be able to

- 1. Explain the development of management and the role it plays at different levels in an organization.
- 2. Comprehend the process and role of effective planning, organizing and staffing for the development of an organization.
- 3. Understand the necessity of good leadership, communication and coordination for establishing effective control in an organization.
- 4. Understand engineering economics demand supply and its importance in economics decision making and problem solving.
- 5. Calculate present worth, annual worth and IRR for different alternatives in economic decision making.
- Understand the procedure involved in estimation of cost for a simple component, product costing and depreciation, its methods.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Biotechnology

| B. E. Common to all Programmes Outcome Based Education (OBE) and Choice Based Credit System (CBCS) | | | | | |
|--|---|--|--|--|--|
| CONSTITUTION OF IND | SEMESTER - III IA, PROFESSIONAL ETHICS A | ND CYBER LAW (CPC) | | | |
| Course Code | 18CPC39/49 | CIE Marks | 40 | | |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | |
| Credits | 01 | Exam Hours | 02 | | |
| Course Learning Objectives: To know the fundamental political codes, structure, procedures, powers, and duties of Indian government institutions, fundamental rights, directive principles, and the duties of citizens Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety. Know about the cybercrimes and cyber laws for cyber safetymeasures. Module-1 Introduction to Indian Constitution: The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, The Making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) and its present relevance in our society with examples. Fundamental Duties and its Scope and significance in Nation building. | | | | | |
| Union Executive and State Execut Parliamentary System, Federal Minister, Union Cabinet, Parliam Terminologies. Supreme Court of Chief Minister, State Cabinet, St (Articles 370.371,371J) for some States. Module-3 Elections, Amendments and Eme Elections, Electoral Process, and Constitutional Amendments (How 7,9,10,12,42,44, 61, 73,74, ,75, Emergency Provisions, types of E Constitutional special provisions Special Provisions for SC and ST, of Module-4 | System, Centre-State Relat nent - LS and RS, Parliamen India, Judicial Reviews and Ju ate Legislature, High Court Election Commission of India w and Why) and Important (86, and 91,94,95,100,101,1 mergencies and itsconseque : | atary Committees, Import adicial Activism. State Exect and Subordinate Courts, a, Election Laws. Amendme Constitutional Amendmen 18 and some importa nces. | ant Parliamentary cutives – Governor, Special Provisions nents - Methods in ts. Amendments – | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be

able to, CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year |
|--------------|---|--|-----------------------------|------------------|
| Textbo | ok/s | | | |
| 1 | Constitution of India, Professional Ethics and Human Rights | Shubham Singles, Charles E. Haries, and et al | Cengage Learning India | 2018 |
| 2 Poforor | Cyber Security and Cyber Laws | Alfred Basta and et al | Cengage Learning India | 2018 |
| 3 | Introduction tothe | Durga Dac Racu | Drontico Hall | 2008 |
| 5 | Constitution of India | Durga Das Basu | Prentice – Hall, | 2008. |
| 4 | Engineering Ethics | M. Govindarajan, S. Natarajan, V. S. Senthilkumar | Prentice –Hall, | 2004 |

| B. E. COMMON TO ALL PROGRAMMES Choice Based Credit System (CBCS) and Outcome Based Education (OBE) SEMESTER – V | | | | |
|---|----------------|------------|----|--|
| ENVIRONMENTAL | | | | |
| | STUDIES | | | |
| Course Code | 18CIV59 | CIE Marks | 40 | |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 | |
| Credits | 01 | Exam Hours | 02 | |
| Module - 1 | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Ecosystems (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake. **Biodiversity:** Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation.

Module - 2

Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind.

Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud

Seeding, and Carbon Trading.

Module - 3

Environmental Pollution (Sources, Impacts, Corrective and Preventive measures, Relevant

Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil Pollution and AirPollution.

Waste Management & Public Health Aspects: Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes;

Industrial and Municipal Sludge.

Module - 4

Global Environmental Concerns (Concept, policies and case-studies):Ground water depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.

Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship-NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to the environment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| SI.No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year |
|---------|-----------------------|----------------------------|---|---|
| Textboo | ok/s | | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 |

THE OXFORD COLLEGE OF ENGINEERING (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

CHILDREN'S EDUCATION SOCIETY (Regd.)

| | | in engprineipule treoxio | | |
|---------|--------------------------------------|--------------------------|-----------------------|--------------------------------|
| 3 | Environmental Studies- | RRajagopalan | Oxford Publisher | 2005 |
| | From Crisis to Cure | | | |
| Referer | nce Books | | | |
| 1 | Principals of Environmental | Raman Sivakumar | Cengage learning, | 2 nd Edition, 2005 |
| | Science and Engineering | | Singapur. | |
| 2 | Environmental Science | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 |
| | working with the | | | |
| | Earth | | | |
| 3 | Text Book of | Pratiba Sing, | Acme Learning Pvt. | 1 st Edition |
| | Environmental and | Anoop Singh& | Ltd. New Delhi. | |
| | Ecology | Piyush | | |
| | | Malaviya | | |

| | BIOTECHNOLOGYFORSU | STAINABLEENVIRONMEN | ΙТ | |
|-----------------------------------|-----------------------------------|---|--------------|-----|
| [As | per Choice Based Credit Sy | | ESTER | |
| | | -V | | |
| Sub.Code: | 15BT563 | I.AMarks: | 20 | |
| Hours/week: | 3 | ExamHrs. : | 4 | |
| TotalHours: | 40 | ExamMarks : | 80 | |
| | CRED | ITS– 03 | | |
| Courseobjectives: | | | | |
| Thiscoursewillenables | tudentstolearn | | | |
| Theunderly | vingconceptsofEnvironme | ntand its pollution. | | |
| Treatment | ofwastewaterandsolidwas | ste. | | |
| Theimport | anceofBiofuelsagainstcon | servativefuels | | |
| MODULE-1 | | | | |
| WATERPOLLUTIONAN | IDTREATMENTOF | | | |
| WASTEWATER:Water | asResource, Drinkingwate | r quality, water co | onsumption | |
| <mark>standards, Types ofW</mark> | ater Pollutants and sources | <mark>,</mark> State and central was tewa | ater quality | |
| and its various disch | arge standards.Wastewa | ter Sampling and Chara | cteristics - | |
| Physical, Chemical and | Biological characteristics | of wastewater:Solving nu | umerical on | L1, |
| the | sampling, | cha | racteristics | L2, |
| andestimationofwaste | waterflowrates.Biotechn | ological | | L3 |
| approach forwaterpur | ification | | | |
| | | | | |
| | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MODULE-2

| TERTIARY/ADVANCEDWASTEWATERTREATMENT:Secondary/Biologicaltreatmentprocess,aerobic/anaerobicattachedandsuspendedgrowthprocess,Sludgetreatment&Disposal.Ultrafiltration,Filtration,AdsorptiononActivatedCarbon,IonExchange,ReverseOsmosis,Electrodialysiscell.WastewatertreatmentinIndustries:PaperandPulp,distillery,Leather,FoodprocessingsuchdairyandfruitprocessingandTextileprocessing. | L2 L3 L4 |
|---|----------------|
| MODULE- 3 | |
| AIRPOLLUTIONANDNOISEPOLLUTION Sources, Classification, Properties of airpollutants, and Effects of airpollution on health, v egetation and materials. Airpollutions ampling: Ambients ampling and Stacks ampling, Analysis of airpollutants, Control methods and Equipment for particulates and gase ous pollutants, A pplications to Industries: Thermal power plants, Metallurgical and Cement industries. So urces, Effects of Noise, Equipment for Noise Measurement, and Approaches for Noise Control | L2 L3 L4 |
| MODULE– 4 | |
| BIOFUELS:Renewableandnon-renewableresources. Conventional fuels and their environmentalimpacts.Animaloils.Modernfuelsandtheirenvironmentalimpacts.Biot echnologicalinputsinproducing good quality natural fibres. Plant sourceslikeJetropha, Pongamia etc. Waste as an energy core,energy recovery systems for urban waste, technologyevaluation,conceptofgasificationofwasteswithmoltensalttoproducelow- BTUgas;pipelinegasfromsolidwastesbysyngasrecyclingprocess;conversion of feedlot wastes into pipeline gas; fuelsandchemicalsfromcrops,productionofoilfromwoodwaste,fuelsfromwoodwaste ,methanol productionfromorganic wastes | L |
| MODULE– 5 | |

| CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING | | | |
|---|----------------|--|--|
| (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. | | | |
| Approved by A.I.C.T.E. New Delhi. | rty, belagavi. | | |
| Recognised by UGC Under Section 2(f) | | | |
| Bommanahalli, Hosur Road, Bangalore - 560 068. िविद्या नर्वेष गोभुजी Ph: 080-61754601/602, Fax: 080 - 25730551 | | | |
| Entil: engprincipal@theoxford.edu Web: www.theoxfordengg.org | | | |
| SOLIDWASTEMANAGEMENT : Definitions, Characteristics and perspectives, Types of so | | | |
| lidwastes,SourcesofSolidwaste,Propertiesofsolidwaste- | | | |
| Numerical problems, Solid waste Management – An Overview:- | | | |
| Materialflowinsociety, Reduction in rawmaterial usage, Solid wastegeneration, and reus | | | |
| ewithmaterials, energy recovery. Solidwastemanagement through Biotechnological pr | L1, | | |
| ocessesinvolvingHazardouswastes,Biomedicalwastes,Dairy wastes, Pulp industry | L2, | | |
| wastes, Textile industrywastes, leather industry wastes and pharmaceutical | L3 | | |
| industry wastes, petroleum wastes treatment | | | |
| | | | |
| | | | |
| Courses outcomes | | | |
| Courseoutcomes: | | | |
| Afterstudyingthis course, students will beableto: | | | |
| Applyreasoningtoidentifythecomponentsofenvironmentalecosystemsandeffect | ctofpolluta | | |
| nt on environment. | | | |
| Characterizethevariousparametersfortreatmentofwater,wastewaterandsolid | | | |
| wastefromtheirsourcestoprovidevalid conclusions. | | | |
| Understand the impact of recovery, recycle of the useful resources from the | wastes by | | |
| adopting advanced techniques to demonstrate the need for sustainable dev | elopment. | | |
| Identify and demonstrate the knowledge to use suitable equipment for abat | ement and | | |
| control of air & noise pollution | | | |
| | | | |
| | | | |
| Graduate Attributes (as per NBA): | | | |
| Design / development of solutions (environmental) | | | |
| Engineer and society | | | |
| Professional Ethics. | | | |
| • Lifelong learning. | | | |
| Problem analysis | | | |
| Question paper pattern: | | | |
| The question paper will have ten questions. | | | |
| Each full question consists of 16 marks. | | | |
| There will be 2 full questions (with a maximum of four sub questions) from e | each | | |
| module. | | | |
| | ماريام | | |
| • Each full question will have sub questions covering all the topics under a mo | | | |
| The students will have to answer 5 full questions, selecting one full question | Trom | | |

each module.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

TEXT BOOKS

- 11. Environmental Engineering by Howard S. Peavey, Donald R. Rowe, George Techobanolous, McGraw-Hill International Editions.
- 12. Wastewater Engineering Treatment, Disposal and Reuse, METCALF AND EDDY, INC. 3rd Edition Tata McGraw-Hill Publishing Company Limited.
- 13. Environmental Biotechnology by Foster C.F., John ware D.A., Ellis Horwood Limited.
- 14. ENVIRONMENTAL BIOTECHNOLOGY by INDU SHEKHAR THAKUR, IK Publishers.
- $15. \ \text{Industrial Microbiology by L.E. Casida, Willey Eastern \ \text{Ltd. Industrial Microbiology}}$

by Prescott & Dunn, CBS Publishers.

REFERENCE BOOKS

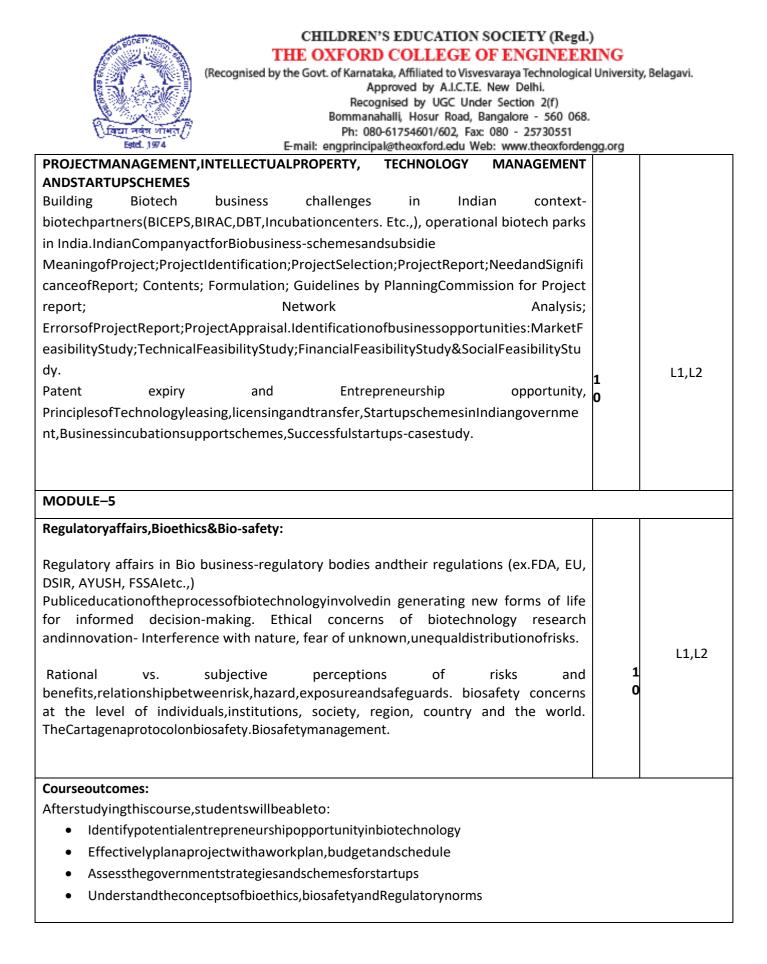
- 11. Fuels from Waste by Larry Anderson and David A Tillman, Academic Press.
- 12. Bioprocess Technology- fundamentals and applications, S O Enfors& L Hagstrom, RIT, Stockholm.
- 13. Comprehensive Biotechnology by M.Y. Young (Eds.), Pergamon Press.
- 14. Biotechnology, Economic & Social Aspects by E.J. Dasilva, C Ratledge& A Sasson, Cambridge Univ. Press, Cambridge.
- 15. Environmental Biotechnology by Pradipta Kumar Mahopatra.

| BIO-BUSINESSANDENTREPRENEURSHIP [AsperChoiceBasedCreditSystem(CBCS)scheme]SEMESTER–VI | | | | |
|---|--------|------------|----|--|
| Sub.Code: | 15BT61 | I.AMarks: | 20 | |
| Hours/week: | 4 | ExamHrs.: | 3 | |
| TotalHours: | 50 | ExamMarks: | 80 | |
| | C | CREDITS-04 | · | |
| Course objectives: This course will enable students to learn about the project management, entrepreneurshipandIPR. | | | | |
| MODULE-1 | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| BIOENTERPREUNERSHIP | | |
|--|---|----------|
| Introduction to bio-business, fromtheIndiancontext,SWOTanalysisofbio- | | |
| business.ConceptofEntrepreneurship- | | |
| $\label{eq:constraint} Evolution of Entrepreneurship, Development of Entrepreneurship; Stages in entrepreneuring and the state of the $ | | |
| alprocess;RoleofentrepreneursinEconomicDevelopment;EntrepreneurshipinIndia;Entr | | |
| epreneurship- | 1 | L1,L2 |
| itsbarriers.Smallscaleindustries:Definition;Characteristics;Needandrationale;Objective | | LI,LZ |
| s; Scope; Market Feasibility Study; TechnicalFeasibility Study; Financial Feasibility Study | | |
| &SocialFeasibility Study. Global bio business and industry futuretrends. | | |
| MODULE-2 | | |
| ENTREPRENEURSHIP OPPORTUNITY IN AGRIBIOTECHNOLOGY | | |
| Business opportunity, Essential requirement, | | |
| marketing, strategies, schemes, challenges and scope-with cases tudy on | | |
| Plant cell and tissue culture technique, polyhouse culture.Herbal bulk drug production, | 1 | L1,L2, |
| Nutraceuticals, value addedherbalproducts.BioethanolproductionusingAgriwaste, | 0 | LI,LZ, |
| Algalsource. | | |
| | | |
| $\label{eq:linear} Integration of system biology for a gricultural applications. Biosensor development in A grimana$ | | |
| gement | | |
| MODULE-3 | 1 | |
| ENTREPRENEURSHIPOPPORTUNITYININDUSTRIALBIOTECHNOLOGY | | |
| Business opportunity, Essential requirement, | | |
| marketingstrategies, schemes, challenges and scope-with cases tudy- | | |
| Pollution monitoring and Bioremediation for Industrialpollutants, Pesticides, Herbicides | | |
| etc. Integrated compostproduction-microbeenrichedcompost. | | |
| Biopesticide/insecticide production. Fermented products-probiotic and prebiotics. | | |
| Stem cell production, stem | | L1,L2,L3 |
| cellbank,contractresearch.Productionofmonoclonal/polyclonalantibodies,Singlecellpro | 0 | |
| teinandsecondarymetaboliteproduction | | |
| Contactresearchinmicrobialgenomics | | |
| | | |
| MODULE-4 | | |
| | | |





(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

GraduateAttributes(asperNBA):

- Engineeringknowledge
- Conductinvestigationofcomplexproblem
- Engineerandsociety
- Environmentandsustainability
- ProfessionalEthics
- Projectmanagementandfinance
- .Lifelonglearning.

Questionpaperpattern:

- Thequestionpaperwillhavetenquestions.
- Eachfullquestionconsistsof16marks.
- Therewillbe2fullquestions(withamaximumoffoursubquestions)fromeachmodule.
- Eachfullquestionwillhavesubquestionscoveringallthetopicsunderamodule.
- Thestudentswillhavetoanswer5fullquestions, selecting one fullquestion from each module.

TEXTBOOKS

- 7. PrinciplesofManagement–P.C.Tripathi,P.N.Reddy–TataMcGrawHill,
- 8. EntrepreneurshipDevelopment-S.S.Khanka-S.Chand&Co.
- 9. PracticalApproachtoIPRbyRachanaSinghPuri,IKIntl.Ltd.

REGULATORYAFFAIRSINBIOTECHINDUSTRY

[As per Choice Based Credit System (CBCS) scheme]SEMESTER --VIII

| CREDITS-04 | | | | |
|-------------|--------|-------------|----|--|
| TotalHours: | 50 | ExamMarks : | 80 | |
| Hours/week: | 4 | ExamHrs. : | 3 | |
| Sub.Code: | 15BT82 | I.AMarks: | 20 | |

Courseobjectives:The**objective**ofthiscourseistoeducatestudentsaboutregulatoryrulesandguidelinesthatspecif yparameters of thesafetyandqualitystandards in the biotech industry.

MODULE – 1

| CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org | | | |
|--|--------|----------|--|
| INTRODUCTION Validation and Regulatory Affairs in Bio (Pharmaceutical)Manufacturing:AnIntroductiontoFDAOperations&IndustryComp lianceRegulations,TheFundamentalsofRegulatoryCompliancewithrespecttoGood ClinicalPractice(GCP),GoodManufacturingPractice(GMP)&GoodLaboratoryPractic e(GLP).AnIntroductiontotheBasic Concepts of Process Validation & how it Differs fromQualification(IQ,OQ&PQ)Procedures,AReviewofProspective,Concurrent,Ret rospectiveValidation&Revalidation including the use of Statistical Process Control(SPC)Techniques.ISO9000Series&InternationalHarmonization&theireffect upon GMP's, | 1 0 | L1,L2,L3 | |
| MODULE –2 | | | |
| VALIDATION Validation of Water & Thermal Systems, including HVACFacilities&CleaningValidation.ValidationofActivePharmaceuticalIngredients (APIs)&AsepticProcesses.ValidationofNon- SterileProcesses(usedinthemanufactureofSolids,Liquids,&SemisolidDosageForms).Overviewofmethodevolution,FDAandICHguidelines,Developmentandvalidation, Basicstatisticalconcepts,Outliers,Specificity:samplepreparation,Specificity:separa tions,Specificity:detectors,Linearity,Accuracy,Precision,Limitsofdetection(LOD)an dquantification(LOQ),Minimumdetectableamount(MDA), Samplestabilityandmethodrobustness,Windowdiagrams, | 1 0 | L1,L2,L3 | |
| Systemsuitability,StatisticalprocesscontrolforHPLC,Sustainablevalidation,Trouble shootingout-of-controlsystems,Case studies | | | |
| MODULE – 3 | | | |
| STANDARDSIntroduction,ISO9000SeriesofStandards,ManagementResponsibility,QualitySystem,ContractReview,DesignControl,DocumentandDataControl,PreservationandDelivery,ControlofQualityRecords,InternalQualityAudits,Training,Servicing,StatisticalTechniques,ISO-9001-2000,Scope,NormativeReference,TermsandDefinitions,QualityManagement,System,DocumentsRequirements,Management'sResponsibility,ResourceManagement,Infrastructure,ProductRealization,Measurement,AnalysisandImprovement,ISO-14001,EnvironmentalManagement Systems. | 1 0 | L1,L2,L3 | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MODULE – 4

| QUALITYANDIMPLEMENTATION TerminologyRelatingtoQuality,QualityRequirement,CustomerSatisfaction,Capabil ity;TermsRelatingtoManagement,ManagementSystem,QualityManagementSyste m,QualityPolicy,QualityObjectives,QualityPlanning,QualityControl,QualityAssura nce,QualityImprovement,ContinualImprovement,Effectiveness,Efficiency,Termsr elatingtoCharacteristics,QualityCharacteristics;TermsRelatingtoConformity,Non- Conformity, Defect, Preventive Action, Corrective Action,Correction, Rework, Repair, Scrap, Concession, DeviationPermit,Release;ObjectiveEvidence,Inspection,Test,MetrologicalConfir mation.QualitySystem,ContractReview,DesignControl,DocumentandDataControl ,Purchasing, Control of Customer Supplied Product, ProductIdentification and Traceability, Process Control, Inspectionand Testing, Final Inspection and Testing, Inspection andTest Status, Handling, Storage, Packaging, Preservation andDelivery,ControlofQualityRecords,InternalQualityAudits,Training,Servicing,St atisticalTechniques | 1 0 | L1,L2,L3, |
|--|--------|-----------|
| MODULE – 5 | | |
| QUALITYMANAGEMENTThe development of regulatory requirements for validation, The V model and Life Cycle model approach to validationanddocumentation, RiskAnalysisTechniques:ImpactAssessment; Failure Mode and Effects Analysis (FMEA), ValidationMasterPlans, Commissioning and Qualification, | 1 0 | L1,L2,L3 |
| ProcessValidation,Routinevalidationandrevalidation,ContaminationControl,Risk ManagementinthePharmaceutical Industry, Solid Dose Manufacture Principlesand Practices, Liquid and Cream Manufacture Principles andPractices,GoodLaboratoryPractices(forNon-ClinicalLaboratories), Computer Systems Validation Principles andPractices,GoodAsepticPracticesandSterileProducts,ClinicalTrialsQualityAssur anceManagement,GxPandQuality Auditing Practices,PharmaceuticalEngineering— Facility,EquipmentandProcessDesign,Fundamentalsof ProcessAnalyticalTechnology,QualityandContinuousImprovementintheBiotech Industry. | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

COURSEOUTCOMES:

Afterstudyingthis course, students will beableto:

- Outlinetheimportanceofthequalityandcomplianceinthebiotech industry
- Comprehend the various regulatory guidelines and rules as well as the organizationsgoverningthe same.

GraduateAttributes(asperNBA):

- Engineerand society
- ProfessionalEthics.
- Lifelonglearning.

Questionpaperpattern:

- Thequestionpaperwillhavetenquestions.
- Eachfullquestionconsists of 16 marks.
- Therewillbe2fullquestions(withamaximumoffoursubquestions)fromeachmodule.
- Eachfullquestionwillhavesubquestionscoveringallthetopicsundera module.
- Thestudentswillhavetoanswer5fullquestions, selecting one fullquestion from each module.

TEXTBOOKS

- PharmaceuticalProcessValidationbyRobertNashandAlfredWachter,MarcelDekker.
- GoodManufacturingPracticesforPharmaceuticals:APlanforTotalQualityControlFromManufacture rtoConsumer, SidneyJ.Willig,Marcel Dekker.
- ValidationofPharmaceuticalProcesses:SterileProducts,FrederickJ.Carlton(Ed.)andJamesAgalloco (Ed.), Marcel Dekker.
- Validation Standard Operating Procedures: A Step by Step Guide for AchievingCompliance in the Pharmaceutical, Medical Device, and Biotech Industries, Syed ImtiazHaider,Saint Lucie Press.
- PharmaceuticalBiotechnologybySPVyasandVKDixit,CBSPublishers.

REFERENCEBOOKS

- PharmaceuticalEquipmentValidation:TheUltimateQualificationHandbook,PhillipA.Cloud,Interpharm Press.
- CommissioningandQualification,ISPEPharmaceuticalEngineeringBaselineGuidesSeries.
- ICHguidelineQ6B,FreelancePublishing.

ENVIRONMENTALBIOTECHNOLOGY

[As per Choice Based Credit System (CBCS) scheme]SEMESTER -VIII

| Sub.Code: | 15BT833 | I.AMarks: | 20 |
|-------------|---------|-------------|----|
| Hours/week: | 3 | ExamHrs. : | 3 |
| TotalHours: | 40 | ExamMarks : | 80 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| Estd. 1974 E-mail: engprincipal@theoxford. | edu Web: www.theoxfor | dengg.org |
|--|-----------------------|-------------|
| CREDITS- 03 | | |
| MODULE- 1 | | |
| INTRODUCTIONTOENVIRONMENTALPOLLUTANTS Water,SoilandAir:theirsourcesandeffects.RemovalofSpecificP ollutants:SourcesofHeavyMetal Pollution, Microbial Systems for Heavy MetalAccumulation,Biosorption&detoxificationmechanisms. | 08 | L1,L2,L3 |
| MODULE-2 | <u> </u> | |
| MICROBIOLOGYANDBIOCHEMISTRYOFWASTEWATER TREATMENT BiologicalTreatmentofanaerobicandaerobic;methanogenesis ,methanogenic,acetogenic,andfermentativebacteria- technicalprocessandconditions; Use of Genetically Engineered Organisms.emerging biotechnological processes in waste - watertreatment; Applications include treatment of municipalandindustrial wastewaters, | 08 | L2,L3,L4 |
| MODULE– 3 | | |
| BIODEGRADATIONOFXENOBIOTICCOMPOUNDS&BIOREME DIATION: Xenobioticcompounds:Aliphatic,Aromatics,PolyaromaticHyd rocarbons,Polycyclicaromaticcompounds,Pesticides,Surfacta ntsandmicrobialtreatmentof oil pollution. Introduction to Bioremediation, Types of | 08 | L2,L3,L4 |
| Bioremediation,Bioremediationofsurfacesoilandsludges, Bioremediation of subsurface material, In situtechnologies,Ex-situtechnologies,Phytoremediation, | | |
| MODULE- 4 | L | |
| BIOTRANSFORMATIONS&BIOCATALYSTS: Basicorganicreactionmechanism- CommonprejudicesagainstEnzymes Advantages&DisadvantagesofBiocatalysts- IsolatedEnzymesversus whole cell systems Mechanistic Aspects andEnzyme Sources Biocatalytic Application - CatalyticAntibodies;Stoichiometry,kinetics,andthermodynam icsofmicrobialprocessesforthetransformationof environmental contaminants. | 08 | L1,L2,L3,L4 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MODULE-5

| BIOOXIDATION&MICROBIALLEACHING: Biooxidation–DirectandIndirectMechanisms– BiooxidationKinetics;BacterialoxidationofSphalerite,Chalcop yriteandPyrite.;Extractionofmetals from ores; Recovery of metals from solutions;Microbesinpetroleumextraction;Microbialdesulfuri zationofcoal,geneclosing- useofgeneticallyalteredmicroorganismsforfieldbiodegradatio nofhazardous materials. | 08 | L1,L2,L3 |
|--|----|----------|
| Courseoutcomes: Afterstudyingthis course, students will beableto: | | |

- Understand the role of various environmental pollutants, biooxidation, biotransformation
- Explaintheinvolvementofmicrobesinwastewatertreatment, chemicals

GraduateAttributes(asperNBA):

- Engineerand society
- ProfessionalEthics.
- Lifelonglearning.

Questionpaperpattern:

- Thequestionpaperwillhavetenquestions.
- Eachfullquestionconsists of 16 marks.
- Therewillbe2fullquestions(withamaximumoffoursubquestions)fromeachmodule.
- Eachfullquestionwillhavesubquestionscoveringallthetopicsundera module.
- Thestudentswillhavetoanswer5fullquestions, selecting one fullquestion from each module.

TEXT BOOKS

- **Environmental Microbiology, W.D. Grant & P.E. Long, Blakie, Glassgow and London.**
- **Microbial Gene Technology, H. Polasa (ED.) South Asian Publishers, New Delhi.**
- **2** Environmental Biotechnology by Bruce Rittmann and Perry McCarty
- **Biotransformations : K. Faber (1995), Springer- Verlag.**



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Civil Engineering

| Program | me: CIV | IL ENGINI | VISVESVARAYA TECHNOLOGIC Scheme of Teachir Outcome Based Education(OBE) and Cl (Effective from the acad EERING | ng and Exam noice Based | ninatio Credit | n 2018 Systen | - 19 | | | | | |
|---------|---------|--------------------|--|----------------------------|----------------------------------|------------------|-----------------------|----------------------|----------------|-----------|-------------|---------|
| III SEM | ESTER | | | | | | | | | | | |
| | | | | | Teaching Hours /Week Examination | | ination | | | | | |
| SL No | | rse and se Code | Course Title | Teaching Department | Theary Lecture | Tutorial | Practical/ Drawing | Duration in hours | CIE Murks | SEE Marks | Fotal Marks | Credits |
| | | | | | L | т | Р | - | <u>۲</u> | ~ | - | |
| 1 | BSC | 18MAT31 | Transform Calculus, Fourier Series and Numerical Techniques | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18CV32 | Strength of Materials | Civil Engg. | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18CV33 | Fluid Mechanics | Civil Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18CV34 | Building Materials and Construction | Civil Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | - 3 |
| 5 | PCC | 18CV35 | Basic Surveying | Civil Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | - 3 |
| 6 | PCC | 18CV36 | Engineering Geology | Geology | 3 | 0 | | 03 | 40 | 60 | 100 | - 3 |
| 7 | PCC | 18CVL37 | Computer Aided Building Planning & Drawing | Civil Engg. | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18CVL38 | Building Materials Testing Laboratory | Civil Engg. | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 9 | HSMC | 18KVK39 18KAK39 | Vyavaharika Kannada (Kannada for communication)/ OR Aadalitha Kannada (Kannada for Administration) | HSMC | - | 2 | - | | 100 | | 100 | |
| 1 | name | | OR | Hawie | | | | | | | 100 | · · |
| | | ISCPC39 | Constitution of India, Professional Ethics and Cyber Law | 1 | 1 Exa | mination | is by obi | 02 ective typ | 40 e auesti | 60 | | |
| | | | And the | | 17 | 08 | | 24 | 420 | 480 | | |
| | | | | TOTAL | OR 18 | OR 10 | 04 | OR 26 | OR 360 | OR 540 | 900 | 24 |

| Prog | ramme: | CIVIL ENGI | VISVESVARAYA TECHNOLOG Scheme of Teaching ar Outcome Based Education(OBE) and (Effective from the ad NEERING | nd Examinatio Choice Based | n 2018 – Credit S | 19 | | | | | | |
|----------|---------|--------------------------|--|-------------------------------|--|--|---------------|--------------------|----------------|----------|----------|-----|
| IV S | EMESTI | 2R | 1 | | | | | | | | | |
| SL No | | ourse and ourse code | Course Title | 2 2 F F 2 3 | Arching Archin | Tacquiag Hones (Week Teaching Praceine at Praceine at Drawing Praceine at Drawing Burnes Burnes at Drawing Burnes Burnes Drawing Burnes Drawing Burne | | stion SEE Mirds | Fotal Marks | Cre dits | | |
| | | | | | L | Т | P | | 0 | 8 | e. | |
| 1 | BSC | 18MAT41 | Complex Analysis, Probability And Statistical Methods | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18CV42 | Analysis of Determinate Structures | Civil Engg. | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18CV43 | Applied Hydraulics | Civil Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | - 3 |
| 4 | PCC | 18CV44 | Concrete Technology | Civil Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18CV45 | Advanced Surveying | Civil Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18CV46 | Water Supply & Treatment Engineering | Civil Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | - 3 |
| 1 | PCC | 18CVL47 | Engineering Geology Laboratory | Geology | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18CVL48 | Fluid Mechanics and Hydraulic Machines Laboratory | Civil Engg. | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 9 | 1123.40 | 18KVK39/49 18KAK39/49 | Vyavaharika Kannada (Kannada for Communication)/ OR Aadalitha Kannada (Kannada for Administration) | 110140 | | 2 | | | 100 | | 100 | |
| | HSMC | | OR | HSMC | | | | <u> </u> | | | 100 | 1 |
| | | 18CPC39/49 | Constitution of India, Professional Ethics and Cyber Law | | 1 | Examination | is hy ohi | 02 ective type | 40 mestions | 60 | 1 | |
| | | | | TOTAL | 17 | 08 | a ta by bbj | 24 | 420 | 480 | <u> </u> | ├── |
| | | | | | OR | OR | 04 | OR | OR | OR | 900 | 24 |
| | | | | | 18 | 10 | | 26 | 360 | 540 | 1 | 1 - |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | | JINEERING | | | | | | | | | | |
|-----------|-------|-----------------------|--|---|--------------------------|----------|-----------------------|----------------------|-----------|-----------|------------|---------|--|
| / SE | MESTE | R | | | | | | | | | | — | |
| | | | | | Teaching Hours /Week Exa | | Exam | ination | | - | | | |
| ši. No | | urse and urse code | Course Title | Teaching Department | Theory Loc ture | Tutorial | Practical/ Drawing | buration in hours | CIE Marks | SEE Marks | otal Marks | Credits | |
| | | | | | L T P | L T P | L T P | T P | - | Ŭ | vc. | F | |
| 1 | HSMC | 18CV51 | Construction Management & Entrepreneurship | Civil Engg. | 2 | 2 | | 03 | 40 | 60 | 100 | 3 | |
| 2 | PCC | 18CV52 | Analysis of Indeterminate Structures | Civil Engg. | 3 | 2 | | 03 | 40 | 60 | 100 | 4 | |
| 3 | PCC | 18CV53 | Design of RC Structural Elements | Civil Engg. | 3 | 2 | | 03 | 40 | 60 | 100 | - 4 | |
| 4 | PCC | 18CV54 | Basic Geotechnical Engineering | Civil Engg. | 3 | | | 03 | 40 | 60 | 100 | - 3 | |
| 5 | PCC | 18CV55 | Municipal Wastewater Engineering | Civil Engg. | 3 | | | 03 | 40 | 60 | 100 | 3 | |
| 6 | PCC | 18CV56 | Highway Engineering | Civil Engg. | 3 | | | 03 | 40 | 60 | 100 | - 3 | |
| 7 | PCC | 18CVL57 | Surveying Practice | Civil Engg. | | 2 | 2 | 03 | 40 | 60 | 100 | 2 | |
| 8 | PCC | 18CVL58 | Concrete and Highway Materials Laboratory | Civil Engg. | | 2 | 2 | 03 | 40 | 60 | 100 | 2 | |
| | | | | Civil/Environmental | | | | | | | | | |
| 9 | HSMC | 18CIV59 | Environmental Studies | [Paper setting Board: Civil Engineering] | 1 | | | 02 | 40 | 60 | 100 | 1 | |
| | | | | TOTAL | 18 | 10 | 04 | 26 | 360 | 540 | 900 | 25 | |

| Outcome Based Ed | B. E. Common to all Prog ucation (OBE) and Choice B SEMESTER - III | | S) |
|---|---|--|-------------------|
| CONSTITUTION OF INDIA | , PROFESSIONAL ETHICS AN | ND CYBER LAW (CPC) | |
| Course Code | 18CPC39/49 | CIE Marks | 40 |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| government institutions, ft Understand engineering et ethical responsibilities tow Know about the cybercrim | itical codes, structure, proce indamental rights, directive hics and their responsibilitie ardssociety. ies and <mark>cyber laws</mark> for cyber | principles, and the dutie es; identify their individu | s ofcitizens |
| Module-1 | | | |
| Introduction to Indian Constitution | | | |
| The Necessity of the Constitution, | The Societies before and af | ter the Constitution adop | tion. Introductio |

to the Indian constitution, The Making of the Constitution, The Role of the Constitution adoption. Infoduction Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) and its present relevance in our

society with examples. Fundamental Duties and its Scope and significance in Nation building. **Module-2**



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Union Executive and State Executive:

Parliamentary System, Federal System, Centre-State Relations. Union Executive – President, Prime Minister, Union Cabinet, Parliament - LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Articles

370.371,371J) for some States.

Module-3

Elections, Amendments and Emergency Provisions:

Elections, Electoral Process, and Election Commission of India, Election Laws. Amendments - Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments – 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Emergency Provisions, types of Emergencies and itsconsequences.

Constitutional special provisions:

Special Provisions for SC and ST, OBC, Women, Children and Backward Classes.

