



CHILDREN'S EDUCATION SOCIETY (Regd.)

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THE OXFORD COLLEGE OF ENGINEERING

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

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

Accredited by NBA, New Delhi, NAAC 'A' Grade with score of 3.24 & Diamond Rating by QS I Guage)

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TO WHOMSOEVER IT MAY CONCERN

1.2.1 Number of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented for Academic Year 2023-24

| Programme Code | Programme name | Year of Introduction | Status of implementation of CBCS / elective course system (Yes/No) | Year of implementation of CBCS / elective course system |
|-----------------------|--|-----------------------------|---|--|
| BE-AIML | Artificial Intelligence and Machine Learning | 2021 | Yes | 2021 |
| BE-BT | Biotechnology | 2003 | Yes | 2015 |
| BE-CSE | Computer Science and Engineering | 2000 | Yes | 2015 |
| BE-CV | Civil Engineering | 2008 | Yes | 2015 |
| BE-ECE | Electronics and Communication Engineering | 2000 | Yes | 2015 |
| BE-EE | Electrical and Electronics Engineering | 2001 | Yes | 2015 |
| BE-ISE | Information Science and Engineering | 2000 | Yes | 2015 |
| BE-ME | Mechanical | 2002 | Yes | 2015 |



Visvesvaraya Technological University

"Jnana Sangama", Belagavi - 590 018

REGISTRAR

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Ref. No. VTU/Aca/A6/2014-15/1379

Date: 5 MAY 2015

CIRCULAR

This is to bring to the notice of the Principals of affiliated Engineering colleges that,

"As per the directions of University Grants Commission, New Delhi, the Choice Based Credit System (CBCS) will be introduced for B.E./B.Tech. Programs from the academic year 2015-16. In light of this it is decided to retain 2010 syllabus to the students admitted to B.E./B.Tech. during the academic year 2014-15".

Hence, the students who are admitted to:

- 1. FIRST Semester B.E./B.Tech. during the academic year 2014-15 will study the 2010 scheme and syllabus from III to VIII Semesters without any modification,**
- 2. THIRD Semester B.E./B.Tech. (Lateral Entry) during the academic year 2015-16 will study the 2010 scheme and syllabus from III to VIII Semesters without any modification, and**
- 3. The Question Paper Pattern (answering 5 out of 8 questions) will remain the same as that of the 2010 scheme.**


The Principals of affiliated Engineering Colleges are requested to bring the contents of this circular to the notice of all the concerned.

Sd/-
REGISTRAR
(Dr. K. E. Prakash)

To, The Principals of affiliated Engineering colleges.

Copy FWCs to:

1. The Registrar (Evaluation), VTU Belgaum, for information and needful.
2. The Special Officers of VTU Regional Offices, for information.
3. The Special Officer, Academic Section, VTU, for information.
4. The Secretary to VC, VTU Belgaum, for information.


REGISTRAR
(Dr. K. E. Prakash)

**CHOICE BASED CREDIT SYSTEM (CBCS)
REGULATIONS GOVERNING
THE DEGREE OF BACHELOR OF ENGINEERING / TECHNOLOGY
(B.E./B.Tech.)**

DEFINITIONS OF KEY WORDS:

1. **University:** Visvesvaraya Technological University, Belagavi.
2. **Academic Year:** Two consecutive (one odd + one even) semesters constitute one academic year.
3. **Semester:** Each semester will consist of 15-18 weeks of academic work equivalent to 90 actual teaching days. The odd semester may be scheduled from August to January and even semester from February to July.
4. **Choice Based Credit System (CBCS):** The CBCS provides choice for students to select from the prescribed courses (*core, elective and Foundation Courses*).
5. **Credit Based Semester System (CBSS):** Under the CBSS, the requirement for awarding a degree or certificate is prescribed in terms of number of credits to be earned by the students.
6. **Programme:** An educational programme leading to award of a Degree or certificate.
7. **Course:** Usually referred to, as 'papers' is a component of a programme. All courses need not carry the same weightage. The courses should define learning objectives and learning outcomes. A course may be designed to comprise lectures/ tutorials/laboratory work/ field work/ outreach activities/ project work/ vocational training/viva/ seminars/ term papers/assignments/ presentations/ self-study etc. or a combination of some of these.
8. **Branch:** Specialization or discipline of B.E./B.Tech. Degree Programme, like Civil Engineering, Textile Engineering, etc.
9. **Letter Grade:** It is an index of the performance of students in a said course. Grades are denoted by letters S, A, B, C, D, E and F.
10. **Grade Point:** It is a numerical weightage allotted to each letter grade on a 10-point scale.
11. **Credit:** A unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week.
12. **Credit Point:** It is the product of grade point and number of credits for a course.
13. **Semester Grade Point Average (SGPA):** It is a measure of academic performance of student/s in a semester. It is the ratio of total credit points secured by a student in various courses registered in a semester and the total course credits

taken during that semester. It shall be expressed up to two decimal places.

- 14. Cumulative Grade Point Average (CGPA):** It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points earned by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.
- 15. First Attempt:** If a student has completed all formalities and become eligible to attend the examinations and has attended at least one head of passing, such attempt (first sitting) shall be considered as first attempt.
- 16. Transcript or Grade Card or Certificate:** Based on the grades earned, a grade certificate shall be issued to all the registered students after every semester. The grade certificate will display the course details (code, title, number of credits, grade secured) along with SGPA of that semester and CGPA earned till that semester.

Choice Based Credit System (CBCS): The CBCS provides choice for students to select from the prescribed courses.

Sequencing Plan for the B.E. / B.Tech. Degree Curriculum

| Semesters | Course Coverage |
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| I -II | HSS, BS and ES; Common for all Branches; Mandatory Courses |
| III-IV | BS Common for all Branches and ES; PS - Core/Elective |
| V-VII | PS- Core & Electives; Other Electives; Branch-wise Orientation |
| VIII | PS-Electives/Elective ; Other Electives, Internship, Project work |

Abbreviations:

HSS - Humanities and Social Sciences

BS - Basic Sciences

ES - Engineering Sciences

PS - Professional Subjects

Credit Structure for Course Work

| Lectures (hrs/wk /Sem) | Tutorial (hrs/wk/ Sem) | Lab. Work (hrs/wk/Sem) | Credits (Lec:instruction:Lab) | Credits (Total) |
|------------------------|------------------------|------------------------|-------------------------------|-----------------|
| 4 | 0 | 0 | 4:0:0 | 4 |
| 3 | 0 | 0 | 3:0:0 | 3 |
| 0 | 1 | 2 | 0:1:2 | 2 |

**CHOICE BASED CREDIT SYSTEM (CBCS)
REGULATIONS GOVERNING
THE DEGREE OF BACHELOR OF ENGINEERING / TECHNOLOGY
(B.E./B.Tech.)**

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| 15OB 1 | TITLE AND DURATION OF THE PROGRAMME OF STUDY |
| 15OB 1.1 | The program of study shall be called the degree Program of study in Bachelor of Engineering / Technology, abbreviated as B.E. / B.Tech. |
| 15OB 1.2 | The program shall be of four academic years duration divided into eight semesters, each semester having duration of 16 weeks. For evening courses the contact hours are to be satisfied by working extra on afternoons of Saturdays and Sundays. |
| 15OB 1.3 | The calendar of events in respect of the program of study shall be fixed by the University from time to time. |
| 15OB 1.4 | The examination in all programs of study shall be conducted at the end of each semester for all eight semesters. |
| 15OB 2 | ELIGIBILITY FOR ADMISSION (The Government orders issued from time to time in this regard shall prevail). |
| 15OB 2.1 | Admission to I year / I semester Bachelor Degree in Engineering / Technology shall be open to the students who have passed the second year Pre-University or XII standard or equivalent examination recognized by the University. For the prerequisite qualification earned from foreign countries, Equivalence certificate from the Association of Indian Universities is Mandatory. The decision of the Equivalence committee shall be final in establishing the eligibility of student. |
| 15OB 2.2 | In addition to 15OB 2.1, the student shall have secured not less than forty five percent (45%) marks in the aggregate with Physics and Mathematics as compulsory subjects, along with any one of the following subjects, namely, Chemistry, Bio-Technology, Computer Science, Biology and Electronics or as decided by the Government of Karnataka. Provided that, the minimum marks for the purpose of eligibility shall be forty percent (40%) in optional subjects in case of students belonging to SC/ST and OBC students from Karnataka or as decided by the Government of Karnataka. Provided further that, the student shall have studied and passed English as one of the subjects. |
| 15OB 2.3 | Admission to II year/ III semester Bachelor Degree in Engineering/ Technology (Lateral Entry) shall be open to the students Diploma Holders <ul style="list-style-type: none"> • Must have passed diploma or equivalent qualification as recognized by University and secured not less than forty five percentage (45%) marks in the final year examination (fifth and |

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| | <p>sixth semesters) in the appropriate branch of engineering. In case of SC/ST and OBC students from Karnataka the minimum marks for eligibility shall be forty percent (40%).</p> <ul style="list-style-type: none"> • Who have completed their Diploma from other than Karnataka state shall provide the Equivalence, Eligibility Certificate from the Director of Technical Education, Karnataka. • Who are seeking admission under lateral entry shall also clear prescribed Bridge courses (Advanced Mathematics - III and IV) and Mandatory subjects (CPH and CIV) as specified by the University. <p>B.Sc. Graduates</p> <ul style="list-style-type: none"> • Must have passed B.Sc. degree from a recognized University as defined by the UGC or equivalent qualification as recognized by University and secured not less than forty five percentage (45%) marks in aggregate (including all six semesters). In case of SC/ST and OBC students from Karnataka the minimum marks for eligibility shall be forty percent (40%). Should have studied Mathematics as subject of study at XII Standard. • Further, all the B.Sc. students seeking admission to lateral entry shall also clear the following subjects before entering into V Semester <ul style="list-style-type: none"> I. Computer Aided Engineering Drawing (CAED) and II. Programming in C and Data Structures III. CPH and CIV (if not studied at B.Sc. Level). |
| 15OB 2.4 | <p>Admission to Evening Programme of study shall be open to a student Who on the first day of the term notified by the University for the year of admission has at least one-year professional experience in the branch of engineering / technology, in which the student holds a diploma.</p> <p>Explanation: Professional experience means employment on regular basis</p> <ol style="list-style-type: none"> a. in Government, Government undertaking, Public Sector undertaking, Corporations or b. in a private company registered under the Directorate of Industries and Commerce or the Directorate of Small Scale Industries or c. In Government, Government recognized institutions as technical staff. <p>Provided that the period of apprenticeship undergone shall also be treated as professional experience, if sponsored by the Board of Apprenticeship Training, Southern Region Chennai or by any Government, Government undertaking or Public Sector undertaking. Provided further that employment shall be in an establishment situated within the urban agglomeration of city in which the professional institution is situated.</p> |
| 15OB 2.5 | Those students, who have passed a qualifying examination other than |

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| | the PUC II examination of the Pre-University Education Board of Karnataka, have to obtain eligibility certificate for seeking admission to B.E./B.Tech. Degree Programme from Visvesvaraya Technological University, Belagavi or from the Principal of concerned Engineering College of Karnataka State. |
| 15OB 3 | ATTENDANCE REQUIREMENT |
| 15OB 3.1 | Each semester is considered as a unit and the student has to put in a minimum attendance of 85% in each Course with a provision of condonation of 10% of the attendance by the Vice-Chancellor on the specific recommendation of the Principal of the college where the student is studying, showing reasonable cause such as medical grounds, participation in University level sports, cultural activities, seminars, workshops, paper presentation, etc. |
| 15OB 3.2 | The basis for the calculation of the attendance shall be the number of hours prescribed by the University by its calendar of events. For the first semester students, the same shall be reckoned from the date of admission to the course as per CET allotment. |
| 15OB 3.3 | The students shall be informed about their attendance status periodically by the colleges so that the students shall be cautioned to make up the shortage. The Principals of the affiliated Colleges shall submit the list of students who have been detained for shortage of attendance by the end of the semester to the Registrar (Evaluation) with a copy to the Registrar. Provided that mere omission by the college to inform the student about the shortage of attendance shall not entitle him to appear for examination. |
| 15OB 3.4 | A student having shortage of attendance in one or more subjects shall have to repeat the whole semester and such students shall not be permitted to take admission to next higher semester. Such students shall take readmission to the same semester in the subsequent academic year. |
| 15OB 3.5 | TEMPORARY DISCONTINUATION OF THE PROGRAM: A student, who wishes to temporarily discontinue the program and continue the same subsequently, has to obtain prior permission from the University by applying through the Principal. Such students have to take readmission to the same semester/year in the subsequent academic year. However, the student shall complete the course as per 15OB 6.2. |
| 15OB 4 | INTERNAL ASSESSMENT MARKS |
| 15OB 4.1 | There shall be a maximum of 20 Internal Assessment Marks in each theory or practical paper. For seminars, the Internal Assessment marks shall be 50. |

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| 15OB 4.2 | The Internal Assessment marks in a theory paper shall be based on two tests generally conducted at the end of 6 th and 12 th week of each semester. An additional test may be conducted for the desirous students before the end of the semester to give an opportunity to such students to improve their Internal Assessment Marks, subject to the provisions of 15OB 4.13. The test shall be answered in Blue Books with pages serially numbered. These blue books shall be kept in the custody of the Principal of the College until after one month from the date of announcement of the result by the University. These shall be made available to University authorities for verification as per the directions of the Registrar (Evaluation)/ Registrar. |
| 15OB 4.3 | Average of the better marks obtained from any two tests shall be the Internal Assessment Marks for the relevant subject. |
| 15OB 4.4 | If a student remains absent for all the Internal Assessment tests conducted, the Internal Assessment Marks shall be marked as AB for the subject against the University Seat Number (USN) of the student in the marks sheet submitted to the University by the Principal of the College. |
| 15OB 4.5 | In the case of a Practical, the IA marks shall be based on the laboratory journals/reports and one practical test. |
| 15OB 4.6 | <p>The IA marks for I year Computer Aided Engineering / Drawing:</p> <p>a) 12 marks for class work (sketching and Computer Aided engineering drawing).</p> <p>b) 08 marks for test in the same pattern as that of the main examination (better of the two tests)</p> <p>ii) The IA marks for other Drawings and Design Drawings offered by various branches shall be based on the evaluation of the sheets and one test in the ratio 60:40.</p> |
| 15OB 4.7 | The IA marks in the case of projects and seminars in the final year shall be based on the evaluation at the end of 8 th semester by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the project / seminar guide. |
| 15OB 4.8 | The final list, incorporating corrections (if any) of IA marks awarded to the students in the Theory/Practical/Internship/Project work/Seminar, shall be displayed on the notice board of the college at least seven days before the closure of the semester and a certified copy of the same shall be sent by the Principals to the University Examination Section within the stipulated date. Every page of the IA marks sheet shall bear the signatures of the concerned Teacher/Teachers, Head of the Department and Principal. |
| 15OB 4.9 | Any corrections or over writing of IA marks shall bear the signature(s) of concerned Teacher(s) and in such cases the Head of the Department shall on every sheet indicate the number of corrections and attest it with his signature. |

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| 15OB 4.10 (a) | A student failing to secure a minimum of 50% of the IA marks in Practical/Internship/Project work shall not be eligible for the Practical/Internship/Project of the University examination. |
| 15OB 4.10 (b) | For seminars, the minimum requirement of IA marks shall be 40% of the maximum. |
| 15OB 4.11 | Such students as mentioned in 15OB 4.10 shall repeat the laboratory work/Internship/project work during the subsequent semester(s) and secure at least the minimum marks prescribed. |
| 15OB 4.12 | For theory subjects, there shall not be any minimum requirements of IA marks. |
| 15OB 4.13 | Improvement of IA marks shall not be allowed a. In theory subjects and b. In Laboratory/Workshop/Seminar/ Internship / Project where the student has already secured the minimum required marks. |
| 15OB 4.14 | IA marks of those students to whom 15OB 4.11 is applicable, shall be sent separately to the Registrar (Evaluation). |
| 15OB 4.15 | IA marks shall reach the University before the commencement of examination as per the notification from the office of the Registrar (Evaluation) from time to time. After the submission of Internal Assessment marks to the University, any request for change of IA marks shall not be considered under any circumstances. |
| 15OB 5 | ELIGIBILITY FOR PASSING A student who obtained Grades O to E shall be considered as passed and if a student secured "F" grade in any of the head of passing he /she has to reappear for the examination. |
| 15OB 5.1 (a) | For a pass in a theory subject/drawing, the student shall secure minimum of 35% of the maximum marks prescribed in the University examination and 40% of marks in the aggregate inclusive of the IA marks. i.e. Minimum Passing Grade is "E". |
| 15OB 5.1 (b) | For a pass in a Practical/Internship/Project/Viva-voce examination, a student shall secure a minimum of 40% of the maximum marks prescribed for the University Examination in the relevant Practical/Internship/Project/Viva-voce. i.e. Minimum Passing Grade in a course is "E". |
| 15OB 5.1 (c) | For a pass in Seminar, a student shall secure a minimum of 40% of the maximum marks prescribed. i.e. Minimum Passing Grade is "E". |
| 15OB 5.2 | The students who do not satisfy the condition 15OB 5.1 and the student who remains absent shall be deemed to have failed in that subject and may reappear for the University examination in the subsequent examinations. However, the IA marks awarded to the student/s at first attempt in the concerned theory subject will be carried forward. In case of Practical/Internship/Projects/Seminar revised marks will be taken as per regulations 15OB 4.10 (a & b) and 15OB 4.11. |
| 15OB 5.3 | The student who passes a course of a semester as per 15OB 5.1 shall |

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| | not be allowed to appear for the same again, unless he/she opts for rejection of results as per 15OB 5.4, 5.5, 5.6, 5.7 & 5.8. |
| OB 5.4 | A student may, at his/her desire, reject his/her total performance of a semester (including IA marks) or he/she may reject the result of his/her performance in University examination of a semester only. The rejection is permitted only once during the entire course of study. |
| 15OB 5.5 | The student who desires to reject the performance as per 15OB 5.4 shall reject performance in all the courses of the semester, irrespective of whether the student has passed or failed in any subject. However, the rejection of performance of 8 th semester project result shall not be permitted. |
| 15OB 5.6 | A student, who desires to reject the total performance of the semester including Internal Assessment, has to take readmission for the relevant semester. Application for such readmission shall be sent to the Registrar through the Principal of College within 30 days from the date of the announcement of the results. Late submission of application shall not be accepted for any reasons. Readmission to First semester in such cases shall not be considered as fresh admission i.e., the student will continue to have the same University Seat Number, which was allotted earlier. The course duration permitted (as per 15OB 6) will be counted as per old USN. |
| OB 5.7 | The student, who desires to reject only the results of University examination of a semester and does not desire readmission, shall be permitted to re-appear for examinations of all the subjects of the semester in the subsequent examinations. However, the IA marks obtained by the student in the rejected semester shall be retained. Applications for such rejection shall be sent to the Registrar (Evaluation) through the Principal of the College within 30 days from the date of announcement of the results. Late submission of applications shall not be accepted for any reasons. If the rejection of the University examination results of the semester happens to be of the odd semester, the student shall be allowed to take admission to the immediate next even semester. However, if the rejection of the University result is of the even semester, the student shall not be allowed to take admission to the next odd semester (as per 15OB 7.2). |
| 15OB 5.8 | Such students who opt for rejection at final year are eligible for the award of class and distinction at the B.E./ B.Tech. degree level, but are not eligible for the award of ranks. |
| 15OB 5.9 | A student shall be declared to have completed the program of B.E. / B.Tech., degree, provided the student has undergone the stipulated course work as per the regulations and has earned at least 200 Credits. |
| 15OB 6 | MAXIMUM DURATION FOR COURSE COMPLETION |
| 15OB 6.1 | A student who has not obtained the eligibility for third semester after a |

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| | period of three academic years from the date of first admission shall discontinue the course. However, the student is eligible for readmission for first year B.E./B.Tech. in respective College of the University and he/ she shall be allotted a University Seat Number (USN) without any change in the year of admission in the USN but the serial number of the student shall start with six hundred (6XX) series in the same branch. |
| 15OB 6.2 | The student admitted to 1 st year B.E/ B.Tech. shall complete the course within a period of eight academic years from the date of first admission, failing which he/she has to discontinue the course. The students admitted under lateral entry scheme (2nd Year B.E./B.Tech.) shall complete the course within a period of six academic years from the date of first admission, failing which he/she has to discontinue the course. |
| 15OB 7 | PROMOTION AND ELIGIBILITY FOR THE EXAMINATIONS |
| 15OB 7.1 | There shall not be any restriction for promotion from an odd semester to the next even semester, provided the student has fulfilled the attendance requirement. |
| 15OB 7.2 | <p>A student shall be eligible for promotion from an even semester to the next odd semester (i.e. of the next academic year) if the student has not failed in more than four heads of passing of the immediately preceding two semesters and has passed in all the subjects of all the lower semester examinations. A theory or practical shall be treated as a head of passing.</p> <p>Illustrations</p> <p>a. A student seeking eligibility to 3rd semester should not have failed in more than 4 heads of passing of first and second semesters taken together.</p> <p>b. A student seeking eligibility to 5th semester should have passed in all the subjects of 1st and 2nd semesters and should not have failed in more than 4 heads of passing of third and fourth semesters taken together.</p> <p>c. A student seeking eligibility to 7th semester should have passed in all the subjects up to 4th semester and should not have failed in more than 4 heads of passing of 5th and 6th semesters taken together.</p> <p>The Subjects:</p> <p>1. Constitution of India, Professional Ethics and Human Rights, and 2. Environmental Studies</p> <p>are Mandatory Non-Credit Courses; these subjects shall not be considered for the Eligibility for promotion, award of Class, calculation of SGPA and CGPA. However, a pass in the above subjects is mandatory before the completion of Degree.</p> |
| 15OB 8 | COURSES |