Module-4

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be

able to, CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. No. | Title of the Bo | ok Name of the Author/s | Name of the Publisher | Edition and Year |
|------------|------------------------|-------------------------------|-----------------------------|------------------|
| Textboo | ok/s | 7.00.007.0 | | |
| 1 | Constitution of India, | Shubham | | 2018 |

| TCALDOC | /ky 5 | | | |
|---------|-------------------------------|-------------------|------------------|-------|
| 1 | Constitution of India, | Shubham | | 2018 |
| | Professional Ethics and | Singles, Charles | Cengage | |
| | <mark>Human Rights</mark> | E. Haries, and et | Learning India | |
| | | al | | |
| 2 | Cyber Security and Cyber Laws | Alfred Basta and | Cengage | 2018 |
| | | et al | Learning India | |
| Referen | ce Books | | | |
| 3 | Introduction tothe | Durga Das Basu | Prentice – Hall, | 2008. |
| | Constitution of India | | | |

| 1. A. | ODETY MAN | CHI | LDREN'S EDUCATIO | N SOCIETY (Regd. |) |
|---|---|--------------------------|--------------------------------|-------------------------|-------------------------|
| 20 | 2000 | THE O | XFORD COLLEGE | E OF ENGINEER | ING |
| 6.24 | | (Recognised by the Govt. | of Karnataka, Affiliated to Vi | | l University, Belagavi. |
| 100 | | | Approved by A.I.C. | | |
| | 1997 - 1 997 - 1997 - | | Recognised by UGC U | | |
| | and the second | | Bommanahalli, Hosur Road | d, Bangalore - 560 068. | |
| िविष्य | দৰ্ব গাঁধলু/7 | | Ph: 080-61754601/602, | Fax: 080 - 25730551 | |
| 1 | Estel. 1974 | E-mail: e | ngprincipal@theoxford.edu | Web: www.theoxforder | ngg.org |
| 4 | Engineerin | g Ethics | M. Govindarajan, S. | Prentice – Hall, | 2004 |
| | | | Natarajan, V. | | |
| | | | S. | | |
| | | | Senthilkumar | | |

CHILDREN'S EDUCATION SOCIETY (Regd.)

| | . COMMON TO ALL PRO | | |
|---|--------------------------------------|----------------------------|-------------------------------|
| Choice Based Credit | System (CBCS) and Out (OBE) SEMES | tcome Based Education | |
| | ENVIRONMENTA | | |
| | STUDIES | | |
| Course Code | 18CIV59 | CIE Marks | 40 |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| Module - 1 | | | |
| Ecosystems (Structure and Function) Biodiversity: Types, Value; Hot-spots Deforestation. | | | |
| Module - 2 | | | |
| Natural Resource Management (Cor Cloud Seeding, and Carbon Trading. Module - 3 | ncept and case-studies): | Disaster Management, Su | ustainable Mining, |
| | maata Corrective and C |)rovantiva magguras. Dala | vant |
| Environmental Pollution (Sources, Ir Environmental Acts, Case-studies): S | • | | |
| and AirPollution. | | er ronation, Noise ponatic | on, son <mark>ronation</mark> |
| Waste Management & Public Health wastes; Industrial and Municipal Sludge. | Aspects: Bio-medical V | Wastes; Solid waste; Hazar | dous wastes; E- |
| Module - 4 | | | |
| Global Environmental Concerns (Con Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ | pletion; Radon and Fluo | - | |
| Module - 5 | | | |
| Latest Developments in Environment Remote Sensing, Environment Imp Environmental Stewardship- NGOs. | - | | • |

| | (Recognised by the G | OXFORD COLL ovt. of Karnataka, Affiliate Approved by Recognised by Bommanahalli, Hosu Ph: 080-61754601 | ATION SOCIETY (Regd.) EGE OF ENGINEERI ed to Visvesvaraya Technological U A.I.C.T.E. New Delhi. UGC Under Section 2(f) Irr Road, Bangalore - 560 068. /602, Fax: 080 - 25730551 rd.edu Web: www.theoxfordenge | Iniversity, Belagavi. | | | | | |
|--|---|---|--|---|--|--|--|--|--|
| Course | Outcomes: At the end of the co | ourse, students will b | e able to: | | | | | | |
| • | CO1: Understand the principles and water issues on a globalsca CO2: Develop critical thinking a problem or question related to | ale, and/or observation sl theenvironment. | kills, and apply themtothe | analysis of a | | | | | |
| • | CO3: Demonstrate ecology kno | wiedge of a complex | crelationship between blotic | and | | | | | |
| abioticcomponents. CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues. | | | | | | | | | |
| Questic | on paper pattern: | | | | | | | | |
| ٠ | The Question paper will have 1 | .00 objectivequestior | ns. | | | | | | |
| • | Each question will be for 01marks | | | | | | | | |
| • | Student will have to answer all the questions in an OMRSheet. | | | | | | | | |
| • | • The Duration of Exam will be 2hours. | | | | | | | | |
| Sl.No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year | | | | | |
| Textbo | ok/s | Authorys | | | | | | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 | | | | | |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 | | | | | |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 | | | | | |
| Referer | nce Books | | | | | | | | |
| 1 | Principals of Environmental Science and Engineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 | | | | | |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 | | | | | |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition | | | | | |

4th year/1st semester Civil Engineering Environmental Project and Management (18CV753)

B. E. CIVIL ENGINEERING

Choice Based Credit System (CBCS) and Outcome Based Education (OBE)

SEMESTER - VII

ENVIRONMENTAL PROTECTION AND MANAGEMENT

Course Code 18CV753 CIE Marks 40

Teaching Hours/Week(L:T:P) (3:0:0) SEE Marks 60

Credits 03 Exam Hours 03

Course Learning Objectives: This course will enable students to gain knowledge in Environmental protection and Management systems

Module -1

Environmental Management Standards: Unique Characteristics of Environmental Problems - Systems approach to Corporate environmental management - Classification of Environmental Impact Reduction Efforts -



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Business Charter for Sustainable Production and Consumption – Tools, Business strategy drivers and Barriers -Evolution of Environmental Stewardship. Environmental Management Principles - National policies on environment, abatement of pollution and conservation of resources - Charter on Corporate responsibility for Environmental protection.

Module -2

Environmental Management Objectives: Environmental quality objectives – Rationale of Environmental standards: Concentration and Mass standards, Effluent and stream standards, Emission and ambient standards, Minimum national standards, environmental performance evaluation: Indicators, benchmarking. Pollution control Vs Pollution Prevention - Opportunities and Barriers – Cleaner production and Clean technology, closing the loops, zero discharge technologies.

Module -3

Environmental Management System: EMAS, ISO 14000 - EMS as per ISO 14001– benefits and barriers of EMS – Concept of continual improvement and pollution prevention - environmental policy – initial environmental review – environmental aspect and impact analysis – legal and other requirements- objectives and targets – environmental management programs – structure and responsibility – training awareness and competence- communication – documentation and document control – operational control – monitoring and measurement – management review.

Module -4

Environmental Audit: Environmental management system audits as per ISO 19011- – Roles and qualifications of auditors - Environmental performance indicators and their evaluation – Non conformance – Corrective and preventive actions -compliance audits – waste audits and waste minimization planning – Environmental statement (form V) - Due diligence audit.

Module -5

Applications: Applications of EMS, Waste Audits and Pollution Prevention Control: Textile, Sugar, Pulp & Paper, Electroplating, , Tanning industry. Hazardous Wastes - Classification, characteristics Treatment and Disposal Methods, Transboundary movement, disposal.

Course outcomes: After studying this course, students will be able to:

1. Appreciate the elements of Corporate <mark>Environmental</mark> Management systems complying to international environmental management system standards.

2. Lead pollution prevention assessment team and implement waste minimization options.

3. Develop, Implement, maintain and Audit <mark>Environmental</mark> Management systems for Organizations. Question paper pattern:

¹ The question paper will have ten full questions carrying equal marks.

I Each full question will be for 20 marks.

² There will be two full questions (with a maximum of four sub- questions) from each module.

2 Each full question will have sub- question covering all the topics under a module.

In the students will have to answer five full questions, selecting one full question from each module.
Reference Books:

1. Christopher Sheldon and Mark Yoxon, "Installing Environmental management Systems – a step by step guide" Earthscan Publications Ltd, London, 1999.

2. ISO 14001/14004: Environmental management systems – Requirements and Guidelines – International Organisation for Standardisation, 2004

3. ISO 19011: 2002, "Guidelines for quality and/or Environmental Management System auditing, Bureau of Indian Standards, New Delhi, 2002

4. Paul L Bishop "Pollution Prevention: Fundamentals and Practice, McGraw- Hill International, Boston, 2000.

5. Environmental Management Systems: An Implementation Guide for Small and Medium-Sized Organizations, Second Edition, NSF International, Ann Arbor, Michigan, January 2001.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Automobile Engineering

| 7 | Course and ourse Code 18MAT31 18ME32 18ME33 18ME34 18ME35A or 18ME35B | Course Title Mathematics Mechanics of Materials Basic Thermodynamics Material Science | Leaching Department Wathematics | Teachin /Week Lectury L L 2 | ng Hour Intorial T 2 | - Practical/ | Duration in hours | CIE Marks | sEE Marks | Fotal Marks | Credits | | |
|---------------------------------|--|---|---|--|--|--|---|--|--|---|--|-----|---|
| BSC PCC PCC PCC PCC | 18MAT31 18ME32 18ME33 18ME34 18ME35A or | Mathematics Mechanics of Materials Basic Thermodynamics | | L 2 | T | P | 3 | CIE Marks | SEE Marks | ətal Marks | Credits | | |
| PCC PCC PCC PCC | 18ME32 18ME33 18ME34 18ME35A or | Mechanics of Materials Basic Thermodynamics | Mathematics | 2 | 1 - 12 | 0-12 | 3 | Ŭ | . W A | | | | |
| PCC PCC PCC PCC | 18ME32 18ME33 18ME34 18ME35A or | Mechanics of Materials Basic Thermodynamics | Mathematics | | 2 | | 0.2 | | | - | | | |
| PCC PCC PCC | 18ME33 18ME34 18ME35A or | Basic Thermodynamics | | | | | 03 | 40 | 60 | 100 | 3 | | |
| PCC | 18ME34 18ME35A or | | | 3 | 2 | | 03 | 40 | 60 | 100 | 4 | | |
| PCC | 18ME35A or | Material Science | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 | | |
| 0/2020-0 / | | | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 | | |
| PCC | | Metal cutting and forming Metal Casting and Welding | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 | | |
| · · · | 18ME36A or | Computer Aided Machine Drawing/ | | 1 | 4 | 7 | - | ÷ i | - | 2 7 | - | | |
| | 18ME36B | Mechanical Measurements and Metrology | | 3 | 0 | - | 03 | 40 | 60 | 100 | 3 | | |
| PCC | 18MEL37A or | Material Testing lab | | | | | 02 | | 10 | 100 | 2 | | |
| | 18MEL37B | Mechanical Measurements and Metrology lab | | - | 2 | 2 | 03 | 40 | 60 | 100 | 2 | | |
| PCC | 18MEL38A | Workshop and Machine Shop Practice (Consists of Fitting, and Machining) | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 | | |
| | 18MEL38B | Foundry,Forging and Welding lab | | | | | | | | | | | |
| | 18KVK39/49 | Vyavaharika Kannada (Kannada for communication)/ | | | 2 | 9 30 | 2 | 100 | | | | | |
| HSMC | 18KAK39/49 | Aadalitha Kannada (Kannada for Administration) | HSMC | HSMC | HSMC | - | 2 | | | 100 | | 100 | 1 |
| SH | 5 0 | OR | | | 9 | 10 | S | e - 8 | | | | | |
| | 18CDC20 | Constitution of India, Professional | | | 1 | | - | 02 | 40 | 60 | | | |
| | 16CPC 59 | Ethics and Cyber Law | | Exam | ination | is by obj | bjective type ques | | tions | | | | |
| | | | | | 10 | 10000 | 24 | 420 | 480 | | | | |
| | | | TOTAL | OR 19 | OR 14 | 04 | OR 26 | OR 360 | OR | 900 | 24 | | |
| 20 | | CC 18MEL38A 18MEL38B 18KVK39/49 | 18MEL3/B Metrology lab CC 18MEL38A Workshop and Machine Shop Practice (Consists of Fitting, and Machining) 18MEL38B Foundry,Forging and Welding lab 18KVK39/49 Vyavaharika Kannada (Kannada for communication)/ 18KAK39/49 Aadalitha Kannada (Kannada for Administration) 0R 0R 18CPC39 Constitution of India, Professional | 18MEL3/B Metrology lab CC 18MEL3/B Workshop and Machine Shop 18MEL38A Practice (Consists of Fitting, and Machining) 18MEL38B Foundry,Forging and Welding lab 18MEL38B Vyavaharika Kannada (Kannada for communication)/ 18KAK39/49 Aadalitha Kannada (Kannada for Administration) 18KAK39/49 Constitution of India, Professional Ethics and Cyber Law | 18MEL.37B Metrology lab CC Workshop and Machine Shop 18MEL.38A Practice (Consists of Fitting, and Machining) Fitting, and Machining) 18MEL.38B Foundry,Forging and Welding lab 18MEL.38B Foundry,Forging and Welding lab 18KVK39/49 Vyavaharika Kannada (Kannada for communication)/ 18KAK39/49 Aadalitha Kannada (Kannada for Administration) 18CPC39 Constitution of India, Professional Ethics and Cyber Law 17 | 18MEL.37B Metrology lab CC Image: Stress of Fitting, and Machine Shop Practice (Consists of Fitting, and Machining) 18MEL.38B Foundry,Forging and Welding lab 18MEL.38B Foundry,Forging and Welding lab 18MEL.38B Foundry,Forging and Welding lab 18KVK39/49 Vyavaharika Kannada (Kannada for communication)/ 18KAK39/49 Aadalitha Kannada (Kannada for Administration) 18CPC39 Constitution of India, Professional Ethics and Cyber Law | 18MEL3/B Metrology lab CC Workshop and Machine Shop 18MEL38A Practice (Consists of Fitting, and Machining) 18MEL38B Foundry,Forging and Welding lab 18MEL38B Foundry,Forging and Welding lab 18KVK39/49 Vyavaharika Kannada (Kannada for communication)/ 18KAK39/49 Aadalitha Kannada (Kannada for Administration) 18CPC39 Constitution of India, Professional Ethics and Cyber Law 17 10 | 18MEL3/B Metrology lab CC Workshop and Machine Shop 18MEL38A Practice (Consists of Fitting, and Machining) 2 2 03 18MEL38B Foundry,Forging and Welding lab 2 2 03 18MEL38B Foundry,Forging and Welding lab 2 2 03 18KVK39/49 Vyavaharika Kannada (Kannada for communication)/ 2 18KAK39/49 Aadalitha Kannada (Kannada for Administration) HSMC 2 18CPC39 Constitution of India, Professional Ethics and Cyber Law Constitution is by objective ty 1 02 | 18MEL.3/B Metrology lab Image: Construct of the state of the | 18MEL.3/B Metrology lab Image: matrix and sector of the sector of t | 18MEL.37B Metrology lab Image: CC Image: CC Metrology lab Image: CC Image: CC <thimage: cc<="" th=""> <thimage: cc<="" th=""> <thimage: cc<="" th=""></thimage:></thimage:></thimage:> | | |

Kannada (Kannada for Administration) is for students who speak, read and write Kannada.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | B. E. Common to all Programme | S | | | | | | |
|--|---------------------------------------|-----------------------|---------------------|--|--|--|--|--|
| Outcome Based Education (OBE) and Choice Based Credit System (CBCS) SEMESTER - III | | | | | | | | |
| CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND CYBER LAW (CPC) | | | | | | | | |
| Course Code | 18CPC39/49 | CIE Marks | 40 | | | | | |
| Teaching Hours/Week (L:T:P) (1:0:0) SEE Marks 60 | | | | | | | | |
| Credits | 01 | Exam Hours | 02 | | | | | |
| Course Learning Objectives: To | | · | | | | | | |
| • know the fundamental political codes, structure, procedures, powers, and duties of Indian | | | | | | | | |
| government institutions, fundamental rights, directive principles, and the duties ofcitizens | | | | | | | | |
| Understand engineering ethics and their responsibilities; identify their individual roles and | | | | | | | | |
| ethical responsibilities towardssociety. | | | | | | | | |
| Know about the cybercrimes and cyber laws for cyber safetymeasures. | | | | | | | | |
| Module-1 | | | | | | | | |
| Introduction to Indian Constitution: | | | | | | | | |
| The Necessity of the Constitution, Th | ne Societies before and after the | Constitution adoption | otion. Introduction | | | | | |
| to the Indian constitution, The Ma | king of the Constitution, The R | ole of the Const | ituent Assembly - | | | | | |
| Preamble and Salient features of th | e Constitution of India. Fundam | ental Rights and | its Restriction and | | | | | |
| limitations in different Complex Site | uations. Directive Principles of S | State Policy (DPS | P) and its present | | | | | |
| relevance in our | | | | | | | | |
| society with examples. Fundamental Duties and its Scope and significance in Nation building. | | | | | | | | |
| Module-2 | | | | | | | | |
| Union Executive and State Executive | 2: | | | | | | | |
| Parliamentary System, Federal System | tem, Centre-State Relations. U | nion Executive – | President, Prime | | | | | |
| Minister, Union Cabinet, Parliament | • | | • | | | | | |
| Terminologies. Supreme Court of Ind | | | | | | | | |
| Chief Minister, State Cabinet, State | Legislature, High Court and Sub | oordinate Courts, | Special Provisions | | | | | |
| (Articles | | | | | | | | |
| 370.371,371J) for some States. | | | | | | | | |
| Module-3 | | | | | | | | |
| Elections, Amendments and Emerge | - | | ante Mathaala in | | | | | |
| Elections, Electoral Process, and Elec | | | | | | | | |
| Constitutional Amendments (How ar | | | | | | | | |
| 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. | | | | | | | | |
| Emergency Provisions, types of Emergencies and itsconsequences. | | | | | | | | |
| Constitutional special provisions: Special Provisions for SC and ST, OBC | Women Children and Backward | | | | | | | |
| Module-4 | | | | | | | | |
| Professional / Engineering Ethics: | | | | | | | | |
| Scope & Aims of Engineering & Prof | essional Ethics - Business Ethics | . Corporate Ethic | s. Personal Ethics. | | | | | |
| Engineering and Professionalism, Po | | • | | | | | | |
| defined in the website of Institution | - | | | | | | | |
| Responsibility. Clash of Ethics, Cont | o i <i>i</i> | • | | | | | | |
| Engineering and Engineering Standar | - | | • | | | | | |
| | rty Rights), Risks, Safety and liabil | • | - | | | | | |
| Engineering, IPRS (Intellectual Proper | | | | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be

able to, CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year |
|------------|-------------------------|----------------------------|-----------------------------|------------------|
| Textbo | ok/s | Addition/s | Fublisher | |
| 1 | Constitution of India, | Shubham | | 2018 |
| | Professional Ethics and | Singles, Charles | Cengage | |
| | Human Rights | E. Haries, and et | Learning India | |

| | | L. Halles, and Ct | Learning mula | |
|--------|-------------------------------|---------------------|------------------|-------|
| | | al | | |
| 2 | Cyber Security and Cyber Laws | Alfred Basta and | Cengage | 2018 |
| | | et al | Learning India | |
| Refere | nce Books | | | |
| 3 | Introduction tothe | Durga Das Basu | Prentice – Hall, | 2008. |
| | Constitution of India | | | |
| 4 | Engineering Ethics | M. Govindarajan, S. | Prentice – Hall, | 2004 |
| | | Natarajan, V. | | |
| | | S. | | |
| | | Senthilkumar | | |

| | COMMON TO ALL PRO System (CBCS) and Out (OBE) SEMES | come Based Education | |
|-------------------------------|---|----------------------|----|
| | ENVIRONMENTA STUDIES | | |
| Course Code | 18CIV59 | CIE Marks | 40 |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| Module - 1 | | i | |

Ecosystems (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake. **Biodiversity:** Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation.

Module - 2

Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind.

Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Seeding, and Carbon Trading.

| Module | - 3 | | | | | | | | |
|---|---|------------------------|---|---|--|--|--|--|--|
| Environ | mental Pollution (Sources, Imp | oacts, Corrective and | Preventive measures, Relev | ant | | | | | |
| Environ | mental Acts, Case-studies): Sur | face and Ground Wa | ter Pollution; Noise pollutio | ו; Soil <mark>Pollution</mark> | | | | | |
| <mark>an</mark> d AirF | Pollution. | | | | | | | | |
| Waste N | Vanagement & Public Health A | Aspects: Bio-medical | Wastes; Solid waste; Hazard | ous wastes; E- | | | | | |
| wastes; | | | | | | | | | |
| | al and Municipal Sludge. | | | | | | | | |
| Module | | | | lation (no chonsing | | | | | |
| | Environmental Concerns (Conc | • • • | | | | | | | |
| Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology. | | | | | | | | | |
| Module | · · · | ental Toxicology. | | | | | | | |
| | | | | | | | | | |
| | Developments in Environment | - | | - | | | | | |
| | Sensing, Environment Impac | t Assessment, Envir | ronmental Management Sy | stems, ISO14001; | | | | | |
| | mental Stewardship- NGOs. ork: Visit to an Environmental E | ingineering Laborato | ny or Green Building or Wate | or Troatmont Plant | | | | | |
| | te water treatment Plant; ou | 0 0 | | | | | | | |
| | intation. | Bill to be renowed | | | | | | | |
| Course | Outcomes: At the end of the co | ourse, students will b | e able to: | | | | | | |
| • CO1: Understand the principles of ecology and environmental issues that apply to air, land, | | | | | | | | | |
| | and water issues on a globalscale, | | | | | | | | |
| • | • CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a | | | | | | | | |
| problem or question related to theenvironment. | | | | | | | | | |
| • | | | | | | | | | |
| | abioticcomponents. | | | | | | | | |
| • | CO4: Apply their ecological kno | owledge to illustrate | and graph a problem and de | scribe the | | | | | |
| | realities that managers face w | hen dealing with com | plexissues. | | | | | | |
| Questio | n paper pattern: | | | | | | | | |
| • | The Question paper will have 1 | 100 objectivequestion | ns. | | | | | | |
| • | Each question will be for 01ma | ırks | | | | | | | |
| | Student will have to answer all | | OMRSheet. | | | | | | |
| • | The Duration of Exam will be 2 | hours. | 1 | | | | | | |
| SI.No. | Title of the Book | Name of | Name of the Publisher | Edition | | | | | |
| 5 | | the | | and Year | | | | | |
| Touthor | | Author/s | | <u> </u> | | | | | |
| Textboo | - | 1 | 1 | | | | | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 | | | | | |
| | | | | arda tu ta a a tu | | | | | |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 | | | | | |
| 3 | Environmental Studies- | RRajagopalan | Oxford Publisher | 2005 | | | | | |
| D .(| From Crisis to Cure | | | | | | | | |
| Referen | ce Books | | | | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 1 | Principals of Environmental Science and Engineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 |
|---|--|---|---------------------------------------|--------------------------------|
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition |

| [As per Choice Based Credit System (CBCS) scheme] Course Code 17ME51 CIE Marks 40 Number of Lecture Hours/Week 04 SEE Marks 60 Total Number of Lecture Hours 50(10 Hours per Module) Exam Hours 03 Credits – 04 Course Objectives: • Examine the meaning, importance, nature of management, its difference between management and administration and remanagers in management. • Examine the meaning characteristics principles and process of organizing. • Describe effective communication process, its importance, types and purpose for running an organization. • Explain the importance of engineering economics, Law of demand and supply in engineering decision making. • Describe various interest rate factors and implement the same for economic decision making. • Discuss different component of costs and methods of cost estimation. • Explain depreciation, different methods of computing depreciation. • Discuss taxation concepts-income tax and corporate taxes. | | MANAGEMENT AND ENG B.E, V Semester, Mec | | |
|---|--|---|---|------------|
| Number of Lecture Hours/Week 04 SEE Marks 60 Total Number of Lecture Hours 50(10 Hours per Module) Exam Hours 03 Credits – 04 Course Objectives: • Examine the meaning, importance, nature of management, its difference between management and administration and remanagers in management. • Examine the meaning characteristics principles and process of organizing. • Describe effective communication process, its importance, types and purpose for running an organization. • Explain the importance of engineering economics, Law of demand and supply in engineering decision making. • Describe various interest rate factors and implement the same for economic decision making. • Examine different component of costs and methods of cost estimation. • Explain depreciation, different methods of computing depreciation. • Discuss taxation concepts-income tax and corporate taxes. | | [As per Choice Based Credi | t System (CBCS) scheme] | |
| Total Number of Lecture Hours 50(10 Hours per Module) Exam Hours 03 Credits – 04 Course Objectives: • Examine the meaning, importance, nature of management, its difference between management and administration and remanagers in management. • Examine the meaning characteristics principles and process of organizing. • Describe effective communication process, its importance, types and purpose for running an organization. • Explain the importance of engineering economics, Law of demand and supply in engineering decision making. • Describe various interest rate factors and implement the same for economic decision making. • Examine different component of costs and methods of cost estimation. • Explain depreciation, different methods of computing depreciation. • Discuss taxation concepts-income tax and corporate taxes. | Course Code | 17ME51 | CIE Marks | 40 |
| Credits – 04 Course Objectives: Examine the meaning, importance, nature of management, its difference between management and administration and remanagers in management. Examine the meaning characteristics principles and process of organizing. Describe effective communication process, its importance, types and purpose for running an organization. Explain the importance of engineering economics, Law of demand and supply in engineering decision making. Describe various interest rate factors and implement the same for economic decision making. Examine different economic analysis methods-NPW, EAW, IRR, FW for decision making. Discuss different component of costs and methods of cost estimation. Explain depreciation, different methods of computing depreciation. Discuss taxation concepts-income tax and corporate taxes. | Number of Lecture Hours/Week | 04 | SEE Marks | 60 |
| Course Objectives: Examine the meaning, importance, nature of management, its difference between management and administration and managers in management. Examine the meaning characteristics principles and process of organizing. Describe effective communication process, its importance, types and purpose for running an organization. Explain the importance of engineering economics, Law of demand and supply in engineering decision making. Describe various interest rate factors and implement the same for economic decision making. Examine different economic analysis methods-NPW, EAW, IRR, FW for decision making. Discuss different component of costs and methods of cost estimation. Explain depreciation, different methods of computing depreciation. Discuss taxation concepts-income tax and corporate taxes. | Total Number of Lecture Hours | 50(10 Hours per Module) | Exam Hours | 03 |
| Examine the meaning, importance, nature of management, its difference between management and administration and remanagers in management. Examine the meaning characteristics principles and process of organizing. Describe effective communication process, its importance, types and purpose for running an organization. Explain the importance of engineering economics, Law of demand and supply in engineering decision making. Describe various interest rate factors and implement the same for economic decision making. Examine different economic analysis methods-NPW, EAW, IRR, FW for decision making. Discuss different component of costs and methods of cost estimation. Explain depreciation, different methods of computing depreciation. Discuss taxation concepts-income tax and corporate taxes. | | Credits | - 04 | |
| | managers in management. Examine the meaning chara Describe effective commun Explain the importance of c Describe various interest ra Examine different economi Discuss different component Explain depreciation, differ | acteristics principles and process of or hication process, its importance, type engineering economics, Law of dema te factors and implement the same for c analysis methods-NPW, EAW, IRJ at of costs and methods of cost estim rent methods of computing depreciat | organizing. s and purpose for running an orga and and supply in engineering dec or economic decision making. R, FW for decision making. ation. | inization. |
| Module - 1 Management: Introduction - Meaning - nature and characteristics ofManagement, Scope and Functional areas of management - Management a ascience, art of profession - Management & Administration - Roles ofManagement, Levels of Management, Development of Management Thou early management approaches - Modern management approaches. | ascience, art of profession - Managen | ng - nature and characteristics of Manage nent & Administration - Roles of Manage | ement, Scope and Functional areas of | |

Planning: Nature, importance and purpose of planning process Objectives -Types of plans (Meaning Only) - Decision making Importance of planning -steps in planning & planning premises - Hierarchy of plans.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Module - 2

Organizing And Staffing: Nature and purpose of organization Principles of organization - Types of organization - Departmentation Committees-Centralization Vs Decentralization of authority and responsibility - Span of control - MBO and MBE (Meaning Only) Nature and importance of staffing--: Process of Selection & Recruitment (in brief).

Directing & Controlling: Meaning and nature of directing Leadershipstyles, Motivation Theories, Communication - Meaning and importance - coordination, meaning and importance and Techniques of Co Ordination. Meaning and steps in controlling - Essentials of a sound control system - Methods of establishing control (in brief)

Module - 3

Introduction: Engineering and economics, Problem solving and decision making, Laws of demand and supply, Difference between Microeconomics & Macroeconomics, equilibrium between demand & supply, elasticity of demand, price elasticity, income elasticity. Law of Returns, Interest and interest factors, simple and compound interest, Cash flow diagrams, personal loans and EMI payment calculation with

Module - 4

Present, future and annual worth and rate of returns: Basic present worth comparisons, Present worth-equivalence, Assets with unequal lives and infinites lives, future worth comparisons, payback comparisons, Equivalent annual worth comparisons, situations for annual worth comparisons. Asset life, Rate of return, minimum acceptable rate of return, IRR anomalies and misconceptions, Cost of capital, comparisons of all present future and annual worth with IRR, product costing, Discussions and problems

Module - 5

Costing and depreciation: Components of costs, estimation of selling price, marginal cost, first cost, all kinds of overheads, indirect cost estimation with depreciation, mensuration and estimation of material cost, cost estimation of mechanical process, idling time.

Product costing (approaches to product costing), causes of depreciation, methods of computing depreciation charges, straight line method, declining balance method, sum of years method, sinking fund method, service output methods, taxation concepts, personal income taxes and corporate taxes, Discussions and problems.

Course outcomes:

On completion of this subject students will be able to

flexible interest rates, Discussion and problems

- 1. Explain the development of management and the role it plays at different levels in an organization.
- 2. Comprehend the process and role of effective planning, organizing and staffing for the development of an organization.
- 3. Understand the necessity of good leadership, communication and coordination for establishing effective control in an organization.
- 4. Understand engineering economics demand supply and its importance in economics decision making and problem solving.
- 5. Calculate present worth, annual worth and IRR for different alternatives in economic decision making.
- Understand the procedure involved in estimation of cost for a simple component, product costing and depreciation, its methods.

TEXT BOOKS:

- 1. Principles of Management by Tripathy and Reddy
- 2. Mechanical estimation and costing, T.R. Banga& S.C. Sharma, 17th edition 2015
- 3. Engineering Economy, Riggs J.L. McGraw Hill, 2002
- 4. Engineering Economy, Thuesen H.G. PHI, 2002

REFERENCE BOOKS

- 1. Management Fundamentals- Concepts, Application, Skill Development RobersLusier Thomson
- 2. Basics of Engineering Economy, Leland Blank & Anthony Tarquin, McGraw Hill Publication (India) Private Limited
- 3. Engineering Economics, R.Paneerselvam, PHI publication
- 4. Fundamentals of Management: Essential Concepts and Applications, Pearson Education, Robbins S.P. and Decenzo David A.
- 5. Economics: Principles of Economics, N Gregory Mankiw, Cengage Learning
- 6. Modern Economic Theory, By Dr. K. K. Dewett& M. H. Navalur, S. Chand Publications



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Mechatronics

| | | | VISVESVARAYA TECHNO | | | Y, BEI | AGAV | I | | | | |
|----------|----------------|--------------|---|----------------------------------|-------------------|------------|-----------------------|----------------------|-----------|-----------|-------------|----------|
| | | | Scheme of Teachir | MECHATRONI og and Examination | | - 19 | | | | | | |
| | | Outcome Bas | ed Education(OBE) and Choice Based Cr | | | | om the a | cademic | year 20 | 18 - 19) | | |
| | | | | SEMESTER | | | | | | | | |
| | | | | | Teach /Week | ing Hou | irs | Exami | nation | | | |
| SL No | Course Code | e and Course | Course Title | feaching Department | Theory Lecture | L Futorial | Practical/ Drawing | Duration in Jours | CIE Marks | SEE Marks | fotal Marks | redits |
| | - | | Transform calculus, Fourier series and | - | | - | - | | | <u>~</u> | - | <u> </u> |
| 1 | BSC | 18MAT31 | Numerical techniques | Mathematics | 2 | 2 | - | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18MT 32 | Material science and Technology | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 3 | PCC | 18 MT 33 | Mechanics of materials | | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 4 | PCC | 18 MT 34 | Control Systems | | 3 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18 MT 35 | Analog and Digital Electronics | | 3 | 0 | - | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18 MT 36 | Computer Organization | | 3 | 0 | - | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18 MT L37 | Machine shop and material Testing lab | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18 MT L38 | Analog and digital electronics lab | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18KVK39/49 | Vyavaharika Kannada (Kannada for communication)/ | | | 2 | | | 100 | | | |
| 9 | HSMC | 18KAK39/49 | Aadalitha Kannada (Kannada for Administration) | HSMC | | | | | | | 100 | 1 |
| | H | OR | | 1 | | | | | | | 1 | |
| | | 18CPC39/49 | Constitution of India, Professional |] | 1 | | | 02 | 40 | 60 |] | |
| | | | Ethics and Cyber Law | | | | s by obje | | | | <u> </u> | |
| | | | | τοτα | 17 | 10 OR | 04 | 24 OR | 420 | 480 OR | 900 | 24 |
| | | | | IOIA | 18 | 12 | | 0K 26 | OR 360 | 540 | 300 | 1 |
| | | | | | 19 | 12 | | 20 | 900 | p40 | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | | | he academic year 2 | 2018 - | 19) | | | | | | |
|--------------|---------------------------|----------|--|--|----------------------|------------------------|-------------------------|-------------------------|-----------|-----------|-------------|---------|
| | | | | | 1 | achin Iours Week | - | | Exan | nination | I | |
| SL N 0 | Cou and Cou code | rse | Course Title | Teaching Department | Theor y Lootur | Tutorial | Practica V Drawin | Duration in hours | CIE Marks | SEE Marks | Fotal Marks | Credits |
| | | | | | L | Т | P | | Ŭ | | F | |
| 1 | HSMC | 18MT51 | Technological Innovation Management And Entrepreneurship | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18 MT52 | Design and analysis of Machine Elements | | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18 MT53 | Virtual Instrumentation | | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 4 | PCC | 18 MT54 | Hydraulics and Pneumatics | | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18 MT55 | Micro and Smart Systems Technology | | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18 MT56 | Wireless Networks & Communication | | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18 MTL57 | Virtual Instrumentation- Laboratory | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18 MTL58 | MSST -Laboratory | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | | | Civil/ Environmental | | | | | | | | |
| | HSMC | 18CIV59 | Environmental Studies | [Paper setting: Civil Engineering Board] | 1 | | | 02 | 40 | 60 | 100 | 1 |
| | | | | TOTAL | 19 | 08 | 04 | 26 | 360 | 540 | 900 | 2 |

required activity Points: In case students tail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after ear required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

| B. E. Common to all Programmes Outcome Based Education (OBE) and Choice Based Credit System (CBCS) SEMESTER - III | | | | | | | | |
|---|--|--------------------------|-----------------|--|--|--|--|--|
| CONSTITUTION OF INDIA | , PROFESSIONAL ETHICS A | ND CYBER LAW (CPC) | | | | | | |
| Course Code 18CPC39/49 CIE Marks 40 | | | | | | | | |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | | | |
| Credits | 01 | Exam Hours | 02 | | | | | |
| know the fundamental political codes, structure, procedures, powers, and duties of Indian government institutions, fundamental rights, directive principles, and the duties ofcitizens Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety. Know about the cybercrimes and cyber laws for cyber safetymeasures. | | | | | | | | |
| Introduction to Indian Constitution The Necessity of the Constitution, to the Indian constitution, The N Preamble and Salient features of t | The Societies before and a laking of the Constitution | n, The Role of the Const | ituent Assembly | | | | | |

Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) and its present relevance in our

society with examples. Fundamental Duties and its Scope and significance in Nation building. Module-2



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Union Executive and State Executive:

Parliamentary System, Federal System, Centre-State Relations. Union Executive – President, Prime Minister, Union Cabinet, Parliament - LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Articles

370.371,371J) for some States.

Module-3

Elections, Amendments and Emergency Provisions:

Elections, Electoral Process, and Election Commission of India, Election Laws. Amendments - Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments – 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Emergency Provisions, types of Emergencies and itsconsequences.

Constitutional special provisions:

Special Provisions for SC and ST, OBC, Women, Children and Backward Classes.

Module-4

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be

able to, CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. No. | Title of the Book | Name of the | Name of the | Edition and Year |
|------------|---------------------------|-------------------|----------------|------------------|
| | | Author/s | Publisher | |
| Textboo | ok/s | | | |
| 1 | Constitution of India, | Shubham | | 2018 |
| | Professional Ethics and | Singles, Charles | Cengage | |
| | <mark>Human Rights</mark> | E. Haries, and et | Learning India | |

| | | al | | |
|---------|---|------------------|------------------|-------|
| 2 | Cyber Security and Cyber Laws | Alfred Basta and | Cengage | 2018 |
| | | et al | Learning India | |
| Referen | ce Books | | | |
| 3 | Introduction tothe Constitution of India | Durga Das Basu | Prentice – Hall, | 2008. |

| 6 | THE OXFORD COLLEGE OF ENGINEERING | | | | | | | | |
|---|-----------------------------------|-----------|---------------------------|------------------------|---------|--|--|--|--|
| Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belaga | | | | | | | | | |
| 853 | Approved by A.I.C.T.E. New Delhi. | | | | | | | | |
| | | | Recognised by UGC U | Under Section 2(f) | | | | | |
| | and the second | | Bommanahalli, Hosur Road | d, Bangalore - 560 068 | | | | | |
| [[विष्य | নৰ্য গাঁশলৈ[] | | Ph: 080-61754601/602, | | | | | | |
| | 5std. 1974 | E-mail: e | ngprincipal@theoxford.edu | Web: www.theoxforder | ngg.org | | | | |
| 4 | Engineerin | g Ethics | M. Govindarajan, S. | Prentice – Hall, | 2004 | | | | |
| | | | Natarajan, V. | | | | | | |
| | | | S. | | | | | | |
| | | | Senthilkumar | | | | | | |

SODETY ME

CHILDREN'S EDUCATION SOCIETY (Regd.)

| | COMMON TO ALL PRO System (CBCS) and Ou (OBE) SEMES | tcome Based Education | |
|---|--|------------------------------|---------------------------------|
| | | AL | |
| Course Code | 18CIV59 | CIE Marks | 40 |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| Module - 1 | | · | |
| Biodiversity: Types, Value; Hot-spots Deforestation. Module - 2 | ; Threats and Conserva | tion of biodiversity, Forest | Wealth, and |
| Tidal and Wind. Natural Resource Management (Con Cloud Seeding, and Carbon Trading. Module - 3 | cept and case-studies): | Disaster Management, Su | stainable Mining, |
| Environmental Pollution (Sources, In Environmental Acts, Case-studies): Su and AirPollution. Waste Management & Public Health wastes; Industrial and Municipal Sludge. Module - 4 | urface and Ground Wat | er Pollution; Noise pollutio | on; Soil <mark>Pollution</mark> |
| Global Environmental Concerns (Cor Climate Change; Acid Rain; Ozone De and rehabilitation of people, Environ Module - 5 | pletion; Radon and Fluc | | |
| Latest Developments in Environmer | - | | - |
| Remote Sensing, Environment Imp Environmental Stewardship- NGOs. | act Assessment, Envir | onmental Management S | ystems, ISO14001 |
| Field work: Visit to an Environmental or Waste water treatment Plant; o documentation. | | | |

| and the second s | CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org | | | | | | | | | |
|--|---|---|---|---|--|--|--|--|--|--|
| Course 0 | Dutcomes: At the end of the co | | | 5 5 | | | | | | |
| Question | CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale, | | | | | | | | | |
| SI.No. | The Duration of Exam will be 2 Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year | | | | | | |
| Textboo | k/s | / deficit y s | | | | | | | | |
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 | | | | | | |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 | | | | | | |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 | | | | | | |
| Referen | ce Books | | | | | | | | | |
| 1 | Principals of Environmental Science and Engineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 | | | | | | |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 | | | | | | |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition | | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Curriculum Highlighting Cross Cutting Issues - PG

<mark>MBA</mark>

MASTER OF BUSINESS ADMINISTRATION

| I SEMESTER | | | | | | | | | | |
|-----------------|---|-------------|----------|------------------------|----------------|--------------------|----------|-----|----------------|---------|
| | | Category | Teaching | hours / week | | Duration | Marks fo | | | |
| Subject Code | Title of the Subject | | Lecture | Practical Component | Total Hours | of Exam (Hours) | CIE | SEE | Total Marks | Credits |
| 18MBA11 | Management & Organizational Behavior | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 |
| 18MBA12 | Managerial Economics | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 |
| 18MBA13 | Accounting for Managers | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 |
| 18MBA14 | Business Statistics & Analytics | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 |
| 18MBA15 | Marketing Management | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 |
| 18MBA16 | Managerial Communications | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 |
| | Total | | 24 | - | 24 | - | 240 | 360 | 600 | 24 |

Note:

1. Each course content has indicative case studies which can be dealt in the class by the course instructor. In addition to this the course instructor may use an extra case from Harvard/Case Centre. The student cannot assume the same cases will be part of the question paper.