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| 15OB 8.1 | <p>There will be Four types of courses</p> <p>(i) Core Courses: This is the course which is to be compulsorily studied by a student as a core requirement to complete the requirements of a program in a said discipline of study. These courses will have 4 credits per course.</p> <p>(ii) Foundation Courses: The Foundation Courses are of two kinds: <i>Compulsory Foundation</i> and <i>Elective foundation</i>. “Compulsory Foundation”: These courses are the courses based upon the content that leads to Knowledge enhancement. They are mandatory for all disciplines. These courses will have 4 credits per course. “Foundation Electives”: These are value based courses aimed at man making education. These courses will have 3 credits per course.</p> <p>(iii) Elective Courses: This is course, which can be chosen from the pool of papers. It may be supportive to the discipline/ providing extended scope/enabling an exposure to some other discipline / domain / nurturing student proficiency skills. These courses will have 3 credits per course.</p> <p>(iv) Mandatory Non-Credit Courses: These courses are mandatory for students joining B.E./B.Tech. Program and students have to successfully complete these courses before the completion of degree.</p> |
| 15OB 8.2 | <p>The minimum number of students to be registered for an Elective to be offered shall be not less than ten.</p> |
| 15OB 8.3 | <p>A student shall exercise his option in respect of the electives and register for the same at the beginning of the concerned semester. The student may be permitted to opt for change of elective subject within 15 days from the date of commencement of the semester as per the calendar of the University.</p> |
| 15OB 9 | <p>INTERNSHIP</p> |
| 15OB 9.1 | <p>Internship: The student shall undergo an Internship for 8 weeks i.e. starting from the end of 7th semester Examination after availing one week vacation and completing during the initial period of 8th semester.</p> <ol style="list-style-type: none"> 1. The college shall nominate a faculty for a group of students to prepare the students for internship. 2. The students shall report the progress of the internship to the guide in regular intervals and may seek his/her advise. 3. The Internship shall be completed between 7th and 8th semesters. 4. After completion of 7th semester Theory and Practical examinations, the students shall have one week vacation. 5. Immediately after availing one week vacation, the students shall undergo internship (without waiting for the results) which may be a period of 4/5 weeks. |

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6. The remaining period of internship; i.e. 4/3 weeks shall be completed during the initial period of the 8th semester.
 7. After completion of Internship, students shall submit a report to the college with the approval of both internal and external guides.
 8. There will be 50 IA and 50 External marks for Internship.
 9. The guide shall be the internal examiner and IA marks out of 50 are to be awarded by the internal guide after evaluating the Internship Report submitted by the student.
 10. Viva-Voce on internship shall be conducted at the college and the date of Viva-Voce shall be fixed in consultation with the external Guide.
 11. Viva-Voce on internship shall be conducted by both internal and external guides and jointly evaluate the internship report for 50 marks. The expenses of external guide are to be borne by the student/college.
 12. In case of the non availability of external guide for the conduct of viva-voce, the Principal shall appoint a senior faculty of the department to conduct viva-voce along with the internal guide, and they jointly evaluate the internship report for 50 marks.
 13. The students are permitted to carry out the internship outside India with the following conditions:
 - a. The entire expenses are to be borne by the student or college and the University will not give any financial assistance.
 - b. The Internal Guide has to visit at least once during the student's internship; the expenses of the visit are to borne by the student/college.
 - c. The external guide from the industry has to be an examiner for the viva voce on Internship, and the expenses are to be borne by the student/ college.
 - d. The University will not provide any kind of Financial Assistance to any student for internship and for the conduct of Viva-Voce on internship.

| 15OB9.2 | Report on Internship: The College shall facilitate and monitor the student internship program. The internship report of each student shall be submitted to the Head of the Department of the college with the approval of the Guide. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 15OB9.3 | Failing to undergo Internship: Completion of internship is mandatory; if any student fails to complete internship, he/she will not be eligible for the award of degree. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15OB9.4 | Non-completion of Internship: In such cases, the student has to redo the internship. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15OB 10 | SEMINAR AND PROJECT | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15OB 10.1 | Seminar topic shall be selected from the emerging technical areas only. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15OB 10.2 | Project work at 8 th semester shall be completed batch wise, each batch consisting of minimum of two students and maximum four students. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15OB 10.3 | <i>Viva-voce</i> examination in project work shall be conducted batch-wise. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15OB 11 | COMPUTATION OF SGPA AND CGPA | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <p>i. The VTU adopts absolute grading system wherein the marks are converted to grades, and every semester results will be declared with semester grade point average (SGPA) and Cumulative Grade Point Average (CGPA). The CGPA will be calculated every semester, except the first semester.</p> <p>ii. The grading system is with the following letter grades as given below:</p> <p>Grades and Grade Points</p> <table border="1"> <thead> <tr> <th>Level</th> <th>Out-standing</th> <th>Excellent</th> <th>Very Good</th> <th>Good</th> <th>Above Average</th> <th>Average</th> <th>Poor</th> <th>Fall</th> </tr> </thead> <tbody> <tr> <td>Letter Grade</td> <td>O</td> <td>S</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> <td>F</td> </tr> <tr> <td>Grade Points</td> <td>10</td> <td>9</td> <td>8</td> <td>7</td> <td>6</td> <td>5</td> <td>4</td> <td>00</td> </tr> </tbody> </table> <p>iii. A student obtaining Grade "F" shall be considered failed and will be required to reappear in the examination. Such students after passing the failed subject in subsequent examination/s will be awarded with "E" grade irrespective of marks he/she scores in the subsequent examination/s. Number of attempts taken to clear a subject/s shall be shown in the transcripts.</p> | Level | Out-standing | Excellent | Very Good | Good | Above Average | Average | Poor | Fall | Letter Grade | O | S | A | B | C | D | E | F | Grade Points | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 00 |
| Level | Out-standing | Excellent | Very Good | Good | Above Average | Average | Poor | Fall | | | | | | | | | | | | | | | | | | | | |
| Letter Grade | O | S | A | B | C | D | E | F | | | | | | | | | | | | | | | | | | | | |
| Grade Points | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 00 | | | | | | | | | | | | | | | | | | | | |

Grade Points Scale

| Level | Out-standing | Excellent | Very Good | Good | Above Average | Average | Poor | Fail |
|-------------------------|--------------|-----------|-------------|-------------|---------------|-------------|------------|------|
| Letter Grade | O | S | A | B | C | D | E | F |
| Grade Points | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 00 |
| Score (Marks) Range (%) | ≥ 90 | <90 | < 80 ≥70 | < 70 ≥60 | < 60 ≥50 | < 50 ≥45 | <45 ≥40 | < 40 |

Computation of SGPA and CGPA

The following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

- i. The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e

$$\text{SGPA} (S_i) = \frac{\sum(C_i \times G_i)}{\sum C_i}$$

where C_i is the number of credits of the i^{th} course and G_i is the grade point scored by the student in the i^{th} course.

- ii. The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

$$\text{CGPA} = \frac{\sum(C_i \times S_i)}{\sum C_i}$$

where S_i is the SGPA of the i^{th} semester and C_i is the total number of credits in that semester.

- iii. The SGPA and CGPA shall be rounded off to 2 decimal places and reported in the transcripts.

Illustration for Computation of SGPA and CGPA

Computation of SGPA

Illustration No.1

| Course | Credit | Grade letter | Grade point | Credit Point (Credit x Grade) |
|----------|--------|--------------|-------------|-------------------------------|
| Course 1 | 4 | A | 8 | 4x8 = 32 |
| Course 2 | 4 | C | 6 | 4x6 = 24 |
| Course 3 | 4 | B | 7 | 4x7 = 28 |
| Course 4 | 3 | O | 10 | 3x10= 30 |
| Course 5 | 3 | D | 4 | 3x4 = 12 |
| Course 6 | 3 | C | 6 | 3x6 = 18 |
| Course 7 | 2 | S | 9 | 2x9 = 18 |
| Course 8 | 2 | C | 6 | 2x6 = 12 |
| | 25 | | | 174 |

Thus, $SGPA = 174/25 = 6.96$

Illustration No.2

| Course | Credit | Grade letter | Grade point | Credit Point (Credit x Grade) |
|----------|--------|--------------|-------------|-------------------------------|
| Course 1 | 4 | A | 8 | 4x8 = 32 |
| Course 2 | 4 | C | 6 | 4x6 = 24 |
| Course 3 | 4 | B | 7 | 4x7 = 28 |
| Course 4 | 3 | O | 10 | 3x10= 30 |
| Course 5 | 3 | F | 0 | 3x0 = 00 |
| Course 6 | 3 | C | 6 | 3x6 = 18 |
| Course 7 | 2 | S | 9 | 2x9 = 18 |
| Course 8 | 2 | C | 6 | 2x6 = 12 |
| | 25 | | | 162 |

Thus, $SGPA = 162/25 = 6.48$

Illustration No.2(a)

| Course | Credit | Grade letter | Grade point | Credit Point (Credit x Grade) |
|----------|--------|--------------|-------------|---|
| Course 5 | 3 | E | 4 | 3x4 = 12 |
| | 25 | | | C_i (First Attempt) 162 + C_i (subsequent attempt) 12 = 174 |

Thus, $SGPA = 174/25 = 6.96$

Illustration No.3

| Course | Credit | Grade letter | Grade point | Credit Point (Credit x Grade) |
|----------|--------|--------------|-------------|-------------------------------|
| Course 1 | 4 | A | 8 | 4x8 = 32 |
| Course 2 | 4 | C | 6 | 4x6 = 24 |

| | | | | |
|----------|----|---|----|---------|
| Course 3 | 4 | B | 7 | 4x7 =28 |
| Course 4 | 3 | O | 10 | 3x10=30 |
| Course 5 | 3 | S | 9 | 3x9 =27 |
| Course 6 | 3 | C | 6 | 3x6 =18 |
| Course 7 | 2 | S | 9 | 2x9 =18 |
| Course 8 | 2 | C | 6 | 2x6 =12 |
| | 25 | | | 189 |

Thus, **SGPA= 189/25=7.56**

$$CGPA = \frac{25 \times 6.96 + 25 \times 7.56}{50} = 7.26$$

CGPA after Final Semester

| Sem. - 1 | Sem. - 2 | Sem. - 3 | Sem. - 4 | Sem. - 5 | Sem. - 6 | Sem. - 7 | Sem. - 8 |
|-----------------------|-----------------------|-------------------------|--------------------------|-------------------------|--------------------------|--------------------------|-------------------------|
| Credit : 24 SGPA:7 | Credit:24 SGPA:8.5 | Credit : 27 SGPA:9.2 | Credit : 27 SGPA:6.86 | Credit :24 SGPA:8.18 | Credit : 24 SGPA:7.73 | Credit : 24 SGPA:8.68 | Credit : 26 SGPA:9.4 |

Thus, **CGPA= $\frac{24 \times 7 + 24 \times 8.5 + 27 \times 9.2 + 27 \times 6.86 + 24 \times 8.18 + 24 \times 7.73 + 24 \times 8.68 + 26 \times 9.4}{200} = 8.2$**

Transcript (Format): Based on the above recommendations on Letter grades, grade points, SGPA and CCPA, the transcript for each semester and a consolidated transcript indicating the performance in all semesters may be issued.

15OB 12

CONVERSION OF GRADES INTO PERCENTAGE:

Conversion formula for the conversion of GPA into Percentage is
[CGPA Earned - 0.75] x 10 = Percentage of marks scored.

Illustration: [CGPA Earned 8.2 - 0.75] x 10 = 74.5%

15OB 13

AWARD OF PRIZES, MEDALS & RANKS

15OB 13.1

For the award of Prizes and Medals, the conditions stipulated by the Donor may be considered subject to the provisions of the statutes framed by the University for such awards.

15OB 13.2

For award of ranks in a branch, a minimum of 10 students should have appeared in the 8th semester examination. The total number of ranks awarded shall be 10% of total number of students appeared in 8th semester or 10 students, whichever is less in that branch.

Illustration:

1. If 1028 students appeared for the 8th semester in Electronics and Communication Engineering Branch, the number of ranks to be awarded for Electronics and Communication Engineering will 10.
2. If 90 students appeared for the 8th semester in Biomedical Engineering Branch, the number of ranks to be awarded for Biomedical Engineering will be 09.

15OB
13.3

For award of rank in a branch of Engineering / Technology, the CGPA secured by the student from

- a) 1st to 8th semester for the students admitted to B.E./B.Tech. Program from 1st year, and

| | |
|-----------|---|
| | <p>b) 3rd to 8th semester for the students admitted to B.E./B.Tech. Program from 2nd year (Lateral Entry) shall be considered. A student shall be eligible for a rank at the time of award of degree in each branch of Engineering / Technology, provided the student</p> <p>a. Has passed 1st to 8th (students joining from 1st semester) or 3rd to 8th (in case of lateral entry) semester in all the subjects in first attempt only</p> <p>b. Has not repeated/rejected any of the lower semesters.</p> |
| 15OB 13.4 | If two students get the same CGPA, the tie should be resolved by considering the number of times a student has obtained higher SGPA; but, if it is not resolved even at this stage, the number of times a student has obtained higher grades like O, S, A, B etc shall be taken into account in rank ordering of the students in a program. |
| 15OB 14 | TRANSFER OF STUDENTS |
| 15OB14.1 | <p>Transfer of students from one college to another college within Karnataka state shall be permitted only at the beginning of third, fifth, and seventh semesters, subject to availability of seats within the permitted intake in respective Colleges and subject to the prior approval of the University and the provisions of 15OB 7.2.</p> <p>In the case of students from Universities other than VTU the students should have passed in all the courses of 1st & 2nd semesters for admission to 3rd semester and all the courses of 1st to 4th semesters for admission to 5th semester and all the courses of 1st to 6th semesters for admission to 7th semester.</p> <p>The students seeking admission from Universities other than VTU shall have to</p> <p>a. apply for establishment of equivalence with prescribed fees as notified by the VTU and</p> <p>b. Obtain No Objection for admission from the university before commencement of term as notified by VTU.</p> |
| 15OB14.2 | Transfer of students within the College from one branch to another branch at 3 rd semester shall be permitted with the prior approval of the VTU and subject to the provisions made by the Government of Karnataka and AICTE in this behalf. |
| 15OB14.3 | The University may prescribe fee for administrative purpose (for updating of the records), which shall be notified from time to time, for transfer from one college to another (Change of College) or one branch to another branch (change of branch within the college). |

NOTE: These regulations governing the Degree of Bachelor of Engineering/Technology of Visvesvaraya Technological University shall be binding on all and may be modified from time to time.



Visvesvaraya Technological University

"Jnana Sangama", Belagavi - 590 018

Dr. H. N. Jagannatha Reddy, B.E., M.E., Ph.D.
REGISTRAR

Phone: (0831) 2405468
Fax : (0831) 2405467

Ref No. VTU/Aca/A12/2017-18/ 3615

Date: 5 AUG 2017

CIRCULAR

Sub: Introduction of Open Elective- reg

It is hereby informed, that university has introduced Open Electives concept for B.E CBCS Scheme in 5th and 6th semester, you are informed to note the following guidelines in offering of Open Electives (guidelines enclosed) and bring the same to the notice of students and faculty. The Course coordinator for offering open elective has to be identified in each department for proper implementation of the concept.

Sd/-

REGISTRAR

To,
The Principals of Affiliated Engineering Colleges.

Copy FWCs to:

1. The Hon'ble Vice Chancellor, through the Secretary to VC, VTU Belagavi, for information
2. The Registrar, VTU Belagavi, for information.
3. The Registrar (Evaluation), VTU Belagavi, for information & necessary action.
4. The In-Charge Regional Director of VTU Regional Offices, for information.
5. The Office Superintendent, for information.
6. CNC to upload on the website.

Judy 05/08/17
REGISTRAR



Guidelines for offering Open Elective for the B.E 5th & 6th Semester

(CBCS) scheme


Note to Students:

- 1) All B.E (CBCS) students (except B.Arch, B.Tech) should study one Open elective each in the 5th and 6th Semester as a part of their Programme.
- 2) Students should register for the Open elective in the beginning of the 5th/6th semester in the department, where the elective is offered. An Open elective is not offered in a department if the registered student's strength is less than 10.
- 3) All Open electives are offered to students of all B.E Programmes (branches) of engineering in general (except B.Arch, B.Tech). However, if a student of a particular Programme has already studied/going to study, in higher semester a similar Core course with majority of topics same as that of a particular Open elective, then that Open elective is not offered to that student. In which case, the student has to select an alternative Open elective.
- 4) Having studied/selected a particular Open Elective, a student is not eligible to take a Professional elective of his/her Programme in the Higher semesters/same semester which will have majority of topics same as that of the Open elective studied/selected. In which case, the student has to select an alternative Professional elective.
- 5) Students are advised to select an Open elective of their interest and if they have a pre-requisite knowledge to study that particular Open elective.

Note to Departments:

- 1) Above conditions are to be monitored by an Open elective coordinator of the department to which the student belongs to and the Course coordinator of the department where the student registers for the Open elective in the beginning of the 5th/6th semester.
- 2) The Teaching department(s) for Open Elective is not restricted to only those departments(s) indicated in the list. Any other department faculty who has the requisite expertise to teach a particular Open elective can also teach it.
- 3) Offering department indicated in the list of Open electives is the department/board which is responsible to set the Syllabus and Question paper for the particular Open elective.


REGISTRAR
Visvesvaraya Technological University,
BELAGAVI - 590 018.


REGISTRAR
BELAGAVI - 590 018

Visvesvaraya Technological University, Belagavi

B.E (CBCS) Open Electives Lists

Updated on 06-02-2018

(As per approval of Vice Chancellor's, dated:01.02.18)

Note to Students:

- 1) All B.E (CBCS) students (except B.Arch, B.Tech) should study one Open elective each in the 5th and 6th Semester as a part of their Programme.
- 2) Students should registers for the Open elective in the beginning of the 5th/6th semester in the department, where the elective is offered. An Open elective is not offered in a department if the registered student's strength is less than 10.
- 3) All Open electives are offered to students of all B.E Programmes (branches) of engineering in general (except B.Arch). However, if a student of a particular Programme has already studied/going to study, in higher semester a similar Core course with majority of topics same as that of a particular Open elective, then that Open elective is not offered to that student. In which case, the student has to select an alternative Open elective.
- 4) Having studied/selected a particular Open Elective, a student is not eligible to take a Professional elective of his/her Programme in the Higher semesters/same semester which will have majority of topics same as that of the Open elective studied/selected. In which case, the student has to select an alternative Professional elective.
- 5) Students are advised to select an Open elective of their interest and if they have a pre-requisite knowledge to study that particular Open elective.

Note to Departments:

- 1) Above conditions are to be monitored by an Open elective coordinator of the department to which the student belongs to and the Course coordinator of the department where the student registers for the Open elective in the beginning of the 5th/6th semester.
- 2) The Teaching department(s) for Open Elective is not restricted to only those departments(s) indicated in the list. Any other department faculty who has requisite expertise to teach a particular Open elective can teach it.
- 3) Offering department indicated in the list of Open electives is the department/board which is responsible to set the Syllabus and Question paper for the particular Open elective.

Updated on 06-02-2018
(As per approval of Vice Chancellor's, dated:01.02.18)

B.E (CBCS) 5th Semester Open Electives List:

| SL No | Course Code | Course Title | Teaching Department(s) | Offering Department(s) |
|-------|-------------|---|--|---------------------------|
| 1 | 15NC561 | Essentials of NCC | This can be offered only in the Colleges having the NCC unit | Dept. offering the course |
| 2 | 15PHY561 | Laser Physics and Non-linear Optics | Physics | Basic Science (Physics) |
| 3 | 15CV561 | Traffic Engineering | CV | CV |
| 4 | 15CV562 | Sustainability Concepts In Engineering | CV | CV |
| 5 | 15CV563 | Remote Sensing and GIS | CV | CV |
| 6 | 15CV564 | Occupational Health and Safety | CV | CV |
| 7 | 15ME561 | Optimization Techniques | Any Branch | ME |
| 8 | 15ME562 | Energy and Environment | ME/Auto | ME |
| 9 | 15ME563 | Automation & Robotics | ME/EC/Auto | ME |
| 10 | 15ME564 | Project Management | ME/Auto | ME |
| 11 | 15IM/IP561 | Professional Communication & Report Writing | Any Branch | IP/IEM |
| 12 | 15IM/IP562 | Concurrent Engineering | Any Branch | IP/IEM |
| 13 | 15IM/IP563 | Technology Management | Any Branch | IP/IEM |
| 14 | 15IM/IP564 | Human Resource Management | Any Branch | IP/IEM |
| 15 | 15MA561 | Mechatronics | Manufacturing Sc. & Engg | Manufacturing Sc. & Engg |
| 16 | 15MA562 | Theory of Elasticity | Manufacturing Sc. & Engg | Manufacturing Sc. & Engg |
| 17 | 15MA563 | Knowledge Management | Manufacturing Sc. & Engg | Manufacturing Sc. & Engg |
| 18 | 15EC561 | Automotive Electronics | EC/TC/Mech | EC/TC |
| 19 | 15EC562 | Object Oriented Programming using C++ | CS/IS/EC/TC/EE | EC/TC |
| 20 | 15EC563 | 8051 Microcontrollers | EC/TC | EC/TC |
| 21 | 15EE561 | Electronic Communication Systems | EE/EC/TC | EE |
| 22 | 15EE562 | Programmable Logic Controllers | EE | EE |
| 23 | 15EE563 | Renewable Energy Sources | EE/ME | EE |