2. One Industrial Visit per Semester is Mandatory. The Department shall insist on report submission by each student and shall maintain this as a documentary proof. The format of the report shall be prescribed by the department.

3. Course instructors are free to set the Course outcome and map with the Programme Outcome, subsequently attainment level may be calculated.

| | | | II S | EMESTER | | | | | | |
|-----------------|-----------------------------------|----------------|----------|------------------------|-------|------------------------|-------------|-----|-----------|---------|
| | | Category | Teaching | hours / week | _ | Durati | urati Marks | | Total | |
| Subject Code | Title of the Subject | | Lecture | Practical Component | Total | on of Exam Hours | CIE | SEE | Mark s | Credits |
| 18MBA21 | Human Resource Management | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 |
| 18MBA22 | Financial Management | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 |
| 18MBA23 | Research Methodology | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 |
| 18MBA24 | Legal and Business Environment | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 |
| 18MBA25 | Strategic Management | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 |
| 18MBA26 | Entrepreneurship Development | Core Course | 4 | - | 4 | 3 | 40 | 60 | 100 | 4 |
| | Total | | 24 | - | 24 | - | 240 | 360 | 600 | 24 |

SCHEME OF TEACHING AND EXAMINATION MASTER OF BUSINESS ADMINISTRATION

Note:

1. Each course content has indicative case studies which can be dealt in the class by the course instructor. In addition to this the course instructor may use an extra case from Harvard/Case Centre. The student cannot assume the same cases will be part of the question paper.

2. One Industrial Visit per Semester is Mandatory. The Department shall insist on report submission by each student and shall maintain this as a documentary proof. The format of the report shall be prescribed by the department.

3. Course instructors are free to set the Course outcome and map with the Programme Outcome, subsequently attainment level may be calculated.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

IV SEMESTER (Core Specialization Subjects)

| Marketing Specialization | | Financia | Financial Specialization | | | ource Specialization |
|--------------------------|----------------------|--------------|-----------------------------------|---|--------------|----------------------|
| Subject Code | Title of the Subject | Subject Code | Subject Code Title of the Subject | | Subject Code | Title of the Subject |
| | | | Mergers, Acquisitions | 1 | | Public Relations |
| 18MBAMM401 | Sales Management | 18MBAFM401 | & Corporate | | 18MBAHR401 | |
| | | | Restructuring | | | |
| 18MBAMM402 | Integrated Marketing | 18MBAFM402 | Risk Management and | 1 | 18MBAHR402 | Organizational |
| | Communication | | Insurance | | | Leadership |
| 18MBAMM403 | Digital and Social | 18MBAFM403 | Indirect Taxation | 1 | 18MBAHR403 | International Human |
| | Media Marketing | | | | | Resource |
| | _ | | | | | Management |
| 18MBAMM404 | Strategic Brand | 18MBAFM404 | International Financial | 1 | 18MBAHR404 | Organization Change |
| | Management | | Management | | | and Development |
| 18MBAMM405 | Rural Marketing | 18MBAFM405 | Financial Derivatives | 1 | 18MBAHR405 | Strategic Talent |
| | - | | | | | Management |
| 18MBAMM406 | International | 18MBAFM406 | Corporate Valuation | 1 | 18MBAHR406 | Personal Growth & |
| | Marketing | | - | | | Interpersonal |
| | Management | | | | | Effectiveness |

I SEMESTER

Course Management and Behavioural Process Course Code 18MBA11 Total No. of Lecture Hours: 52 Credits 4 L-T-P-S hours 4-0-0-0 Total No. Of practical Hours -Nil

COURSE OBJECTIVES:

1. To make students understand fundamental concepts and principles of management, including the basic

roles, skills, and functions of management

2. To make students knowledgeable of historical development, theoretical aspects and practice applications of managerial process

3. To understand the basic concepts and theories underlying individual behavior besides developing better

insights into one's own self.

4. To make students aware of Individual behavior in groups, dynamics of groups, team building and interpersonal effectiveness besides developing a better awareness of how they can be better facilitators for building effective teams as leaders themselves

PART A - PRINCIPLES OF MANAGEMENT

Unit 1: (8 Hours)

Introduction: Management: Introduction, Definition of management, Nature, Purpose and Functions, Levels and types of managers, managerial roles, skills for managers, evolution of management thought, Fayol'sfourteen principles of management, Recent trends in management.

Unit 2: (10 Hours)

Planning and Organizing:

Planning: Meaning, Nature of Planning, Planning Process, Objectives, MBO, Strategies, level of strategies, policies, methods and programs, Planning Premises, Decision-making, Process of decision-making, Types ofdecisions, Techniques in decision-making.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Organizing: Organization structure, Formal and informal organizations, Functional, divisional, geographical,customer based and matrix organizations, tram based structures, virtual organizations, boundary lessorganizations. Principles of organizations-chain of command, span of control, delegation, decentralization, and empowerment.

Case Study: Principles of Management, Cengagelearning , William , Manjunath , Sandhya Unit 3: (4 Hours)

Controlling: Meaning, importance of controlling, controlling process, types of control, factors influencingcontrol effectiveness.

RECOMMENDED BOOKS

• MGMT and ORGB, Chuck Williams, James Cambell, Manjunath & Sandhya Cengage Publications, 2018

- Essentials of Management-Koontz, 8/e, McGraw Hill
- Management: Text and Cases-VSP Rao, Excel Books

REFERENCE BOOKS:

• Masters of Management Thought – MahanandCharati& M MMunshi, Sapna Book House, Bangalore, 2015.

- Principles and practices of Management, KiranNerkar, Vilas Chopde, Dreamtech Press, 2011
- Management Theory & practice Chandan J. S, Vikas Publishing House.

PART B - ORGANIZATIONAL BEHAVIOUR

Unit 4: (6 hours)

Introduction: Organizational Behaviour: Introduction, definition, fundamental principles of OB, contributingdisciplines, challenges and opportunities. Evolution & Organizational Behavior in India.

Case study: Organizational Behavior by Steven L McShane, Mary Ann Von Glinow and Radha R Sharma, TaTa McGraw Hill companies, Fouth Edition, Pg-6.

Unit 5: (14 Hours)

Foundations of Individual Behaviour: Individual behaviour: Foundations of individual behaviour. Ability:Intellectual abilities, Physical ability, the role of disabilities.

Personality: Meaning, formation, determinants, traits of personality, big five and MBTI, personality attributes influencing OB.

Perception: Meaning, Process of perception, factors influencing perception, link between perception and individual decision-making.

Attitude: Meaning, Formation, components of attitudes, relation between attitude and behaviour. Unit 6: (10 Hours)

Motivation: Meaning, theories of motivation-needs theory, two factor theory, Theory X and Y, application of motivational theories.

Leadership: Meaning, styles of leadership, leadership theories, trait theory, behavioural theories, managerialgrid, situational theories.

Case Study: "Nuts and Bolts", Principles of Management, Cengagelearning , William , Manjunath , Sandhya Page no 531-532

PRACTICAL COMPONENTS:

• Studying organizational structures of any 10 companies and classifying them into different types of organizations which are studied in Unit 2 and justifying why such structures are chosen by those organizations.

• Preparing the leadership profiles of any 5 business leaders and studying their leadership qualities and behaviors with respects to the trait, behavioural and contingency theories studied.

• Identifying any five job profiles and listing the various types, abilities required for those jobs and also he personality traits/attributes required for the jobs identified.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Note: Faculty can either identify the organizations/ leaders/job profile or students can be allowed to choose the same.

COURSE OUTCOMES:

1. Comprehend & correlate all the management functions which are happening around with fundamental concepts and principles of management.

2. Understand the overview of management, theory of management and practical applications of the same.

3. Effectively use their skills for self-grooming, working in groups and to achieve organizational goals4. Demonstrate their acumen in applying managerial and behavioral concept in real world/situation.

5. Understand and demonstrate their exposure on recent trends in management.

RECOMMENDED BOOKS:

· Organizational behaviour, Stephen P Robbins, Timothy A. Judge, NeharikaVohra, 14th Edition, Pearson, 2012.

· Introduction to OrganisationalBehaviour – Michael Butler, Jaico Publishing House,

· Organizational Behaviour - Anada Das Gupta, Biztantra, 2011.

REFERENCE BOOKS:

· Organizational Behaviour - Fred Luthans, 12/e, McGraw Hill International, 2011.

· Management and Organizational Behaviour - Laurie J Mullins, Pearson education

· Organizational Behaviour, Aquinas P. G, Excel Books.

Course Legal and Business Environment

Course Code 18MBA24 Total No. Of Lecture Hours 52

Credits 4 L-T-P-S hours

4-0-0-0 Total No. Of practical Hours - N

Course Objectives:

1. To provide insights into the core concepts of incorporation of company.

2. To understand various policies and procedures of the company Act.

3. To gain insights into various procedure of Investigation & Winding up of Companies

Part-A (Legal Environment)

Unit I: (4 Hours)

Indian Contract Act, 1872-Meaning of contract, agreement, essential elements of a valid contract. Law of agencymeaning,

creation and termination of agency.

Unit 2:

Corporate Incorporation and Management .(10 Hours)

Definition of company, characteristics, types of company, lifting of corporate veil (i) Incorporation of company (ii) Memorandum and Articles of Association (iii) Doctrine of Ultra Vires (iv) Doctrine of Indoor Management and constructive notices **Management** - (i) Directors: Appointment, Removal, Position, Powersand Duties of Directors. (ii) Auditor and audit Committee: Its Role. **Directors** – qualification and Appointment, Liabilities and duties

Mini case Presentation and Discussion on Saloman v/s A Soloman& Company Ltd

Unit 3: (12 Hours)

Oppression, Mismanagement and Investigation:

(i) Prospectus, membership and shareholding in an company.(ii) Prevention of Oppression (iii) Prevention of Mismanagement (iv) Role & Powers of the Company Law Board (v) Role & Powers of Central Government.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Meeting :(i) Types of Meetings (ii) Procedure of calling for a meeting (iii) Company's resolutions and its kinds, proxies.

Corporate Liquidation: (i). Winding up of Companies (ii). Mode of winding up of the companies (iii). Compulsory Winding up under the Order of the Tribunal (iv). Voluntary winding up (v). Contributories (vi). Payment of liabilities

Mini case Presentation and Discussion on Rule in Foss v. Harbottle PRACTICAL COMPONENTS:

· Students to collect analyze and discuss MOA, AOA & Prospectus of a company.

• Students to produce a report on the working of reputed agency including its formation, nature of relations with the outside world and such other issues of relevance.

COURSE OUTCOME:

1. Students should get clear idea about the concept of incorporation of company, its relevance, characteristics, types of company, lifting of corporate.

2. Student to acquire knowledge about conducting meeting, duties of directors and Investigation of the company

Part-B (Business Environment)

Course Objectives:

1. To provide an understanding about the Macro Economic Environment of Business.

2. To have an understanding of the basic macro-economic concepts.

3. To study the various economic policies of our country.

Unit-4 (10Hours)

Indian Business environment: Nature and Scope, Structure of the Business Environment – Internal and External environment. Political and Legal Environment, Economic Environment, Socio – Cultural Environment, Global environment: WTO and global relations.

Basic economic Concepts: Open and Closed Economies, Primary, secondary and Tertiary sectors and their contribution to the economy. SWOT Analysis for the Indian economy. Measuring the Economy: Measuring GDP and GDP Growth rate, Components of GDP, Business Cycle- Features, and Phases. **Unit-5 (8 Hours)**

Industrial Policies and Structure: Planning- Problems in industrial development during the plan period, Classification of industries based on ownership. Industrial policies, Industrial strategy for the future, New Industrial policy 1991. **Structure of Indian Industry**: Public and Private Sector Enterprises, Objectives of PSUs, Performance and shortcomings. Private Sector– growth, problems and prospects. SSI – Role in Indian Economy. Startups and their current state in India. Privatisation-Problems and prospects, Disinvestments in Indian public sector Units since 1991.

Case Study: Privatization of Airport and Airline Industry, Source: Business Environment: Text and cases – Justin Paul, 2/e, McGraw Hill. 2008. Pp 166-168.

Unit-6 (8 Hours)

Economic policies: Fiscal Policy:Objectives, Instruments, Union Budget, Taxes, Role of Government. **Monetary Policy:** Money, Measures of money supply, Monetary system inIndia, Tools for credit control. Structure of the Banking system, RBI and its functions, Banking structure reforms – Narasimham committee recommendations.

India Foreign Trade Policy: Objectives, Features, Policy of 2015-2020-salient features.

PRACTICAL COMPONENTS:

 \cdot Students are expected to give a report on how the economic environment has affected the performance of any five large Indian Business Houses.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

• Students are expected to analyze the major economic and financial indicators such as GDP, Inflation, CPI, BSE, NSE, Currency, Gold rate, Oil barrel price etc., for a particular period of time and submit thereport on the same.

COURSE OUTCOMES:

1. To student will have an understanding of the macro environment of Business and various macroeconomic concepts.

2. The student will understand the industrial policies of the past and the present and the evolution over time, and how Indian Industrial structure evolved over time.

3. The student will be exposed to various economic policies of the country and the state of economy. **RECOMMENDED BOOKS:**

• Economic Environment of Business – Misra S. K & Puri V. K., 6/e, Himalaya publishing house, 2010.

· Business Environment :Text and Cases

SEMESTER IV MARKETING SPECIALISATION Course Sales Management Course Code 18MBA MM401 Total No. Of Lecture Hours 39 Credits 3 L-T-P-S hours

3-0-0-0 Total No. Of practical Hours -Nil

Course Objectives:

1. To provide an understanding of the concepts, techniques and approaches in Sales Management.

2. To emphasize on the Sales Manager's problems and dilemmas.

3. To develop skills for generating, evaluating and selecting sales strategies.

Unit 1: (6 hours)

Introduction to sales management: Meaning, Evaluation, Importance, Personal Selling, Emerging Trends in Sales Management, elementary study of sales organizations, qualities and responsibilities of sales manager. Types of sales organizations.

Unit 2: (5 hours)

Selling skills & selling strategies: Selling and buying Styles, selling skills, situations, selling process, sales presentation, Handling customer objections, Follow-u action.

Unit 3: (6hours)

Management of Sales Territory & Sales Quota: Sales territory, meaning, size, designing, sales quota, procedure for sales quota. Types of sales quota, Methods of setting quota. Recruitment and selection of sales force, Training of sales force.

Unit 4: (8 hours)

Sales force motivation and compensation: Nature of motivation, Importance, Process and factors in the motivation, Compensation-Meaning, Types of compensation plans and evaluation of sales force by performance and appraisal process. Sales management job: Standard sales management process-international sales management -international market selection market survey approach or strategy **Unit 5: (6 hours)**



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Sales Manager and Sales Person: Role of sales manager and sales people; functions of sales manager, functions of sales person, types and characteristics of sales manager and sales people-Time management for sales

manager and sales person.

Unit 6: (8 hours)

Selling on the internet: Selling agents for internet trading-net selling, advertising in net trading, payment system in internet trading-smart card, credit card, debit card- payment by card: advantages and disadvantages; How to make internet selling safe-Digital signature, biometric method and legal or regulatory environment; Growth of internet trading in India.

PRACTICAL COMPONENT:

• Interview a salesperson and write a brief report about what they like and dislike about their jobs, their salary, travelling allowances, sales quotas, why chose sales career, and what does it take to succeed in this profession.

• Ask your friends if they would buy certain goods like groceries, vegetables, socks, mobile, pens etc from theroadside vendor as against a regular shop. Group the products into low risk and high risk ones. Does thisbuying behaviour also depend on the personality of the individual doing the buying? Or the one doing theselling?

• Students can make a presentation on any product or the services of student choice, covering selling strategies

and one day work exposure towards merchandising in any big retail outlets of respective places where theinstitute if operating. Rural colleges can send the students to the city nearby to observe the merchandisingplanning in retail outlets and to make a small report.

• Roles and functions of sales manager and sales people are different in every organization Sales people view the roles of sales managers in their own way and vice versa. You are the sales manager of a company. You make an analysis of what you feel should be roles of a sales manager and a sales person for maximizing sales of

the organization.

• Your company is active in internet trading. A current issue in internet trading is : how to make internet selling

safe. Different methods have been suggested for safety or security of internet trading. You have to analyze

different methods and recommend a method for your company.

COURSE OUTCOMES: Student should be able to

- 1. Understand the apply the selling techniques in an organisation.
- 2. Develop a plan for organising, staffing & training sales force.
- 3. Organise sakes territories to maximize selling effectiveness.
- 4. Evaluate sales management strategies.

RECOMMENDED BOOKS:

- Sales Management by Charles, Futrell, 6/e, Thomson South Western, 2003.
- Sales & Distribution Management, TapanK.Panda& Sunil Sahadev, 6/e, OxfordUniversity Press.
- Managing of Sales Force by Spiro Stanton Rich, 11/e, TMH, 2003.

REFERENCE BOOKS:

- Sales & Retail Management, an Indian perspective by Dr.S.L Gupta, 1/e, Excel Books, 2007.
- Salesmanship and Sales Management-P.KSahu& K C Raut, 3/e, Vikas PublishingHouse3.
- Sales Management-Douglas J Dalrymple, William L Crowe-John Wiley & Co.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org



VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Under Outcome Based Education (OBE) AndChoice Based Credit System (CBCS) Scheme Scheme of Teaching and Examination – 2018-19 Master of Computer Applications

IV SEMESTER

| SI. | | | Teaching | Teaching Hours /Week | | | Examination | | | | |
|-----|-------------|--|------------|----------------------|---------------------------------------|------------------|----------------------|--------------|--------------|----------------|---------|
| No | Course Code | Title | Department | Theory (L) | Tutorial (T) | Practical (P) | Duration in hours | SEE Marks | CIE Marks | Total Marks | Credits |
| 1 | 18MCA41 | Advanced Java Programming | MCA | 03 | - | - | 03 | 60 | 40 | 100 | 03 |
| 2 | 18MCA42 | Advanced Web Programming | MCA | 03 | - | - | 03 | 60 | 40 | 100 | 03 |
| 3 | 18MCA43 | Object Oriented Modeling and Design | MCA | 03 | - | - | 03 | 60 | 40 | 100 | 03 |
| 4 | 18MCA44X | Elective II | MCA | 03 | - | - | 03 | 60 | 40 | 100 | 03 |
| 5 | 18MCA45X | Elective III | MCA | 03 | - | - | 03 | 60 | 40 | 100 | 03 |
| 6 | 18MCA46 | Professional Communication & Report Writing | MCA | 02 | - | - | 03 | 60 | 40 | 100 | 02 |
| 7 | 18MCA47 | Advanced Java Programming Lab | MCA | - | 01 | 03 | 03 | 60 | 40 | 100 | 02 |
| 8 | 18MCA48 | Advanced Web Programming Lab | MCA | - | 01 | 03 | 03 | 60 | 40 | 100 | 02 |
| 9 | 18MCA49 | Object Oriented Modeling and Design Lab | MCA | - | 01 | 03 | 03 | 60 | 40 | 100 | 02 |
| | | TOTAL | | | Theory: Practica Tutorial/Instr | d: 09 hours | urs | 540 | 360 | 900 | 23 |

ProfessionalCommunication&ReportWriting

[As per Choice Based Credit System (CBCS) scheme]

SEMESTER – IV

Subject Code: 18MCA46 CIE Marks: 40 SEE Marks: 60 SEE Hours: 03

Number of Lecture Hours/Week: 03 Hours Theory & 01 Hour Tutorial/ Instructions

Total Number of Lecture Hours: 45

Total Number of Teaching Hours/Module: 9

CREDITS – 02

Course learning objectives: This course (18MCA46) will enable student to

Illearn the role of communication and standard for grammer, numbers and spellings

22 Realize the business Etiquites and oraganizing the Reports.

2Cunderstand the aspects of group communication.

22 Exposure to the various business and technological ethics.

Course Outcomes (CO): At the end of this course, the students will be able to

CO1: Understand the Professional communication at work place.

CO2: Acquire the knowledge technical Writing and business Reporting.

CO3: Develop the leadership qualities.

CO4: Understand and implement ethical behavior at work place.

Module 1:

Communication in the workplace- Role of communication in Business, Process of Human Communication. Informal Communication- Listening, NonverbalCommunication. Correctness Of Communication- Nature of correctness, Standard for Punctuation, Standards for Grammar, Standards for the use of numbers, Spelling, Capitalization.

Module 2:

Writing for Effect- Business Etiquette, conversational style, view point, positive language, and courtesy. Basics ReportWriting- Determine the Factors, Gathering the Information, Organizing the Report, WritingTheReport. Physical Presentation Of Letters, Memos, And Reports- document



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

preparation, Form of Business Letters. Strategies in the job search Process- Preparing application, Resume, Cover letter, Facing an Interview.

Module 3:

Group Communication- Introduction, Group discussion,Organizational group discussion, group discussion as part of selection process meetings. Effective Presentation strategies-Introduction,Defining purpose, Analyzing audience and place, organizing contents, preparing outline,

Visual Aids, Understanding Nuances of delivery, Kinesics, Proxemics, Paralinguistics, Chronemics, Sample speech.

Module 4:

Motivation- Motivation and Motivators, Motivation: The Carrot and the stick, The Hierarchy of needs Theory, The Motivation – Hygiene Approach to Motivation. Leadership- Defining Leadership, Ingredients of Leadership, Trait Approaches to Leadership, Leadership behavior and styles, Situational or contingency, Approaches to Leadership.

Module 5:

Ethics: An overview of Ethics- What are Ethics? Ethics in the business World, Ethics in Information Technology (IT). Ethics for IT Professionals and IT users- IT Professionals, The Ethical behavior of IT Professionals, IT Users.

Question paper pattern:

²The question paper will have ten questions.

PEach full question consists of 20 marks.

22 There will be 2 full questions from each module.

DEach question will have questions covering all the topics under a module.

Description of the students will have to answer 5 full questions, selecting one full question from each module **Text Books**

1. Meenakshi Raman and Sangeeta Sharma: Technical Communication-Principles and Practices, Oxford University Press, 2004.

2. George Reynolds: Ethics in Information Technology, 2nd Edition, Thomson Course Technology, 2007 Reference Books

1. Lesikar and Flatley: Communication-Basic Business Communication Skills for Empowering the Internet Generation 9th Edition, Tata McGraw-Hill Edition, 2002

2. Harold Koonlz and Heinz Weihrich: Management-Essentials of Management, 9th Edition, McGraw-Hill International Edition, 2012

2)1st Year / 1st Semester Basics of Programming & CO (Bridge course-20MCA19-BC)fornon Computer science Background



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

2020 – 21



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

INSTITUTIONAL CURRICULUM COMMITTEE MEETING 2020-2021 – (ODD)

The reconstitution of the Institutional curriculum committee was made and the meeting was held on 28/09/2020 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION | COMMITTEE DESIGNATION |
|--------|-------------------------|---------------------------|--------------------------|
| 1. | Dr A S Aravind | Principal | Chair Person |
| 2. | Dr R China Appala Naidu | HOD-CSE | Member Coordinator |
| 3. | Dr R Kanagavalli | HOD-ISE | Member |
| 4. | Dr Manju Devi | HOD-ECE | Member |
| 5. | Dr V S Bharath | HOD-EEE | Member |
| 6. | Prof Madhusudhan Reddy | HOD-ME | Member |
| 7. | Dr B K Manjunath | HOD-BT | Member |
| 8. | Dr Malleshaiah T S | HOD-Civil & CTM | Member |
| 9. | Dr B S Yashodha | HOD-MT | Member |
| 10. | Dr K Sathish Babu | HOD-AUTO | Member |
| 11. | Dr Mallikarjuna K | HOD-Maths | Member |
| 12. | Prof Abdul Khader | HOD-Physics (in-charge) | Member |
| 13. | Dr Surekha M | HOD-Chemistry | Member |
| 14. | Dr Dhanalakshmi R V | HOD-MBA | Member |
| 15. | Dr M S Shashidhara | HOD-MCA | Member |
| 16. | Prof Kirti P | In-Charge Principal -TOSA | Member |

Agenda: Minutes

- Online Academic Activities
- As per the VTU instructions regarding online classes, the institution decided to use the Microsoft Teams as an online platform for conducting the classes.
- It was instructed to all HODs to send the weekly online class taken report.

Summary: Minutes

The Principal conveyed that as informed by VC of VTU, the online classes will continue, and offline classes may not start soon as they are awaiting for unlock 5.0 guidelines from GOI. HODs were



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

advised to instruct the Faculty to continue with online classes by making better use of teaching resources. He further informed that based on virtual meeting has with VC and NITK, Surathkal, the college has to opt for Virtual Instrumentation Labs in association with NITK, Surathkal by which students will get access to experiments through the Virtual Labs Platform

Resolution:

- The approved syllabus is followed.
- The classes were conducted in online mode as per the lesson plan, due to pandemic and attendance was checked twice a week and report was sent
- Online meetings were conducted and to monitor the classes, HODs were instructed to login to the class and monitor.
- All departments conducted various webinars related to academic topics.
- Weekly online class taken reports with attendance were updated by the HODs.

of Engineering Bommanahall Bengaluru-560 998



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

INSTITUTIONAL CURRICULUM COMMITTEE MEETING 2020-2021 (EVEN)

The reconstitution of the Institutional curriculum committee was made and the meeting was held on 10/04/2021 and the following members were present for the meeting.

| Sl no. | NAME | DESIGNATION | COMMITTEE |
|--------|-------------------------|------------------|--------------------|
| 51110. | | | |
| 1 | Dr N Kannan | Principal | Chair Person |
| 2 | Dr R China Appala Naidu | HOD-CSE | Member Coordinator |
| 3 | Dr R Kanagavalli | HOD-ISE | Member |
| 4 | Dr Manju Devi | HOD-ECE | Member |
| 5 | Dr V S Bharath | HOD-EEE | Member |
| 6 | Dr Madhusudhan Reddy | HOD-ME | Member |
| 7 | Dr B K Manjunath | HOD-BT | Member |
| 8 | Dr Malleshaiah T S | HOD-Civil & CTM | Member |
| 9 | Dr B S Yashodha | HOD-MT | Member |
| 10 | Dr Raju B R | HOD-AUTO | Member |
| 11 | Dr Mallikarjuna K | HOD-Maths | Member |
| | Prof Abdul Khader | HOD-Physics (in- | |
| 12 | | charge) | Member |
| 13 | Dr Surekha M | HOD-Chemistry | Member |
| 14 | Dr Dhanalakshmi R V | HOD-MBA | Member |
| 15 | Dr M S Shashidhara | HOD-MCA | Member |

Agenda: Minutes

- · Online Academic Activities
- \cdot As per the VTU instructions regarding online classes, the institution decided to use the Microsoft Teams as an online platform for conducting the classes.
- It was instructed to all HODs to send the weekly online class taken report.

Summary: Minutes



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

The Principal conveyed that as informed by the VC of VTU, the online classes will continue, and offline classes may not start soon as they are awaiting guidelines from GOI.

HODs were advised to instruct the faculty to continue with online classes by making better use of teaching resources. He further informed that based on virtual meetings with VC and NITK, Surathkal, the college has to opt for Virtual Instrumentation Labs in association with NITK, Surathkal by which students will get access to experiments through the Virtual Labs Platform.

Resolution:

- The approved syllabus is followed.
- The classes were conducted in online mode as per the lesson plan, due to pandemic and attendance was checked twice a week and report was sent
- Online meetings were conducted and to monitor the classes, HODs were instructed to login to the class and monitor.
- HODs were advised to include Principal and the Directors in all the classes so that they can evaluate the classes conducted.
- · All departments conducted various webinars related to academic topics.
- HODs were strictly informed to fill the class conducted details in the Google Sheet shared to HODs mail everyday by 6:00 pm without fail.

Dr. N Kannan RRINCIPAL The Oxford College of Engineering Bommanahalii, Hosur Rost Bengaluru-550 Ges



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (CSE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2020-2021 -(ODD)

The department curriculum committee was made and the meeting was held on 28/09/2020 and the following members were present for the meeting.

| SI. No. | NAME | DESIGNATION |
|---------|-----------------------|-----------------|
| 1. | Dr. R Ch. A Naidu | HOD |
| 2. | Dr. E Saravana Kumar | Asso. Professor |
| 3. | Dr. Senthil Kumar | Asso. Professor |
| 4. | Ms. Shobha T | Asst. Professor |
| 5. | Ms. Seema Patil | Asst. Professor |
| 6. | Ms. Sowmya H K | Asst. Professor |
| 7. | Ms. Jesy Janet Kumari | Asst. Professor |
| 8. | Ms. Florance G | Asst. Professor |
| 9. | Ms. Latha R | Asst. Professor |
| 10. | Ms. Tintu | Asst. Professor |
| 11. | Ms. Sushma T | Asst. Professor |
| 12. | Ms. Anjali | Asst. Professor |
| 13. | Ms. Ashwini | Asst. Professor |
| 14. | Ms. Gayathri | Asst. Professor |
| 15. | Ms. Roopini | Asst. Professor |
| 16. | Mr. Supreeth | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1. HOD, Dr. R Ch. A Naidu welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.

| SI. No. | CBCS Elective/Humanity and Social Science | | |
|---------|---|--------------------------------------|--|
| 1 | 17CS742 | Cloud Computing and its Applications | |
| 2 | 17CS754 | Storage Area Networks | |
| 3 | 18CIV59 | Environmental Studies | |

- 5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.
- 6. Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following value-added programs will be conducted during 2020 – 2021 odd semester

| SI. No. | Name of the Value-added programs |
|---------|----------------------------------|
| 20. | Soft Skill Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Notth

HOD, CSE

HEAD OF THE DEPARTMENT DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING THE OXFORD COLLEGE OF ENGINEERING BENGALURU - 560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (CSE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2020-2021 – (EVEN)

The department curriculum committee was made and the meeting was held on 07/02/2020 and the following members were present for the meeting.

Agenda:

| SI. No. | NAME | DESIGNATION |
|---------|-----------------------|-----------------|
| 1. | Dr. R Ch. A Naidu | HOD |
| 2. | Dr. E Saravana Kumar | Asso. Professor |
| 3. | Dr. Smitha | Asso. Professor |
| 4. | Dr. Buddesab | Asso. Professor |
| 5. | Ms. Shobha T | Asst. Professor |
| 6. | Ms. Seema Patil | Asst. Professor |
| 7. | Ms. Sowmya H K | Asst. Professor |
| 8. | Ms. Jesy Janet Kumari | Asst. Professor |
| 9. | Ms. Florance G | Asst. Professor |
| 10. | Ms. Gayathri | Asst. Professor |
| 11. | Mr. Supreeth | Asst. Professor |
| 12 | Ms. Rekha | Asst. Professor |
| 13 | Ms. Lakshmi Suresh | Asst. Professor |
| 14 | Ms. Punitha | Asst. Professor |

• Implementation of prescribed university syllabus approved by Principal for even semester.

• Implementation of CBCS syllabus prescribed by the university for even semester.

- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Minutes of Meeting:

- 1. HOD, Dr. R Ch. A Naidu, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 2. Semester plan for 2020-21 even semester and mentioning the activities planned in the department.

| SI. No. | CBCS | CBCS Professional & Open Elective | | |
|---------|---------|--------------------------------------|--|--|
| 1 | 17CS834 | System Modeling and Simulation | | |
| 2 | 18CS643 | Cloud Computing and its Applications | | |
| 3 | 18ME651 | Non-Conventional Energy Sources | | |

- 3. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Mentor mentee list discussion

The following value-added programs will be conducted during 2020 – 2021 even semester

| SI. No. | Name of the Value-added programs |
|---------|----------------------------------|
| 1. | Soft Skill Training |

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

North

HOD, CSE HEAD OF THE DEPARTMENT DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING THE OXFORD COLLEGE OF ENGINEERING BENGALURU - 560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – Information Science and Engineering

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2020-2021 – (EVEN)

The department curriculum committee was made and the meeting was held on 13/04/2021 and the following members were present for the meeting.

| Dr.R.Kanagavalli | HOD |
|-----------------------|--|
| | |
| Ms. Visalini S | Assot. Prof. |
| Mr. Yadhu Krishna M R | Assot. Prof. |
| Ms. KalaiSelvi | Asst. Prof. |
| Ms. Kokila P | Asst. Prof. |
| Mr. Channappa Gowda | Asst. Prof. |
| Ms. InduK.S | Asst. Prof. |
| Mr. Karthik S L | Asst. Prof. |
| Mr. Amaresha | Asst. Prof. |
| Ms.Sandhya rani | Asst. Prof. |
| Ms.S.vidhya | Asst. Prof. |
| Ms.Madhusmitha | Asst. Prof. |
| Ms.Geetha Rani | Asst. Prof. |
| Ms.Jeevitha | Asst. Prof. |
| | Mr. Yadhu Krishna M R Ms. KalaiSelvi Ms. Kokila P Mr. Channappa Gowda Ms. InduK.S Mr. Karthik S L Mr. Amaresha Ms.Sandhya rani Ms.S.vidhya Ms.Madhusmitha Ms.Geetha Rani |

Agenda:

- 1. Semester plan
- 2. Introduction of syllabus based on CBCS scheme
- 3. Conduction of seminars
- 4. Plan for Field Visit/ Industrial Visit



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 5. Plan for the (Final Year's)Project Works / Internships
- 6. Allotment the assignment topics and tutorial topics
- 7. Plan for mentoring activities

Summary: Minutes

- 1. HOD, Dr.Kanagavalliwelcomed all the faculty and explained VTU, ODD semester regulations.
- 2. Semester plan for 2020-21 even semester and mentioning the activities planned in the department.
- 3. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 4. yllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the (Final Year's) Project Works / Internships (with company names and details).
- 9. Mentor mentee list discussion
- 10. The following certificate programs will be conducted during 2020 2021 EVEN semester

| SI. No | Name of the department | Name of the Certificate Program | | |
|--------|-------------------------------------|---------------------------------|--|--|
| 9. | Information Science and Engineering | NIL | | |

11. The following value-added programs will be conducted during 2020 – 2021 EVEN semester

| SI. No. | Name of the department | Name of the Value-added programs | |
|---------|-------------------------------------|----------------------------------|--|
| 21. | Information Science and Engineering | Soft skill training | |

Resolutions:

- 1. Research activity to be improved.
- 2. Result percentage to be improved.

DROFESSOR à M ord College Of Engineering manahalu. Hosur Main Read المعاقفة المعاقفة

HOD -ISC



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – Information Science and Engineering

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2020-2021 – (ODD)

The department curriculum committee was made and the meeting was held on 29/09/2020 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION |
|--------|-----------------------|--------------|
| 1. | Dr.R.Kanagavalli | HOD |
| 2. | Ms. Visalini S | Assot. Prof. |
| 3. | Mr. Yadhu Krishna M R | Assot. Prof. |
| 4. | Ms. KalaiSelvi | Asst. Prof. |
| 5. | Ms. Kokila P | Asst. Prof. |
| 6. | Mr. Channappa Gowda | Asst. Prof. |
| 7. | Ms. InduK.S | Asst. Prof. |
| 8. | Mr. Karthik S L | Asst. Prof. |
| 9. | Mr. Amaresha | Asst. Prof. |
| 10. | Ms.Sandhya rani | Asst. Prof. |
| 11. | Ms.S.vidhya | Asst. Prof. |
| 12. | Ms.Madhusmitha | Asst. Prof. |
| 13. | Ms.Geetha Rani | Asst. Prof. |
| 14. | Ms.Jeevitha | Asst. Prof. |
| 14. | Ms.Jeevitha | Asst. Prof. |

Agenda:

- 1. Semester plan
- 2. Value-added and certificate programs
- 3. Conduction of seminars
- 4. Plan for Field Visit/ Industrial Visit
- 5. Plan for the (Final Year's) Project Works / Internships
- 6. Allotment the assignment topics and tutorial topics

ummary: Minutes



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 1. HOD, Dr.Kanagavalli welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS)
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans for Field Visit/ Industrial Visit.
- 7. Planning for the (Final Year's) Project Works / Internships (with company names and details).
- 8. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following certificate programs will be conducted during 2020 – 2021 odd semesters

| SI. No | Name of the department | Name of the Certificate Program |
|--------|-------------------------------------|---------------------------------|
| 1. | Information Science and Engineering | NIL |

The following value-added programs will be conducted during 2020–2021 odd semester

| Sl. No. | Name of the department | Name of the Value-added programs |
|---------|-------------------------------------|----------------------------------|
| 2. | Information Science and Engineering | Soft skill training |

Resolutions:

- 1. Result percentage to be improved.
- 2. Research activity to be improved.

ree**nn**G OFERG ur Marisi 🖻

HOD- ISC



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting - ECE

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019 - 2020 (EVEN)

The Department curriculum committee was made and the meeting was held on 8/02/2020 and the following members were present for the meeting.

| Slno. | NAME | DESIGNATION |
|-------|---------------------|----------------|
| 1 | Dr.Manju Devi | Professor&Head |
| 2 | Dr.Vivek.M | Professor |
| 3 | Dr.PreetaSharan | Professor |
| 4 | Mr.N.Jayaraj | AssociateProf |
| 5 | Ms.ChrispinJiji | Asst.Professor |
| 6 | Ms.SowmyaPadukone.G | Asst.Professor |
| 7. | Mr.BhargavRamGowd | Asst.Professor |
| 8. | Ms.LayaTojo | Asst.Professor |
| 9. | Ms.Chandrakala.S | Asst.Professor |
| 10 | Ms.Aruna.J | Asst.Professor |
| 11 | Mr.ManjunathSheth | Asst.Professor |
| 12 | Mr.Veeresh.H | Asst.Professor |
| 13 | Mr.Anand.K.Warad | Asst.Professor |
| 14 | Harshini.N.M | Asst.Professor |
| 15 | Mr.Shivaprasad | Asst.Professor |
| 16 | Ms.Lakshmi.R | Asst.Professor |
| 17 | Mr.AravindReddy | Asst.Professor |
| 18 | Dhanya | Asst.Professor |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| Asst.Professor |
|----------------|
| 351.51015501 |
| Professor |
| Asst.Professor |
| |

Agenda:

1. EVENSemester Plan for Academics & Co-Curricular Activities

2.Introduction of CBCS& orientation for Students

3. Arrangement of Seminars, Field Visits & Industrial Visit to Students

4. Conduction of Project Work, Internshipwork to Students

Summary: Minutes of meeting

,Dr.ManjuDevi,HOD & Profwelcomed all the faculty and explained VTU, EvenSemesterregulations.

5. Semester plan for 2019-20EVENSemester and mentioning the activities planned in the Department.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| SI.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|---------------------|-----------------------------|
| 1. | ECE | NCSEM-2020 |

6. The following value-added programs will be conducted during

2019 – 2020EVEN-Semester

| SI.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|---------------------|-----------------------------|
| 1. | ECE | RTCSE-2020 |

Resolutions:

The HOD & Faculties of the Department will do the Resolution that We all wll work towards the overall growth of the Department, Students & Organization

0

V Trofessor & HOD of E&C Engineering True Oxford College of Engineering Bommananalli, Bangalore-560 068.