| | | | | |
|----|---------------|--|-----------------------------|--------------------|
| 24 | 15EE564 | Business Communication | EE | EE |
| 25 | 15CS561 | Programming in JAVA | CS/IS | CS |
| 26 | 15CS562 | Artificial Intelligence | CS/IS/EC | CS |
| 27 | 15CS563 | Embedded Computing Systems | CS/IS/EE/EC | CS |
| 28 | 15CS564 | Dot Net Frame work for Application Development | CS/IS | CS |
| 29 | 15CS565 | Cloud Computing | Cloud Computing | CS |
| 30 | 15EI/BM/ML561 | Computer Organization | EI/BM/ML/CS/IS | EI/BM/ML |
| 31 | 15EI562 | Material Science | EI | EI |
| 32 | 15BM/ML562 | Virtual Bio-Instrumentation | BM/ML/EI | BM/ML/EI |
| 33 | 15EI/BM563 | Operating Systems | EI/BM/CS/IS/EC | EI/BM |
| 34 | 15ML563 | Medical Electronics Design | ML/BM | ML/BM |
| 35 | 15EI564 | Fundamentals of Nanotechnology | EI | EI |
| 36 | 15BM564 | Medical Physics | BM/ML | BM/ML |
| 37 | 15ML564 | Pharmacology and Drug Delivery | ML/BM | ML/BM |
| 38 | 15BT561 | Biology for Engineers | Bio-Tech | Bio-Tech |
| 39 | 15BT562 | Biomaterials | Bio-Tech | Bio-Tech |
| 40 | 15BT563 | BT for Sustainable Environment | Bio-Tech | Bio-Tech |
| 41 | 15AE561 | History of Flight & Technology Forecast | Aeronautical Engg. | Aeronautical Engg. |
| 42 | 15AE562 | Elements of Aeronautics | Aeronautical Engg. | Aeronautical Engg. |
| 43 | 15AE563 | Aircraft Transportation Systems | Aeronautical Engg. | Aeronautical Engg. |
| 44 | 15AE564 | Basics of Rockets & Design | Aeronautical Engg. | Aeronautical Engg. |
| 45 | 15NT561 | Introduction to Nano Science & Technology | Nanotechnology/ME | Nanotechnology |
| 46 | 15NT562 | Nanomaterials& their Applications | Nanotechnology/ME | Nanotechnology |
| 47 | 15NT563 | Nano Devices & Applications | Nanotechnology | Nanotechnology |
| 48 | 15NT564 | Nano Materials Synthesis & Characterization Techniques | Nanotechnology/Chemistry/ME | Nanotechnology |
| 49 | 15CH561 | Industrial Waste Water Management | Chemical | Chemical |
| 50 | 15CH562 | Design of Air Pollution control Equipment | Chemical | Chemical |
| 51 | 15CH563 | Solid Waste Management | Chemical | Chemical |
| 52 | 15CH564 | Industrial Safety & Disaster Management | Chemical | Chemical |
| 53 | 15PC561 | Composite Materials | Petro-Chem | Petro-Chem |
| 54 | 15PC562 | Organic Chemistry | Petro-Chem | Petro-Chem |

| | | | | |
|----|---------|--|------------------------|------------------------|
| 55 | 15PC563 | Reservoir Rocks & Fluid Properties | Petro-Chem | Petro-Chem |
| 56 | 15PC564 | Natural Gas Processing | Petro-Chem | Petro-Chem |
| 57 | 15AU561 | Automobile Engineering | Automobile Engineering | Automobile Engineering |
| 58 | 15AU562 | Alternative Energy Sources for Automobiles | Automobile Engineering | Automobile Engineering |
| 59 | 15AU563 | Non Traditional Machining | Automobile Engineering | Automobile Engineering |
| 60 | 15MN561 | Industrial Safety Management | Mining Engineering | Mining Engineering |
| 61 | 15MN562 | Industrial Management and Entrepreneurship | Mining Engineering | Mining Engineering |

B.E (CBCS) 6th Semester Open Electives List:

| SL No | Course Code | Course Title | Teaching Department(s) | Offering Department(s) |
|-------|-------------|---|-----------------------------|-----------------------------|
| 1 | 15PHY661 | Advanced Physics for Engineers | Physics | Basic Science (Physics) |
| 2 | 15CV661 | Water Resources Management | | |
| 3 | 15CV662 | Environmental protection and management | CV | CV |
| 4 | 15CV663 | Numerical Methods and Applications | Any Branch/Maths | CV |
| 5 | 15CV664 | Finite element Method | CV | CV |
| 6 | 15ME661 | Energy Auditing | ME/Auto | ME |
| 7 | 15ME662 | Total Quality Management | ME/Auto/IEM | ME |
| 8 | 15ME663 | Maintenance Engineering | ME/Auto | ME |
| 9 | 15ME664 | Industrial Safety | ME/Auto | ME |
| 10 | 15IM/IP661 | Management Information Systems | IP/IEM | IP/IEM |
| 11 | 15IM/IP662 | Advance Machining Process | IP/IFM | IP/IEM |
| 12 | 15IM/IP663 | Value Engineering | IP/IEM | IP/IEM |
| 13 | 15IM664 | Development of Enterprises | IEM | IEM |
| 14 | 15MA661 | Microprocessor & Microcontrollers | Manufacturing Science &Engg | Manufacturing Science &Engg |
| 15 | 15MA662 | Theory of Plasticity | Manufacturing Science &Engg | Manufacturing Science &Engg |
| 16 | 15MA663 | Sensors | Manufacturing Science &Engg | Manufacturing Science &Engg |
| 17 | 15MA664 | Data Mining | Manufacturing Science &Engg | Manufacturing Science &Engg |
| | | | Manufacturing | Manufacturing |

| | | | | |
|----|-------------------|--|-------------------------------|--------------------------|
| 18 | 15EC661 | Data Structures Using C++ | Science & Engg CS/IS/EC/TC | Science & Engg EC/TC |
| 19 | 15EC662 | Power Electronics | EC/TC/EE | EC/TC |
| 20 | 15EC663 | Digital System Design using Verilog | EC/TC | EC/TC |
| 21 | 15CS661 | Mobile Application Development | Any Branch | CS |
| 23 | 15CS662 | Big Data Analytics | CS/IS | CS |
| 24 | 15CS663 | Wireless Networks and Mobile Computing | CS/IS | CS |
| 25 | 15CS664 | Python Application Programming | CS/IS | CS |
| 26 | 15CS665 | Service Oriented Architecture | CS/IS | CS |
| 27 | 15CS666 | Multi-Core Architecture and Programming | IS | CS/IS |
| 28 | 15EE661 | Artificial Neural Networks and Fuzzy Logic | EE/EC | EE |
| 29 | 15EE662 | Sensors and Transducers | EE/EC | EE |
| 30 | 15EE663 | Batteries and Fuel Cells for Commercial, Military and Space Applications | EE | EE |
| 31 | 15EE664 | Industrial Servo Control Systems | EE | EE |
| 32 | 15EI/BM/ML 661 | Mobile Communication | EI/BM/ML/EC/TC | EI/BM/ML |
| 33 | 15EI662 | MEMS and NEMS | EI/BM | EI/BM |
| 34 | 15BM662 | Software Engineering | BM/CS/IS | BM |
| 35 | 15ML662 | Embedded Real Time Systems | ML/BM | ML/BM |
| 36 | 15EI/BM/ML 663 | Embedded System Design and Programming | EI/BM/ML | EI/BM/ML |
| 37 | 15EI/BM664 | Statistics and Numerical Methods | EI/BM/Maths | EI/BM |
| 38 | 15ML664 | Biomaterials and Artificial Organs | ML/BM | ML/BM |
| 39 | 15MAT661 | Linear Algebra | Maths/EC | Basic Science (Maths) |
| 40 | 15BT661 | Biological Data Management | Bio-Tech | Bio-Tech |
| 41 | 15BT662 | Nano BT | Bio-Tech | Bio-Tech |
| 42 | 15BT663 | Good Manufacturing Process | Bio-Tech | Bio-Tech |
| 43 | 15CH661 | Food technology | Chemical | Chemical |
| 44 | 15CH662 | Sugar Technology | Chemical | Chemical |
| 45 | 15CH663 | Petro Chemical Engineering | Chemical | Chemical |
| 46 | 15CH664 | Polymer & Plastic Engineering | Chemical | Chemical |
| 47 | 15PC661 | Modern Separation Technology | Petro-Chem | Petro-Chem |
| 48 | 15PC662 | Process Modelling & Simulation | Petro-Chem | Petro-Chem |
| 49 | 15PC663 | Material Science for Petro-Chemical Engineering | Petro-Chem | Petro-Chem |
| 50 | 15PC664 | Catalysis Science & Technology | Petro-Chem | Petro-Chem |

| | | | | |
|----|---------|--|------------------------|------------------------|
| 51 | 15AE661 | Unmanned Aerial Vehicles Basics & Applications | Aeronautical Engg. | Aeronautical Engg. |
| 52 | 15AE662 | Fundamentals of Aerodynamic Theory | Aeronautical Engg. | Aeronautical Engg. |
| 53 | 15AE663 | Elements of Jet Propulsion Systems | Aeronautical Engg. | Aeronautical Engg. |
| 54 | 15AE664 | Maintenance, Overhaul & Repair of Air Craft Systems | Aeronautical Engg. | Aeronautical Engg. |
| 55 | 15NT661 | Nanotechnology in Electrical & electronics Engineering | Nanotechnology/EE/EC | Nanotechnology |
| 56 | 15NT662 | Nanotechnology in Civil & Environmental Engineering | Nanotechnology /CV/EV | Nanotechnology |
| 57 | 15NT663 | Nanotechnology in Mechanical & Aerospace Engineering | Nanotechnology/ME /AE | Nanotechnology |
| 58 | 15NT664 | Nanotechnology in Bio-Medical Engineering | Nanotechnology/BM /BT | Nanotechnology |
| 59 | 15AU661 | Engineering Economics and Cost Estimation | Automobile Engineering | Automobile Engineering |
| 60 | 15AU662 | Hybrid and Electric Vehicle | Automobile Engineering | Automobile Engineering |
| 61 | 15AU663 | Non- destructive Testing | Automobile Engineering | Automobile Engineering |
| 62 | 15MN661 | Tunneling Engineering | Mining Engineering | Mining Engineering |
| 63 | 15MN662 | Underground Space Technology | Mining Engineering | Mining Engineering |



Visvesvaraya Technological University

"Jnana Sangama", Belagavi - 590 018

Dr. H. N. Jagannatha Reddy, BE.,ME., Ph.d.
REGISTRAR

Phone: (0831) 2405468
Fax : (0831) 2405467

Ref No. VTU/Aca/A12/2017-18/ 5506

Date: 25 SEP 2017

Circular

Sub: B.E. /B.Tech Regulations and scheme for 2017-18 and onwards- reg...

Ref: 1. This office Notification VTU/Aca/A12/2017-18/4880 dt: 14-09-2017
2. Hon'ble Vice-Chancellor's order dated: 25.09.2017

With reference to the above subject, this is to inform that the office Notification issued under ref (1) (copy enclosed), is applicable to the students seeking admission to I semester / I year B.E./B.Tech Courses during the year 2017-18.

However, w.r.t. the students seeking admission to III semester/ II year Lateral entry during the year 2017-18, the CBCS Regulations notified w.r.t. 2015-16 is applicable.

The Principals are requested to note the same and bring the contents of this notification to the all concerned.

Sd/-
REGISTRAR

To,
The Principals of All Engineering Colleges (Affiliated / Constituent) under VTU, Belagavi
Copy to:

1. Hon'ble Vice-Chancellor through the Secretary to VC, VTU, Belagavi for kind information
2. The Registrar (Eval.), VTU, Belagavi for kind information & necessary action.
3. The Incharge-Regional Directors of all the Regional Offices of VTU
4. The Special Officers of Academic Section, VTU, Belagavi
5. The Concerned Case-workers of Academic Section VTU, Belagavi
6. The Secretary to Registrar, VTU, Belagavi
7. The Circular file at Dispatch section
8. The Computer Network Centre, VTU, Belagavi to upload on VTU website


REGISTRAR





Visvesvaraya Technological University

"Jnana Sangama", Belagavi - 590 018

Dr. H. N. Jagannatha Reddy, M.E., Ph.D.
REGISTRAR

Phone: (0831) 2405468
Fax : (0831) 2405467

Date: 14 SEP 2017

Ref No. VTU/Aca/A12/2017-18/4880

NOTIFICATION

Sub: Regulations B.E/B.Tech & Scheme for 2017-18 admitted students and onwards
Ref: 1. Resolution No 2 of 133rd Extraordinary Executive Council Meeting, dated: 11th September 2017
2. Vice-Chancellor's order, dated 14.09.2017

With reference to the above subject, the Scheme & Regulations governing B.E/B.Tech programme from the academic year 2017-18 has been updated on the website.

In this regard following is brought to the notice:

1. The Course Evaluation shall be carried in the ratio 60 and 40 for SEE (Semester End Examination) and CIE (Continuous Internal Evaluation) respectively.
 - The SEE will be conducted for 100 marks and proportionally reduced to 60 marks.
 - The CIE is prescribed for maximum of 40 marks. Marks prescribed for test shall be 30 and that for assignment is 10. The CIE marks for test in a theory Course shall be based on three tests generally conducted at the end of fifth, tenth and fourteenth week of each semester. Each test shall be conducted for a maximum of 30 marks and the final marks shall be the average of three tests. The remaining 10 marks shall be awarded based on the evaluation of Assignments/Unit tests/written Quizzes that support to cover some of the Course/program outcomes. Final CIE marks awarded shall be the sum of these two out of maximum of 40 marks.
 - In the case of Practical, the CIE marks shall be based on the laboratory journals/ records (30 Marks for continuous evaluation based on conduct of experiment, viva and report writing) and one practical test (10 Marks) to be conducted at the end of the semester.
2. The Scheme of teaching from the academic year 2017-18 admitted batch and onwards has been changed by retaining the contents of the syllabus of 2015-16 scheme as it is.

Principals of Constituent and Affiliated Engineering Colleges are required to conduct an orientation program for the students, clearly mentioning the guidelines of Regulations & Scheme.

Contents of this notification may kindly be brought to the notice of all the concerned.

By order,
Sd/-
REGISTRAR

To,
The Principals of Constituent & Affiliated Engineering Colleges.

Copy FWCs to:

1. The Vice Chancellor, through Secretary to VC, VTU, Belagavi, for information.
2. The Registrar, VTU, Belagavi, for information.
3. The Registrar (Evaluation), VTU, Belagavi, for information and needful.
4. The In-Charge Regional Director's of VTU Regional Offices at Belagavi, Bengaluru, Mysuru & Kalaburagi, for information.
5. The Special Officer, Academic Section, VTU, for information.
6. Office Superintendent, Academic Section, VTU, for information.
7. CNC to upload.

REGISTRAR

[Handwritten Signature]
14/09/17

INSTITUTIONAL COLLEGE



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**

AUGUST 2017

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

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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

Definitions of Keywords

The following are the definitions/descriptions that have been followed for the different terms used in the Regulations of B.E/B.Tech. Programmes:

- 1) **Programme:** Is an educational programme in a particular stream/ branch of Engineering/branch of specialization leading to award of Degree. It involves events/activities, comprising of lectures/ tutorials/ laboratory work/ field work, outreach activities/ project work/ vocational training/ viva/ seminars/ Internship/ assignments/ presentations/ self-study etc., or a combination of some of these.
- 2) **Branch:** Means Specialization or discipline of B.E/B.Tech. Degree Programme, like Civil Engineering, Mechanical Engineering, Textile Engineering, etc.
- 3) **Semester:** Refers to one of the two sessions of an academic year (vide: serial number 4), each session being of sixteen weeks duration (with working days greater than or equal to ninety). The odd semester may be scheduled from August and even semester from February of the year.
- 4) **Academic Year:** Refers to the sessions of two consecutive semesters (odd followed by an even) including periods of vacation.
- 5) **Course:** Refers to usually referred to as 'papers' and is a component of a programme. All Courses need not carry the same weight. The Courses should define learning objectives and learning outcomes. A Course may be designed to comprise lectures/ tutorials/ laboratory work/ field work/ outreach activities/project work/ vocational training/ viva/ seminars/ term papers/assignments/ presentations/ self-study etc., or a combination of some of these.
- 6) **Credit:** Refersto a unit by which the Course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of lecture or two hours of laboratory/practical Courses/ tutorials/ fieldwork per week etc.
- 7) **Audit Courses:** Means Knowledge/ Skill enhancing Courses without the benefit of a grade or credit for a Course.
- 8) **Choice Based Credit System (CBCS):** Refers to customizing the Course work, through Core, Elective and soft skill Courses to provide necessary support for the students to achieve their goals.
- 9) **Course Registration:** Refers to formal registration for the Courses of a semester (Credits) by every student under the supervision of a Faculty Advisor (also called Mentor, Counselor etc.,) in each Semester for the Institution to maintain proper record.
- 10) **Course Evaluation:** Means Continuous Internal Evaluation (CIE) and Semester End Examinations (SEE) to constitute the major evaluations prescribed for each Course. SEE and CIE to carry 60% and 40% respectively, to enable each Course to be evaluated for 100 marks, irrespective of its Credits.
- 11) **Continuous Internal Evaluation (CIE):** Refers to evaluation of students' achievement in the learning process. CIE shall be by the Course Instructor and includes tests, homework, problem solving, group discussion, quiz, mini-project and seminar throughout the Semester, with weightage for the different components being fixed at the University level.

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)

- 12) **Semester end examinations (SEE):** Refers to examination conducted at the University level covering the entire Course Syllabus. For this purpose, Syllabi to be modularized and SEE questions to be set from each module, with a choice confined to the concerned module only. SEE is also termed as university examination.
- 13) **First Attempt:** Refers to a student who has completed all formalities and has become eligible to attend the SEE and has attended at least one head of passing, such attempt shall be considered as first attempt.
- 14) **Credit Based System (CBS):** Refers to quantification of Course work, after a student completes teaching – learning process, followed by passing in both CIE and SEE. Under CBS, the requirement for awarding degree is prescribed in terms of total number of credits to be earned by the students.
- 15) **Credit Representation:** Refers to Credit Values for different academic activities considered, as per the Table.1. Credits for seminar, project phases, project viva-voce and internship shall be as specified in the Scheme of Teaching and Examination (Annexure -1).

| Table 1: Credit Values | | | | |
|--|--|---|--------------------|------------------|
| Theory/Lectures (L) (hours/week/Semester) | Tutorials (T) (hours/week/Semester) | Laboratory/Practical (P) (hours/week/Semester) | Credits (L:T:P) | Total Credits |
| 4 | 0 | 0 | 4:0:0 | 4 |
| 3 | 0 | 0 | 3:0:0 | 3 |
| 2 | 2 | 0 | 2:1:0 | 3 |
| 2 | 0 | 2 | 2:0:1 | 3 |
| 2 | 2 | 2 | 2:1:1 | 4 |
| 0 | 0 | 6 | 0:0:3 | 3 |

NOTE: Activities like, practical training, study tour and participation in Guest lectures not to carry Credits.

- 16) **Letter Grade:** It is an index of the performance of students in a said Course. Grades are denoted by letters S, A, B, C, D, E and F.
- 17) **Grading:** Grade refers to qualitative measure of achievement of a student in each Course, based on the percentage of marks secured in (CIE plus SEE). Grading is done by Absolute Grading [Refer: 17OB6.0]. The rubric attached to letter grades are as follows:
 S – Outstanding, A – Excellent, B – Very Good, C – Good, D – Above Average, E – Average and F – Fail.
- 18) **Grade Point (GP):** Refers to a numerical weightage allotted to each letter grade on a 10-point scale as under.

| Letter Grade and corresponding Grade Points on a typical 10 – Point scale | | | | | | | |
|---|----|----|----|----|----|----|----|
| Letter Grade | S | A | B | C | D | E | F |
| Grade Point | 10 | 09 | 08 | 07 | 06 | 04 | 00 |

- 19) **Passing Standards:** Refers to passing a Course only when getting GP greater than or equal to 04 (as per serial number 18).
- 20) **Credit Point:** Is the product of grade point (GP) and number of credits for a Course i.e.,
Credit Point (CrP) = GP × Credits for the Course

- 21) **Semester Grade Point Average (SGPA):** Refers to a measure of academic performance of student/s in a semester. It is the ratio of total credit points secured by a student in various Courses of a semester and the total Course credits taken during that semester. [Refer:17OB6.0]
- 22) **Cumulative Grade Point Average (CGPA):** Is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points earned by a student in various Courses in all semesters and the sum of the total credits of all Courses in all the semesters. It is expressed up to two decimal places. [Refer: 17OB6.0]
- 23) **Transcript or Grade Card or Certificate:** Refers to a certificate showing the grades earned by a student. A grade certificate shall be issued to all the registered students after every semester. The grade certificate will display the programme details (Course code, title, number of credits, grades secured) along with SGPA of that semester and CGPA earned till that semester.
- 24) **University:** Visvesvaraya Technological University (VTU), Belagavi.