HOD - ECE



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting - ECE

DEPARTMENTALCURRICULUMCOMMITTEEMEETING2020-2021(ODD)

The Department curriculum committee was made and the meeting was held on29/09/2020 and the following members were present for the meeting

| Slno. | NAME | DESIGNATION | |
|-------|---------------------|----------------|--|
| 1. | Dr .ManjuDevi | HOD&Professor | |
| | | | |
| 2. | Dr.Vivek.M | Professor | |
| 3. | Dr.PreetaSharan | Professor | |
| 4. | Mr.N.Jayaraj | AssociateProf | |
| 5 | Ms.ChrispinJiji | Asst.Professor | |
| 6 | Ms.SowmyaPadukone.G | Asst.Professor | |
| 7. | Mr.BhargavRamGowd | Asst.Professor | |
| 8. | Ms.LayaTojo | Asst.Professor | |
| 9. | Ms.Chandrakala.S | Asst.Professor | |
| 10. | Ms.Aruna.J | Asst.Professor | |
| 11. | Mr.ManjunathSheth | Asst.Professor | |
| 12. | Mr.Veeresh.H | Asst.Professor | |
| 13. | Mr.Anand.K.Warad | Asst.Professor | |
| 14. | Ms.Ashwini.M | Asst.Professor | |
| 15. | Poojashri.C.S | Asst.Professor | |
| 16. | Ms.Lakshmi.R | Asst.Professor | |

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 17. | Mr.AravindReddy | Asst.Professor |
|-----|-------------------|----------------|
| 18. | Mr.PraveenKumar | Asst.Professor |
| 19 | Dhanya | Asst.Professor |
| 20 | NithikaBhasi | Asst.Professor |
| 21 | JishaChandra | Asst.Professor |
| 22 | JagadeeshwarReddy | Asst.Professor |
| 23 | Vidya | Asst.Professor |
| 24 | SriVidya | Asst.Professor |
| 25 | Sunitha.L | Asst.Professor |
| 26 | ShivaprasadWagh | Asst.Professor |
| 27 | Mohanthi | Asst.Professor |
| 28 | Dr.AnilTiwari | Professor |
| 29 | Dr.A.S.Aravind | Professor |
| 30 | Harshini.N.M | Asst.Professor |

Agenda:

- 1.ODDSemester Plan for Academics & Co-Curricular Activities
- 2.Introduction of CBCS & orientation for Students
- 3. Arrangement of Seminars, FieldVisits &Industrial Visit to Students
- 4. Conduction of Project Work, Internshipwork to Students

Summary: Minutes of meeting

- Dr.ManjuDevi,HOD&Profwelcomed all the faculty and explained VTU, EvenSemesterregulations.
- Semester plan for 2020- 21ODD Semester and mentioning the activities planned in the Department.



5. The following value-added programs will be conducted during 2020 – 2021ODD-Semester

ECE

| SI.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|---------------------|-----------------------------|
| 1. | ECE | RTCSE-2021 |

Resolutions:

1.

The HOD & Faculties of the Department will do the Resolution that We all wl lwork towards the over all growth of the Department, Students & Organization.

. 22 Professor & HOD of E&C Engineering Tue Oxford College of Engineering Bommananalli, Bangalore - 560 068.

NCSEM-2021

HOD -ECE



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

THE OXFORD COLLEGE OF ENGINEERING

Departmental Committee Meeting – (EEE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2020-2021 -(ODD)

The department curriculum committee was made and the meeting was held on 21/08/2020 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|-------------------------|--------------|
| 1 | Dr.Bharath.V.S | Prof.& HOD |
| 2 | Dr.V.Chinnappan | Prof |
| 3 | Mrs.SandhyaRai | Assoc. Prof. |
| 4 | Mr.N.Jayakumar | Assoc. Prof. |
| 5 | Mrs.Nisha.C.Rani | Assoc.Prof. |
| 6 | Dr.B.DeviVighneshwari | Assoc. Prof. |
| 7 | Mrs.Raichel Ruby | Assoc.Prof. |
| 8 | Mrs.Manjula.C | Assoc.Prof. |
| 9 | Mrs.NalinaKumari | |
| 10 | Mr.Muniyappa.N | Asst.Prof. |
| 11 | Mrs.Thilaga.P | Asst.Prof. |
| 12 | Mrs.NavathaKumari | Asst.Prof. |
| 13 | Mrs.Sumitha.T.L | Asst.Prof. |
| 14 | Mrs.Someswari | Asst.Prof. |
| 15 | Mrs.Vinutha.Y.E | Asst.Prof. |
| 16 | Ms.Swapna.C.M | Asst.Prof. |
| 17 | Mrs.Resna.S.R | Asst.Prof |
| 18 | Ms.Deepa.R | Asst.Prof |
| 19 | Prakruthi Parthasarathy | Asst.Prof |
| 20 | Manjushree J | Asst.Prof |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 21 | Апоор Н К | Asst.Prof |
|----|------------|-----------|
| 22 | Maduri C | Asst.Prof |
| 23 | Poornima M | Asst.Prof |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship

Minutes of Meeting:

- 1. HOD, Dr.Bharath.V.S welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.

| SI. No. | | CBCS ELECTIVE/MATDIP | |
|---------|---------------|---|--|
| 1 | 17EE742 | Utilization of Electrical power | |
| 2 | 17EE752 | Testing and commissioning of power system | |
| | | Apparatus | |
| 3 | 17KL/CPH39/49 | 17KL/CPH39/49 Kannada/Constitution of India, Professional Ethics ar | |
| | | Human Rights | |
| 4 | 17MATDIP31 | Additional Mathematics –I | |

- 5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.
- 6. Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

9. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following value-added programs will be conducted during 2020 – 2021 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 1. | EEE | Technical Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Prof e Oxford College of Engg Bommanah alli, Hosur Ros Bangalore-560 068

HOD-EEE



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

THE OXFORD COLLEGE OF ENGINEERING

Departmental Committee Meeting – (EEE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2020-2021 - (EVEN)

The department curriculum committee was made and the meeting was held on 23/04/2021 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|-------------------------|--------------|
| 1 | Dr.Bharath.V.S | Prof.& HOD |
| 2 | Dr.V.Chinnappan | Prof |
| 3 | Mrs.SandhyaRai | Assoc. Prof. |
| 4 | Mr.N.Jayakumar | Assoc. Prof. |
| 5 | Mrs.Nisha.C.Rani | Assoc.Prof. |
| 6 | Dr.B.DeviVighneshwari | Assoc. Prof. |
| 7 | Mrs.Raichel Ruby | Assoc.Prof. |
| 8 | Mrs.Manjula.C | Assoc.Prof. |
| 9 | Mrs.NalinaKumari | |
| 10 | Mr.Muniyappa.N | Asst.Prof. |
| 11 | Mrs.Thilaga.P | Asst.Prof. |
| 12 | Mrs.NavathaKumari | Asst.Prof. |
| 13 | Mrs.Sumitha.T.L | Asst.Prof. |
| 14 | Mrs.Someswari | Asst.Prof. |
| 15 | Mrs.Vinutha.Y.E | Asst.Prof. |
| 16 | Ms.Swapna.C.M | Asst.Prof. |
| 17 | Mrs.Resna.S.R | Asst.Prof |
| 18 | Ms.Deepa.R | Asst.Prof |
| 19 | Prakruthi Parthasarathy | Asst.Prof |
| 20 | Manjushree J | Asst.Prof |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | e man engrinerpare mean mean mean m | |
|----|-------------------------------------|-----------|
| 21 | Апоор Н К | Asst.Prof |
| 22 | Maduri C | Asst.Prof |
| 23 | Poornima M | Asst.Prof |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship

Minutes of Meeting:

- 1. HOD, Dr.Bharath.V.S, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 2. Semester plan for 2020-21 even semester and mentioning the activities planned in the department.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|---------|---|----------------------------|
| 1 | 18EE831 Smart grid | |
| 2 | 17KL/CPH39/49 Kannada/Constitution of India, Professional Ethics an Human Rights | |
| 3 | 17MATDIP41 | Additional Mathematics –II |

- 3. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

9. Mentor mentee list - discussion

10. The following certificate programs will be conducted during 2020–2021 EVEN semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 1. | EEE | Technical Training |

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Profess The Oxford College of Engg Bommanahalii, Hosur Road Bangalore-560 068

HOD- EEE



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting–(BRANCH):Mechanical engineering

DEPARTMENTALCURRICULUMCOMMITTEEMEETING2020-2021-(ODD)

The department curriculum committee was made and the meeting was held $on \frac{30}{9} \frac{2020}{2020}$ and the following members were present for the meeting.

| Slno. | NAME | DESIGNATION |
|-------|----------------------|------------------------|
| 1 | DR. MADHUSUDHANREDDY | HOD |
| 2 | RAVIPRAKASH | Professor |
| 3 | VIDHYADHARPOOJAR | Professor |
| 4 | PRASADNAYAK | Professor |
| 5 | RAGHAVENDRAN | Assistant Professor |
| 6 | RAHULD | AssistantProfessor |
| 7 | RANGU P, | AssistantProfessor |
| 8 | SHIVASHESHDRI | AssistantProfessor |
| 9 | VINAYV | AssistantProfessor |
| 10 | ANOOPUPADYAYA | AssistantProfessor |

Agenda:

- 1. Finalization of departmental activities for the academic year.
- 2. Allocation of subjects to faculties.
- 3. Approval of project batch.

Summary:Minutes

- 1. HOD, Dr.Madhusudhan Reddy welcomed all the faculty and explained VTU, ODDsemesterregulations.
- 2. As per the VTU regulation guidelines the students of all odd semester should followit.
- 3. VTU has introduced Choice Based Credit System (CBCS)



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans for Field Visit / Industrial Visit.
- 7. Planning for the (Final Year's) Project Works / Internships (with company names and details).
- 8. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following certificate programs will be conducted during 2020 – 2021oddsemester

| Sl.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|------------------------|---------------------------------|
| 1 | Mechanical engineering | Engineering graphics |
| 2 | Mechanical engineering | Programming with microprocessor |

The following value-added programs will be conducted during 2020–2021 odds emester

| SI.No. | Nameofthedepartment | NameoftheValue-addedprograms |
|--------|------------------------|--------------------------------------|
| 1 | Mechanical engineering | Design of circuitforhydraulicsfluids |
| 2 | Mechanical engineering | Programming with microprocessor |

Resolutions:

- Each faculty has to take two theory subjects and one lab, out of which one subject willbechoiceoffaculty while theothersubject will be left to the discreet of HOD.
- Departmental activities are to be planned as per calendar of institution and must begotapproval from principal.
- Fore man is given in charge to finalise the budge allocations for variouslabs/workshopsin consultation with lab in charges.

PROFESSSER HEAD DEPARTMENT OF MECHANICAL ENGINEERING THE OXFORD COLLECT OF ENGINEERING BOMMANAHALLI, BAHGALORE-560068

)



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org Mechanical Engineering

DEPARTMENTALCURRICULUMCOMMITTEEMEETING2020-2021-(EVEN)

The department curriculum committee was made and the meeting was held on 22/01/2021and the following members were present for the meeting.

| Slno. | NAME | DESIGNATION |
|-------|---------------------|---------------------|
| 1 | DR.MADHUSUDHANREDDY | HOD |
| 2 | RAVIPRAKASH | Professor |
| 3 | VIDHYADHARPOOJAR | Professor |
| 4 | PRASADNAYAK | Professor |
| 5 | RAGHAVENDRAN | Assistant Professor |
| 6 | RAHULD | AssistantProfessor |
| 7 | RANGU P, | AssistantProfessor |
| 8 | SHIVASHESHDRI | AssistantProfessor |
| 9 | VINAYV | AssistantProfessor |
| 10 | ANOOPUPADYAYA | AssistantProfessor |

Agenda:

1. Allocation of subject to staff.

- 2. Identifying lab incharges/mentors/class teachers.
- 3. Finalizing departmental activities to be conducted.

Summary:Minutes

- 1. HOD,Dr.Madhusudhan Reddy welcomed all the faculty and explained VTU, EVENsemesterregulations.
- 2. Semester plan for 2020-21 even semester and mentioning the activities planned in the department.

| SI.No. | NameoftheDepartment | CBCS |
|--------|---------------------|------|
| | | |

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 Endit: engorincipal@theoxford.edu Web: www.theoxfordengo.org

| | 1. | Mechanicalengineering | 8 th semester | |
|---|----|-----------------------|--------------------------|--|
| L | | | | |

- 3. The discussion of the subjects of CBCS given in the above table, selected by thestudents.
- 4. As per the VTU regulation guidelines the students of B.E have to select one subject from the MOOCS-I, MOOCS-II& MOOCS-III

| SI.No | Name of the Department | MOOCS-I | MOOCS –II | MOOCS –III |
|-------|------------------------|---------|-----------|------------|
| 1. | Mechanical engineering | nil | nil | nil |

- 5. Syllabus copy prescribed by the university circulated to the students and faculty.
- 6. Department announced to conduct the regular seminars to the students.
- 7. Department plans to allot the assignment topics to the students and to allocate the tutoria ltopics to the students.
- 8. DepartmentplansforFieldVisit/IndustrialVisit.
- 9. Planningforthe(FinalYear's)ProjectWorks/ Internships(withcompanynamesanddetails).
- 10. Mentormenteelist- discussion
- 11. The following certificate programs will be conducted during 2020 2021 EVENsemester

| SI.No. | Nameofthedepartment | NameoftheCertificateProgram |
|--------|------------------------|-----------------------------|
| 1. | Mechanical engineering | nil |
| | | |

12. The following value-added programs will be conducted during 2020– 2021

| SI.No. | Nameofthedepartment | NameoftheValue-addedprograms | |
|--------|------------------------|------------------------------|--|
| 6. | Mechanical engineering | nil | |
| | | | |

Resolutions:

- Allocation of subjects for staff senior staff to take first year classes.
- Classteachers/mentors/lab incharges are made.
- Lab instructors to be changed on priority basis so that each should be able to handleallmechanical labs.
- Mentormenteelist approved.

PROFESSSHR& HEAD DEPARTMENT OF MECHANICAL ENGINEERING THE OXFORD COLLECT OF ENGINEERING BOMMANAHALLI, BAHGALORE-560068

)



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

THE OXFORD COLLEGE OF ENGINEERING

Departmental Committee Meeting – BIOTECHNOLOGY

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2020 - 2021 - (ODD)

The department curriculum committee was made and the meeting was held on 28/09/2020 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION |
|--------|----------------------|----------------|
| 1. | Dr. B.K.Manjunath | HOD |
| 2. | Dr. Valarmathy | Asst.Professor |
| 3. | Prof. Divakara | Asst.Professor |
| 4. | Prof. Salma Kausar.M | Asst.Professor |
| 5. | Prof. Aswathi. U | Asst.Professor |

Agenda:

- 1. Semester planner was decided and department level coordinators work was allotted
- 2. General instruction & working plan of the department to be discussed
- 3. Updating of course files & NBA status discussion
- 4. Action plan to execute department activity.
- 5. Other points if any to be discussed

Summary: Minutes

- 1. Faculties were allotted with coordinator workload for the new academic year
- 2. Each faculty was assigned with theory & practical subject workload

3. faculties were asked to inform students about the digital library in the college & make use of it effectively'

- 4. All faculties were informed to strictly monitor the attendance & IA performance of students.
- 5. All faculties were informed to ensure every class performs at least 2 activities.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Resolutions:

- 1. To achieve better results and aiming for many more VTU ranks.
- 2. To encourage students to undergo Certificate/Value Added courses.
- 3. To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

he departmen Tor. IVI AN Professor Angaluru-580 088-D • Oxford

HOD (SEAL)



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – BIOTECHNOLOGY

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2020 -2021 –(EVEN)

The department curriculum committee was made and the meeting was held on 28/02/2021 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION |
|--------|----------------------|----------------|
| 1. | Dr. B.K.Manjunath | HOD |
| 2. | Dr. Valarmathy | Asst.Professor |
| 3. | Prof. Divakara | Asst.Professor |
| 4. | Prof. Salma Kausar.M | Asst.Professor |
| 5. | Prof. Aswathi. U | Asst.Professor |

Agenda:

- 1. Semester planner was decided and department level coordinators work was allotted
- 2. General instruction & working plan of the department to be discussed
- 3. Updating of course files & NBA status discussion
- 4. Action plan to execute department activity.
- 5. Other points if any to be discussed

Summary: Minutes

- Faculties were allotted with coordinator workload for the new academic year
- Each faculty was assigned with theory & practical subject workload
- faculties were asked to inform students about the digital library in the college & make use of it effectively'
- All faculties were informed to strictly monitor the attendance & IA performance of students.
- All faculties were informed to ensure every class performs at least 2 activities.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Resolutions:

- To achieve better results and aiming for many more VTU ranks.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

departme MANJUNA . 15 1 Professor & Head Department of Slotechnolo Oxford College of Engine Bengaluru-560 088-

HOD (SEAL)



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

THE OXFORD COLLEGE OF ENGINEERING

Departmental Committee Meeting – (CIVIL)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2020-2021 -(ODD)

The department curriculum committee was made and the meeting was held on 30/09/2020 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|------------------------|-----------------|
| 1 | Dr. T S Malleshaiah | Professor |
| 2 | Mr Shivanand C G | Assot Professor |
| 3 | Mr. Prashanth | Asst. Professor |
| 4 | Mr. Maheshkumar | Asst. Professor |
| 5 | Ms. Kavya | Asst. Professor |
| 6 | Ms. Harsha | Asst. Professor |
| 7 | Ms. Shradha | Asst. Professor |
| 8. | 8. Mrs.Nayana B S Asst | |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

1.HOD, Dr. T S Malleshaiah welcomed all the faculty and explained VTU, ODD semester regulations.

2.As per the VTU regulation guidelines the students of all Odd semester should follow it.

3.VTU has introduced Choice Based Credit System (CBCS).



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

4.Syllabus copy prescribed by the university circulated to the students and faculty.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|---------|----------------------|---------------------------|
| 1 | 18CV734 | Ground Water Hydraulics |
| 2 | 18CV745 | Urban transport planning |
| 3 | 18MATDIP31 | Additional Mathematics –I |

5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.

6.Department announced to conduct the regular seminars to the students.

7. Department plans for Field Visit / Industrial Visit.

8. Planning for the Final Year's Project Works / Internships.

9.Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Head of the Department Department of Civil Engineering The Oxford College of Engineering Bangalore - 560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

THE OXFORD COLLEGE OF ENGINEERING

Departmental Committee Meeting – (CIVIL)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2020-2021 – (EVEN)

The department curriculum committee was made and the meeting was held on 13/04/2021 and the following members were present for the meeting.

| Sl. No. | Name | Designation |
|---------|-------------------------|-----------------|
| 1 | Dr. T S Malleshaiah | Professor |
| 2 | Mr Shivanand C G | Assot Professor |
| 3 | Mr. Prashanth | Asst. Professor |
| 4 | Mr. Maheshkumar | Asst. Professor |
| 5 | Ms. Kavya | Asst. Professor |
| 6 | Ms. Harsha Asst. Profes | |
| 7 | Ms. Shradha | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

1.HOD, Dr.T S Malleshaiah welcomed all the faculty and explained VTU, EVEN semester regulations.

2.Semester plan for 2018-19 even semester and mentioning the activities planned in the department.

| SI. No. | | CBCS ELECTIVE/MATDIP |
|---------|---------|----------------------|
| 1 | 18CV825 | Pavement Design |

3. The discussion of the subjects of CBCS given in the above table, selected by the students.

4.Syllabus copy prescribed by the university circulated to the students and faculty.

5.Department announced to conduct the regular seminars to the students.

6.Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students

topics to the students.

7. Department plans for Field Visit / Industrial Visit.

8. Planning for the Final Year's Project Works / Internships.

9.Mentor mentee list – discussion

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Head of the Department Department of Civil Engineering The Oxford College of Engineering Bangatore - 560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

THE OXFORD COLLEGE OF ENGINEERING

Departmental Committee Meeting – (Automobile Engineering)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2020-2021 -(ODD)

The department curriculum committee was made and the meeting was held on 06/10/2020 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|-------------------|------------------------|------------------|
| 1 | Dr. Raju B R | Professor |
| 2 | Dr.K.Sathish Babu | Professor |
| 3 | Mr. Sandeep K Chavan | Assot. Professor |
| 4 | Mr. Maruthi S B | Asst. Professor |
| 5 | Mr. Deepak U. S | Asst. Professor |
| 6 | Mr. Raviteja R. N | Asst. Professor |
| 7 | Mr.Sapthagiri Prasad N | Asst. Professor |
| 8 | Mr.Prasanna S M | Asst. Professor |
| 9 | Mr. Karthik. K | Asst. Professor |
| 10 | Mr.Shivrudrappa Desai | Asst. Professor |
| 11 Mr.VikasBevoor | | Asst. Professor |
| 12 | Mr.Santhosh K | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

• Implementation of feedback from different stakeholders.

Minutes of Meeting:

1.HOD, Dr.Raju B R welcomed all the faculty and explained VTU, ODD semester

regulations.

- 2.As per the VTU regulation guidelines the students of all odd semester should follow it.
- 3.VTU has introduced Choice Based Credit System (CBCS).

4.Syllabus copy prescribed by the university circulated to the students and faculty.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|---------|----------------------|--|
| 1 | 17AU741 | Earth Moving Equipment & Tractors |
| 2 | 17AU754 | Two And Three Wheeled Vehicle |
| 5 | 18KVK/KAK/39/49 | Kannada/Constitution of India, Professional Ethics and |
| | 18CPC39/49 | Human Rights |
| 6 | 18MATDIP31 | Additional Mathematics –I |

- 5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.
- 6.Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9.Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following value-added programs will be conducted during 2020 – 2021 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 1. | Automobile Engg. | NIL |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Professor & Head Department of Automobile Engineering The Oxford College of Engineering Bommanahalli, Hosur Road Bangalore-560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

THE OXFORD COLLEGE OF ENGINEERING

Departmental Committee Meeting – (Automobile Engineering)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2019-2020 – (EVEN)

The department curriculum committee was made and the meeting was held on 17/02/2021 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|-------------------|------------------------|------------------|
| 1 | Dr. Raju B R | Professor |
| 2 | Dr.K.Sathish Babu | Professor |
| 3 | Mr. Sandeep K Chavan | Assot. Professor |
| 4 | Mr. Maruthi S B | Asst. Professor |
| 5 | Mr. Deepak U. S | Asst. Professor |
| 6 | Mr. Raviteja R. N | Asst. Professor |
| 7 | Mr.Sapthagiri Prasad N | Asst. Professor |
| 8 | Mr.Prasanna S M | Asst. Professor |
| 9 Mr. Karthik. K | | Asst. Professor |
| 10 | Mr.Shivrudrappa Desai | Asst. Professor |
| 11 Mr.VikasBevoor | | Asst. Professor |
| 12 | Mr.Santhosh K | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

1. HOD, Dr. Raju B R, welcomed all the faculty and explained VTU, EVEN semester regulations.

2. Semester plan for 2020-21 even semester and mentioning the activities planned in the

department.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|---------|----------------------|--|
| 1 | 15AU831 | Total Quality Management |
| 2 | 17AU653 | Composite Materials |
| 3 | 17AU663 | Non-destructive Testing |
| 4 | 18KVK/KAK/39/49 | Kannada/Constitution of India, Professional Ethics and |
| | 18CPC39/49 | Human Rights |
| 5 | 18MATDIP41 | Additional Mathematics –II |

3. The discussion of the subjects of CBCS given in the above table, selected by the students.

4. Syllabus copy prescribed by the university circulated to the students and faculty.

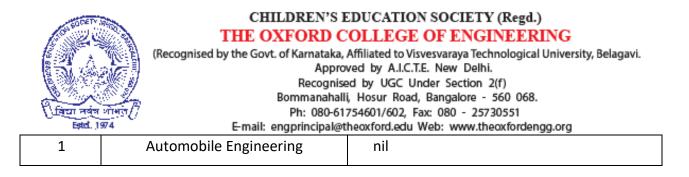
5. Department announced to conduct the regular seminars to the students.

6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Mentor mentee list discussion

10. The following certificate programs will be conducted during 2020 – 2021 EVEN semester.

| No. Name of the department | Name of the Certificate Program |
|----------------------------|---------------------------------|
|----------------------------|---------------------------------|



Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

or & Head

Department of Automobile Engineering The Oxford College of Engineering Bommanahalli, Hosur Road Bangalore-560 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

THE OXFORD COLLEGE OF ENGINEERING

Departmental Committee Meeting – (MTE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2020-2021 -(ODD)

The department curriculum committee was made and the meeting was held on 14/07/2020 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|------------------------|-----------------|
| 1 | Dr. NB Doddapattar | Professor & HOD |
| 2 | Dr.Shivappa | Professor & HOD |
| 3 | Mr. Rajesh | Asst. Professor |
| 4 | Mr. Rgavendra | Asst. Professor |
| 5 | Mr. Ravi s Jadhav | Asst. Professor |
| 6 | Ms. Rekha | Asst. Professor |
| 7 | Ms. Premela | Asst. Professor |
| 9 | Ms. Vijaykumar kurubha | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders. Minutes of Meeting:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 1. HOD, Dr. Yashoda welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans for Field Visit / Industrial Visit.
- 7. Planning for the Final Year's Project Works / Internships.
- 8. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

| SI. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| | | |
| 1 | | MATLAB |
| | | |
| 2 | MTE | LEGO |
| | | |
| 3 | | ROBOTICS |
| | | |

The following certificate programs will be conducted during 2020 – 2021 odd semester

The following value-added programs will be conducted during 2020 – 2021 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| | MTE | Soft Skill Training |

Resolutions:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

HOD

HOD Prof.:& HOD Department of Mechatronics The Oxford College Of Engineering Doppromanaballi Bangalore - 00, 003.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

THE OXFORD COLLEGE OF ENGINEERING

Departmental Committee Meeting – (MTE)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2020-2021 - (EVEN)

The department curriculum committee was made and the meeting was held on 01/02/2021 and the following members were present for the meeting.

| SI. No. | Name | Designation |
|---------|------------------------|-----------------|
| 1 | Dr. NB Doddapattar | Professor & HOD |
| 2 | Dr.Shivappa | Professor & HOD |
| 3 | Mr. Rajesh | Asst. Professor |
| 4 | Mr. Rgavendra | Asst. Professor |
| 5 | Mr. Ravi s Jadhav | Asst. Professor |
| 6 | Ms. Rekha | Asst. Professor |
| 7 | Ms. Premela | Asst. Professor |
| 9 | Ms. Vijaykumar kurubha | Asst. Professor |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 19. HOD, Dr. Rohini Deshpande, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 20. Semester plan for 2020-21 even semester and mentioning the activities planned in the department.
- 21. Syllabus copy prescribed by the university circulated to the students and faculty.
- 22. Department announced to conduct the regular seminars to the students.
- 23. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 24. Department plans for Field Visit / Industrial Visit.
- 25. Planning for the Final Year's Project Works / Internships.
- 26. Mentor mentee list discussion
- 27. The following certificate programs will be conducted during 2020 2021 EVEN semester

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Prof. & HOD Department of Mechatronics The Oxford College Of Engineering Donursanahalii Bangalore (59, 038,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

THE OXFORD COLLEGE OF ENGINEERING

MBA - DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2020-2021 –(ODD)

The department curriculum committee was made and the meeting was held on 30/09/2020 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION |
|--------|-----------------------|---------------------|
| 1. | Dr R V Dhanalakshmi | HOD |
| 2. | Dr.kTaraka Rami Reddy | Professor |
| 3. | Dr Kathiravan | Associate Professor |
| 4. | Dr. R K Prema | Assistant Professor |
| 5. | Ms.Sahana | Assistant Professor |
| 6. | Ms.Sireesha B | Assistant Professor |
| 7. | Ms Padmaja P | Assistant Professor |

Agenda:

- 1. Welcome and Syllabus discussion.
- 2. Seminars plan.
- 3. Project work
- 4. Industrial visit and Field work



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Summary: Minutes

- 1. HOD, Dr. R V Dhanalakshmi welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. Syllabus copy prescribed by the university circulated to the students and faculty.
- 4. Department announced to conduct the regular seminars to the students.
- 5. Department plans for Field Visit/ Industrial Visit.
- 6. Planning for the (Final Year's)Project Works / Internships (with company names and details).
- 7. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

Resolutions:

- 1. Syllabus copy circulated on or before 2nd October.
- 2. For each subject, one seminar needs to be conducted.
- 3. One industrial visit to be arranged on or before Nov 2nd 2020
- 4. Project work company details and list to be collect within Nov.

1. All

HOD - MBA

HOD, Deptt. of Business Administration The Oxford College of Engineering Bommanahalli, Hosur Road Bangalore 500 068



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MBA - DEPARTMENTAL CURRICULUM COMMITTEE MEETING

2020-2021 – (EVEN)

The department curriculum committee was made and the meeting was held on 08/05/2021 and the following members were present for the meeting.

| SI no. | NAME | DESIGNATION |
|--------|-----------------------|---------------------|
| 1. | Dr R V Dhanalakshmi | HOD |
| 2. | Dr.kTaraka Rami Reddy | Professor |
| 3. | Dr Kathiravan | Associate Professor |
| 4. | Dr. R K Prema | Assistant Professor |
| 5. | Ms.Sahana | Assistant Professor |
| 6. | Ms.Sireesha B | Assistant Professor |
| 7. | Ms Padmaja P | Assistant Professor |
| | | |

Agenda:

- 1. Syllabus Overview.
- 2. Seminars and activities plan.
- 3. Project work / Internship Guidance.
- 4. Industrial visit and Field work plan.

Summary: Minutes

1. HOD, Dr. R V Dhanalakshmi welcomed all the faculty and explained VTU, ODD semester regulations.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. Syllabus copy prescribed by the university circulated to the students and faculty.
- 4. Department announced to conduct the regular seminars to the students.
- 5. Department plans for Field Visit/ Industrial Visit.
- 6. Planning for the (Final Year's)Project Works / Internships (with company names and details).
- 7. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

Resolutions:

- 1. Syllabus copy circulated on or before 10th May.
- 2. For each subject, one seminar needs to be conduct and online workshop programs.
- 3. One industrial visit to be arranged on or before May 15th 2021
- Online webinar and quiz activities for students have to be conducted on before 20th May 2021.

1. phi

HOD -MBA

HOD, Deptt. of Business Administration The Oxford College of Engineering Bommanahalh, Hosur Road Bangalore 569 668



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org Departmental Committee Meeting – (MCA)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2020-2021 -(ODD)

The department curriculum committee was made and the meeting was held on 2507/2020 and the following members were present for the meeting.

| SI. No. | Name | Designation | |
|---------|-------------------------|------------------|--|
| 1 | Dr. M S Shashidhara | Professor | |
| 2 | Dr. Praveen Kumar P U | Professor | |
| 3 | Dr.Susil Kumar Sahu | Professor | |
| 4 | Mr.Ashok B P | Assot. Professor | |
| 5 | Mr. Dharamvir | Assot. Professor | |
| 6 | Mr. JC Achutha | Assot. Professor | |
| 7 | Mrs. Saritha S | Assot. Professor | |
| 8 | Mrs. Mridula Shukla | Assot. Professor | |
| 9 | Mrs. Selvi E | Assot. Professor | |
| 10 | Ms. R Ushasree | Asst. Professor | |
| 11 | Mr. Changappa M R | Asst. Professor | |
| 12 | Mr. Indrakumar S S | Asst. Professor | |
| 13 | Mrs. Stuti Agarwal | Asst. Professor | |
| 14 | T Sreevani | Asst. Professor | |
| 15 | Divyasree Nayak | Asst. Professor | |
| 16 | Mr. Chandran M | Asst. Professor | |
| 17 | 17 Mrs.Selastina Mary A | | |
| 18 | Mrs.Moumita Kali | Asst. Professor | |

Agenda:

- Implementation of prescribed university syllabus approved by Principal for odd semester.
- Implementation of CBCS syllabus prescribed by the university for odd semester.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1. HOD, Dr. M S Shashidhara welcomed all the faculty and explained VTU, ODD semester regulations.
- 2. As per the VTU regulation guidelines the students of all Odd semester should follow it.
- 3. VTU has introduced Choice Based Credit System (CBCS).
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.

| SI. No. | | CBCS ELECTIVE/MATDIP |
|---------|---------|---|
| 1 | 20MCA14 | Mathematical Foundation for Computer Applications |
| 2 | 20MCA15 | Research Methodology & IPR |

- 5. The discussion of the subjects of CBCS given in the above table, elective subjects selected by the students.
- 6. Department announced to conduct the regular seminars to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.

The following value-added programs will be conducted during 2020 – 2021 odd semester

| SI. No. | Name of the department | Name of the Value-added programs |
|---------|------------------------|----------------------------------|
| 1. | MCA | Soft Skill Training |

Resolutions:

- To achieve better results.
- To encourage students to undergo Certificate/Value Added courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

of the HOD Signature Dr. M.S.Shashidhara Dept. of MCA



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Departmental Committee Meeting – (MCA)

DEPARTMENTAL CURRICULUM COMMITTEE MEETING 2020-2021 - (EVEN)

The department curriculum committee was made and the meeting was held on 19/02/2021 and the following members were present for the meeting.

| SI. No. | Name | Designation | |
|---------|-------------------------------|------------------|--|
| 1 | Dr. M S Shashidhara | Professor | |
| 2 | Dr. Praveen Kumar P U | Professor | |
| 3 | Dr.Susil Kumar Sahu | Professor | |
| 4 | Mr.Ashok B P | Assot. Professor | |
| 5 | Mr. Dharamvir | Assot. Professor | |
| 6 | Mr. JC Achutha | Assot. Professor | |
| 7 | Mrs. Saritha S | Assot. Professor | |
| 8 | Mrs. Mridula Shukla | Assot. Professor | |
| 9 | Mrs. Selvi E | Assot. Professor | |
| 10 | Ms. R Ushasree | Asst. Professor | |
| 11 | Mr. Changappa M R | Asst. Professor | |
| 12 | Mr. Indrakumar S S | Asst. Professor | |
| 13 | Mrs. Stuti Agarwal | Asst. Professor | |
| 14 | T Sreevani | Asst. Professor | |
| 15 | Divyasree Nayak | Asst. Professor | |
| 16 | Mr. Chandran M Asst. Professo | | |
| 17 | Mrs.Selastina Mary A | Asst. Professor | |
| 18 | 18 Mrs.Moumita Kali Asst. Pro | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Agenda:

- Implementation of prescribed university syllabus approved by Principal for even semester.
- Implementation of CBCS syllabus prescribed by the university for even semester.
- Adherence to the Academic Calendar
- Implementation of certificate/value added courses.
- Implementation of Cross cutting Issues.
- Implementation of field visits, project work, internship
- Implementation of feedback from different stakeholders.

Minutes of Meeting:

- 1. HOD, Dr. M S Shashidhara, welcomed all the faculty and explained VTU, EVEN semester regulations.
- 2. Semester plan for 2020-21 even semester and mentioning the activities planned in the department.

| SI. No. | CBCS ELECTIVE/MATDIP | |
|---------|----------------------|---------------------------------|
| 1 | 20MCA262 | Artificial Intelligence |
| 2 | :20MCA263 | Mobile Applications Development |

- 3. The discussion of the subjects of CBCS given in the above table, selected by the students.
- 4. Syllabus copy prescribed by the university circulated to the students and faculty.
- 5. Department announced to conduct the regular seminars to the students.
- 6. Department plans to allot the assignment topics to the students and to allocate the tutorial topics to the students.
- 7. Department plans for Field Visit / Industrial Visit.
- 8. Planning for the Final Year's Project Works / Internships.
- 9. Mentor mentee list discussion
- 10. The following certificate programs will be conducted during 2020 2021 EVEN semester

| Sl. No. | Name of the department | Name of the Certificate Program |
|---------|------------------------|---------------------------------|
| 1 | MCA | NPTEL, Udemy |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Resolutions:

- To achieve VTU Ranks.
- To encourage students to undergo MOOC courses.
- To encourage students to undergo internship in Govt. Sectors/Reputed MNC Companies.

Signature of the HOD

Dr. M.S.Shashidhara Dept. of MCA



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

List and Description of courses (1) Subject, (2) Subject Code, (3) Curriculum Objective, (4) Delivery Methodology with Number of hours, (5) PO, PSO, CO Mapping, (6) Crosscutting Issues Integrated which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Dept. of Computer Science & Engineering

| | | | VISVESVARAYA TECH | INOLOGICAL L | JNIVER | SITY, E | BELAG | iAVI | | | | |
|--|---|--------------------|--|------------------------|---------|----------|-----------------------|----------|-----------|-----------|-------------|---------|
| | Scheme of Teaching and Examination 2018 – 19 | | | | | | | | | | | |
| | Choice Based Credit System (CBCS) AND Outcome Based Education | | | | | | | | | | | |
| | (OBE) (Effective from the academic year $2018 - 19$) | | | | | | | | | | | |
| III SI | III SEMESTER | | | | | | | | | | | |
| | | | | | Teachin | g Hours | /Week | | Exam | ination | | |
| SI. | c | ourse | Course | ing nent | Theory | Tutorial | Practical/ Drawing | .⊆ | S | s | rks | ts |
| No | an Co | d ourse | Title | Teaching Department | L | т | Ρ | Duration | CIE Marks | SEE Marks | Total Marks | Credits |
| | Co | de | | | | | | | | | - | |
| 1 | BSC | 18MAT31 | Transform Calculus, Fourier Series And Numerical Techniques | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18CS32 | Data Structures and Applications | CS / IS | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18CS33 | Analog and Digital Electronics | CS / IS | 3 | 0 | - | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18CS34 | Computer Organization | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18CS35 | Software Engineering | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18CS36 | Discrete Mathematical Structures | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18CSL37 | Analog and Digital Electronics Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18CSL38 | Data Structures Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18KVK39 18KAK39 | Vyavaharika Kannada (Kannada for communication)/ Aadalitha Kannada (Kannada | | - | 2 | - | | 100 | | | |
| 9 | HSMC | | for Administration) | HSMC | - | | - | | | | 100 | 1 |
| | | OR | OR | | | | | · · | | | | |
| | | | Constitution of India, | | 1 | | | 02 | 40 | 60 | | |
| 18CPC39 Professional Ethics and Cyber Examination is by objective type Law questions | | | | | | | | | | | | |
| | | | • | • | 17 | 08 | | 24 | 420 | 480 | | |
| | | | | TOTA: | OR | OR | | OR | OR | OR | 000 | 24 |
| | | | | TOTAL | 18 | 10 | 04 | 26 | 360 | 540 | 900 | 24 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bormanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B. E. Common to all Programmes

Outcome Based Education (OBE) and Choice Based Credit System (CBCS)

SEMESTER - III

| CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND CYBER LAW (CPC) | | | | | | | | |
|--|------------|------------|----|--|--|--|--|--|
| Course Code | 18CPC39/49 | CIE Marks | 40 | | | | | |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | | | |
| Credits | 01 | Exam Hours | 02 | | | | | |

Course Learning Objectives: To

- know the fundamental political codes, structure, procedures, powers, and duties of Indian government institutions, fundamental rights, directive principles, and the duties of citizens
- Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety.
- Know about the cybercrimes and cyber laws for cyber safetymeasures.