Visvesvaraya Technological University, Belagavi
Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E./B.Tech.)
Under Choice Based Credit System (CBCS)
(With effective from the academic year 2017 – 18)

| | |
|------------------|---|
| 17OB 1.0 | Title, Duration and Credits of the Programme of Study |
| 17OB 1.1 | The programme of study shall be called the degree of Bachelor of Engineering (Subject of Specialization) /Bachelor of Technology (Subject of Specialization), abbreviated as B.E. / B.Tech. (Subject of Specialization). |
| 17 OB1.2 | <p>The program to which students are admitted to I semester of the programme shall be of four academic year duration divided into eight semesters and each semester is of 16 weeks duration.</p> <p>The programme to which students are admitted to III semester of the programme under lateral entry shall be of three academic year duration divided into six semesters and each semester is of 16 weeks duration.</p> <p>The programme (conducted during evening) to which students are admitted to III semester of the programme under lateral entry shall be of three academic year duration divided into six semesters and each semester is of 16 weeks duration. The deficit contact hours of the programme, conducted during evening on all working days, shall be compensated on all Sundays (except on general holidays).</p> |
| 17 OB 1.3 | The calendar of events in respect of the program of study shall be notified by the University in advance. |
| 17 OB 1.4 | The University examination in all programs of study shall be conducted at the end of each semester for all the eight semesters. |
| 17 OB 1.5 | <p>Maximum Duration for Programme Completion:</p> <p>a)</p> <ol style="list-style-type: none"> i. Students admitted to I year B.E/ B.Tech shall complete the programme within a period of eight academic years from the date of first admission, failing which they have to discontinue the Course. ii. Students admitted II Year B.E./B.Tech. under lateral entry scheme shall complete the Programme within a period of six academic years from the date of first admission, failing which he/she has to discontinue the Course. <p>b)</p> <ol style="list-style-type: none"> i. A student who has not obtained the eligibility for III semester even after three academic years from the date of admission to I semester shall discontinue the Programme or get readmitted to I semester of first year B.E./B.Tech. with a new University Seat Number but retaining the same year of admission. ii. A student (under lateral entry scheme) who has not obtained the eligibility for V semester even after three academic years from the date of admission to III semester shall discontinue the Programme or get readmitted to III semester of II year B.E./B.Tech. with a new University Seat Number but retaining the same year of admission. |
| 17 OB 1.6 | <p>Prescribed Number of Credits for the Programme:</p> <p>(a) The number of credits to be completed by students admitted I semester of B.E./B.Tech. programme shall be 200</p> <p>(b) The number of credits to be completed by students admitted to III semester of B.E./B.Tech. programme under lateral entry scheme shall be 152</p> |

| | |
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| 17 OB2.0 | Eligibility for Admission (As per the Government orders issued from time to time) |
| 17 OB2.1 | <p>Admission to I year/ I semester Bachelor Degree in Engineering/ shall be open to the students who have passed the II PUC/ XII Standard/ Equivalent Examination with English as one of the Languages and obtained a Minimum of 45% of Marks in aggregate in Physics and Mathematics along with Chemistry / Bio-Technology / Biology / Electronics / Computer.</p> <p>In case of SC/ST, Category -1 and OBC (2A, 2B, 3A and 3B) category students from Karnataka (Karnataka candidates) the minimum marks for eligibility shall be 40 %.</p> <p>With regard to the qualification earned from foreign countries, Equivalence certificate from the Association of Indian Universities is Mandatory for admission to B.E./B.Tech. programme. In case of any dispute about the equivalence in qualification earned from foreign countries, the decision of the Equivalence committee shall be the final in establishing the eligibility of the student.</p> <p>Admission to II year/ III semester Bachelor Degree in Engineering/ Technology (Lateral Entry) shall be open to the Diploma holders and B.Sc. graduates.</p> |
| 17 OB2.2 | <p>(i) Diploma Holders</p> <p>(a) Must have passed diploma or equivalent examination as recognized by University and secured not less than forty five percentage (45%) marks in the final year examination (fifth and sixth semesters) in the appropriate branch of engineering. In case of SC/ST and OBC students from Karnataka the minimum marks for eligibility shall be forty percent (40%).</p> <p>(b) Those candidates who have completed Diploma from other than Karnataka state shall provide the Equivalence/ Eligibility Certificate from the Director of Technical Education, Karnataka.</p> <p>(ii) B.Sc. Graduates</p> <p>Must have passed B.Sc. degree from a recognized University under the UGC or equivalent qualification as recognized by University and secured not less than forty five percentage (45%) marks in aggregate (considering the marks of all six semesters). In case of SC/ST and OBC students from Karnataka (Karnataka candidates) the minimum marks for eligibility shall be forty percent (40%). Candidates must have studied Mathematics as subject of study at XII Standard.</p> |
| | <p>(i) Diploma Holders for the programme conducted during evening</p> <p>A candidate who has passed diploma examination or equivalent examination and obtained an aggregate minimum of 45 % marks taken together in all the subjects of the final year (fifth and sixth semesters) diploma examination is eligible to B.E Courses, and 40 % of marks in case of SC/ST and backward classes of Karnataka candidates.</p> <p>In addition to this a candidate after passing the diploma, must have minimum of two years full time professional experience as on first September of the year of admission, in a registered firm/company/industry/ educational / Government / Autonomous organizations in the branch of Engineering/ Technology, in which the candidates hold a diploma, and in which admission is sought by him/her.</p> |

| | |
|--------------------------------|--|
| 17 OB2.2 (continued) | <p>Further that employment shall be in an establishment situated within the 15 km from the place of the institution to which the candidate is seeking admission. Professional experience refers to the experience earned as an employee on regular basis in,</p> <p>(a) Government, Government Undertaking, Public Sector Undertaking, Corporation or,</p> <p>(b) In a private company registered under the Directorate of Industries and Commerce or the Directorate of Small Scale Industries or,</p> <p>(c) Government, Government recognized Institutions as technical staff.</p> <p>Provided that the period of apprenticeship undergone shall also be treated as professional experience, if sponsored by the Board of Apprenticeship Training, Southern Region, Chennai or by Government, Government undertakings and Public Sector undertakings.</p> <p>Further, those candidates who have completed Diploma from other than Karnataka state shall provide the Equivalence/ Eligibility Certificate from the Director of Technical Education, Karnataka.</p> |
| 17 OB2.3 | <p>Those students, who have passed a qualifying examination other than the PUC II examination of the Pre-University Education Board of Karnataka, have to obtain eligibility certificate for seeking admission to B.E./B.Tech. Degree Programme from Visvesvaraya Technological University, Belagavi.</p> |
| 17 OB3.0 | <p>Courses</p> |
| 17 OB3.1 | <p>There shall be the following types of Courses:</p> <ol style="list-style-type: none"> Humanities and Social Sciences (HSS) including Management. These are mandatory for all disciplines. Basic Sciences (BS): Physics, Chemistry and Mathematics. These are mandatory for all disciplines. Engineering Sciences (ES): Materials, Workshop, Drawing, and Basics of Electrical/ Electronics/ Instrumentation/ Civil/ Mechanical/ Computer Engineering. These are mandatory for all disciplines. Professional Subjects (PS) - Core: Are the professional Core (PC) Courses, relevant to the chosen specialization/ branch. The core Courses are to be compulsorily studied by a student and are mandatory to complete them to fulfill the requirements of a programme. Professional Subjects (PS) - Elective: Are the professional Electives (PE), relevant to the chosen specialization/ branch and can be chosen from the pool of papers. It shall be supportive to the discipline providing extended scope/enabling an exposure to some other discipline /domain and nurturing student proficiency skills. Open Subjects - Electives (OE): Are from other technical areas and/ or from emerging fields. Mini project and Main Project: Carried out at the Institution or at an Industry. Seminar: Deliverable at the Institution under the supervision of a Faculty. Internship: Preferably at an industry/R and D organization/IT company/ Government organization of significant repute for a specified period mentioned in the Scheme of Teaching and Examination. Mandatory Courses (MC): These Courses are mandatory, without the benefit of a grade or credit, for students admitted to B.E./B.Tech. program. A pass in each mandatory Course is required to qualify for Degree award from the University. |

| | |
|-------------------------|---|
| 17 OB3.1 (continued) | <p>k) Audit Courses (AC): Knowledge/ skill enhancement Courses without the benefit of a grade or credit for a Course.</p> <p>i) The Audit Course/s (other than the Course/s considered for completing the prescribed program credits) can be any Course offered by the program to which the student is admitted to other programs offered in the institution, where the student is studying.</p> <p>ii) The students who are interested in audit Courses can register for one audit Course at a time during III to VIII semesters. Students, who have opted for audit Courses and considered on par with students registered for credit Courses, have to satisfy the attendance and CIE requirements. However, they need not have to appear for SEE.</p> <p>The number of registrations to an audit Course is restricted to 10 % of the AICTE intake.</p> <p>iii) Registration for any audit Course, in writing, shall be completed at the beginning of semesters. The Institution should intimate the Registrar (Evaluation) about the registration at the beginning of the semester and obtain a formal approval for inclusion of the audit Course/s in the Grade cards/ Transcripts issued to the students.</p> |
| 17 OB3.2 | The minimum number of students registered to any Elective offered by the Departments shall be not less than ten. |
| 17 OB3.3 | <p>A student shall exercise his option in respect of Elective Courses and register for the same at the beginning of the concerned semester.</p> <p>The student may be permitted to opt for a change of Elective Course within 15 days from the date of commencement of the semester as per the calendar of the University.</p> |
| 17 OB3.4 | Course Registration: Every student shall register for the Courses of a semester (Credits) under the supervision of a Faculty Advisor (also called Mentor, Counselor etc.,) in each Semester for the Institution to maintain proper record. |
| 17OB4.0 | Internship/Professional Practice |
| 17OB4.1 | <p>Internship / Professional Practice:</p> <ol style="list-style-type: none"> 1) The Internship shall be completed during the period specified in the Scheme of Teaching and Examination. 2) The internship can be carried out in any industry/R and D Organization/Research Institute/ Educational institute of repute. 3) (a) The Department/college shall nominate staff member/s to facilitate, guide and supervise students under internship. (b) The Internal Guide has to visit place of internship at least once during the student's internship. 4) The students shall report the progress of the internship to the guide in regular intervals and seek his/her advice. 5) After the completion of Internship, students shall submit a report with completion and attendance certificates to the Head of the Department with the approval of both internal and external guides. 6) There will be 50 marks for CIE (Seminar: 25, Internship report: 25) and 50 marks for Viva – Voce conducted during SEE. The minimum requirement of CIE marks shall be 50% of the maximum marks. [To be read along with 17 OB 8.6] 7) The internal guide shall award the marks for seminar and internship report after evaluation. He/she will also be the internal examiner for Viva – Voce conducted during SEE. |