Module-1

Introduction to Indian Constitution:

The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, The Making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) and its present relevance in our society with examples. Fundamental Duties and its Scope and significance in Nation building.

Module-2

Union Executive and State Executive:

Parliamentary System, Federal System, Centre-State Relations. Union Executive – President, Prime Minister, Union Cabinet, Parliament - LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Articles 370.371,371J) for some States.

Module-3

Elections, Amendments and Emergency Provisions:

Elections, Electoral Process, and Election Commission of India, Election Laws. Amendments - Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments – 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Emergency Provisions, types of Emergencies and itsconsequences.

Constitutional special provisions:

Special Provisions for SC and ST, OBC, Women, Children and Backward Classes.

Module-4

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be able to,

CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year | | | | | | |
|------------|---|---|---------------------------|------------------|--|--|--|--|--|--|
| Textboo | Textbook/s | | | | | | | | | |
| 1 | Constitution of India, Professional Ethics and Human Rights | | | 2018 | | | | | | |
| 2 | Cyber Security and Cyber Laws | Alfred Basta and et al | Cengage Learning India | 2018 | | | | | | |
| Referen | ce Books | | | | | | | | | |
| 3 | Introduction tothe Constitution of India | Durga Das Basu | Prentice – Hall, | 2008. | | | | | | |
| 4 | Engineering Ethics | M. Govindarajan, S. Natarajan, V. S. Senthilkumar | Prentice –Hall, | 2004 | | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | Cho | oice Based Credit System (C | , | ne Bas | ed E | | on (O | BE) | | | | |
|-----------|--------|---------------------|---|--|------------|------------------------|----------------|----------|-----------|-----------|-------------|----------|--|
| | | | (Effective from | n the academic year | 2018 - | - 19) | | | | | | | |
| V SE | MESTER | | | | H | achin Iours Week | 0 | | Exa | aminati | on | | |
| SI. No | an | ourse d ourse | Course | Teaching Department | Theor y | Tutorial | Practic al/ | Duration | CIE Marks | SEE Marks | Total Marks | Curod He | |
| | coc | | Title | | L | Т | Р | Ι | • | •1 | L | - | |
| 1 | HSMC | 18CS51 | Management, Entrepreneurship for IT idustry | HSMC | 2 | 2 | | 03 | 40 | 60 | 100 | 3 | |
| 2 | PCC | 18CS52 | Computer Networks and Security | CS / IS | 3 | 2 | | 03 | 40 | 60 | 100 | 4 | |
| 3 | PCC | 18CS53 | Database Management System | CS / IS | 3 | 2 | | 03 | 40 | 60 | 100 | 4 | |
| 4 | PCC | 18CS54 | Automata theory and Computability | CS / IS | 3 | | | 03 | 40 | 60 | 100 | 3 | |
| 5 | PCC | 18CS55 | Application Development using Python | CS / IS | 3 | | | 03 | 40 | 60 | 100 | 3 | |
| 6 | PCC | 18CS56 | Unix Programming | CS / IS | 3 | | | 03 | 40 | 60 | 100 | 3 | |
| 7 | PCC | 18CSL57 | Computer Network Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 | |
| 8 | PCC | 18CSL58 | DBMS Laboratory with mini project | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 | |
| 9 | HSMC | 18CIV59 | Environmental Studies | Civil/ Environmental [Paper setting: Civil Engineering Board] | 1 | | | 02 | 40 | 60 | 100 | 1 | |
| | • | • | • | TOTAL | 18 | 10 | 04 | 26 | 360 | 540 | 900 | 25 | |

Note: PCC: Professional Core, HSMC: Humanity and Social Science.

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B. E. COMMON TO ALL PROGRAMMES

Choice Based Credit System (CBCS) and Outcome Based Education (OBE)

SEMESTER – V

| | | ODILS | |
|-------------------------------|---------|------------|----|
| Course Code | 18CIV59 | CIE Marks | 40 |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |

Module - 1

Ecosystems (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake. **Biodiversity:** Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation.

Module - 2

Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind.

Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud Seeding, and Carbon Trading.

Module - 3

Environmental Pollution (Sources, Impacts, Corrective and Preventive measures, Relevant Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil Pollution and AirPollution.

Waste Management & Public Health Aspects: Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes; Industrial and Municipal Sludge.

Module - 4

Global Environmental Concerns (Concept, policies and case-studies):Ground water depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.

Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship- NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to theenvironment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

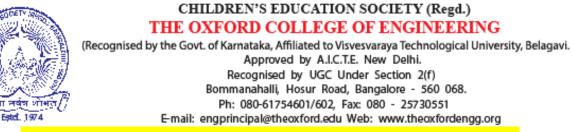
| SI.No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year |
|--------|-------------------|-------------------------|-----------------------|---------------------|
|--------|-------------------|-------------------------|-----------------------|---------------------|



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Textbook/s

| 1 | Environmental Studies | Donny Josonh | Tata Ma Craw IIII | 2nd dition 2012 | | | | | |
|--------|---|--|---|---|--|--|--|--|--|
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 | | | | | |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 | | | | | |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 | | | | | |
| Refere | Reference Books | | | | | | | | |
| 1 | Principals of Environmental Science andEngineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 | | | | | |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 | | | | | |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition | | | | | |



B.E Information Science & Engineering

| | | | VISVESVARAYA TECH | INOLOGICAL L | JNIVER | SITY, E | BELAG | iAVI | | | | |
|--|---------|--------------------|---|------------------------|---------|----------|-----------------------|-------------------|-----------|-----------|-------------|---------|
| | | | Scheme of Teac | | | | | | | | | |
| | | | Choice Based Credit Syste | - | | | | duca | tion | | | |
| | | | (OBE) (Effective fr | • • | | | | | | | | |
| III S | EMESTER | 2 | ()(| | 100 | | | / | | | | |
| | | | | | Teachin | g Hours | /Week | | Exam | ination | | |
| SI. | C | ourse | Course | ing ment | Theory | Tutorial | Practical/ Drawing | Duration in hours | S | s | rks | ts |
| No | an | | Title | Teaching Department | L | т | Р | ration | CIE Marks | SEE Marks | Total Marks | Credits |
| | | ourse | | Δ | | | | Du | CIE | SEI | Tot | |
| 1 | BSC | 18MAT31 | Transform Calculus, Fourier Series And Numerical Techniques | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18CS32 | Data Structures and Applications | CS / IS | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18CS33 | Analog and Digital Electronics | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18CS34 | Computer Organization | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18CS35 | Software Engineering | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18CS36 | Discrete Mathematical Structures | CS / IS | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18CSL37 | Analog and Digital Electronics Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18CSL38 | Data Structures Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18KVK39 18KAK39 | Vyavaharika Kannada (Kannada for communication)/ Aadalitha Kannada (Kannada for | | - | 2 | - | | 100 | | | |
| 9 | HSMC | | Administration) | HSMC | | | | | | | 100 | 1 |
| | | OR | OR | | I | | | | | | | |
| | | | Constitution of India, | | 1 | | | 02 | 40 | 60 | | |
| 18CPC39 Professional Ethics and Cyber Examination is by objective type Law questions | | | | | | | | | | | | |
| | | | | | 17 | 08 | | 24 | 420 | 480 | | |
| | | | | | OR | OR | | OR | OR | OR | | ~ ~ |
| | | | | TOTAL | 18 | 10 | 04 | 26 | 360 | 540 | 900 | 24 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bormanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B. E. Common to all Programmes

Outcome Based Education (OBE) and Choice Based Credit System (CBCS)

SEMESTER - III

| CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND CYBER LAW (CPC) | | | | | | | | |
|--|------------|------------|----|--|--|--|--|--|
| Course Code | 18CPC39/49 | CIE Marks | 40 | | | | | |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | | | |
| Credits | 01 | Exam Hours | 02 | | | | | |

Course Learning Objectives: To

- know the fundamental political codes, structure, procedures, powers, and duties of Indian government institutions, fundamental rights, directive principles, and the duties of citizens
- Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety.
- Know about the cybercrimes and cyber laws for cyber safetymeasures.

Module-1

Introduction to Indian Constitution:

The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, The Making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) and its present relevance in our society with examples. Fundamental Duties and its Scope and significance in Nation building.

Module-2

Union Executive and State Executive:

Parliamentary System, Federal System, Centre-State Relations. Union Executive – President, Prime Minister, Union Cabinet, Parliament - LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Articles 370.371,371J) for some States.

Module-3

Elections, Amendments and Emergency Provisions:

Elections, Electoral Process, and Election Commission of India, Election Laws. Amendments - Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments – 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Emergency Provisions, types of Emergencies and itsconsequences.

Constitutional special provisions:

Special Provisions for SC and ST, OBC, Women, Children and Backward Classes.

Module-4

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will be able to,

CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year |
|------------|---|---|---------------------------|------------------|
| Textboo | ok/s | | | |
| 1 | Constitution of India, Professional Ethics and Human Rights | Shubham Singles, Charles E. Haries, and et al | Cengage Learning India | 2018 |
| 2 | Cyber Security and Cyber Laws | Alfred Basta and et al | Cengage Learning India | 2018 |
| Referen | ce Books | | | |
| 3 | Introduction tothe Constitution of India | Durga Das Basu | Prentice – Hall, | 2008. |
| 4 | Engineering Ethics | M. Govindarajan, S. Natarajan, V. S. Senthilkumar | Prentice –Hall, | 2004 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | | VISVESVARAYA TECHN Scheme of Teach | ning and Examinati | | - | | 0/1 / 1 | | | | |
|--------------------------------------|--------|--------------------|---|--|------------|----------|----------------|----------|-----------|-----------|-------------|----|
| | | Che | bice Based Credit System (C | 0 | | | | on (O) | BE) | | | |
| | | 0110 | • | the academic year | | | | (01 | | | | |
| V SE | MESTER | | | Ų | | , | | | | | | |
| Teaching Hours Examinati /Week | | | | on | | | | | | | | |
| SI. No | an | ourse d urse | Course | Teaching Department | Theor v | Tutorial | Practic al/ | Duration | CIE Marks | SEE Marks | Total Marks | |
| | cod | | Title | | L | Т | Р | п | 0 | S | Τ | |
| 1 | HSMC | 18CS51 | Management, Entrepreneurship for IT idustry | HSMC | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18CS52 | Computer Networks and Security | CS / IS | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18CS53 | Database Management System | CS / IS | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 4 | PCC | 18CS54 | Automata theory and Computability | CS / IS | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18CS55 | Application Development using Python | CS / IS | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18CS56 | Unix Programming | CS / IS | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18CSL57 | Computer Network Laboratory | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18CSL58 | DBMS Laboratory with mini project | CS / IS | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 9 | HSMC | 18CIV59 | Environmental Studies | Civil/ Environmental [Paper setting: Civil Engineering Board] | 1 | | | 02 | 40 | 60 | 100 | 1 |
| | | | | TOTAL | 18 | 10 | 04 | 26 | 360 | 540 | 900 | 25 |

Note: PCC: Professional Core, HSMC: Humanity and Social Science.

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi.

Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B. E. COMMON TO ALL PROGRAMMES Choice Based Credit System (CBCS) and Outcome Based

Education (OBE) SEMESTER – V

ENVIRONMENTAL STUDIES

| 18CIV59 | CIE Marks | 40 |
|---------|---------------------------|-------------------|
| (1:0:0) | SEE Marks | 60 |
| 01 | Exam Hours | 02 |
| | 18CIV59 (1:0:0) | (1:0:0) SEE Marks |

Module - 1

Ecosystems (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake. **Biodiversity:** Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation.

Module - 2

Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind.

Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud

Seeding, and Carbon Trading.

Module - 3

Environmental Pollution (Sources, Impacts, Corrective and Preventive measures, Relevant Environmen<mark>tal Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution</mark>; Soil

Pollution and AirPollution.

Waste Management & Public Health Aspects: Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes;

Industrial and Municipal Sludge.

Module - 4

Global Environmental Concerns (Concept, policies and case-studies):Ground water depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.

Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship- NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to theenvironment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| SI.No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year | | | |
|------------|-------------------|----------------------------|--------------------------|---------------------|--|--|--|
| Textbook/s | | | | | | | |

| | 1 | | | | | | |
|--------|--|---|--|---|--|--|--|
| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 | | | |
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 | | | |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 | | | |
| Refere | Reference Books | | | | | | |
| 1 | Principals of Environmental Science andEngineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 | | | |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 | | | |
| 3 | Text Book of Environmental and Ecology | Pratiba Sing, Anoop Singh& Piyush Malaviya | Acme Learning Pvt. Ltd. New Delhi. | 1 st Edition | | | |



B.E Electronics & Communication Engineering

| | VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI | | | | | | | | | | | |
|--|---|-------------------------|---|------------------------|-------------------|-----------|-----------------------|----------------------|-----------|-----------|-------------|---------|
| | Scheme of Teaching and Examination 2018-19 Outcome Based Education (OBE) and Choice Based Credit System (CBCS) | | | | | | | | | | | |
| | | | Outcome Based Education (OBE) and Ch (Effective from the acade | | | system () | CBCS) | | | | | |
| Proz | rommer B | E: Electronics & | Communication Engineering | nic year 20 | 10 - 12) | | | | | | | |
| 1194 | | | III SEMES | TER | | | | | | | | |
| | Teaching Hours/Week Examination | | | | | | | | | | | |
| SL No | | ourse and ourse Code | Course Title | Teaching Department | Theory Lecture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Fotal Marks | Credits |
| | | | | | L | T | P | A 0 | | 20 | Ē. | |
| l | BSC | 18MAT31 | Transform Calculus, Fourier Series and Numerical Techniques | Mathe matics | 2 | 2 | | 03 | 40 | 60 | 100 | Ĵ |
| 2 | PCC | 18EC32 | Network Theory | | 3 | 2 | | - 03 - | - 40 | 60 | 100 | 4 |
| 3 | PCC | 18EC33 | Electronic Devices | | 3 | 0 | | - 03 - | 40 | - 60 | 100 | 17 |
| 4 | PCC | 18EC34 | Digital System Design | | - 3 - | 0 | | - 03 - | 40 | 60 | 10) | 3 |
| - 5 | PCC | 18EC35 | Computer Organization & Architecture | | 3 | 0 | | - (13 | - 40 | 60 | -100 | 3 |
| - 6 - | PCC | 18EC36 | Power Electronics & Instrumentation | | 3 | - 0 | | - 03 - | 40 | 60 | 100 | 2 |
| - 7 - | PCC | 18ECL37 | Electronic Devices & Instrumentation Laboratory | | | 2 | 2 | - 03 | 40 | 60 | 100 | - 2 |
| - 8 - | PCC | 18ECL38 | Digital System Design Laboratory | | | - 2 - | 2 | - (13 | 40 | 60 | 10) | 24 |
| | | 18KVK39/49 | Vyavaharika Kannada (Kannada for Communication)/ | | | 2 | | - | 100 | | | |
| | QC QC | 18KAK3949 | Aadalitha Kannada (Kannada for Administration) | HSMC | | | | | | | | |
| 9 00 00 00 00 00 00 00 00 00 00 00 00 00 | | | | | | | | | | | 100 | 1 |
| | - | 18CPC39/49 | Constitution of India, Professional Ethics and Cyber | | 1 | - | | 02 | 40 | 60 | | |
| | Examination is by objective type questions | | | | | | | | | | | |
| | | | | | 17 | 10 | | - 24 | 420 | 480 | | |
| | | | | TOTAL | OR | OR | - 64 | OR | OR | OR | 900 | 24 |
| | | | | | 18 | - 08 | | - 26 | 360 | 540 | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B. E. Common to all Programmes Outcome Based Education (OBE) and Choice Based Credit System (CBCS) SEMESTER - III

| CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND CYBER LAW (CPC) | | | | | | | |
|--|------------|------------|----|--|--|--|--|
| Course Code | 18CPC39/49 | CIE Marks | 40 | | | | |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | | |
| Credits | 01 | Exam Hours | 02 | | | | |

Course Learning Objectives: To

- know the fundamental political codes, structure, procedures, powers, and duties of Indian government institutions, fundamental rights, directive principles, and the duties ofcitizens
- Understand engineering ethics and their responsibilities; identify their individual roles and ethical responsibilities towardssociety.
- Know about the cybercrimes and cyber laws for cyber safetymeasures.

Module-1

Introduction to Indian Constitution:

The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, The Making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) and its present relevance in our

society with examples. Fundamental Duties and its Scope and significance in Nation building.

Module-2

Union Executive and State Executive:

Parliamentary System, Federal System, Centre-State Relations. Union Executive – President, Prime Minister, Union Cabinet, Parliament - LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism. State Executives – Governor, Chief Minister, State Cabinet, State Legislature, High Court and Subordinate Courts, Special Provisions (Articles

370.371,371J) for some States.

Module-3

Elections, Amendments and Emergency Provisions:

Elections, Electoral Process, and Election Commission of India, Election Laws. Amendments - Methods in Constitutional Amendments (How and Why) and Important Constitutional Amendments. Amendments – 7,9,10,12,42,44, 61, 73,74, ,75, 86, and 91,94,95,100,101,118 and some important Case Studies. Emergency Provisions, types of Emergencies and itsconsequences. **Constitutional special provisions:**

Special Provisions for SC and ST, OBC, Women, Children and Backward Classes.

Module-4

Professional / Engineering Ethics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics. Engineering and Professionalism, Positive and Negative Faces of Engineering Ethics, Code of Ethics as defined in the website of Institution of Engineers (India): Profession, Professionalism, and Professional Responsibility. Clash of Ethics, Conflicts of Interest. Responsibilities in Engineering and Engineering Standards, the impediments to Responsibility. Trust and Reliabilityin

Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering Module-5



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net

neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will

be able to, CO 1: Have constitutional knowledge and legal

literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers.

CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. No. | Title of the Book | Name of the | Name of the | Edition and Year |
|------------|-------------------|----------------|----------------|------------------|
| | | Author/s | Publisher | |

| Textboo | ok/s | | | |
|--------------|---|--|---------------------------|-------|
| 1 | Constitution of India, Professional Ethics and Human Rights | Shubham Singles, Charles E. Haries, and et al | Cengage Learning India | 2018 |
| 2 Referen | Cyber Security and Cyber Laws ce Books | Alfred Basta and et al | Cengage Learning India | 2018 |
| 3 | Introduction tothe Constitution of India | Durga Das Basu | Prentice –Hall, | 2008. |
| 4 | Engineering Ethics | M. Govindarajan, S. Natarajan, V. S. Senthilkumar | Prentice –Hall, | 2004 |



l

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI | | | | | | | | | | | |
|----------|---|--------------------|---|--|---------|----------|-----------------------|----------------------|-----------|-----------|-------------|---------|
| | Scheme of Teaching and Examination 2018-19 | | | | | | | | | | | |
| | Outcome Based Education (OBE) and Choice Based Credit System (CBCS) | | | | | | | | | | | |
| | | | | 1 the academic year 2018 | - 19) | | | | | | | |
| Progra | mme; B.E: E | llectronics & C | ommunication Engineering | | | | | | | | | |
| | | | | V SEMESTER | | | | | | | | |
| | | | | | Teachin | g Hou | s/Week | | Exami | ination | | |
| SL No | | rse and se code | Course Title | Teaching Department | Theory | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Total Marks | Credits |
| | | | | | L | | р | | - | | | |
| I | HSMC | 18ES51 | Technological Innovation Management and Entrepreneurship | | 3 | 0 | - | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18EC52 | Digital Signal Processing | | 3 | - 2 - | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18EC53 | Principles of Communication Systems | | 3 | 2 | | - 03 | 40 | 60 | 100 | 4 |
| 4 | PCC | 18EC54 | Information Theory & Coding | | 3 | | | - 03 | 40 | - 60 | 100 | 3 |
| 5 | PCC | 18EC55 | Electromagnetic Waves | | 3 | | - | - 03 - | 40 | 60 | 100 | 3 |
| 6 | PCC | 18EC56 | Verilog HDL | | 3 | | | - 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18ECL57 | Digital Signal Processing Laboratory | | | - 2 - | 2 | 03 | 40 | 60 | 100 | 2 |
| - 8 | PCC | 18ECL58 | HDL Laboratory | | | 2 | 12 | - 03 - | 40 | - 60 - | 100 | 2 |
| 9 | HSMC | 18CIV59 | Environmental Studies | Civil/Environmental [Paper setting: Civil Engineering Board] | 1 | - | | 02 | 40 | 60 | 100 | I |
| | | | | TOTAL | 19 | - 8 | 4 | - 26 | 360 | 540 | 900 | - 25 |
| Note: P | CC: Professio | nal Core, HSM | C: Humanity and Social Science. | | | | | | | | | |

AICTE activity Points: In case students fail to carn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B. E. COMMON TO ALL PROGRAMMES Choice Based Credit System (CBCS) and Outcome Based Education (OBE) SEMESTER – V

ENVIRONMENTAL STUDIES

Course Code **18CIV59 CIE Marks** 40 Teaching Hours / Week (L:T:P) 60 (1:0:0)SEE Marks Credits **Exam Hours** 02 01 Module - 1 Ecosystems (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake. Biodiversity: Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation. Module - 2 Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar,

Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind.

Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud

Seeding, and Carbon Trading.

Module - 3

Environmental Pollution (Sources, Impacts, Corrective and Preventive measures, Relevant Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil Pollution and AirPollution.

Waste Management & Public Health Aspects: Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes;

Industrial and Municipal Sludge.

Module - 4

Global Environmental Concerns (Concept, policies and case-studies):Ground water depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.

Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship- NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to theenvironment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| SI.No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year | | | |
|------------|-------------------|----------------------------|--------------------------|---------------------|--|--|--|
| Textbook/s | | | | | | | |

| 1 | Environmental Studies | Benny Joseph | Tata Mc Graw – Hill. | 2 nd Edition, 2012 |
|--------|--|--------------------|--|---|
| 2. | Environmental Studies | S M Prakash | Pristine Publishing House, Mangalore | 3 rd Edition [,] 2018 |
| 3 | Environmental Studies– From Crisis to Cure | RRajagopalan | Oxford Publisher | 2005 |
| Refere | ence Books | | | |
| 1 | Principals of Environmental Science andEngineering | Raman Sivakumar | Cengage learning, Singapur. | 2 nd Edition, 2005 |
| 2 | Environmental Science – working with the Earth | G.Tyler Miller Jr. | Thomson Brooks /Cole, | 11 th Edition, 2006 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Electrical & Electronics Engineering

| | | Ou | VISVESVARAYA TECHNOL Scheme of Teaching tcome Based Education(OBE) a (Effective from the | and Examin and Choice Ba | ation (ased C | 2018 – redit | - 19 Systen | | | | | |
|----------|-------|--------------------------|--|-----------------------------|-------------------|-----------------|-----------------------|----------------------|-----------|-----------|-------------|---------|
| III S | EMEST | TER | | | | ng Hour | 5 | | Exami | nation | | |
| SL No | | | Course Title | Teaching Department | Theory Lecture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Fotal Marks | Credits |
| | | | | | L | Т | Р | - | Ŭ | ~ | - | |
| 1 | BSC | 18MAT31 | Transform Calculus, Fourier Series and Numerical Techniques (Common to all Branches) | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18EE32 | Electric Circuit Analysis | EEE | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18EE33 | Transformers and Generators | EEE | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18 EE 34 | Analog Electronic Circuits | EEE | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18 EE 35 | Digital System Design | EEE | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18 EE 36 | Electrical and Electronic Measurements | EEE | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18 EE L37 | Electrical Machines Laboratory -1 | EEE | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18 EE L38 | Electronics Laboratory | EEE | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 9 | HSMC | 18KVK39/49 18KAK39/49 | Vyavaharika Kannada (Kannada for communication)/ Aadalitha Kannada (Kannada for Administration) | HSMC | - | 2 | | | 100 | | 100 | 1 |
| | Η | | OR | 1 | | | | | | | | |
| | | 1900020 | Constitution of India, Professional | 1 | 1 | | | 02 | 40 | 60 | | |
| | | 18CPC39 | Ethics and Cyber Law | | Exan | ination | is by ob | jective t | ype ques | tions | | |
| | | | | | 16 | 10 | | 24 | 420 | 480 | | |
| | | | | TOTAL | OR | OR | 04 | OR | OR | OR | 900 | 24 |
| | | | | | 17 | 12 | | 26 | 360 | 540 | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org 7

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 – 19)

| VII SI | EMESTER | | (Energy From the a | | | | / | | | | | |
|-----------|------------------|---------------------------|-------------------------------------|----------------------------|-------------------|----------|-----------------------|----------------------|-----------|-----------|-------------|---------|
| | | | | | Teachi | ng Hour | /Week | | Exami | nation | | |
| SI. No | Course Course | | Course Title | Teaching Department | Theory Lecture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Total Marks | Credits |
| | | | | | L | T | P | | - | | | |
| 1 | PCC | 18 EE71 | Power System Analysis – 2 | EEE | 2 | 2 | - | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18 EE72 | Power System Protection | EEE | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 3 | PEC | 18 EE73X | Professional Elective - 2 | EEE | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 4 | PEC | Professional Elective - 3 | EEE | 3 | | | 03 | 40 | 60 | 100 | 3 | |
| - 5 | OEC | 18 EE75X | Open Elective -B | EEE | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18 EEL76 | | EEE | - | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 7 | PCC | 18 EEL77 | Relay & HV lab | EEE | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | Project | 18 EEP78 | Project Work Phase - 1 | EEE | - | | 2 | | 100 | | 100 | 1 |
| 9 | Internship | - | Internship | (If not com carried out | | | | | | | it shall b | e |
| | | | | TOTAL | 14 | 06 | 06 | 21 | 380 | 420 | 800 | 20 |
| Note: 1 | PCC: Profession | al core, PEC: I | Professional Elective. | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | nal Elective | - 2 | | | | | | | |
| | e code under | Course Title | 9 | | | | | | | | | |
| 18XX7 | | | | | | | | | | | | |
| 18EE7 | | Solar and W | | | | | | | | | | |
| 18EE7 | | | Nano Scale Sensors and Transduc | ers | | | | | | | | |
| 18 EE | | - | f Distribution Generation. | | | | | | | | | |
| 18 EE | 734 | Advanced C | Control Systems | | | | | | | | | |
| 18 EE | 735 | Reactive Po | wer Control in Electric Power Syste | ems | | | | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

3

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 – 19)

| | | | | | Teachin | g Hours | /Week | | Exami | ination | | |
|-----------|------|---------------------------|---|------------------------|-------------------|---------------|-----------------------|----------------------|----------------|------------|-------------|---------|
| SI. No | | Course and Course code | Course Title | Teaching Department | Theory Lecture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Fotal Marks | Credits |
| | | | | | L | Т | Р | - | Ŭ | | F | |
| 1 | BSC | 18MAT41 | Complex analysis, probability and statistical methods | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18 EE42 | Power Generation and Economics | EEE | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 3 | PCC | 18 EE43 | Transmission and Distribution | EEE | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 4 | PCC | 18 EE44 | Electric Motors | EEE | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18 EE45 | Electromagnetic Field Theory | EEE | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18 EE46 | Operational Amplifiers and Linear ICs | EEE | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18 EEL47 | Electrical Machines Laboratory -2 | EEE | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18 EEL48 | Op- amp and Linear ICs Laboratory | EEE | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18KVK39/49 | Vyavaharika Kannada (Kannada for communication)/ | | | 2 | | | 100 | | | |
| 9 | HSMC | 18KAK39/49 | Aadalitha Kannada (Kannada for Administration) | HSMC | | 2 | | | 100 | | 100 | 1 |
| | H | | OR | | | | | | | | | |
| | | 18CPH49 | Constitution of India, Professional Ethics and Cyber Law | | 1 Exam | ination i | s by obje | 02 ective ty | 40 pe quest | 60 ions | | |
| | 1 | 1 | ,, | TOTAL | 16 | 10 | | 24 | 420 | 480 | | |
| | | | | | OR | OR | 04 | OR | OR | OR | 900 | 24 |
| | | | | | 17 | 12 | 1 | 26 | 360 | 540 | 1 | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| Outcome Based | B. E. Common to all Education (OBE) and Cho | ice Based Credit System | |
|-------------------------------------|--|-----------------------------|------------------------|
| | (CBCS) SEM DIA, PROFESSIONAL ETHI | | -) |
| Course Code | 18CPC39/49 | CIE Marks | - <mark>/</mark> 40 |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| Course Learning Objectives: To | | | |
| | political codes, structure, | procedures powers and | l duties of India |
| - | s, <mark>fundamental rights</mark> , dire | · · · · | |
| - | g ethics and their responsi | • • • | |
| ethical responsibilities t | | ionities, identity then ind | invidual roles all |
| | rimes and cyber laws for (| cyber safetymeasures | |
| Module-1 | Times and <mark>cyber laws</mark> for t | cyber saletymeasules. | |
| Introduction to Indian Constitu | tion | | |
| The Necessity of the Constitut | | re and after the Consti | tution adoption |
| Introduction to the Indian const | | | |
| Assembly - Preamble and Salien | | | |
| Restriction and limitations in diff | | | |
| and its present relevance in our | • | | ater oney (Dr Si |
| society with examples. Fundame | | and significance in Natio | on building |
| Module-2 | | | |
| Union Executive and State Exec | utivo | | |
| Parliamentary System, Federal S | | tions Union Executive - | President Prim |
| Minister, Union Cabinet, Par | • | | |
| Parliamentary Terminologies. Su | | • | • • |
| Executives – Governor, Chief Mi | • | | |
| Courts, Special Provisions (Articl | | e Legislature, mgn court | |
| 370.371,371J) for some States. | | | |
| Module-3 | | | |
| Elections, Amendments and Em | nergency Provisions: | | |
| Elections, Electoral Process, ar | | of India, Election Laws. | Amendments |
| Methods in Constitutional A | | | |
| Amendments. Amendments - 7 | - | | |
| some important Case Studies. | | | |
| Constitutional special provision | | | |
| Special Provisions for SC and ST, | | nd Backward Classes. | |
| Module-4 | . , | | |
| Professional / Engineering Ethic | cs: | | |
| Scope & Aims of Engineering & | Professional Ethics - Bu | siness Ethics, Corporate | Ethics, Person |
| Ethics. Engineering and Professi | onalism, Positive and Neg | ative Faces of Engineerin | ig Ethics, Code o |
| Ethics as defined in the website | of Institution of Engineer | s (India): Profession, Prof | fessionalism, an |
| Professional Responsibility. Cla | | | |
| Responsibilities in Engineering a | | • | - |
| | | - | - |

and Reliabilityin



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering

Module-5

Internet Laws, Cyber Crimes and Cyber Laws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Net

neutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cybercrimes and enforcement agencies.

Course Outcomes: On completion of this course, students will

be able to, CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers. CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type(MCQ).
- For the award of 40 CIE marks, refer the University regulations2018.

| SI. | Title of the Book | Name of | Name of | Edition and Year |
|--------|--------------------------|---------------------|------------------|------------------|
| No. | | the | the | |
| | | Author/s | Publisher | |
| Textbo | ook/s | · | | · |
| 1 | Constitution of India, | Shubham | | 2018 |
| | Professional Ethics and | Singles, Charles | Cengage | |
| | Human Rights | E. Haries, and et | Learning India | |
| | | al | | |
| 2 | Cyber Security and Cyber | Alfred Basta and | Cengage | 2018 |
| | Laws | et al | Learning India | |
| Refere | nce Books | · | | · |
| 3 | Introduction tothe | Durga Das Basu | Prentice – Hall, | 2008. |
| | Constitution of India | | | |
| 4 | Engineering Ethics | M. Govindarajan, S. | Prentice – Hall, | 2004 |
| | | Natarajan, V. | | |
| | | S. | | |
| | | Senthilkumar | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi.

Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B. E. COMMON TO ALL PROGRAMMES Choice Based Credit System (CBCS) and Outcome Based

Education (OBE) SEMESTER – V

ENVIRONMENTAL STUDIES

| 18CIV59 | CIE Marks | 40 |
|---------|---------------------------|-------------------|
| (1:0:0) | SEE Marks | 60 |
| 01 | Exam Hours | 02 |
| | 18CIV59 (1:0:0) | (1:0:0) SEE Marks |

Module - 1

Ecosystems (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake. **Biodiversity:** Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation.

Module - 2

Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind.

Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud

Seeding, and Carbon Trading.

Module - 3

Environmental Pollution (Sources, Impacts, Corrective and Preventive measures, Relevant Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil

Pollution and AirPollution.

Waste Management & Public Health Aspects: Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes;

Industrial and Municipal Sludge.

Module - 4

Global Environmental Concerns (Concept, policies and case-studies):Ground water depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.

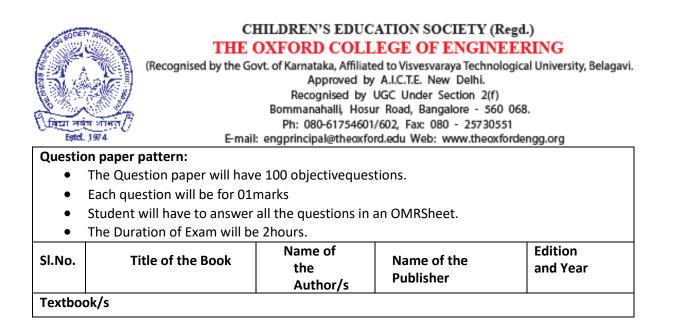
Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship- NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to theenvironment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.



SOLAR AND WIND ENERGY 18EE731

SOLAR AND WIND ENERGY

Module-1 Fundamentals of Energy Science and Technology: Introduction, Energy, Economy and Social Development, Classification of Energy Sources, Importance of Non -conventional Energy Sources, Salient features of Non-conventional Energy Sources, World Energy Status, Energy Status in India. Energy Conservation and Efficiency: Introduction, Important Terms and Definitions, Important Aspects of Energy Conservation, Global Efforts, Achievements and Future Planning, Energy Conservation/Efficiency Scenario in India, Energy Audit, Energy Conservation Opportunities. Energy Storage: Introduction, Necessity of Energy Storage, Specifications of Energy Storage Devices. Solar Energy-Basic Concepts: Introduction, The Sun as Source of Energy, The Earth, Sun, Earth Radiation Spectrum, Extraterrestrial and Terrestrial Radiations, Spectral Power Distribution of Solar Radiation, Depletion of Solar Radiation.

Teaching Hours : 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying.

Module-2 Solar Energy-Basic Concepts (continued): Measurement of Solar Radiation, Solar Radiation Data, Solar Time, Solar Radiation Geometry, Solar Day Length, ExtraterrestrialRadiation on Horizontal Surface, Empirical Equations for Estimating Terrestrial Solar Radiation on Horizontal Surface, Solar Radiation on Inclined Plane Surface. Solar Thermal Systems: Introduction, Solar Collectors, Solar Water Heater, Solar Passive Space Heating and Cooling Systems, Solar Industrial Heating Systems, Solar Refrigeration and Air Conditioning Systems, Solar Cookers.

Teaching Hours : 08



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-3 Teaching Hours Solar Photovoltaic Systems: Introduction, Solar Cell Fundamentals, Solar Cell Characteristics, Solar Cell Classification, Solar Cell Technologies, Solar Cell, Module, and Array Construction, Maximizing the Solar PV Output and Load Matching. Maximum Power Point Tracker. Balance of System Components, Solar PV Systems, Solar PV Applications.

Teaching Hours : 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-4 Wind Energy: Introduction, Basic Principles of Wind Energy Conversion, History of Wind Energy, Wind Energy Scenario – World and India. The Nature of the Wind, The Power in the Wind, Forces on the Blades, Wind Energy Conversion, Wind Data and Energy Estimation, Site Selection Considerations Wind energy systems<mark>: Environment and Economics Environmental benefits and problems</mark> of wind energy, Economics of wind energy, Factors influence the cost of energy generation, machine parameters, Life cycle cost analysis

Teaching Hours : 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analysing.

Module-5 Basic Components of a Wind Energy Conversion(WEC) System: Classification of WEC systems, Advantages and Disadvantages of WECS, Types of Wind Machines (Wind Energy Collectors), Analysis of Aerodynamic Forces Acting on the Blade, Performance of Wind- machines, Generating Systems, Energy Storage, Applications of Wind Energy, Environmental Aspects.

Teaching Hours : 08

Revised Bloom's Taxonomy Level L1 – Remembering, L2 – Understanding, L3 – Applying.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Mechanical Engineering

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 – 19)

| | | | | | Teachi /Week | ng Hour | \$ | | Exami | ination | | |
|----------|------|---------------------------|---|------------------------|---------------------|-------------|-----------------------|----------------------|---------------|-------------|-------------|---------|
| l. io | | Course and Course Code | Course Title | Teaching Department | T heary Let ture | Tutorial | Practical/ Drawing | Ouration in hours | CIE Marks | SEE Marks | Fotal Marks | Credits |
| | | | | | L | Т | Р | - | Ŭ | ~ | - | |
| 1 | BSC | 18MAT31 | Transform calculus, fourier series and Numerical techniques | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18ME32 | Mechanics of Materials | | 3 | 2 | ** | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18ME33 | Basic Thermodynamics | | 3 | 0 | ** | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18ME34 | Material Science | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18ME35A or 18ME35B | Metal cutting and forming Metal Casting and Welding | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18ME36A or | Computer Aided Machine Drawing/ | | 1 | 4 | | | | | | |
| | | 18ME36B | Mechanical Measurements and Metrology | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18MEL37A or | Material Testing lab | | | _ | _ | | | | 100 | |
| | | 18MEL37B | Mechanical Measurements and Metrology lab | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18MEL38A | Workshop and Machine Shop Practice (Consists of Fitting, and Machining) | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18MEL38B | Foundry,Forging and Welding lab | | | | | | | | | |
| | | 18KVK39/49 | Vyavaharika Kannada (Kannada for communication)/ | | | 2 | | | 100 | | | |
| 9 | HSMC | 18KAK39/49 | Aadalitha Kannada (Kannada for Administration) | HSMC | | <u></u> | | | 100 | | 100 | 1 |
| | Ħ | | OR | | | | | | | | | |
| | | 18CPC39 | Constitution of India, Professional Ethics and Cyber Law | | 1 Exam | ination | is by obj | 02 ective ty | 40 pe ques | 60 tions | | |
| | | | | | 17 | 10 | | 24 | 420 | 480 | | |
| | | | | TOTAL | OR | OR | 04 | OR | OR | OR | 900 | 24 |
| | | | | | 19 | 14 | | 26 | 360 | 540 | | |

18KVK39 Vyavaharika Kannada (Kannada for communication) is for non-Kannada speaking, reading and writing students and 18KAK39 Aadalitha Kannada (Kannada for Administration) is for students who speak, read and write Kannada.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 – 19)

| | | | | | Teachi /Week | ng Hour | \$ | | Exam | ination | | |
|----------|------|--------------------------|---|------------------------|----------------------|----------|-----------------------|----------------------|-----------|-----------|-------------|---------|
| SL No | | Course and ourse Code | Course Title | Teaching Department | The or y Le cture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Fotal Marks | Credits |
| | | | | | L | Т | Р | - | Ŭ | ~ | - | |
| 1 | BSC | 18MAT41 | Mathematics | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18ME42 | Applied Thermodynamics | | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18ME43 | Fluid Mechanics | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18ME44 | Kinematics of Machines | | 3 | 0 | ** | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18ME45A 18ME45B | Metal cutting and forming Metal Casting and Welding | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18ME46A or | Computer Aided Machine Drawing/ | | 1 | 4 | | | | | | - |
| | | 18ME46B | Mechanical Measurements and Metrology | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18MEL47A or | Material Testing lab | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18MEL47B | Mechanical Measurements and Metrology lab | | | 1 | - | 03 | 40 | ~ | 100 | 1 |
| 8 | PCC | 18MEL48A | Workshop and Machine Shop Practice (Consists of Fitting, and Machining) | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18MEL48B | Foundry, Forging and Welding lab | | | | | | | | | |
| | | 18KVK49/49 | Vyavaharika Kannada (Kannada for communication)/ | | | | | | 100 | | | |
| 9 | | 18KAK49/49 | Aadalitha Kannada (Kannada for Administration) | HSMC | | 2 | | | 100 | | 100 | 1 |
| | Q | | OR | | | | | | | | | |
| | HSMC | 18CPH49 | Constitution of India, Professional | | 1 | ** | | 02 | 40 | 60 | | |
| | × | 18CP1149 | Ethics and Cyber Law | | | ination | is by obj | ective ty | pe ques | tions | | |
| | | | | | 17 | 10 | | 24 | 420 | 480 | | |
| | | | | TOTAL | OR | OR | 04 | OR | OR | OR | 900 | 2 |
| | | | | | 19 | 14 | | 26 | 360 | 540 | | |

18KVK39 Vyavaharika Kannada (Kannada for communication) is for non-Kannada speaking, reading and writing students and 18KAK39 Aadalitha Kannada (Kannada for Administration) is for students who speak, read and write Kannada.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 – 19)

| | | | | | | iing H Week | ours | | Exam | ination | | |
|----------|------|---------------------|------------------------------|-----------------------------|-------------------|----------------|-----------------------|----------------------|-----------|-----------|-------------|---------|
| SL No | | rse and rse code | Course Title | T caching D epart ment | Theory Lecture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Fotal Marks | Credits |
| | | | | | L | Т | P | - | Č | | - | |
| 1 | PCC | 18ME51 | Management and Economics | | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18ME52 | Design of Machine Elements I | | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18ME53 | Dynamics of Machines | | - 3 | 2 | ** | 03 | 40 | 60 | 100 | 4 |
| 4 | PCC | 18ME54 | Turbo Machines | | 3 | | ** | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18ME55 | Fluid Power Engineering | | 3 | | ** | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18ME56 | Operations Management | | - 3 | | | 03 | 40 | 60 | 100 | - 3 |
| 7 | PCC | 18MEL57 | Fluid Mechanics/Machines lab | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18MEL58 | Energy Conversion Lab | | ** | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | | | Civil/ Environmental | | | | | | | | |
| 9 | HSMC | 18CIV59 | Environmental Studies | [Paper setting: | 1 | | ** | 02 | 40 | 60 | 100 | -1 |
| | | | | Civil Engineering Board] | | | | | | | | |
| | | | | TOTAL | 18 | 10 | 04 | 26 | 360 | 540 | 900 | 25 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | B. E. MECHANICAL ENGINEERING | | 1 |
|--|---|--------------------------------|-------------------|
| | cation (OBE) and Choice Based Cred | lit System (CBCS) | |
| outcome bused con | SEMESTER - III | in system (cocs) | |
| CONSTITUTION OF | NDIA, PROFESSIONAL ETHICS AND | VBER LAW (CPC) | |
| Course Code | 18CPC39/49 | CIE Marks | 40 |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| Course Learning Objectives: To | | | |
| know the fundamental noti | tical codes, structure, procedures | nowers and | duties of Indian |
| | amental rights, directive principles, a | | |
| Understand engineering ethic | s and their responsibilities; identify | their individual | roles and ethical |
| responsibilities towards societ | γ. | | |
| Know about the cybercrimes | and cyber laws for cyber safety meas | ures. | |
| Module-1 | r r r | | |
| Introduction to Indian Constitution: T | he Necessity of the Constitution, The | Societies before | and after the |
| Constitution adoption. Introduction to | the Indian constitution, The Making | of the Constituti | on, The Role of |
| the Constituent Assembly - Preamble a | and Salient features of the Constituti | on of India. <mark>Fund</mark> | amental Rights |
| and its Restriction and limitations in di | fferent Complex Situations. Directiv | e Principles of S | itate Policy |
| (DPSP) and its present relevance in | our society with examples. Fundan | nental Duties and | its Scope and |
| significance in Nation building. | | | |
| Module-2 | | | |
| Union Executive and State Executive: | Parliamentary System, Federal Syste | m, Centre-State I | Relations. Union |
| Executive - President, Prime Minister, | · · · · · · · · · · · · · · · · · · · | | |
| Important Parliamentary Terminologie | | | |
| Executives - Governor, Chief Minister, | | th Court and Sub | ordinate Courts, |
| Special Provisions (Articles 370.371,37 | 1J) for some States. | | |
| Module-3 | | | |
| Elections, Amendments and Emergen | | | |
| India, Election Laws. Amendments - M | | | |
| Important Constitutional Amendment | | | |
| 91,94,95,100,101,118 and some imp | ortant Case Studies. Emergency Pro | ovisions, types of | Emergencies and |
| its consequences. Constitutional special provisions: Sp | acial Provisions for SC and ST OB/ | Warnen Childre | an and Dacharad |
| Classes | ecal provisions for 5c and 51, OBC | , women, cinia | en ano backwaro |
| Module-4 | | | |
| Professional / Engineering Ethics: S | rone & Almy of Continuering & Dre | farrianal Othiar | - Duringer Ethics |
| Corporate Ethics, Personal Ethics, | | | |
| Engineering Ethics, Code of Ethics as | | | |
| Professionalism, and Professional Re | | | |
| Engineering Responsibilities in Engine | | | |
| Trust and Reliability in Engineering, IPI | | | |
| Module-5 | | | |
| Internet Laws, Cyber Crimes and Cybe | r Laws: Internet and Need for Cyber | Laws, Modes of | Regulation of |
| Internet, Types of cyber terror capabil | | | |
| Crimes and the information Technolog | | | |
| agencies. | | | |
| 9 | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B. E. COMMON TO ALL PROGRAMMES Choice Based Credit System (CBCS) and Outcome Based Education (OBE) SEMESTER - V **ENVIRONMENTAL STUDIES** Course Code **18CIV59 CIE Marks** 40 Teaching Hours / Week (L:T:P) (1:0:0)SEE Marks 60 Credits 01 Exam Hours 02 Module - 1 Ecosystems (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake. Biodiversity: Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation. Module - 2 Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind. Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud Seeding, and Carbon Trading. Module - 3 Environmental Pollution (Sources, Impacts, Corrective and Preventive measures, Relevant Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil

Pollution an<mark>d AirPollution.</mark>

Latin refer sites

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Waste Management & Public Health Aspects: Bio-medical Wastes; Solid waste; Hazardous wastes;

E-wastes;

Industrial and Municipal Sludge.

Module - 4

Global Environmental Concerns (Concept, policies and case-studies):Ground water

depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in

drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.

Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications):

G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems,

ISO14001; Environmental Stewardship- NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment

Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its

brief documentation.

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to theenvironment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

Textbook/s



N OPA POPPO

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E. Mechanical Engineering

| Y | | | T | eaching Hou | irs /Week | | Examina | tion | | Credits |
|-----------|-----------------|--------------------------------------|--------|---------------|------------------|---------------------|-----------|--------------|----------------|---------|
| SI. No | Subject Code | Title | Lectur | e Tutoria | l Practical | Duration (Hours) | SEE Marks | CIE Marks | Total Marks | |
| 1 | 17ME51 | Management and Engineering Economics | 3 | 2 | 0 | 03 | 60 | 40 | 100 | 4 |
| 2 | 17ME52 | Dynamics of Machinery | 3 | 2 | 0 | 03 | 60 | 40 | 100 | 4 |
| 3 | 17ME53 | Turbo Machines | 3 | 2 | 0 | 03 | 60 | 40 | 100 | 4 |
| 4 | 17ME54 | Design of Machine Elements - I | 3 | 2 | 0 | 03 | 60 | 40 | 100 | 4 |
| 5 | 17ME55X | Professional Elective-I | 3 | 0 | 0 | 03 | 60 | 40 | 100 | 3 |
| 6 | 17ME56X | Open Elective-I | 3 | 0 | 0 | 03 | 60 | 40 | 100 | 3 |
| 7 | 17MEL57 | Fluid Mechanics & Machinery Lab | 1 | 0 | 2 | 03 | 60 | 40 | 100 | 2 |
| 8 | 17MEL58 | Energy Lab | 1 | 0 | 2 | 03 | 60 | 40 | 100 | 2 |
| | | TOTAL | 20 | 08 | 04 | | 480 | 320 | 60 | 40 |
| | Professional | Elective-I | (|)pen Elective | -I | | | | X | |
| | 17ME551 | Refrigeration and Air-conditioning | 1 | 7ME561 | Optimization Tec | hniques | | | | |
| | 17ME552 | Theory of Elasticity | 1 | 7ME562 | Energy and Envir | onment | 6 | | | |
| | 17ME553 | Human Resource Management | 1 | 7ME563 | Automation and F | lobotics | | | | |
| | 17ME554 | Non Traditional Machining | 1 | 7ME564 | Project Managem | ent | | | | |

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Professional Elective: Elective relevant to chosen specialization/ branch

3. Open Elective: Electives from other technical and/or emerging subject areas.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Biotechnology

| | | | VISVESVARAYA TECHNOI | OGICAL UNIV | ERSITY, | BELAC | GAVI | | | | | |
|----------|-----------------------|--|--|------------------------|-------------------|----------------|-----------------------|----------------------|------------------|------------------|-------------|---------|
| | | | Scheme of Teaching a | and Examination | 2018 - 1 | 9 | | | | | | |
| | | | Outcome Based Education(OBE) | and Choice Bas | ed Credit | System | (CBCS) | | | | | |
| | | | (Effective from th | e academic year | 2018 - 19 |) | | | | | | |
| Prog | ramme: B | IOTECHNOI | LOGY | | | | | | | | | |
| III SI | EMESTEI | 2 | | | | | | | | | | |
| | | | | | Teaching H | lours /Weel | (| | Exam | ination | | |
| SL No | | urse and irse Code | Course Title | Teaching Department | Theory Lecture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Total Marks | Credits |
| | | | | | L | Т | Р | | Ĭ | <i>v</i> i | - | |
| 1 | BSC | 18BT31 | Biostatistics | Mathematics | 3 | 1 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18BT32 | Microbiology | Biotech | 4 | 0 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18BT33 | Unit Operations | Chemical/Biotech | 3 | 1 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18BT34 | Introduction to Biomolecules | Biotech | 3 | 1 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18BT35 | Cell Biology and Genetics | Biotech | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18BT36 | Python Programming | CSE | 3 | 1 | | 03 | 40 | 60 | 100 | 3 |
| 1 | PCC | 18BTL37 | Microbiology Laboratory | Biotech | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18BTL38 | Unit Operations Laboratory | Chemical/Biotech | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18KVK39 | Vyavaharika Kannada (Kannada for communication)/ | _ | | 2 | | | 100 | | | |
| | | 18KAK39 | Aadalitha Kannada (Kannada for Administration) | | | | | | | | | |
| 9 | HSMC 18CPC39 Const | OR | HSMC | | | | | | | 100 | 1 | |
| | | Constitution of India, Professional Ethics and Cyber Law | | 1 | | | 02 | 40 | 60 | | | |
| | | | | | | | n is by obj | | _ | 100 | | |
| | | | | TOTAL | 19 | 08 | 0.4 | 24 | 420 | 480 | 000 | 24 |
| | | | | TOTAL | | | 04 | | | | 900 | 24 |
| | | | | TOTAL | OR 20 | 08 OR 10 | 04 | 24 OR 26 | 420 OR 360 | 480 OR 540 | | 900 |

2



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | | VISVESVARAYA TECHN Scheme of Teaching and E Outcome Based Education(OF (Effective from | xamination 2018 – 19 |) d Credit Sy | | | | | | | |
|--------|--------|------------------------|---|------------------------|-------------------|------------|-----------------------|----------------------|-----------|-----------|-------------|---------|
| | | DTECHNOLO | GY | | | | | | | | | |
| IV SE | MESTER | | | | | | | | | | | |
| | | | | | Teaching He | ours /Week | | | Exam | ination | | - |
| Sl. No | | ourse and urse Code | Course Title | Teaching Department | Theory Lecture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Total Marks | Credits |
| | | | | | L | Т | Р | | S S | | - | |
| 1 | PCC | 18BT41 | Stoichiometry | Chemical/Biotech | 3 | 1 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18BT42 | Molecular Biology | Biotech | 4 | 0 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18BT43 | Immunotechnology | Biotech | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18BT44 | Cell Culture Techniques | Biotech | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18BT45 | Biochemical Thermodynamics | Chemical/Biotech | 3 | 1 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18BT46 | Clinical Biochemistry | Biotech | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18BTL47 | Biochemistry Laboratory | Biotech | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18BTL48 | Immunotechnology Laboratory | Biotech | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18KVK49 | Vyavaharika Kannada (Kannada for communication)/ | | | | | | 100 | | | |
| | | 18KAK49 | Aadalitha Kannada (Kannada for Administration) | USMC | | 2 | - | | 100 | - | | |
| 9 | HSMC | | | HSMC OR | | | 100 | 1 | | | | |
| | | 1900040 | Constitution of India Desferringel Ethics and Color-Law | UK | 1 | | | 02 | 40 | 60 | 1 | |
| | | 18CPC49 | Constitution of India, Professional Ethics and Cyber Law | | | Examinati | ion is by obj | ective type | questions | | 1 | |
| | | | | | 19 | 06 | | 24 | 420 | 480 | | |
| | | | | TOTAL | OR | OR | 04 | OR | OR | OR | 900 | 24 |
| | | | | | 20 | 08 | | 26 | 360 | 540 | | |

| | VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 – 19) rogramme: BIOTECHNOLOGY | | | | | | | | | | | |
|-----------|--|---------------|---|--|--|------------|-----------------------|----------------------|-----------|-----------|-------------|---------|
| | <u>'amme: Bl</u> MESTER | OTECHNOI | LOGY | | | | | | | | | |
| V OE | VIEGTER | | | | Teaching H | ours /Weel | k | | Exam | ination | | |
| SI. No | | | Course Title | | Theory Lecture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Fotal Marks | Credits |
| | | | | | L | Т | Р | | Ŭ | w. | - | |
| 1 | HSMC | 18BT51 | Bio-Business and Entrepreneurship | HSMC/Biotech | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18BT52 | Chemical Reaction Engineering | Chemical/Biotech | 4 | 1 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18BT53 | Enzyme Technology & Biotransformation | Biotech | 4 | | | 03 | 40 | 60 | 100 | 4 |
| 4 | PCC | 18BT54 | Genomics & Proteomics | Biotech | 3 | 1 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18BT55 | Bioanalytical Techniques | Biotech | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18BT56 | Genetic Engineering & Applications | Biotech | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18BTL57 | Biokinetics & Enzyme Technology Laboratory | Chemical/Biotech | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18BTL58 | Genetic Engineering and Cell Culture Laboratory | Biotech | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 9 | HSMC | 18CIV59 | Environmental Studies | Civil/ Environmental [Paper setting: Civil Engineering Board] | 1 02 40 60 100 Examination is by objective type questions | | | 1 | | | | |
| | | | | TOTAL | 21 | 06 | 04 | 26 | 360 | 540 | 900 | 25 |
| Note: | BSC: Basic | Science, PCC: | Professional Core, HSMC: Humanity and Social Science, | NCMC: Non-credit man | datory cours | e. | | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| B.E.BIOTECHNOLOGY Outcome Based Education (OBE) and Choice Based Credit System (CBCS)SEMESTER-III | | | | | | |
|---|---|---|--|--|--|--|
| CONSTITUTIONOFINDIA, PROFESSIONALETHICSANDCYBERLAW (CPC) (Mandatory Learning Course: Commonto All Programmes) | | | | | | |
| CourseCode 18CPC39/49 CIEMarks 40 | | | | | | |
| eachingHours/Week(L:T:P) | (1:0:0) | SEEMarks | 60 | | | |
| Credits | 01 | ExamHours | 02 | | | |
| courseLearningObjectives:To | | | | | | |
| nmentinstitutions, function Understandengineerin alresponsibilitiestowar | damentalrights, directi gethicsandtheirrespor ds society. | e, procedures, powers, and ve principles, and the duties sibilities; identify their indiv | sofcitizens | | | |
| | rimesandcyberlawsfor | cybersatetymeasures. | | | | |
| Nodule-1 ntroductiontoIndianConstitution | | | | | | |
| ntroduction to theIndian consti- ssembly - Preamble andSalien estriction ifferentComplexSituations.Dire ocietywithexamples.Fundamer /odule-2 InionExecutiveandStateExecut | and ectivePrinciplesofState ntalDutiesanditsScopea | titution of India. Fundam limitations Policy(DPSP)anditspresen | nental Rights and its in trelevanceinour | | | |
| arliamentary System, Federal Ainister, Union Cabinet, Parliam Terminologies. SupremeCourtof Governor, Chief Minister, tateCabinet, StateLegislature, | ent - LS and RS, Parlian India, Judicia | nentary Committees, Impo ReviewsandJudicialActivis | ortant Parliamentary sm.StateExecutives– | | | |
| Nodule-3 | | | | | | |
| Elections,AmendmentsandEmergencyProvisions: Elections, Electoral Process, and Election Commission of India, Election Laws. Amendments- MethodsinConstitutionalAmendments(HowandWhy)andImportant ConstitutionalAmendments.Amendments–7,9,10,12,42,44,61,73,74,,75,86,and | | | | | | |
| 1,94,95,100,101,118 and some i | | | types | | | |
| ofEmergenciesanditsconsequences. | | | | | | |
| Constitutionalspecialprovisions: | | | | | | |
| pecialProvisionsforSCandST,OE | C,Women,Childrenan | dBackwardClasses. | | | | |
| Module-4 | | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Professional/EngineeringEthics:

Scope & Aims of Engineering & Professional Ethics - Business Ethics, Corporate Ethics, Personal Ethics.EngineeringandProfessionalism,PositiveandNegativeFaces of Engineering Ethics, Code of EthicsasdefinedinthewebsiteofInstitutionofEngineers(India):Profession,Professionalism,andProfessi onalResponsibility.ClashofEthics,ConflictsofInterest.ResponsibilitiesinEngineeringResponsibilitiesin

EngineeringandEngineeringStandards,theimpedimentstoResponsibility.TrustandReliabilityinEngine ering,IPRs (Intellectual PropertyRights), Risks,Safetyandliabilityin Engineering

Module-5

InternetLaws,CyberCrimesandCyberLaws:

Internet and Need for Cyber Laws, Modes of Regulation of Internet, Types of cyber terror capability, Netneutrality, Types of Cyber Crimes, India and cyber law, Cyber Crimes and the information Technology Act 2000, Internet Censorship. Cyber crimes and enforcement agencies.

Course Outcomes:

On completion of this course, students will be able to,

CO 1: Have constitutional knowledge and legal literacy.

CO 2: Understand Engineering and Professional ethics and responsibilities of Engineers. CO 3: Understand the the cybercrimes and cyber laws for cyber safety measures.

Question paper pattern for SEE and CIE:

- The SEE question paper will be set for 100 marks and the marks scored by the students will proportionately be reduced to 60. The pattern of the question paper will be objective type (MCQ).
- For the award of 40 CIE marks, refer the University regulations 2018.

| T | Title of the Dook | · · · | Ĩ | |
|------------|-------------------------------|-------------------|-----------------|----------------|
| SI. | TitleoftheBook | Name of | Name of | EditionandYear |
| No. | | theAut | thePubli | |
| | | hor/s | sher | |
| Textbook/s | | | | |
| 1 | Constitution of India, Profes | Shubham | | 2018 |
| | sional Ethics and | Singles,Charles | Cengage | |
| | HumanRights | E. | LearningIndia | |
| | | Haries, and et al | | |
| 2 | Cyber SecurityandCyberLaws | AlfredBastaand et | CengageLearning | 2018 |
| | | al | India | |
| ReferenceB | ooks | | | |
| 3 | Introductiontoth | DurgaDasBasu | Prentice–Hall, | 2008. |
| | eConstitutionofI | | | |
| | ndia | | | |
| 4 | EngineeringEthics | M. Govindarajan, | Prentice–Hall, | 2004 |
| | | S.Natarajan, V. | | |
| | | S.Senthilkumar | | |

B.E.BIOTECHNOLOGY Outcome Based Education (OBE) and Choice Based Credit System (CBCS)SEMESTER-V BIO-BUSINESSANDENTREPRENEURSHIP



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| CourseCode | 18BT51 | CIEMarks | 40 |
|---------------------------|---------|-----------|----|
| TeachingHours/Week(L:T:P) | (3:0:0) | SEEMarks | 60 |
| Credits | 03 | ExamHours | 03 |

CourseLearningObjectives:

- Tolearnabouttheprojectmanagement,
- Toexploreentrepreneurship
- TounderstandIPRanditsimplications

Module-1

BIOENTERPREUNERSHIP:

Introductiontobio-business, from the Indian context, SWOT analysis of bio-

business.Ownership,DevelopmentofEntrepreneurship;Stagesinentrepreneurialprocess;Roleofentr epreneursinEconomicDevelopment; Entrepreneurship in India; Entrepreneurship - its barriers. Small scale industries: Definition;Characteristics;Needandrationale;Objectives;Scope;MarketFeasibilityStudy;TechnicalFe

asibilityStudy;

Financial FeasibilityStudy&SocialFeasibilityStudy.Globalbiobusinessandindustryfuturetrends. **Module-2**

ENTREPRENEURSHIPOPPORTUNITYINAGRIBIOTECHNOLOGY:

Business opportunity, Essential requirement, marketing, strategies, schemes, challenges and scope-with

 $case study on {\sf Plant cell and tis sue culture technique, polyhous eculture. Herbalbulk drug production, {\sf Nutraceuticals, value added}$

herbalproducts.BioethanolproductionusingAgriwaste,Algalsource.Integration

ofsystembiologyforagriculturalapplications.Biosensordevelopmentin Agrimanagement **Module-3**

ENTREPRENEURSHIPOPPORTUNITYININDUSTRIALBIOTECHNOLOGY: Business opportunity,

Essentialrequirement, marketingstrategies, schemes, challenges and scope-with casestudy-Pollution monitoring and Bioremediation for Industrial pollutants, Pesticides, Herbicidesetc. Integrated compost productionmicrobe enriched compost.Bio pesticide/insecticide production. Fermented products-probiotic and prebiotics. Stem cell production, stem cell bank, contract research. Production of monoclonal/polycl onal

antibodies, Single cell protein and secondary metabolite production. Contact research in microbial genomics.

Module-4 PROJECT

MANAGEMENT, INTELLECTUAL

PROPERTY, TECHNOLOGYMANAGEMENTANDSTARTUPSCHEMES:

Building Biotech business challenges in Indian context-biotech partners (BICEPS,BIRAC,DBT, Incubationcenters.Etc.,),operationalbiotechparksinIndia.IndianCompanyactforBiobusinessschemesandsubsidies.MeaningofProject;ProjectIdentification;ProjectSelection;ProjectReport;N eedandSignificance of Report; Contents; Formulation; Guidelines by Planning Commission for Project report;Network Analysis; Errors of Project Report; Project Appraisal. Identification of business opportunities:Market Feasibility Study; TechnicalFeasibilityStudy;Financial Feasibility Study & Social FeasibilityStudy.Patentexpiry and Entrepreneurshipopportunity,Principlesof Technology leasing,licensing

and transfer, Startup schemes in Indiang overnment, Business in cubation supports chemes, Successful start-ups-



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

casestudy.

Module-5

REGULATORYAFFAIRS, BIOETHICS&BIO-SAFETY:

RegulatoryaffairsinBiobusiness-regulatorybodiesandtheirregulations(ex.FDA,EU,DSIR,AYUSH, FSSAI etc.,)

Public education of the process of biotechnology involved in generating new forms of life for informed decision-making. Ethical concerns of biotechnology research and innovation-Interference with nature fear of unknown, unequal distribution of risks. Rational vs. subjective perceptions of risks and benefits, relationship between risk, hazard, exposure and safeguards. Biosafety concerns at the level of individuals, institutions, society, region, country and the world. The Cartagena protocol on biosafety. Biosafety management.

Course Outcomes:

At the end of the course the student will be able to:

- Know the importance of bioethics, biosafety and IPR
- Apply for project proposal
- Plan a project with a work plan, budget and schedule

Question paper pattern:

- The question paper will have ten full questions carrying equal marks.
- Each full question will be for 20 marks.
- There will be two full questions (with a maximum of four sub- questions) from each module.
- Each full question will have sub- question covering all the topics under a module.
- The students will have to answer five full questions, selecting one full question from each module.

| SI N O | TitleoftheBook | Name of theAutho r/s | NameofthePublisher | EditionandYear |
|--------------|-----------------------------|----------------------------|--------------------|-------------------|
| Text | tbooks | | | |
| 1 | PrinciplesofManagement | P.C.Tripathi, P.N.Reddy | TataMcGrawHill | FifthEdition,2012 |
| 2 | EntrepreneurshipDevelopment | S.S.Khanka | S.Chand&Co | 2006 |

| - CT | CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org | | | | | | | |
|------|---|----------------------------|-----------------------|------|--|--|--|--|
| 3 | Practical Approach to IPR | Rachana SinghPuri | IKIntl. Ltd | 2009 | | | | |
| 4 | Bioethics&Biosafety | RRallapalli&Gee thaBali | APHPublication | 2007 | | | | |
| Refe | erenceBooks | | | | | | | |
| 1 | Bioethics&Biosaftey | SateeshM K | IKPublishers | 2008 | | | | |
| 2 | Management Fundamentals - Concepts,Application,Sk ill Development | RobersLusier | CengageLearning | 1996 | | | | |
| 3 | Intellectual PropertyRightsinthe WTOanddevelopingcountry | WatalJayashree | OxfordUniversityPress | 2001 | | | | |
| Web | WeblinksandVideo Lectures: | | | | | | | |

| B.E.INCIVILENGINEERING(CV-2018-19) Outcome Based Education (OBE) and Choice Based Credit System (CBCS)SEMESTER-V | | | | | | |
|---|---------------------------|-------------------------------------|----|--|--|--|
| ENVIRONMENTALS TUDIES | | | | | | |
| CourseCode | 18CIV59 | CIEMarks | 40 | | | |
| TeachingHours/ Week(L:T:P) | (1:0:0) | SEEMarks | 60 | | | |
| Credits | 01 | ExamHours | 02 | | | |
| RevisedBloom'sTaxonomyLevel | s L ₁ -Remembe | ring,L ₂ –Understanding. | | | | |
| Module-1 | | | | | | |
| Ecosystems (Structure and Functic HrsBiodiversity:Types,Value;Hot- spots;ThreatsandConservationofbi | | | | | | |
| Module-2 | | | | | | |
| AdvancesinEnergySystems (Merits, Demerits, GlobalStatus and Applications): Hydrogen, Solar, OTEC, Tid al and Wind. 02 Hrs | | | | | | |
| NaturalResourceManagement(Conceptandcase- | | | | | | |
| studies):DisasterManagement,SustainableMining,CloudSeeding,andCarbonTrading.02 Hrs | | | | | | |
| Module-3 | | | | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

EnvironmentalPollution(Sources,Impacts,CorrectiveandPreventivemeasures,RelevantEnvironment alActs, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil Pollution and Air Pollution.02Hrs

Waste Management & Public Health Aspects: Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes;IndustrialandMunicipalSludge. 02 Hrs

Module-4

GlobalEnvironmentalConcerns(Concept, policies and case-

studies):Groundwaterdepletion/recharging,Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement andrehabilitationofpeople, EnvironmentalToxicology.04 Hrs

Module-5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S.

&RemoteSensing,EnvironmentImpactAssessment,EnvironmentalManagementSystems,ISO14001;Environmental Stewardship-NGOs. 03 Hrs

Field work: Visit to anEnvironmental Engineering Laboratory or Green Building or Water Treatment Plant

or Wastewater treatment Plant; ought to be Followed by understanding of process and its brief document a tion. 01

Hrs

CourseOutcomes:Attheendofthecourse, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and waterissuesonaglobalscale,
- CO2: Develop criticalthinkingand/or observationskills, and apply them to the analysis of a problem or question related to the environment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and a bioticcomponents.
- CO4: Applytheirecological knowledge toillustrateandgraphaproblemanddescribetherealitiesthat managersfacewhendealingwithcomplexissues.

Questionpaperpattern:

- TheQuestionpaperwill have100objectivequestions.
- Eachquestionwill befor01marks
- Student willhavetoanswerallthequestionsinanOMRSheet.

The Duration of Exam will be 2 hours.

| Sl.No. | TitleoftheBook | Name of theAuthor/s | NameofthePublishe | Edition andYear | | | | | |
|---------|----------------------|------------------------|---|---|--|--|--|--|--|
| Textboo | Textbook/s | | | | | | | | |
| 1 | EnvironmentalStudies | BennyJoseph | TataMc Graw– Hill. | 2 nd Edition,201 2 | | | | | |
| 2. | EnvironmentalStudies | SM Prakash | PristinePublishingHou se, Mangalore | 3 rd Edition [,] 2018 | | | | | |

THE OXFORD COLLEGE OF ENGINEERING (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

CHILDREN'S EDUCATION SOCIETY (Regd.)

| 3 | EnvironmentalStudies- | RRajagopalan | OxfordPublisher | 2005 |
|-------|-------------------------|-------------------|--------------------|-----------------------------|
| | FromCrisistoCure | | | |
| Refer | enceBooks | | | |
| 1 | PrincipalsofEnvironment | RamanSivakumar | Cengagelearning, | 2 nd Edition,200 |
| | al | | Singapur. | 5 |
| | ScienceandEngineering | | | |
| 2 | EnvironmentalScience- | G.TylerMillerJr. | Thomson | 11 th Edition,20 |
| | workingwith the Earth | | Brooks/Cole, | 06 |
| 3 | Text Book of | PratibaSing,Anoop | Acme Learning | 1 st Edition |
| | EnvironmentalandEco | Singh& | Pvt. Ltd.NewDelhi. | |
| | logy | PiyushMalaviya | | |

| TITLEOFTHECOURSE:REGULATORY AFFAIRSINBIOTECHINDUSTRYB.E., | | | | | | |
|--|---------------------------------|--------------------|-------------------|--|--|--|
| VIIISemester,Biotechnology | | | | | | |
| [Asp | erChoiceBasedCreditSystem(CB | CS)scheme] | | | | |
| CourseCode | 17BT82 | CIEMarks | 40 | | | |
| NumberofLecture | 04 | SEEMarks | 60 | | | |
| Hours/week | | | | | | |
| TotalNumberof Hours | 50(10HoursperModule) | ExamHours | 03 | | | |
| | CREDITS- 04 | | | | | |
| Courseobjectives: The objective of the | niscourseistoeducatestudentsabo | utregulatoryrulesa | ndguidelines that | | | |
| specifyparametersofthesafetyanc | lqualitystandardsinthe biotech | industry | | | | |
| MODULE – 1 | | | | | | |
| INTRODUCTION: | INTRODUCTION: | | | | | |
| $Validation and {\tt Regulatory} Affairs in {\tt Bio} ({\tt Pharmaceutical}) {\tt Manufacturing} : {\tt AnIntroductiontoFDAO} perations {\tt SInIntroductiontoFDAO} and {\tt AnIntroductiontoFDAO} anIntroductiontoFDAO anIntroductionto$ | | | | | | |

dustryComplianceRegulations,TheFundamentalsofRegulatoryCompliancewithrespect

toGoodClinicalPractice(GCP),GoodManufacturingPractice(GMP)& Good Laboratory Practice (GLP). An

Introduction to the Basic Concepts of Process

Validation&howitDiffersfromQualification(IQ,OQ&PQ)Procedures,AReviewofProspective,Concurrent,Retr

 $ospective Validation \& {\sf Revalidation} including the use of {\sf Statistical Process Control} ({\sf SPC}) {\sf Techniques}. ISO 9000 {\sf Ser} is the second seco$

ies&InternationalHarmonization&theireffectuponGMP's.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

L1,L2, L3

MODULE –2

VALIDATION:

Validation of Water & Thermal Systems, including HVAC Facilities & Cleaning Validation.Validation of Active Pharmaceutical Ingredients (APIs) & Aseptic Processes. Validation of Non-SterileProcesses(usedinthemanufactureof Solids,Liquids,&SemisolidDosageForms).Overview of method evolution, FDA and ICH guidelines, Development and validation, Basicstatistical concepts, Outliers, Specificity: sample preparation, Specificity: separations, Specificity:detectors, Linearity, Accuracy, Precision, Limits of detection (LOD) and quantification (LOQ), Minimum detectable amount (MDA), Sample stability and method robustness, Window diagrams, Systemsuitability, Statistical process control for HPLC, Sustainablevalidation, Troubleshooting

out-of-controlsystems, Casestudies.

L1,L2,L3

MODULE – 3

STANDARDS:

Introduction, ISO9000Series of Standards, Management Responsibility, Quality System, Contract Review, Desig nControl, Document and Data Control, Preservation and Delivery, Control of Quality Records, Internal Quality Audits, Training, Servicing, Statistical Techniques, ISO-9001-2000, Scope, Normative Reference, Terms and Definitions, Quality Management, System, Documents Requirem ents, Management's Responsibility, Resource Management, Infrastructure, Product Realization, Measuremen t, Analysis and Improvement, ISO-14001, Environmental Management Systems.

L1,L2,L3

MODULE – 4

QUALITYANDIMPLEMENTATION:

 $\label{eq:constraint} Terminology Relating to Quality, Quality Requirement, Customer Satisfaction, Capability; Terms Relating to Manability, Capability, Capabil$



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

gement, Management System, Quality Management System, Quality Policy,

QualityObjectives,QualityPlanning,QualityControl,QualityAssurance,QualityImprovement,

Continual Improvement, Effectiveness, Efficiency, Terms relating to Characteristics, Quality

Characteristics; Terms Relating to Conformity, Non-Conformity, Defect, Preventive Action, Corrective Action, Correction, Rework, Repair, Scrap, Concession, Deviation Permit, Release; Objective Evidence, Inspection, Test, Metrological Confirmation. Quality System, Contract Review, Design Control, Document and Data Control, Purchasing, Control of Customer Supplied Product, Product Identification and Traceability, Process Control, Inspection and Testing, Final Inspection and Testing, Inspection and Test Status, Handling, Storage, Packaging, Preservation and Delivery, Control of Quality Records, Internal Quality Audits, Training, Servicing, Statistical Techniques.

L1, L2, L3

MODULE – 5

QUALITY MANAGEMENT:

The development of regulatory requirements for validation, The V model and Life Cycle model approach to validation and documentation, Risk Analysis Techniques: Impact Assessment; Failure Mode and Effects Analysis (FMEA), Validation Master Plans, Commissioning and Qualification, Process Validation, Routine validation and revalidation, Contamination Control, Risk Management in the Pharmaceutical Industry, Solid Dose Manufacture Principles and Practices, Liquid and Cream Manufacture Principles and Practices, Good Laboratory Practices (for Non- Clinical Laboratories), Computer Systems Validation Principles and Practices, Good Aseptic Practices and Sterile Products, Clinical Trials Quality Assurance Management, GxP and Quality Auditing Practices, Pharmaceutical Engineering – Facility, Equipment and Process Design, Fundamentals of Process Analytical Technology, Quality and Continuous Improvement in the Biotech Industry.

L1, L2, L3

Course outcomes:

After studying this course, students will be able to:

- Outline the importance of the quality and compliance in the biotech industry
- Comprehend the various regulatory guidelines and rules as well as the



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

organizations governing the same.

1. Pharmaceutical Equipment Validation: The Ultimate Qualification Handbook, Phillip

A. Cloud, Interpharm Press.

- 2. Commissioning and Qualification, ISPE Pharmaceutical Engineering Baseline Guides Series.
- 3. ICH guideline Q6B, Freelance Publishing

TEXT BOOKS

- 1. Pharmaceutical Process Validation by Robert Nash and Alfred Wachter, Marcel Dekker.
- 2. Good Manufacturing Practices for Pharmaceuticals: A Plan for Total Quality Control from Manufacturer to Consumer, Sidney J. Willig, Marcel Dekker.
- 3. Validation of Pharmaceutical Processes: Sterile Products, Frederick J. Carlton (Ed.) and James Agalloco (Ed.), Marcel Dekker.
- 4. Validation Standard Operating Procedures: A Step by Step Guide for Achieving Compliance in the Pharmaceutical, Medical Device, and Biotech Industries, Syed Imtiaz Haider, Saint Lucie Press.
- 5. Pharmaceutical Biotechnology by S P Vyas and V K Dixit, CBS Publishers



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

4

B.E Civil Engineering

| 0 | CIV | | VISVESVARAYA TECHNOLOGIC Scheme of Teachin Outcome Based Education(OBE) and Ch (Effective from the acad | ng and Exam noice Based | minatio Credit | n 2018 Systen | - 19 | | | | | |
|--------|-------|---------------------|--|----------------------------|-------------------|------------------|-----------------------|----------------------|-----------------|------------|-------------|----------|
| | ESTER | IL ENGINE | LERING | | | | | | | | | |
| II SEM | ESTER | | | | Teachin | g Hours /\ | Veek | | Exami | ination | | |
| SI. No | | rse and rse Code | Course Title | Teaching Department | Theory Lecture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Fotal Marks | Credits |
| | | | | | L | Т | Р | _ | - | | | |
| 1 | BSC | 18MAT31 | Transform Calculus, Fourier Series and Numerical Techniques | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18CV32 | Strength of Materials | Civil Engg. | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18CV33 | Fluid Mechanics | Civil Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18CV34 | Building Materials and Construction | Civil Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18CV35 | Basic Surveying | Civil Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18CV36 | Engineering Geology | Geology | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18CVL37 | Computer Aided Building Planning & Drawing | Civil Engg. | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18CVL38 | Building Materials Testing Laboratory | Civil Engg. | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18KVK39 | Vyavaharika Kannada (Kannada for communication)/ OR | | | 2 | | | 100 | | | |
| 9 | HSMC | 18KAK39 | Aadalitha Kannada (Kannada for Administration) | HSMC | | | | | | | 100 | 1 |
| 9 | HSMC | | OR | пъмс | | | | | | | 100 | 1 |
| | | 18CPC39 | Constitution of India, Professional Ethics and Cyber Law | 1 | 1 | | | 02 | 40 | 60 | | |
| | I | | Law | 1 | 17 Exa | mination 08 | s by obj | ective typ 24 | e questo 420 | ons 480 | | <u> </u> |
| | | | | TOTAL | OR | OR | 04 | OR 0R | 420 OR | 400 OR | 900 | 24 |
| | | | | IOTAL | 18 | 10 | | 26 | 360 | 540 | 200 | 24 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 – 19)

| | / | CIVIL ENGIN | LEKING | | | | | | | | | |
|---------------------------------|--------|--------------------------|--|------------------------|-------------------|-----------------|-----------------------|----------------------|-----------------|-----------|-------------|---------|
| IV S | EMESTE | R | | 1 | Teachi | ing Hours /V | Veek | | Exami | nation | | 1 |
| SL Course and No Course code | | | | Teaching Department | Theory Lecture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Fotal Marks | Credits |
| | | | | | L | Т | Р | | - | | | |
| 1 | BSC | 18MAT41 | Complex Analysis, Probability And Statistical Methods | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18CV42 | Analysis of Determinate Structures | Civil Engg. | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18CV43 | Applied Hydraulics | Civil Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18CV44 | Concrete Technology | Civil Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18CV45 | Advanced Surveying | Civil Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18CV46 | Water Supply & Treatment Engineering | Civil Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18CVL47 | Engineering Geology Laboratory | Geology | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18CVL48 | Fluid Mechanics and Hydraulic Machines Laboratory | Civil Engg. | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 9 | HSMC | 18KVK39/49 18KAK39/49 | Vyavaharika Kannada (Kannada for Communication)/ OR Aadalitha Kannada (Kannada for Administration) | HSMC | | 2 | - | | 100 | | 100 | |
| | nsme | | OR | nsme | | | | | | | 100 | 1 |
| | | 18CPC39/49 | Constitution of India, Professional Ethics and Cyber Law | | 1 H | Examination | n is by obje | 02 ective type | 40 questions | 60 | - | |
| | | | • | TOTAL | 17 | 08 | | 24 | 420 | 480 | | |
| | | | | | OR | OR | 04 | OR | OR | OR | 900 | 24 |
| | | | | | 18 | 10 | | 26 | 360 | 540 | | |

| Prov | ramme: | CIVIL ENG | SINEERING | m the academic year 201 | 0 1/) | | | | | | | |
|-----------|-------------------------|-----------|--|-------------------------|----------|-----------------------|----------------------|-----------|-----------|-------------|---------|----|
| | MESTE | | | | | | | | | | | |
| | | | | | Teachin | g Hours | /Week | | Exam | ination | | |
| SI. No | Course and Course Title | | Teaching Department | Theory Lecture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Total Marks | Credits | |
| | | | | | L | Т | Р | - | • | ×. | E | |
| 1 | HSMC | 18CV51 | Construction Management & Entrepreneurship | Civil Engg. | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18CV52 | Analysis of Indeterminate Structures | Civil Engg. | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18CV53 | Design of RC Structural Elements | Civil Engg. | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 4 | PCC | 18CV54 | Basic Geotechnical Engineering | Civil Engg. | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18CV55 | Municipal Wastewater Engineering | Civil Engg. | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18CV56 | Highway Engineering | Civil Engg. | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18CVL57 | Surveying Practice | Civil Engg. | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18CVL58 | Concrete and Highway Materials Laboratory | Civil Engg. | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | | | Civil/Environmental | | | | | | | | |
| 9 | HSMC | 18CIV59 | Environmental Studies | [Paper setting Board: | 1 | | | 02 | 40 | 60 | 100 | 1 |
| | | | | Civil Engineering] | | | | | | | | |
| | | | | TOTAL | 18 | 10 | 04 | 26 | 360 | 540 | 900 | 25 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | | Sch | eme of Teach | IL ENGINEE ing and Exa | RING | n 2018 - | 19 | | | | | |
|-----------|----------------|-------------------|-------------------------------|-----------------|-----------------------------|---------|-----------|--------------------------|----------------------|----------|---------------|----------------|--------|
| | | | Outcome Rased | Education(OF | | | | | 1 | | | | |
| VI SE | MESTER | | | | | Terr | dian Ba | urs /Week | 1 | | in the second | | 1 |
| SL. No | | ve and se cade | Course | Title | Teaching Department | Theory | Tunta | Practic Al Decario | Duration in hours | | SEE Marks | Total Marks | Greeks |
| 1 | PCC | 180961 | Design of Ste Elements | | Civil Enge | а | 2 | - | 63 | 40 | 60 | 100 | + |
| 2 | PCC | 190952 | Applied Geote Engineering | | Civil Enge | | 2 | | 63 | 4 | 60 | 100 | 4 |
| з | POC | 190963 | Hydrology and Engineering | linigation | Civil Enge | | 2 | - | 03 | 40 | 60 | 100 | ŧ |
| 4 | PEC | 19096-01 | Professional R | lective -1 | Civil Enge | Π | | - | 03 | 40 | 60 | 100 | |
| s | OEC | 1907653 | Open Elective | -A | Civil Enge | а | | | 03 | 40 | 60 | 100 | 3 |
| 6 | POC | 19071-66 | Software Appl Laboratory | ication | Civil Enge | - | 2 | 2 | 63 | 40 | 60 | 100 | 2 |
| 2 | POC | 19071.67 | Environmenta Engineering L | - | Civil Enge | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | EP | 19075769 | Extensive Surv | rey project | Civil Engl | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 9 | Internship | | Internship | | To be carrie VIII secret | | uring the | vacation/s of | Viand | VII seme | sters and | for VII a | |
| | - | • | • | В | TAL 15 | | 12 | 06 | 24 | 320 | 480 | 800 | 24 |
| Note | PCC: Professio | enal core, PEC: | Professional Fis | ective, OE: Op- | en Elective, l | MP: MI | ni grojec | L | | | | | |
| | | | | Prof | ncional Elec | tive -1 | _ | | | | | | |
| | Course co | de under19CV | 64X | | | | | | | | | | |
| | | 1907641 | | Matrix Nethe | ed of Structur | al Anal | 199.00 | | | | | | |

8

7

| 1907642 | Solid Watte Management |
|--|---|
| 1907643 | Alternate Building Materials |
| 1809644 | Ground Improvement Techniques |
| 1909645 | Railway, Harbours, Tunnelling & Airports |
| | Open Elective -A. |
| Course code under18CV65X | |
| 1909651 | Remote Sending & GE |
| 1909652 | Traffic Engineering |
| 1909653 | Occupational Health & Safety |
| 1909654 | Sustainability Concepts in Civil Engineering |
| 1907655 | Intelligent Transportation Systems |
| 1907656 | Conservation of Natural Resources |
| Students can select any one of the open elective | s offered by other Departments expect those that are offered by the parent Department |

(Please refer to the list of open electives under 18XX65X).

Selection of an open elective shall not be allowed if.

The candidate has studied the same course during the previous semesters of the programme.

The syllabus content of open elective is similar to that of the Departmental core courses or professional electives.

A similar course, under any category, is prescribed in the higher semesters of the programme.

Registration to electives shall be documented under the guidance of Programme Coordinator/ Advisor/Mentor. Internship: All the students admitted to III year of BE/B. Tech shall have to undergo mandatory internship of 4 weeks during the vacation of VI and VII semesters and /or VII and VIII semesters. A University examination shall be conducted during VIII semester and the prescribed credit shall be included in VIII semester. Internship shall be considered as a head of passing and shall be considered for the avard of degree. Those, who do not take-up/complete the internship shall be declared fail and shall have to complete during subsequent. University examination after satisfying the internship requirements.

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | | REPORT OF A REAL PROPERTY. | 01001011 | | | | | | | | |
|----------|---------------------------------|-----------------|--|------------------------------------|-------------------|-----------|-----------------------|-----------------------|-------------|------------|---------------|------------|
| | | | VISVESVARAYA TECHN | | | | | AVI | | | | |
| | | | Scheme of Teachi | | | | | | | | | |
| | | | Outcome Based Education(OBE | | | | system | (CBCS) | | | | |
| | | | (Effective from | the academic | year 201 | 8 - 19 | - | | | | | |
| Progra | mme: CIVI | IL ENGINE | ERING | | | | | | | | | |
| | EMESTER | | | | | | | | | | | |
| 111 | | | | | Teachi | og Hours/ | Week | | Eu | mination | | T |
| | 1 | | | | | | - | | | | | 1 |
| SL No | SI. No Course and Course cod | | | | Theory Lotture | Turcetad | Precticul/ Develop | Duration in Incurs | IE Marks | SEE Marks | Food Marks | Credits |
| | 1 | | | | L | т | P | - | ~ | ~ | - | 1 |
| 1 | PCC | 18CV71 | Quality Surveying and Contract Management | Civil Engg. | 3 | | - | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18CV72 | Design of RCC and Steel Structures | Civil Engg. | 3 | | - | 03 | 40 | 60 | 100 | 3 |
| 3 | PEC | 18CV73X | Professional Elective - 2 | Civil Engg. | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 4 | PEC | 18CV74X | Professional Elective - 3 | Civil Engg. | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 5 | OEC | 18CV75X | Open Elective -B | Civil Engg. | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18CVL76 | Computer Aided Detailing of Structures | Civil Engg. | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 1 | PCC | 18CVL77 | Geotechnical Engineering Laboratory | Civil Engg. | - | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | Project | 18CVP78 | Project Work Phase - 1 | | - | | 2 | - | 100 | | 100 | 1 |
| 9 | Internship | - | Internship | (If not complet vacation of VII | | | on of VI | and VII set | nesters, it | shall be o | carried out d | luring the |
| | | | | TOTAL | 15 | 04 | 86 | 21 | 380 | 420 | 00 | 20 |
| | | | | | | | | | | | | |
| Note: P(| CC: Professiona | al core, PEC: P | rofessional Elective. | | | | | | | | | |
| | | | | fessional Elective | e-2 | | | | | | | |
| | code under 18 | | Course Title | | | | | | | | | |
| 18CV73 | | | heory of Elasticity | | | | | | | | | |
| 18CV73 | | - | Air Pollution and Control | | | | | | | | | |
| 18CV73 | 3 | 1 | avement Materials & Construction | | | | | | | | | |
| 18CV73 | 4 | (| bound Water Hydraulies | | | | | | | | | |
| 18CV73 | 5 | 3 | Masonry Structures | | | | | | | | | |
| | | | | fessional Elective | a-3 | | | | | | | |
| Course | code under 18 | | ourse Title | | | | | | | | | |
| 18CV74 | | | arthquake Engineering | | | | | | | | | |
| 18CV74 | | | esign Concepts of Building Services | | | | | | | | | |
| 18CV74 | 3 | R | einforced Earth Structures | | | | | | | | | |

10

| 18CV744 | Design of Hydraulic Structures | | | | | | | | |
|---------------------------|---|--|--|--|--|--|--|--|--|
| 18CV745 | Urban Transport Planning | | | | | | | | |
| | Open Elective -B | | | | | | | | |
| Course code under 18CV75X | Course Title | | | | | | | | |
| 18CV751 | Finite Element Method | | | | | | | | |
| 18CV752 | Numerical Methods and Applications | | | | | | | | |
| 18CV753 | Environmental Protection and Management | | | | | | | | |
| | | | | | | | | | |

Students can select any one of the open electives offered by other Departments expect those that are offered by the parent Department (Please refer to the list of open electives under



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | B. E. MECHANICAL ENGINEERING | | |
|--|--|--------------------|---------------------|
| Outcome Based Ed | ucation (OBE) and Choice Based Cro | dit System (CBC) | 5) |
| | SEMESTER - III | - | |
| CONSTITUTION OF | INDIA, PROFESSIONAL ETHICS AND | CYBER LAW (CPI | :) |
| Course Code | 18CPC39/49 | CIE Marks | 40 |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| Course Learning Objectives: To | | | |
| | litical codes, structure, procedure | | |
| | damental rights, directive principles, | | |
| Understand engineering eth | ics and their responsibilities; identi | fy their individu: | I roles and ethical |
| responsibilities towards socie | | | |
| Know about the cybercrimes | and cyber laws for cyber safety mea | isures. | |
| Module-1 | | | |
| Introduction to Indian Constitution: | | | |
| Constitution adoption. Introduction t | | | |
| the Constituent Assembly - Preamble | | | |
| and its Restriction and limitations in o | | | |
| (DPSP) and its present relevance in | our society with examples. Funda | mental Duties an | d its Scope and |
| significance in Nation building. | | | |
| Module-2 | | | |
| Union Executive and State Executive | | | |
| Executive - President, Prime Minister | | | |
| Important Parliamentary Terminolog | | | |
| Executives – Governor, Chief Minister | | igh Court and Su | bordinate Courts, |
| Special Provisions (Articles 370.371,3 | 71J) for some States. | | |
| Module-3 | | | |
| Elections, Amendments and Emerge | | | |
| India, Election Laws. Amendments - | | | |
| Important Constitutional Amendmen | | | |
| 91,94,95,100,101,118 and some im | portant Case Studies. Emergency P | rovisions, types o | if Emergencies and |
| its consequences. | | | |
| Constitutional special provisions: S | secial Provisions for SC and ST, OB | c, women, chil | oren and Backward |
| Classes. Module-4 | | | |
| | | | |
| Professional / Engineering Ethics: | | | |
| Corporate Ethics, Personal Ethics. Engineering Ethics, Code of Ethics a | | | |
| | | | |
| Professionalism, and Professional R Engineering Responsibilities in Engin | | | |
| Trust and Reliability in Engineering, If | | | |
| Module-5 | na (interiectual Property Rights), Ris | ka, sarety anu ha | oncy in engineering |
| Internet Laws, Cyber Crimes and Cyb | as I need Internal and Mand for Other | e I mur - Masler - | f Danulation of |
| Internet Laws, Cyber Crimes and Cyb Internet. Types of cyber terror capab | · · · · · · · · · · · · · · · | | |
| Crimes and the information Technolo | | | |
| | gy Act 2000, internet censorship. Cy | verchimes and er | nurcement |
| agencies. | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| 3. E. COMMON TO ALL PROGRAMMES | В. | E IN CIVIL ENGINEERING(CV | /-2018-19) |
|--|---|--|---|
| Choice Based Credit Sy | stem (CBCS) and | Outcome Based | |
| | Education | (OBE) SEMESTER – V | |
| | ENVIRONMENTA | L | |
| | STUDIES | | |
| Course Code | 18CIV59 | CIE Marks | 40 |
| Teaching Hours / Week (L:T:P) | (1:0:0) | SEE Marks | 60 |
| Credits | 01 | Exam Hours | 02 |
| Module - 1 | | | |
| Ecosystems (Structure and Function): For | orest, Desert, Wet | lands, Riverine, Oceanic | and Lake. |
| Biodiversity: Types, Value; Hot-spots; T | broats and Conso | | sract Maalth ar |
| biodiversity. Types, value, not-spots, n | meats and conser | vation of biodiversity, Fo | orest wealth, ar |
| Deforestation. | | vation of blodiversity, Fo | orest weatin, ar |
| Deforestation. | | vation of blodiversity, Fo | jrest wealth, af |
| Deforestation. Module - 2 | | | |
| Deforestation. Module - 2 Advances in Energy Systems (Merits, De | | | |
| Deforestation. Module - 2 Advances in Energy Systems (Merits, De OTEC, Tidal and Wind. | emerits, Global St | atus and Applications): H | lydrogen, Solar, |
| Deforestation. Module - 2 Advances in Energy Systems (Merits, De OTEC, Tidal and Wind. Natural Resource Management (Conce | emerits, Global St | atus and Applications): H | lydrogen, Solar, |
| Deforestation. Module - 2 Advances in Energy Systems (Merits, De OTEC, Tidal and Wind. Natural Resource Management (Conce Mining, Cloud | emerits, Global St | atus and Applications): H | lydrogen, Solar, |
| Deforestation. Module - 2 Advances in Energy Systems (Merits, De OTEC, Tidal and Wind. Natural Resource Management (Conce Mining, Cloud Seeding, and Carbon Trading. | emerits, Global St | atus and Applications): H | lydrogen, Solar, |
| Deforestation. Module - 2 Advances in Energy Systems (Merits, De OTEC, Tidal and Wind. Natural Resource Management (Conce Mining, Cloud Seeding, and Carbon Trading. Module - 3 | emerits, Global St pt and case-studie | atus and Applications): H es): Disaster Managemen | lydrogen, Solar, ht, Sustainable |
| Deforestation. Module - 2 Advances in Energy Systems (Merits, De OTEC, Tidal and Wind. Natural Resource Management (Conce Mining, Cloud Seeding, and Carbon Trading. Module - 3 Environmental Pollution (Sources, Impa | emerits, Global St pt and case-studie acts, Corrective ar | atus and Applications): H es): Disaster Managemen | lydrogen, Solar, ht, Sustainable <mark>Relevant</mark> |
| Deforestation. Module - 2 Advances in Energy Systems (Merits, De OTEC, Tidal and Wind. Natural Resource Management (Conce Mining, Cloud Seeding, and Carbon Trading. Module - 3 Environmental Pollution (Sources, Impa Environmental Acts, Case-studies): Surfa | emerits, Global St pt and case-studie acts, Corrective ar | atus and Applications): H es): Disaster Managemen | lydrogen, Solar, ht, Sustainable <mark>Relevant</mark> |
| Deforestation. Module - 2 Advances in Energy Systems (Merits, De OTEC, Tidal and Wind. Natural Resource Management (Conce Mining, Cloud Seeding, and Carbon Trading. Module - 3 Environmental Pollution (Sources, Impa Environmental Acts, Case-studies): Surfa Pollution and AirPollution. | emerits, Global St pt and case-studie acts, Corrective ar ace and Ground W | atus and Applications): H es): Disaster Managemen ad Preventive measures, /ater Pollution; Noise po | lydrogen, Solar, ht, Sustainable <mark>Relevant</mark> <mark>Ilution</mark> ; Soil |
| Deforestation. Module - 2 Advances in Energy Systems (Merits, De OTEC, Tidal and Wind. Natural Resource Management (Conce Mining, Cloud Seeding, and Carbon Trading. Module - 3 Environmental Pollution (Sources, Impa Environmental Acts, Case-studies): Surfa Pollution and AirPollution. Waste Management & Public Health As | emerits, Global St pt and case-studie acts, Corrective ar ace and Ground W | atus and Applications): H es): Disaster Managemen ad Preventive measures, /ater Pollution; Noise po | lydrogen, Solar, ht, Sustainable <mark>Relevant</mark> <mark>Ilution</mark> ; Soil |
| | emerits, Global St pt and case-studie acts, Corrective ar ace and Ground W | atus and Applications): H es): Disaster Managemen ad Preventive measures, /ater Pollution; Noise po | lydrogen, Solar, ht, Sustainable <mark>Relevant</mark> <mark>Ilution</mark> ; Soil |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| Global | <mark>Environmental</mark> | Concerns | (Concept, | policies | and | ca <mark>se-studies):G</mark> round | water |
|--------|----------------------------|----------|-----------|----------|-----|-------------------------------------|-------|

depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in

drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.

Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications):

G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems,

ISO14001; Environmental Stewardship- NGOs.

Field work: Visit to an Environmental Engineerin</mark>g Laboratory or Green Building or Water Treatment

Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

Course Outcomes: At the end of the course, students will be able to:

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a globalscale,
- CO2: Develop critical thinking and/or observation skills, and apply themtothe analysis of a problem or question related to theenvironment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and abioticcomponents.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complexissues.

Question paper pattern:

- The Question paper will have 100 objectivequestions.
- Each question will be for 01marks
- Student will have to answer all the questions in an OMRSheet.
- The Duration of Exam will be 2hours.

| Sl.No. | Title of the Book | Name of the Author/s | Name of the Publisher | Edition and Year |
|---------|-------------------|----------------------------|--------------------------|---------------------|
| Textboo | ok/s | | | |

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

year/2nd semester Civil Engineering Conservation of Natural Resources(18CV656)

CONSERVATION OF NATURAL RESOURCES

Choice Based Credit System (CBCS) and Outcome Based Education (OBE)

SEMESTER - VI

Subject Code 18CV656 CIE Marks 40

Teaching

Hours/Week(L:T:P)

3:0:0 SEE Marks 60

Credits 03 Exam Hours 03

Course learning objectives: This course will enable the students to

D Learn types of land forms , soil conservation and sustainable land use planning.

Deprehend water resources, types, distribution, planning and conservation.

I Know the atmospheric composition of air, pollution and effects on human beings, animals and plants. Air pollution control.

Paper Apprehend basics of biodiversity and ecosystems.

?

Module -1

Land: Land as a resource, types of lands, conservation of land forms, deforestation, effect of land use changes. Soil health, ecological and economic importance of soil, impact of soil degradation on agriculture and food security, need for soil conservation, sustainable land use planning.

Module -2

Water: Global water resources, Indian water resources, Resources system planning. Water use sectors- domestic, industrial, agriculture. Water deficit and water surplus basins in India, equitable distribution, Inter-basin water transfers, Interlinking of rivers – Himalayan component, peninsular component, issues involved. Ground water, its potential in India, conjunctive use, recharge of ground water. Contamination of ground water, sea water ingress, problems and solutions.

Module -3

Air: Introduction, composition, sources and classification of air pollutants, National Ambient Air quality standards (NAAQS), Air quality index, effects of air pollution on human health. Economic effects of air pollution. Control of air pollution by equipment, smoke and its control. Ozone depletion –impacts, photochemical changes.

Minerals and rocks: Minerals, important rock forming minerals like Quartz, Mica, Feldspar and Amphibole, lithification & metamorphism, weathering: physical, biogeochemical processes, erosion, agents of erosion.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Module -4

Biodiversity: Introduction, Flora and Fauna, Importance of biodiversity, Economic values-medicinal plants, drugs, fisheries biogeochemical cycling. Threat to biodiversity, natural & anthropogenic disturbance, habitat loss. Conservation of biodiversity, National parks, wild life sanctuaries, zoological gardens, gene banks, pollen culture, ecological restoration, social forestry. Ecosystem: Definition, Types: forest, grass land, marine, desert, wetlands, estuarine, lotic, lentic. Abiotic & biotic components of eco system.

Module -5

Global warming: concept, indicators, factors and effects. Global climate change-indicators, health impacts, effect on biodiversity. Introduction to global efforts in conservation of biodiversity.

EIA: Regulations in India, status of EIA in India, list of projects needing environmental clearance

under EIA notifications. Case study of hydro power/ thermal power projects.

Updated on 29.03.2021 2/2

Course Outcomes(CO):

At the end of the course, students will be able to

1. Apprehend various components of land as a natural resource and land use planning.

2. Know availability and distribution for water resources as applied to India.

3. Analyse the components of air as resource and its pollution.

4. Discuss biodiversity & its role in ecosystem functioning.

5. Critically appreciate the environmental concerns of today.

Question paper pattern:

1. The question paper will have ten questions, carrying equal marks.

2. There will be two full questions with a maximum four sub questions from each module.

Students shall answer five full questions selecting one full question from each module.

Text Books:

1. Modi, P.N., "Irrigation Water Resources and Water Power Engineering". Standard Book House, New Delhi. 10th Edition, 2019.

Raghunath, H.M., "Groundwater", 3rd Edition, New Age International Publishers, New Delhi,
 2007.

3. Krishnan, M.S., "Geology of India & Burma". CBS publishers, New Delhi, 2017.

4. P.Jaya Rami Reddy, "A Textbook of Hydrology", University Science Press, New Delhi, 2011.

5. M N Rao and H V N Rao, "Air pollution", McGraw Hill Publications, 2017.

6. Krishnamurthy K.V., "An advanced textbook of Biodiversity- Principle & Practices." Oxford and IBH publications, New Delhi. 2004.

Reference Books :



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

1. Odum, E.P., "Fundamentals of Ecology", W.B sounders, Philadelphia, USA, 1971

2. Singh J.S, Singh S.P & Gupta, S.R., "Ecology, environment and resource

conservation", Anamayapublications, 2006.

3. Edmond A. Mathez& Jason E. Smerdon, "Climate Change: The science of Global warming and

our energy feature", Columbia University Press, 2009.

4. National Council of Applied Economic Research, "Economic Impact of Interlinking of Rivers

Program", Revised Final Report, April 2008.

5. http://nwda.gov.in/content.

6. Madhav Gadagil, "Biodiversity and India's degraded lands", Indian Academy of Sciences,

Volume 22- No 2/3, http://www.jstor.org/pss/4314063

| 4th | year/1st | Civil | Environmental | Project | and | Management |
|----------|----------|-------------|---------------|---------|-----|------------|
| semester | | Engineering | (18CV753) | | | |

B. E. CIVIL ENGINEERING

Choice Based Credit System (CBCS) and Outcome Based Education (OBE) SEMESTER - VII

ENVIRONMENTAL PROTECTION AND MANAGEMENT

Course Code 18CV753 CIE Marks 40

Teaching Hours/Week(L:T:P) (3:0:0) SEE Marks 60

Credits 03 Exam Hours 03

Course Learning Objectives: This course will enable students to gain knowledge in Environmental protection

and Management systems

Module -1

Environmental Management Standards: Unique Characteristics of Environmental Problems – Systems approach to Corporate environmental management - Classification of Environmental Impact Reduction Efforts - Business Charter for Sustainable Production and Consumption – Tools, Business strategy drivers and Barriers - Evolution of Environmental Stewardship. Environmental Management Principles - National policies on environment, abatement of pollution and conservation of resources - Charter on Corporate responsibility for Environmental protection.

Module -2

Environmental Management Objectives: Environmental quality objectives – Rationale of Environmental standards: Concentration and Mass standards, Effluent and stream standards, Emission and ambient standards, Minimum national standards, environmental performance evaluation: Indicators, benchmarking. Pollution control

Vs Pollution Prevention - Opportunities and Barriers – Cleaner production and Clean technology, closing the loops, zero discharge technologies.

Module -3

Environmental Management System: EMAS, ISO 14000 - EMS as per ISO 14001– benefits and barriers of EMS – Concept of continual improvement and pollution prevention - environmental policy – initial



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

environmental review – environmental aspect and impact analysis – legal and other requirements- objectives and targets – environmental management programs – structure and responsibility – training awareness and competence- communication – documentation and document control – operational control – monitoring and measurement – management review. Module -4

Environmental Audit: Environmental management system audits as per ISO 19011- – Roles and qualifications of auditors - Environmental performance indicators and their evaluation – Non conformance – Corrective and preventive actions -compliance audits – waste audits and waste minimization planning – Environmental statement (form V) - Due diligence audit. Module -5

Applications: Applications of EMS, Waste Audits and Pollution Prevention Control: Textile, Sugar, Pulp & Paper, Electroplating, , Tanning industry. Hazardous Wastes - Classification, characteristics Treatment and Disposal Methods, Transboundary movement, disposal.

Course outcomes: After studying this course, students will be able to:

1. Appreciate the elements of Corporate Environmental Management systems complying to international

environmental management system standards.

2. Lead pollution prevention assessment team and implement waste minimization options.

3. Develop, Implement, maintain and Audit Environmental Management systems for Organizations.

Question paper pattern:

 \Box The question paper will have ten full questions carrying equal marks.

 \Box Each full question will be for 20 marks.

 \Box There will be two full questions (with a maximum of four sub- questions) from each module.

 \Box Each full question will have sub- question covering all the topics under a module.

□ The students will have to answer five full questions, selecting one full question from each module.

Reference Books:

1. Christopher Sheldon and Mark Yoxon, "Installing Environmental management Systems – a step by step guide" Earthscan Publications Ltd, London, 1999.

2. ISO 14001/14004: Environmental management systems – Requirements and Guidelines – International Organisation for Standardisation, 2004

3. ISO 19011: 2002, "Guidelines for quality and/or Environmental Management System auditing, Bureau of Indian Standards, New Delhi, 2002

4. Paul L Bishop "Pollution Prevention: Fundamentals and Practice, McGraw-Hill International, Boston, 2000.

5. Environmental Management Systems: An Implementation Guide for Small and Medium-Sized Organizations, Second Edition, NSF International, Ann Arbor, Michigan, January 2001.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Automobile Engineering

| | | | VISVESVARAYA TECHNOL Scheme of Teaching | | | | | GAVI | | | | |
|----------|-------|---------------------------|--|------------------------|-----------------|----------------|-----------------------|----------------------|-----------------|---------------|-------------|---------|
| | | 0 | utcome Based Education(OBE) (Effective from th | and Choice B | ased C | redit S | System | (CBC | CS) | | | |
| III S | SEMES | TER | | | | | | | | | | |
| | | | | | Teachi /Week | ing Hour | 8 | | Exami | ination | | |
| SL No | | Course and Course Code | Course Title | Teaching Department | Theory | T worial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Fotal Marks | Credits |
| | | | | | L | т | Р | - | - | | - | |
| 1 | BSC | 18MAT31 | Transform calculus, fourier series and Numerical techniques | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18AU32 | Engineering Thermodynamics | Automobile Engg. | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18AU33 | Material Science and Metallurgy | Automobile Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18AU34 | Mechanics of Materials | Automobile Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18AU35 | Mechanical Measurement and Metrology | Automobile Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18AU36 | Manufacturing Process - I | Automobile Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18AUL37 | Metallography and Material Testing Laboratory | Automobile Engg. | 1 | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18AUL38 | Foundry and Forging Laboratory | Automobile Engg. | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18KVK39/49 | Vyavaharika Kannada (Kannada for communication)/ | | | 2 | | | 100 | | | |
| 9 | | 18KAK39/49 | Aadalitha Kannada (Kannada for Administration) | HSMC | | 2 | | | 100 | ** | 100 | 1 |
| | NC N | | OR | 1 | | | | | | | | |
| | HSMC | 18CPC39/49 | Constitution of India, Professional | | 1 | | | 02 | 40 | 60 | | |
| | - | | Ethics and Cyber Law | | Exan 17 | nination 08 | is by ob | jective t 24 | ype que: 420 | stions 480 | | |
| | | | | TOTAL | OR | OR | 04 | OR | 420 OR | 480 OR | 900 | 24 |
| | | | | | 18 | 10 | 1 | 26 | 360 | 540 | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | | VISVESVARAYA TECHNOL | OGICAL UN | IVERSI | TY, B | ELAG | AVI | | | | |
|----------|-------|---------------------------|--|------------------------|-------------------|----------|-----------------------|----------------------|-----------------|-------------|-------------|----------|
| | | | Scheme of Teaching | g and Examina | tion 201 | 18 - 19 | | | | | | |
| | | 0 | utcome Based Education(OBE) | and Choice B | ased Cr | edit Sy | stem (| CBCS | 9 | | | |
| | | | (Effective from th | e academic yea | ar 2018 - | - 19) | | | | | | |
| IVS | EMEST | TER | 1 | | | | | | | | | |
| | | | | | Teachin | g Hours | Week | | Exami | nation | | 4 |
| SL No | | Course and Course code | Course Title | Teaching Department | Theory Lecture | Tutorial | Practical/ Drawing | Duration in hours | CIE Marks | SEE Marks | Fotal Marks | Crodits |
| | | | | | L | т | Р | - | | | - | |
| 1 | BSC | 18MAT41 | Complex analysis, probability and statistical methods | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18AU42 | Fluid Mechanics | Automobile Engg. | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18AU43 | Kinematics of Machines | Automobile Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18AU44 | Automotive Engines | Automobile Engg. | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18AU45 | Manufacturing Process -II | Automobile Engg. | 3 | 0 | 0 | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18AU46 | Computer Aided Machine Drawing | Automobile Engg. | 1 | 0 | 4 | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18AUL47 | Mechanical Measurement and Metrology Lab | Automobile Engg. | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18AUL48 | Machine Shop | Automobile Engg. | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18KVK39/49 | Vyavaharika Kannada (Kannada for communication)/ | | | | | | 100 | | | |
| 9 | HSMC | 18KAK39/49 | Aadalitha Kannada (Kannada for Administration) | HSMC | | 2 | | | 100 | | 100 | 1 |
| | H | | OR | | | | | | | | | |
| | | 18CPC39/49 | Constitution of India, Professional | | 1 | | | 02 | 40 | 60 | | |
| | | | Ethics and Cyber Law | TOTAL | Exam 14 | 10 | s by obj | ective ty 24 | pe quest 420 | 1005 480 | | <u> </u> |
| | | | | TOTAL | OR | OR | 08 | OR | 420 OR | 480 OR | 900 | 24 |
| | | | | | 15 | 12 | | 26 | 360 | 540 | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| V SE | MESTER | | | | | hing H /Week | | | Exami | nation | | |
|----------|--------|---------------------|--|---|---------------------|-----------------|-----------|----------------------|----------|-----------|-------------|---------|
| SL No | | rse and rse code | Course Title | Te aching Department | r Theory Lecture | H Tutorial | Tractical | Duration in hours | CIEMarks | SEE Marks | Total Marks | Credits |
| 1 | PCC | 18AU51 | Management and Entrepreneurship | Automobile Engg. | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18AU52 | Dynamics of Machines | Automobile Engg. | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18AU53 | Design of Machine Elements - I | Automobile Engg. | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 4 | PCC | 18AU54 | Automotive Fuels and Combustion | Automobile Engg. | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18AU55 | Automotive Transmission | Automobile Engg. | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18AU56 | Hydraulics and Pneumatics | Automobile Engg. | 3 | | | 03 | 40 | 60 | 100 | - 3 |
| 7 | PCC | 18AUL57 | Automotive Engine Components Lab | Automobile Engg. | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18AUL58 | Fluid Mechanics and Fuel Testing Lab. | Automobile Engg. | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 9 | HSMC | 18CIV59 | Environmental Studies | Civil/ Environmental [Paper setting: Civil Engineering Board] | 1 | | - | 02 | 40 | 60 | 100 | 1 |
| | | | • | TOTAL | 18 | 10 | 04 | 26 | 360 | 540 | 900 | 25 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi.

Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| B. E. COMMON TO ALL PROGRAMMES | | | | | | | |
|---|---|--------------------------|---------------------|--|--|--|--|
| Outcome Based Education (OBE) and Choice Based Credit System (CBCS) | | | | | | | |
| SEMESTER - III | | | | | | | |
| | IA, PROFESSIONAL ETHICS A? | | | | | | |
| Course Code | 18CPC39/49 | CIE Marks | 40 | | | | |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | | |
| Credits | 01 | Exam Hours | 02 | | | | |
| Course Learning Objectives: To | | | | | | | |
| | l codes, structure, procedures, powe | | Indian government | | | | |
| | s, directive principles, and the duties | | | | | | |
| Understand engineering ethic | s and their responsibilities; identify | their individual | roles and ethical | | | | |
| responsibilities towards society | | | | | | | |
| | ind cyber laws for cyber safety meas | ures. | | | | | |
| Module-1 | | | | | | | |
| Introduction to Indian Constitution: | The Necessity of the Constitution, T | he Societies befo | re and after the | | | | |
| Constitution adoption. Introduction to | the Indian constitution, The Making | of the Constitution | n, The Role of the | | | | |
| Constituent Assembly - Preamble and | | | | | | | |
| Restriction and limitations in different | | | | | | | |
| and its present relevance in our soci | ety with examples. Fundamental D | aties and its Scope | e and significance | | | | |
| in Nation building. | | | | | | | |
| Module-2 | | | | | | | |
| Union Executive and State Executive | :: Parliamentary System, Federal Sys | tem, Centre-State | Relations, Union | | | | |
| Executive - President, Prime Minister, | Union Cabinet, Parliament - LS and | RS , Parliamentar | y Committees, | | | | |
| Important Parliamentary Terminologie | s. Supreme Court of India, Judicial B | leviews and Judic | ial Activism. | | | | |
| State Executives - Governor, Chief M | | | | | | | |
| Courts, Special Provisions (Articles 37 | 0.371.371J) for some States. | | | | | | |
| Module-3 | | | | | | | |
| Elections, Amendments and Emerge | new Provisioner Classicae Electoral | Process and Else | tion Commission | | | | |
| of India, Election Laws, Amendments | Mathods in Constitutional Arma | chooses, and fact | ad Why) and | | | | |
| Important Constitutional Amendments | | | | | | | |
| 91.94.95.100.101.118 and some imp | | | | | | | |
| its consequences. | stant case succes. Entergency Pro | ovisions, types or | entergencies and | | | | |
| Constitutional special provisions: Sc | acial Provisions for SC and ST_OB | C Women Child | on and Backward | | | | |
| Constitutional special provisions: Sp | cent provisions for ac and a r, on | c, wonen, cana | PCII HIKI DAKKWAISI | | | | |
| Module-4 | | | | | | | |
| Professional / Engineering Ethics: S | icone & Aims of Engineering & Pro | dessional Ethics | - Rusiness Ethics | | | | |
| Corporate Ethics, Personal Ethics, | | | | | | | |
| Engineering Ethics, Code of Ethics a | | | | | | | |
| Professionalism, and ProfessionalRes | | | | | | | |
| Engineering Responsibilities in Engin | | | | | | | |
| Trust and Reliability in Engineering | | | | | | | |
| Engineering | p in the (internet time i respectly reign | rely, managed, stands | y and canonity in | | | | |
| Module-5 | | | | | | | |
| Internet Laws, Cyber Crimes and C | char Laurer Internet and Naud for Co | der Lene Mede | e of Regulation of | | | | |
| Internet. Types of cyber terror capabil | | | | | | | |
| Crimes and the information Technolog | | | | | | | |
| agencies. | , | | | | | | |
| Course Outcomes: On completion of | this course, students will be able to | | | | | | |
| COI: Have constitutional know | | | | | | | |
| | and Professional ethics and responsi | bilition of Docine | | | | | |
| | and Professional ethics and response terimes and cyber laws for cyber safe | | CE N. | | | | |
| CO3: Understand the the cyber | terimes and cyber laws for cyber safe | ty measures. | | | | | |

| B. E. COMMON | TO ALL PROGRAMMES | 5 | | | | |
|---|-------------------|----------------|----|--|--|--|
| Choice Based Credit System (CBCS) and Outcome Based | | | | | | |
| | Education (OBE |) SEMESTER – V | | | | |
| | ENVIRONMENTAL | | | | | |
| | STUDIES | | | | | |
| Course Code | 18CIV59 | CIE Marks | 40 | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Teaching Hours / Week (L:T:P) (1:0:0)SEE Marks 60 Credits 01 **Exam Hours** 02 Module - 1 Ecosystems (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake. Biodiversity: Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation. Module - 2 Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind. Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud Seeding, and Carbon Trading. Module - 3 Environmental Pollution (Sources, Impacts, Corrective and Preventive measures, Relevant Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil Pollution and AirPollution. Waste Management & Public Health Aspects: Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes; Industrial and Municipal Sludge. Module - 4

Global Environmental Concerns (Concept, policies and case-studies):Ground water depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.

Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship- NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

| Course | (Recognised by the Go | OXFORD COLL ovt. of Karnataka, Affiliate Approved by Recognised by Bommanahalli, Hosu Ph: 080-61754601 : engprincipal@theoxfo | ATION SOCIETY (Regd EGE OF ENGINEER ed to Visvesvaraya Technologica A.I.C.T.E. New Delhi. UGC Under Section 2(f) r Road, Bangalore - 560 068 /602, Fax: 080 - 25730551 rd.edu Web: www.theoxforder II be able to: | ING al University, Belagavi. |
|---------|-------------------------------|---|---|---------------------------------|
| course | CO1: Understand the princip | | | annly to air |
| | land, and water issues on a | | | |
| | CO2: Develop critical thinkin | | n skills, and apply themto | the |
| | analysis of a problem or que | | | lite |
| | CO3: Demonstrate ecology | | | biotic and |
| • | abioticcomponents. | chowledge of a comp | | |
| | • | | | |
| • | CO4: Apply their ecological l | - | | nd describe |
| | the realities that managers f | face when dealing w | ith complexissues. | |
| Questic | on paper pattern: | | | |
| • | The Question paper will hav | e 100 objectiveques | tions. | |
| • | Each question will be for 01 | marks | | |
| • | Student will have to answer | all the questions in a | an OMRSheet. | |
| • | The Duration of Exam will be | e 2hours. | | |
| SI.No. | Title of the Book | Name of | Name of the | Edition |
| 51.190. | | the | | and Year |
| | | Author/s | Publisher | |

Textbook/s



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

B.E Mechatronics

| | | | VISVESVARAYA TECHNO | LOGICAL UN | | TY, BE | LAGAV | I | | | | |
|-----------|----------------|--------------|---|---------------------|---------|-----------|-----------------------|----------------------|-----------|----------|-------------|---------|
| | | | Scheme of Teachir | | | 2 10 | | | | | | |
| | | Outcome Bas | ed Education(OBE) and Choice Based Cr | | | | om the a | cademic | vear 20 | 18 - 19) | | |
| | | Outcome Das | | SEMESTER | bes)(Ei | lective n | om tre a | cadenne | year 20 | 10 - 17) | | |
| | | | | 10 | Teac | hing Ho | ure | Evami | ination | | | |
| | | | | l a | /Wee | | urs | Lam | mation | | | |
| SI. No | Course Code | e and Course | Course Title | Feaching Department | Theory | _ | Practical/ Drawing | Duration in hours | Marks | Marks | Fotal Marks | |
| | | | | Teach | | E T | 2 <u>2</u> P | Durati bours | CIEN | SEE | Total | Credits |
| | | | Transform calculus, Fourier series and | | | | | | | | | - |
| 1 | BSC | 18MAT31 | Numerical techniques | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18MT 32 | Material science and Technology | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 3 | PCC | 18 MT 33 | Mechanics of materials | | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 4 | PCC | 18 MT 34 | Control Systems | | 3 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18 MT 35 | Analog and Digital Electronics | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18 MT 36 | Computer Organization | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18 MT L37 | Machine shop and material Testing lab | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18 MT L38 | Analog and digital electronics lab | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| - | | 18KVK39/49 | Vyavaharika Kannada (Kannada for communication)/ | | | 2 | | | 100 | | | |
| 9 | HSMC | 18KAK39/49 | Aadalitha Kannada (Kannada for Administration) | HSMC | | | | | | | 100 | 1 |
| | H H | OR | · · · |] | | | | | | |] | |
| | | 18CPC39/49 | Constitution of India, Professional | 1 | 1 | | | 02 | 40 | 60 |] | |
| | | | Ethics and Cyber Law | | Exan | ination i | s by obje | ctive typ | pe questi | ons | 1 | |
| | | | | | 17 | 10 | | 24 | 420 | 480 | | |
| | | | | тот | ALOR | OR | 04 | OR | OR | OR | 900 | 24 |
| | | | | | 18 | 12 | | 26 | 360 | 540 | 1 | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | | Scheme of Teaching Outcome Based Education(OBE) | IECHATRONICS g and Examination and Choice Ba | 8 2018 – 19 sed Cred |) lit Syst | | BCS) | | | | |
|-----------|------|-------------------------------|--|--|----------------------------|---------------|------------------|-------------------------|-----------|-----------|-------------|---------|
| | | | Effective from the | | 2018 - 1 | 19) | | | | | | |
| | | | IV | SEMESTER | Teachin /Week | ng Hou | rs | | Exan | ination | | |
| SI. No | 8 | Course nd Course ode | Course Title | Teaching Department | r Theory Lecture | H Tutorial | d / Dractical | Duration in hours | CIE Marks | SEE Marks | Total Marks | Credits |
| 1 | BSC | 18MAT41 | Complex analysis, probability and statistical methods | Mathematics | 2 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18MT42 | Fluid mechanics and machines | Maulematics | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18 MT 43 | Microcontroller | | 3 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 4 | PCC | 18 MT 44 | Manufacturing technology | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18 MT 45 | Theory of Machines | | 3 | 2 | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18 MT 46 | Instrumentation and measurements | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18 MT L47 | FM and pneumatic - Laboratory | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18 MT L48 | Microcontroller - Laboratory(BV) | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | 18KVK39/49 | Vyavaharika Kannada (Kannada for communication) | | | 2 | | | 100 | | | |
| 9 | HSMC | 18KAK39/49 | Aadalitha Kannada (Kannada for Administration) | HSMC | | | | | | | 100 | 1 |
| | HSI | | OR | - | | | | | | | { | |
| | | 18CPC39/49 | Constitution of India, Professional | 1 | 1 | | | 02 | 40 | 60 | | |
| | | | Ethics and Cyber Law | | Exam | ination i | s by obj | | | | | |
| | | | | TOTAL | 17 | 12 | | 24 | 420 | 480 | | |
| | | | | | OR | OR | 04 | OR | OR | OR | 900 | 24 |
| | | | | | 18 | 14 | | 26 | 360 | 540 | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | | | VISVESVARAYA TECHN | | | BEL | AGAVI | | | | | |
|--------------|---------------------------|----------|--|--|----------------------|---------------|-------------------------|-------------------------|-----------|------------|-------------|---------|
| | | | | MECHATRONICS ing and Examination | | 9 | | | | | | |
| | | 0 | utcome Based Education(OBI | E) and Choice Bas | ed Cree | lit Sy | vstem (| CBCS) | | | | |
| | | | | ne academic year | 2018 - | 19) | | | | | | |
| | | | | V SEMESTER | Т | achin | <i>a</i> | | Fyon | ination | | |
| | | | | u E | 1 | Iours Week | 0 | Examination | | | | |
| SL N o | Cou and Cou code | rse | Course Title | Teaching Department | Theor y Loctur | Tutorial | Practica V Drawin | Duration in hours | CIE Marks | SEE Marks | Fotal Marks | Credits |
| | | | | | L | Т | Р | - | Ľ | <i>S</i> 2 | F | |
| 1 | HSMC | 18MT51 | Technological Innovation Management And Entrepreneurship | | 3 | 0 | | 03 | 40 | 60 | 100 | 3 |
| 2 | PCC | 18 MT52 | Design and analysis of Machine Elements | | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 3 | PCC | 18 MT53 | Virtual Instrumentation | | 3 | 2 | | 03 | 40 | 60 | 100 | 4 |
| 4 | PCC | 18 MT54 | Hydraulics and Pneumatics | | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 5 | PCC | 18 MT55 | Micro and Smart Systems Technology | | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 6 | PCC | 18 MT56 | Wireless Networks & Communication | | 3 | | | 03 | 40 | 60 | 100 | 3 |
| 7 | PCC | 18 MTL57 | Virtual Instrumentation- Laboratory | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| 8 | PCC | 18 MTL58 | MSST -Laboratory | | | 2 | 2 | 03 | 40 | 60 | 100 | 2 |
| | | | | Civil/ Environmental | | | | | | | | |
| 9 | HSMC | 18CIV59 | Environmental Studies | [Paper setting: Civil Engineering Board] | 1 | | | 02 | 40 | 60 | 100 | 1 |
| | 1 | | | TOTAL | 19 | 08 | 04 | 26 | 360 | 540 | 900 | 25 |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.

Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f)

Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

| | COMMON TO ALL PROGRAMM | | | | | | | | |
|--|---|--|---|--|--|--|--|--|--|
| Outcome Based Education (OBE) and Choice Based Credit System (CBCS) | | | | | | | | | |
| SEMESTER - III | | | | | | | | | |
| CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND CYBER LAW (CPC) | | | | | | | | | |
| Course Code | 18CPC39/49 | CIE Marks | 40 | | | | | | |
| Teaching Hours/Week (L:T:P) | (1:0:0) | SEE Marks | 60 | | | | | | |
| Credits | -01 | Exam Hours | 02 | | | | | | |
| Course Learning Objectives: To | | | | | | | | | |
| | il codes, structure, procedures, power | | ndian government | | | | | | |
| institutions, fundamental right | s, directive principles, and the duties (| of citizens | | | | | | | |
| Understand engineering ethic | s and their responsibilities; identify | their individual | roles and ethical | | | | | | |
| responsibilities towards societ | у. | | | | | | | | |
| Know about the cybercrimes | and cyber laws for cyber safety measu | ires. | | | | | | | |
| Module-1 | | | | | | | | | |
| Introduction to Indian Constitution: | The Necessity of the Constitution, T | he Societies befor | re and after the | | | | | | |
| Constitution adoption. Introduction to | | | | | | | | | |
| Constituent Assembly - Preamble and | | | | | | | | | |
| Restriction and limitations in different | | | | | | | | | |
| and its present relevance in our soc | iety with examples. Fundamental Du | ties and its Scope | e and significance | | | | | | |
| in Nation building. | | | | | | | | | |
| Module-2 | | | | | | | | | |
| Union Executive and State Executiv | e: Parliamentary System, Federal Syst | tem, Centre-State | Relations. Union | | | | | | |
| Executive - President, Prime Minister, | | | | | | | | | |
| Important Parliamentary Terminologie | | | | | | | | | |
| State Executives - Governor, Chief M | inister, State Cabinet, State Legislatur | e, High Court a | nd Subordinate | | | | | | |
| Courts, Special Provisions (Articles 37 | | | | | | | | | |
| Module-3 | | | | | | | | | |
| Elections, Amendments and Emerge | new Provisions: Elections, Electoral | Process and Fler | tion Commission | | | | | | |
| of India, Election Laws, Amendments | | | | | | | | | |
| Important Constitutional Amendment | | | | | | | | | |
| 91,94,95,100,101,118 and some imp | | | | | | | | | |
| its consequences. | | | | | | | | | |
| Constitutional special provisions: St | oecial Provisions for SC and ST, OBC | . Women, Child | ren and Backward | | | | | | |
| Classes. | | | | | | | | | |
| Module-4 | | | | | | | | | |
| | Constant Re. & Long and Development and the Deve | | | | | | | | |
| Professional / Engineering Ethics: 5 | scope as withis of engineering as rio | fessional Ethics | - Business Ethics, | | | | | | |
| Corporate Ethics, Personal Ethics. | Engineering and Professionalism, | Positive and N | egative Faces of | | | | | | |
| Corporate Ethics, Personal Ethics, Engineering Ethics, Code of Ethics a | Engineering and Professionalism, s defined in the website of Institution | Positive and N mof Engineers (I | egative Faces of India): Profession, | | | | | | |
| Corporate Ethics, Personal Ethics. | Engineering and Professionalism, s defined in the website of Institution | Positive and N mof Engineers (I | egative Faces of India): Profession, | | | | | | |
| Corporate Ethics, Personal Ethics, Engineering Ethics, Code of Ethics a | Engineering and Professionalism, s defined in the website of Institutio ponsibility. Clash of Ethics, Confli | Positive and N onof Engineers (I cts of Interest. B | egative Faces of India): Profession, Responsibilities in | | | | | | |
| Corporate Ethics, Personal Ethics, Engineering Ethics, Code of Ethics a Professionalism, and ProfessionalRes | Engineering and Professionalism, s defined in the website of Institutio ponsibility. Clash of Ethics, Confli- teering and Engineering Standards, 1 | Positive and N mof Engineers (I cts of Interest. I the impediments | egative Faces of India): Profession, Responsibilities in to Responsibility. | | | | | | |
| Corporate Ethics, Personal Ethics, Engineering Ethics, Code of Ethics a Professionalism, and ProfessionalRes Engineering Responsibilities in Engin | Engineering and Professionalism, s defined in the website of Institutio ponsibility. Clash of Ethics, Confli- teering and Engineering Standards, 1 | Positive and N mof Engineers (I cts of Interest. I the impediments | egative Faces of India): Profession, Responsibilities in to Responsibility. | | | | | | |
| Corporate Ethics, Personal Ethics, Engineering Ethics, Code of Ethics a Professionalism, and ProfessionalRes Engineering Responsibilities in Engin Trust and Reliability in Engineering | Engineering and Professionalism, s defined in the website of Institutio ponsibility. Clash of Ethics, Confli- teering and Engineering Standards, 1 | Positive and N mof Engineers (I cts of Interest. I the impediments | egative Faces of India): Profession, Responsibilities in to Responsibility. | | | | | | |
| Corporate Ethics, Personal Ethics, Engineering Ethics, Code of Ethics a Professionalism, and ProfessionalRes Engineering Responsibilities in Engin Trust and Reliability in Engineering Engineering Module-5 Internet Laws, Cyber Crimes and C | Engineering and Professionalism, s defined in the website of Institutis ponsibility. Clash of Ethics, Confli- teering and Engineering Standards, t g, IPRs (Intellectual Property Right obser Laws: Internet and Need for Cy | Positive and N snof Engineers (1 ets of Interest. E the impediments (s), Risks, Safety ber Laws, Mode | egative Faces of India): Profession, Responsibilities in to Responsibility, y and liability in s of Regulation of | | | | | | |
| Corporate Ethics, Personal Ethics, Engineering Ethics, Code of Ethics a Professionalism, and ProfessionalRes Engineering Responsibilities in Engin Trust and Reliability in Engineering Engineering Module-5 Internet Laws, Cyber Crimes and C Internet, Types of cyber terror capabil | Engineering and Professionalism, s defined in the website of Institutis ponsibility. Clash of Ethics, Confli- teering and Engineering Standards, t g, IPRs (Intellectual Property Right yber Laws: Internet and Need for Cy lity, Net neutrality, Types of Cyber Cr | Positive and N snof Engineers (1 ets of Interest. I the impediments (s), Risks, Safety ber Laws, Mode times, India and c | egative Faces of India): Profession, Responsibilities in to Responsibility. y and liability in s of Regulation of yber law, Cyber | | | | | | |
| Corporate Ethics, Personal Ethics, Engineering Ethics, Code of Ethics a Professionalism, and ProfessionalRes Engineering Responsibilities in Engin Trust and Reliability in Engineering Engineering Module-5 Internet Laws, Cyber Crimes and C Internet, Types of cyber terror capabil Crimes and the information Technolog | Engineering and Professionalism, s defined in the website of Institutis ponsibility. Clash of Ethics, Confli- teering and Engineering Standards, t g, IPRs (Intellectual Property Right yber Laws: Internet and Need for Cy lity, Net neutrality, Types of Cyber Cr | Positive and N snof Engineers (1 ets of Interest. I the impediments (s), Risks, Safety ber Laws, Mode times, India and c | egative Faces of India): Profession, Responsibilities in to Responsibility. y and liability in s of Regulation of yber law, Cyber | | | | | | |
| Corporate Ethics, Personal Ethics, Engineering Ethics, Code of Ethics a Professionalism, and ProfessionalRes Engineering Responsibilities in Engin Trust and Reliability in Engineering Engineering Module-5 Internet Laws, Cyber Crimes and C Internet, Types of cyber terror capabil Crimes and the information Technolog agencies. | Engineering and Professionalism, s defined in the website of Institutis ponsibility. Clash of Ethics, Confli- teering and Engineering Standards, 1 g, IPRs (Intellectual Property Right yber Laws: Internet and Need for Cy- lity, Net neutrality, Types of Cyber Ci ty Act 2000, Internet Censorship. Cyb | Positive and N snof Engineers (1 ets of Interest. I the impediments (s), Risks, Safety ber Laws, Mode times, India and c | egative Faces of India): Profession, Responsibilities in to Responsibility. y and liability in s of Regulation of yber law, Cyber | | | | | | |
| Corporate Ethics, Personal Ethics, Engineering Ethics, Code of Ethics a Professionalism, and ProfessionalRes Engineering Responsibilities in Engin Trust and Reliability in Engineering Engineering Module-5 Internet Laws, Cyber Crimes and C Internet, Types of cyber terror capabil Crimes and the information Technolog | Engineering and Professionalism, s defined in the website of Institutis ponsibility. Clash of Ethics, Confli- teering and Engineering Standards, 1 g, IPRs (Intellectual Property Right yber Laws: Internet and Need for Cy- lity, Net neutrality, Types of Cyber Ci ty Act 2000, Internet Censorship. Cyb | Positive and N snof Engineers (1 ets of Interest. I the impediments (s), Risks, Safety ber Laws, Mode times, India and c | egative Faces of India): Profession, Responsibilities in to Responsibility. y and liability in s of Regulation of yber law, Cyber | | | | | | |
| Corporate Ethics, Personal Ethics, Engineering Ethics, Code of Ethics a Professionalism, and ProfessionalRes Engineering Responsibilities in Engin Trust and Reliability in Engineering Engineering Module-5 Internet Laws, Cyber Crimes and C Internet, Types of cyber terror capabil Crimes and the information Technolog agencies. | Engineering and Professionalism, s defined in the website of Institutis ponsibility. Clash of Ethics, Confli- teering and Engineering Standards, 1 g, IPRs (Intellectual Property Right yber Laws: Internet and Need for Cy- lity, Net neutrality, Types of Cyber Cr by Act 2000, Internet Censorship. Cyt this course, students will be able to, | Positive and N snof Engineers (1 ets of Interest. I the impediments (s), Risks, Safety ber Laws, Mode times, India and c | egative Faces of India): Profession, Responsibilities in to Responsibility. y and liability in s of Regulation of yber law, Cyber | | | | | | |
| Corporate Ethics, Personal Ethics, Engineering Ethics, Code of Ethics a Professionalism, and ProfessionalRes Engineering Responsibilities in Engin Trust and Reliability in Engineering Engineering Module-5 Internet Laws, Cyber Crimes and C Internet, Types of cyber terror capabil Crimes and the information Technolog agencies. Course Outcomes: On completion of CO1: Have constitutional kno | Engineering and Professionalism, s defined in the website of Institutis ponsibility. Clash of Ethics, Confli- teering and Engineering Standards, 1 g, IPRs (Intellectual Property Right yber Laws: Internet and Need for Cy- lity, Net neutrality, Types of Cyber Cr by Act 2000, Internet Censorship. Cyt this course, students will be able to, | Positive and N mof Engineers (1 ets of Interest, E the impediments (s), Risks, Safety ber Laws, Mode times, India and c sercrimes and enf | egative Faces of India): Profession, Responsibilities in to Responsibility, y and liability in s of Regulation of yber law, Cyber orcement | | | | | | |

| B. E. COMMON | TO ALL PROGRAMMES | 5 | | | | |
|---|-------------------|----------------|----|--|--|--|
| Choice Based Credit System (CBCS) and Outcome Based | | | | | | |
| | Education (OBE |) SEMESTER – V | | | | |
| | ENVIRONMENTAL | | | | | |
| | STUDIES | | | | | |
| Course Code | 18CIV59 | CIE Marks | 40 | | | |



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Teaching Hours / Week (L:T:P) (1:0:0)SEE Marks 60 Credits 01 **Exam Hours** 02 Module - 1 Ecosystems (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake. Biodiversity: Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation. Module - 2 Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind. Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud Seeding, and Carbon Trading. Module - 3 Environmental Pollution (Sources, Impacts, Corrective and Preventive measures, Relevant Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil Pollution and AirPollution. Waste Management & Public Health Aspects: Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes; Industrial and Municipal Sludge. Module - 4

Global Environmental Concerns (Concept, policies and case-studies):Ground water depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.

Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship- NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

| Course | CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bormanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org Course Outcomes: At the end of the course, students will be able to: | | | | | | | | | |
|---|---|-----------------------|----------------------------|-------------|--|--|--|--|--|--|
| • CO1: Understand the principles of ecology and environmental issues that apply to air, | | | | | | | | | | |
| | land, and water issues on a | U , | | | | | | | | |
| • | CO2: Develop critical thinkir | | n skills, and apply themto | the | | | | | | |
| | analysis of a problem or que | - | | | | | | | | |
| • | CO3: Demonstrate ecology | | | biotic and | | | | | | |
| | abioticcomponents. | 0 | · | | | | | | | |
| • | CO4: Apply their ecological I | knowledge to illustra | ite and graph a problem a | nd describe | | | | | | |
| | the realities that managers f | - | | | | | | | | |
| Questio | on paper pattern: | | | | | | | | | |
| • | The Question paper will hav | e 100 objectiveques | tions. | | | | | | | |
| • | Each question will be for 01 | marks | | | | | | | | |
| • | Student will have to answer | | an OMRSheet. | | | | | | | |
| • | The Duration of Exam will be 2hours. | | | | | | | | | |
| | | Name of | | Edition | | | | | | |
| SI.No. | Title of the Book | the | Name of the | and Year | | | | | | |
| | | Author/s | Publisher | | | | | | | |

Textbook/s



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Curriculum Highlighting Cross Cutting Issues - PG



SCHEME OF TEACHING AND EXAMINATION

| | | 1 | ISVESVARAYA TECHNOLOGIC. | AL UNIVI | ERSITY, BI | ELAGA | VI | | | | |
|--|-----|--------------|---|--------------------------|----------------------|-----------|-----------|-----------------|---------|----|--|
| | | | Scheme of Teaching and Ex | amination | s – 2020 - 21 | L | | | | | |
| MASTER OF BUSINESS ADMINISTRATION | | | | | | | | | | | |
| Choice Based Credit System (CBCS) and Outcome Based Education(OBE) | | | | | | | | | | | |
| | | | I SEMES | TER | | | | | | | |
| Teaching Hours /Week Examination | | | | | | | | | | | |
| Sl. No Course Code Course Title | | Course Title | Theory | Practical com po nent | Duration in hours | CIE Marks | SEE Marks | T otal Marks | Credits | | |
| 1 | PCC | 20MBA11 | Management & Organizational Behavior | 03 | 02 | 03 | 40 | 60 | 100 | 4 | |
| 2 | PCC | 20MBA12 | Managerial Economics | 03 | 02 | 03 | 40 | 60 | 100 | 4 | |
| 3 | PCC | 20MBA13 | Accounting for Managers | 03 | 02 | 03 | 40 | 60 | 100 | 4 | |
| 4 | PCC | 20MBA14 | Business Statistics | 03 | 02 | 03 | 40 | 60 | 100 | 4 | |
| 5 | PCC | 20MBA15 | Marketing Management | 03 | 02 | 03 | 40 | 60 | 100 | 4 | |
| 6 | PCC | 20MBA16 | Managerial Communication | 03 | 02 | 03 | 40 | 60 | 100 | 4 | |
| | | | TOTAL | 18 | 12 | 18 | 240 | 360 | 600 | 24 | |

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examinations – 2020 - 21 MASTER OF BUSINESS ADMINISTRATION Choice Based Credit System (CBCS) and Outcome Based Education(OBE)

| | III SEMESTER (Core Courses and Dual Specialisation) | | | | | | | | | | |
|-----------|---|------------------------|-------------------------------|-------------------------------|----------------------|------------------------|----------------------|-----------|-----------|-------------|---------|
| | | | Course Code | | Teaching Hours /Week | | Examination | | | | |
| SI. No | Course | Marketing & Finance | Finance& Human Resource | Human Resource & Marketing | Theory | Practical Component | Duration in hours | CIE Marks | SEE Marks | Total Marks | Credits |
| 1 | PCC | 20MBA301* | 20MBA301* | 20MBA301* | 03 | 02 | 03 | 40 | 60 | 100 | 4 |
| 2 | PCC | 20MBA302* | 20MBA302* | 20MBA302* | 03 | 02 | 03 | 40 | 60 | 100 | 4 |
| 3 | PEC | 20MBAMM303 | 20MBAFM303 | 20MBAHR303 | 03 | 02 | 03 | 40 | 60 | 100 | 4 |
| 4 | PEC | 20MBAMM304 | 20MBAFM304 | 20MBAHR304 | 03 | 02 | 03 | 40 | 60 | 100 | 4 |
| 5 | PEC | 20MBAFM303 | 20MBAHR303 | 20MBAMM303 | 03 | 02 | 03 | 40 | 60 | 100 | 4 |
| 6 | PEC | 20MBAFM304 | 20MBAHR304 | 20MBAMM304 | 03 | 02 | 03 | 40 | 60 | 100 | 4 |
| 7 | PCC | 20MBA IN 307 | 20MBA IN 307 | 20MBA IN 307 | | 08 | | 40 | 60 | 100 | 4 |
| | | TOTAL | | | 18 | 20 | 18 | 280 | 420 | 700 | 28 |

Notes



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

MANAGEMENT & ORGANIZATIONAL BEHAVIOUR

| Credits | 04 | Exam Hours | 03 |
|---------------------|---------|------------|----|
| (L:T:P) | | | |
| Teaching Hours/Week | 3:0:2 | SEE Marks | 60 |
| Course Code | 20MBA11 | CIE Marks | 40 |

Course Objectives

1. The student will be able to recite the theories and models of Management and Organisational Behavior.

- 2. The student will be able to apply and solve the workplace problems.
- 3. The student will be able to classify in differentiating between the best methods to solve the problem.
- 4. The student will be able to compare the appropriate framework for solving the problems at the workplace
- 5. The student will be able to design model in dealing with the problems in the organisation.

Module-1 Introduction to Management 9 hours

Management -Introduction, Meaning, Nature, Objectives, Importance, Difference between Administration and Management, Levels of Management, Types of Managers, Managerial Skills, Managerial Competencies, Scope of Management, Functions of Management, Evolution of Management Thought, Fayol's fourteen principles of Management, Recent Trends in Management.

Module -2 Functions of Management 10 hours

Planning- Definition, Features, Nature, Importance, Types, Steps in Planning, Planning Tools and Techniques, Essentials of a Good Plan. **Organisation**-Definitions, Importance, Principles, Types of Organisation Structures, Span of Control, Centralisation and Decentralisation of Authority. **Directing-**Definitions, Importance, Elements of Directing, Principles of Directing, Characteristics of Directing; **Controlling-**Definitions, Need of Controlling, Characteristics of Control, Steps in the Controlling Process, Resistance to Control, Design of Effective Control System, Types of Control, Control Techniques. **Decision-making-** Concepts, Types, Models, Difficulties in Decision-making, Decision-making for Organisational Effectiveness, Decision-making Styles.

Module -3 Organisational Behaviour 10 hours

Organisational Behaviour: Introduction, Definitions, Nature, Goals, Importance, Approaches to Organisational Behaviour, Models. **Attitude-** Meaning, Definition, Types, Components, Attitudes and Behaviour, Changing Attitudes in the Workplace; **Perception-**Perception, Perceptual Process, Factors Influencing Perception, Perception and Decision-making; **Personality-**Definitions, Factors Influencing Personality, Big Five Personality Traits, Myers–Briggs Type Indicator (MBTI), Personality Tools and Tests; **Motivation**-Definitions, Process of Motivation), Nature, Importance, Types, Theories.

Module -4 Managing Human at Work 7 hours

Group Dynamics- Meaning of Group, Group Characteristics, Classification of Groups, Models of Group Development, Meaning of Group Dynamics, Group Behaviour, Impact of Group on Individual's Behaviour,



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Impact of External Factors on Group Behaviour. **Teamwork-** Nature of Teams, Team Characteristics, Teams Versus Groups, Teamwork, Processes of Teamwork, Types of Teams, Reasons for Team Failure, Creating Effective Teams.

Module-5 Organizational Power, Politics and Culture 7 hours

Power and Politics- Nature of Power and Politics, Early Voices, Questioning Power and Authority, Sources of Power for Individuals, Managing Organisational Politics. **Culture**- Definitions of Organisational Culture, Strong Versus Weak Culture, Characteristics, Types, Levels, Dimensions, Creating Organisational Culture, Changing Organisational Culture, Changing

Module - 6 Change and Stress Management 7 hours

Change- Nature, Characteristics, Process, Forces Responsible for Change in Organizations, Resistance to Change, Managing Resistance to Change. **Stress Management-**Definitions, Understanding Stress, Relation between Stress and Performance, Level, Signs and Symptoms of Stress, Types of Stress, Causes of Stress, Managing Stress.

Course Outcomes:

- 1. Gain practical experience in the field of Management and Organization Behaviour
- 2. Acquire the conceptual knowledge of Management, various functions of Management and theories in

Organizational Behaviour.

- 3. Apply managerial and behaviour knowledge in real world situations.
- 4. Develop a greater understanding about Management and Behavioural aspects to analyse the concepts

related to individual behavior, attitude, perception and personality.

5. Understand and demonstrate their exposure on recent trends in management.

ORGANISATIONAL CHANGE AND DEVELOPMENT

| Course Code | 20MBAHR404 | CIE Marks | 40 |
|---------------------|------------|------------|----|
| Teaching Hours/Week | 3:0:0 | SEE Marks | 60 |
| (L:T:P) | | | |
| Credits | 03 | Exam Hours | 03 |

Course Objectives

1. The student will be able to describe and Identify the application of various OC/D framework

2. The student will be able to describe and explain in her/his own words, the relevance and importance of various OC/D intervention to be adopted in the Organisation



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

3. The student will be able to apply and improve the workplace effectiveness through various OC/D Intervention

4. The student will be able to classify and categorise different OC/D practices and intervention followed in the Organisation

5. The student will be able to create and reconstruct OC/D intervention and process required to manage the Organisation

6. The student will be able to appraise and judge the practical applicability of various OC/D intervention, process and practices to be followed in the Organisation

Module-1 Changing Organisations 5 hours

Nature of 21st Century Organisation, Defining Organisational Change, The Roots of Organisation Change, Environmental Forces, Driving Change Today, The Implications of Worldwide Trends for Change Management, Four Types of Organisational Change, Planned Changes and Intended Results, Organisation Change Roles, Change Initiators, Change Implementers, Change Facilitators, Change Recipients, The Requirements for Becoming a Successful Change Leader, Application of Lewin's Model of Change, OD Practitioners.

Module -2 Building and Energising the Need for Change 7 hours

Organisations as Systems, Levels and Characteristics of Organisational Change, Models of Organisational Change, Systems Theory and Social Construction Approaches, Developing a Knowledge for the Need for Change, Seek Out and Make Sense of Internal - External Data, The Organisations' Readiness for Change, Creating Awareness of the Need for Change, Factors That Block People From Recognising the Need for Change, Creating a Powerful Vision for Change, The Difference Between an Organisational Vision and a Change Vision.

Module -3 Measuring Change: Designing Effective Control Systems 7 hours

Using Control Processes to Facilitate Change, Selecting and Deploying Measures, Use Measures that Lead to Challenging but Achievable Goals, Use Measures and Controls that are Perceived as Fair and Appropriate, Ensure Accurate Data, Control Systems and Change Management, Controls During Design and Early Stages of the Change Project, Measurement Tools to use in Change Process, Strategy Maps, The Balanced Scorecard, Risk Exposure Calculator, Organisational Change Agent, Orienting Yourself to Organisation Change, Data Gathering, Diagnosis and Feedback.

Module -4 Models of Change 7 hours

Kurt Lewin's Three-step Model (1950–1952), Six-box Model of Marvin Weisbord, The McKinsey 7-S Model, Huse's Model of Planned Organizational Change, Action Research Model, David Nadler and Michael Tushman Model , Porras and Silvers Model (1991), The Burke–Litwin Causal Model, John Kotter's Eight-step Theory , Organizational Intelligence Model (2004), Managing Change with ADKAR Model, Integrated Model of Change , Comparison and Critical Analysis of Change Models Plan the Work, Selecting the Correct Path, Engage Others in Action Planning, Working the Plan Ethically and Adaptively, Developing a Communication Plan, Key Principles



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

in Communicating for Change, Transition Management. Ensure Alignment in Your Action Planning, Action Planning Tools: 1) To-Do Lists; 2) Responsibility Charting; 3) Contingency Planning; 4) Surveys and Survey Feedback; 5) Project Planning and Critical Path Methods;6) Force Field and Stakeholder Analysis; 7) Leverage Analysis and 8) Other Change-Management Tools.

Module -5 Organisation Development(OD) 7 hours

Concept of O D, History of O D, OD in India, OD Activities, Values, Beliefs and Assumptions of OD, Laboratory Training and T-Groups Action Research and Survey Feedback, Employee Involvement, Organisational Culture, Reengineering Organisational Learning, Organisational Effectiveness and Employee Engagement, Defining Values, Values Important to the OD Practitioner, Core Values of O D, Changes to OD

Consulting, Consulting Model, OD Practitioners, The Organisation Development Consulting Profession, The OD Consulting Process and Action Research, Data Gathering - Data Gathering Methods and Process, Ethical Issues With Data Gathering, Diagnosis and Feedback, assessment, Ethical Issues With Diagnosis and Giving Feedback, OD Intervention-Team Interventions, Quality, Performance Management, Communication in OD process, Coaching, Mentoring, 360 Feedback, Career Planning and Development. Merger and Acquisition, Organisational Health, OD Association in India.

Course Outcomes:

1. Gain conceptual insight of change management models, OD processes and interventions.

2. Develop the understanding of OD to apply OD aspects in private and public sectors in India.

3. Analyse the tools and techniques available to implement changes in the organization environment

4. Handle the OD interventions by analysing the role of OD consultant.

Practical Components:

2 A visit to Organisation and interact with OD and Change Manager and list out the roles played by OD/C manager.

2 Meet and Interact with OD and Change Manager and ask- 10 questions related to Change and Development issues

2 Meet OD and Change Manager and list out various OC/D Intervention practised and how they impact the Organisational Growth

2 Visit Organisation and Interact with Employees in the organisation and discuss Culture Impact on Change process and how it can be managed.

| SI NoTitle of the bookName of the Author/sPublisher NameEdition and year1ChangeRatan RainaSAGE Texts20181Organisational DevelopmentDevelopmentSAGE Publications, Inc20192Organisational Change- An Action- Oriented ToolkitGene Deszca, Tupper F. CawseySAGE Publications, Inc2019 | Textbooks | | | | |
|---|-----------|----------------------------------|-----------------|----------------|------------------|
| Management and Organisational Development 2 Organisational Gene Deszca, SAGE Publications, 2019 Change- An Action- Cynthia Ingols, Inc | SI No | Title of the book | | Publisher Name | Edition and year |
| Change- An Action- Cynthia Ingols, Inc | 1 | Management and Organisational | Ratan Raina | SAGE Texts | 2018 |
| | 2 | Change- An Action- | Cynthia Ingols, | , | 2019 |

Taythooka



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org



VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Under Outcome Based Education (OBE) AndChoice Based Credit System (CBCS) Scheme Scheme of Teaching and Examination – 2018-19 Master of Computer Applications

IV SEMESTER

| SI. | | | Teaching | Teac | hing Hours / | Week | | Examination | | | |
|-----|----------|--|---------------|-----------------|---|----------------------|--------------|--------------|----------------|---------|----|
| No | | Department | Theory (L) | Tutorial (T) | Practical (P) | Duration in hours | SEE Marks | CIE Marks | Total Marks | Credits | |
| 1 | 18MCA41 | Advanced Java Programming | MCA | 03 | - | - | 03 | 60 | 40 | 100 | 03 |
| 2 | 18MCA42 | Advanced Web Programming | MCA | 03 | - | - | 03 | 60 | 40 | 100 | 03 |
| 3 | 18MCA43 | Object Oriented Modeling and Design | MCA | 03 | - | - | 03 | 60 | 40 | 100 | 03 |
| 4 | 18MCA44X | Elective II | MCA | 03 | - | - | 03 | 60 | 40 | 100 | 03 |
| 5 | 18MCA45X | Elective III | MCA | 03 | - | - | 03 | 60 | 40 | 100 | 03 |
| 6 | 18MCA46 | Professional Communication & Report Writing | MCA | 02 | - | - | 03 | 60 | 40 | 100 | 02 |
| 7 | 18MCA47 | Advanced Java Programming Lab | MCA | - | 01 | 03 | 03 | 60 | 40 | 100 | 02 |
| 8 | 18MCA48 | Advanced Web Programming Lab | MCA | - | 01 | 03 | 03 | 60 | 40 | 100 | 02 |
| 9 | 18MCA49 | Object Oriented Modeling and Design Lab | MCA | - | 01 | 03 | 03 | 60 | 40 | 100 | 02 |
| | TOTAL | | | | Theory: 17hours Practical: 09 hours Tutorial/Instruction: 03hours | | | 540 | 360 | 900 | 23 |

Professional Communication & ReportWriting

[As per Choice Based Credit System (CBCS) scheme]

SEMESTER - IV

Subject Code: 18MCA46

CIE Marks: 40 SEE Marks: 60 SEE Hours: 03

Number of Lecture Hours/Week: 03 Hours Theory & 01 Hour Tutorial/ Instructions

Total Number of Lecture Hours: 45

Total Number of Teaching Hours/Module: 9

CREDITS – 02

Course learning objectives: This course (18MCA46) will enable student to

□ □ Learn the role of communication and standard for grammer, numbers and spellings

□ □ Realize the business Etiquites and oraganizing the Reports.

□ □ Understand the aspects of group communication.

□ □ Exposure to the various business and technological ethics.

Course Outcomes (CO): At the end of this course, the students will be able to

CO1: Understand the Professional communication at work place.

CO2: Acquire the knowledge technical Writing and business Reporting.

CO3: Develop the leadership qualities.

CO4: Understand and implement ethical behavior at work place.

Module 1:

Communication in the workplace- Role of communication in Business, Process of Human Communication. Informal Communication- Listening, Non verbalCommunication. Correctness Of



CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi, Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Communication- Nature of correctness, Standard for Punctuation, Standards for Grammar, Standards for the use of numbers, Spelling, Capitalization.

Module 2:

Writing for Effect- Business Etiquette, conversational style, view point, positive language, and courtesy. Basics ReportWriting- Determine the Factors, Gathering the Information, Organizing the Report, WritingTheReport. Physical Presentation Of Letters, Memos, And Reports- document preparation, Form of Business Letters. Strategies in the job search Process- Preparing application, Resume, Cover letter, Facing an Interview.

Module 3:

Group Communication- Introduction, Group discussion,Organizational group discussion, group discussion as part of selection process meetings. Effective Presentation strategies-Introduction,Defining purpose, Analyzing audience and place, organizing contents, preparing outline, Visual Aids, Understanding Nuances of delivery, Kinesics, Proxemics, Paralinguistics, Chronemics, Sample speech.

Module 4:

Motivation- Motivation and Motivators, Motivation: The Carrot and the stick, The Hierarchy of needs Theory, The Motivation – Hygiene Approach to Motivation. Leadership- Defining Leadership, Ingredients of Leadership, Trait Approaches to Leadership, Leadership behavior and styles, Situational or contingency, Approaches to Leadership.

Module 5:

Ethics: An overview of Ethics- What are Ethics? Ethics in the business World, Ethics in Information Technology (IT). Ethics for IT Professionals and IT users- IT Professionals, The Ethical behavior of IT Professionals, IT Users.

Question paper pattern:

The question paper will have ten questions.

BEach full question consists of 20 marks.

DThere will be 2 full questions from each module.

Each question will have questions covering all the topics under a module.

 If the students will have to answer 5 full questions, selecting one full question from each module Text Books

1. Meenakshi Raman and Sangeeta Sharma: Technical Communication-Principles and Practices, Oxford University Press, 2004.

2. George Reynolds: Ethics in Information Technology, 2nd Edition, Thomson Course Technology, 2007 Reference Books

1. Lesikar and Flatley: Communication-Basic Business Communication Skills for Empowering the Internet Generation 9th Edition, Tata McGraw-Hill Edition, 2002

2. Harold Koonlz and Heinz Weihrich: Management-Essentials of Management, 9th Edition, McGraw-

Hill International Edition, 2012



PRINCIPAL The Oxford College of Engineering Bommanahalli, Hosur Road Bengaluru-560 068