| | <p>8) The external guide from the industry shall be an examiner for the viva voce on Internship. Viva-Voce on internship shall be conducted at the college and the date of Viva-Voce shall be fixed in consultation with the external Guide. The Examiners shall jointly award the Viva - Voce marks.</p> <p>9) In case the external Guide expresses his inability to conduct viva voce, the Chief Superintendent of the institution shall appoint a senior faculty of the Department to conduct viva-voce along with the internal guide. The same shall be informed in writing to the concerned Chairperson, Board of Examiners (BOE).</p> <p>10) The students are permitted to carry out the internship anywhere in India or abroad. The University will not provide any kind of financial assistance to any student for carrying out the Internship.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|------------|-------------|-------------|---------------|-------------|---------------|---------|------|--------------|---|---|---|---|---|---|---|--------------|----|---|---|---|---|---|----|--|------|------------|-------------|-------------|--------------|-------------|------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| 17OB4.2 | Failing to undergo Internship: Internship is one of the head of passing. Completion of internship is mandatory. If any student fails to undergo /complete the internship, he/she shall be considered as failed in that Course and shall not be permitted to appear for SEE in that Course. However, student shall appear for SEE after satisfying the conditions prescribed for Internship. The reappearance shall be considered as an attempt. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17OB5.0 | Seminar and Project | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17OB5.1 | <p>Seminar: Seminar is one of the head of passing.</p> <p>i) Each candidate shall deliver seminar as per the Scheme of Teaching and Examination on the topics chosen from the relevant fields for about 30 minutes.</p> <p>ii) The Head of the Department shall make arrangements for conducting seminars through concerned faculty members of the Department. The committee constituted for the purpose by the Head of the Department shall award the CIE marks for the seminar. The committee shall consist of three faculty from the Department and the senior most acting as the Chairman/Chairperson. [To be read along with 17 OB 8.6].</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17OB5.2 | <p>Project Work: Project is one of the head of passing.</p> <p>Project work shall preferably be batch wise, the strength of each batch shall not exceed maximum of four students.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17OB5.3 | Viva-voce examination in project work shall be conducted batch-wise. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17OB 6.0 | Computation of SGPA and CGPA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17OB 6.1 | <p>(i) The University adopts absolute grading system wherein the marks are converted to grades, and every semester results will be declared with semester grade point average (SGPA) and Cumulative Grade Point Average (CGPA). The CGPA will be calculated for every semester, except for the first semester.</p> <p>(ii) The grading system with the letter grades and the assigned range of marks under absolute grading system are as given below:</p> <table border="1" data-bbox="363 1585 1337 1865"> <thead> <tr> <th>Level</th> <th>Outstanding</th> <th>Excellent</th> <th>Very Good</th> <th>Good</th> <th>Above Average</th> <th>Average</th> <th>Fail</th> </tr> </thead> <tbody> <tr> <td>Letter Grade</td> <td>S</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> <td>F</td> </tr> <tr> <td>Grade Points</td> <td>10</td> <td>9</td> <td>8</td> <td>7</td> <td>6</td> <td>4</td> <td>00</td> </tr> <tr> <td rowspan="2">Percentage of Marks Scored in a Course</td> <td>≥ 90</td> <td><90 ≥80</td> <td>< 80 ≥70</td> <td>< 70 ≥60</td> <td>< 60 ≥ 45</td> <td>< 45 ≥40</td> <td>< 40</td> </tr> <tr> <td>(90 -100)</td> <td>(80 - 89)</td> <td>(70 - 79)</td> <td>(60 - 69)</td> <td>(45 - 59)</td> <td>(40 - 44)</td> <td>(0 - 39)</td> </tr> </tbody> </table> | Level | Outstanding | Excellent | Very Good | Good | Above Average | Average | Fail | Letter Grade | S | A | B | C | D | E | F | Grade Points | 10 | 9 | 8 | 7 | 6 | 4 | 00 | Percentage of Marks Scored in a Course | ≥ 90 | <90 ≥80 | < 80 ≥70 | < 70 ≥60 | < 60 ≥ 45 | < 45 ≥40 | < 40 | (90 -100) | (80 - 89) | (70 - 79) | (60 - 69) | (45 - 59) | (40 - 44) | (0 - 39) |
| Level | Outstanding | Excellent | Very Good | Good | Above Average | Average | Fail | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Letter Grade | S | A | B | C | D | E | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grade Points | 10 | 9 | 8 | 7 | 6 | 4 | 00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Percentage of Marks Scored in a Course | ≥ 90 | <90 ≥80 | < 80 ≥70 | < 70 ≥60 | < 60 ≥ 45 | < 45 ≥40 | < 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (90 -100) | (80 - 89) | (70 - 79) | (60 - 69) | (45 - 59) | (40 - 44) | (0 - 39) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| | <p>(iii) A student obtaining Grade 'F' in a Course shall be considered failed and is required to reappear in subsequent SEE. Whatever the letter grade secured by the student during his / her reappearance shall be retained. However the number of attempts taken to clear a Course shall be indicated in the grade cards/ transcripts.</p> |
| 17OB 6.2 | <p>Computation of SGPA and CGPA (as per UGC Guidelines)</p> <p>The following procedures shall be used to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) respectively:</p> <p>i) The SGPA is the ratio of sum of the product of the number of credits with the grade points secured by a student in all the Courses taken by him/her and the sum of the number of credits of all the Courses undergone by a student, i.e.,</p> $SGPA = \frac{\sum (C_i \times G_i)}{\sum C_i}$ <p>Where C_i is the number of credits of the i^{th} Course and G_i is the grade point scored by the student in the i^{th} Course.</p> <p>ii) The CGPA is also calculated in the same manner taking into account all the Courses undergone by a student over all the semesters of a programme, i.e.,</p> $CGPA = \frac{\sum (C_i \times S_i)}{\sum C_i}$ <p>Where S_i is the SGPA of the i^{th} semester and C_i is the total number of credits in that semester.</p> <p>The SGPA and CGPA shall be rounded off to 2 decimal places and reported in the transcripts.</p> |

17OB 6.2
(continued)

Illustration for Computation of SGPA and CGPA.
Computation of SGPA

| Illustration No.1 | | | | |
|--------------------------|--------|--------------|-------------|---------------------------------|
| Course | Credit | Grade letter | Grade point | Credit Point = (Credit × Grade) |
| Course 1 | 4 | B | 08 | 4 × 08 = 32 |
| Course 2 | 4 | D | 06 | 4 × 06 = 24 |
| Course 3 | 4 | C | 07 | 4 × 07 = 28 |
| Course 4 | 3 | S | 10 | 3 × 10 = 30 |
| Course 5 | 3 | E | 04 | 3 × 04 = 12 |
| Course 6 | 3 | D | 06 | 3 × 06 = 18 |
| Course 7 | 2 | A | 09 | 2 × 09 = 18 |
| Course 8 | 2 | D | 06 | 2 × 06 = 12 |
| Total | 25 | — | — | 174 |

Thus, SGPA = 174/25 = 6.96

| Illustration No.2 | | | | |
|--------------------------|--------|--------------|-------------|---------------------------------|
| Course | Credit | Grade letter | Grade point | Credit Point = (Credit × Grade) |
| Course 1 | 4 | B | 08 | 4 × 08 = 32 |
| Course 2 | 4 | D | 06 | 4 × 06 = 24 |
| Course 3 | 4 | C | 07 | 4 × 07 = 28 |
| Course 4 | 3 | S | 10 | 3 × 10 = 30 |
| Course 5 | 3 | F | 00 | 3 × 00 = 00 |
| Course 6 | 3 | D | 06 | 3 × 06 = 18 |
| Course 7 | 2 | A | 09 | 2 × 09 = 18 |
| Course 8 | 2 | D | 06 | 2 × 06 = 12 |
| Total | 25 | — | — | 162 |

Thus, SGPA = 162/25 = 6.48

If a Student secures letter grade C during reappearance then the SGPA is Calculated as shown below.

| Illustration No. 2(a) | | | | |
|------------------------------|--------|--------------|-------------|---------------------------------|
| Course | Credit | Grade letter | Grade point | Credit Point = (Credit × Grade) |
| Course 5 | 3 | C | 07 | 7 × 03 = 21 |

Total Credit Points = Credit Points of first Attempt) + Credit Points of subsequent attempt
= 162 + 21 = 183

Total credits of the semester = 25

Thus, SGPA = 183/25 = 7.32

| Illustration No.3 | | | | |
|--------------------------|--------|--------------|-------------|---------------------------------|
| Course | Credit | Grade letter | Grade point | Credit Point = (Credit × Grade) |
| Course 1 | 4 | B | 08 | 4 × 08 = 32 |
| Course 2 | 4 | D | 06 | 4 × 06 = 24 |
| Course 3 | 4 | C | 07 | 4 × 07 = 28 |
| Course 4 | 3 | S | 10 | 3 × 10 = 30 |
| Course 5 | 3 | A | 09 | 3 × 09 = 27 |
| Course 6 | 3 | D | 06 | 3 × 06 = 18 |
| Course 7 | 2 | A | 09 | 2 × 09 = 18 |
| Course 8 | 2 | D | 06 | 2 × 06 = 12 |
| Total | 25 | — | — | 189 |

Thus, SGPA = 189/25 = 7.56

CGPA (from illustrations 2 and 3) = $\frac{25 \times 7.32 + 25 \times 7.56}{50} = 7.44$

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|--|--|----------|-----------|------------|-----------|----------|-----------|------------|-------------|
| 17OB 6.2 (continued) | Semester | I | II | III | IV | V | VI | VII | VIII |
| | Credits of the semester | 24 | 24 | 27 | 27 | 24 | 24 | 24 | 26 |
| | SGPA | 7.00 | 8.50 | 9.20 | 6.86 | 8.18 | 7.73 | 8.68 | 9.40 |
| <p>Thus CGPA $= \frac{(24 \times 7.00 + 24 \times 8.50 + 27 \times 9.20 + 27 \times 6.86 + 24 \times 8.18 + 24 \times 7.73 + 24 \times 8.68 + 26 \times 9.40)}{200} = 8.20$</p> | | | | | | | | | |
| 17OB 6.3 | <p>Transcript Format: Based on the secured letter grades, grade points, SGPA and CGPA, the transcript for each semester and a consolidated transcript indicating the performance in all semesters shall be issued.</p> | | | | | | | | |
| 17OB 7.0 | <p>Conversions of Grades into Percentage and Declaration of Class</p> | | | | | | | | |
| 17OB 7.1 | <p>Conversion Formula For The Conversion Of CGPA Into Percentage Is Given Below Percentage Of Marks Secured, $P = [\text{CGPA Earned} - 0.75] \times 10$ Illustration For A CGPA Of 8.20: $P = [\text{CGPA Earned } 8.2 - 0.75] \times 10 = 74.5 \%$</p> | | | | | | | | |
| 17OB 7.2 | <p>Class Declaration: After the conversion of final CGPA into percentage of marks (P), a graduating student is declared to have passed in (i) First Class with Distinction (FCD) if $P \geq 70\%$ (ii) First Class (FC) if $P \geq 60\%$ but $<70\%$ and (iii) Second Class (SC) if $P < 60\%$.</p> | | | | | | | | |
| 17OB8.0 | <p>Continuous Internal Evaluation</p> | | | | | | | | |
| 17OB8.1 | <p>For each theory and practical paper, the CIE marks shall be 40. For Technical seminar, the CIE marks shall be 100. For Internship/ Professional Practice, the CIE marks shall be 50. For Project Phase –I and Project seminar and Project Phase –II, the CIE shall be 100 respectively.</p> | | | | | | | | |
| 17OB8.2 | <p>CIE Marks in each theory Course shall be the sum of marks prescribed for test and assignment. Marks prescribed for test shall be 30 and that for assignment is 10. The CIE marks for test in a theory Course shall be based on three tests generally conducted at the end of fifth, tenth and fourteenth week of each semester. Each test shall be conducted for a maximum of 30 marks and the final marks shall be the average of three tests. The remaining 10 marks shall be awarded based on the evaluation of Assignments/Unit tests/written Quizzes that support to cover some of the Course/program outcomes. Final CIE marks awarded shall be the sum of these two out of maximum of 40 marks. The candidates shall write the Internal Assessment Tests and Assignments/Unit-tests/written Quizzes in Blue Books which shall be preserved by the Principal/ Head of the Department for at least three years after the announcement of University results and shall be made available for verification at the direction of the Registrar (Evaluation).</p> | | | | | | | | |

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| 17OB8.3 | In the case of a Practical, the CIE marks shall be based on the laboratory journals/ records (30 Marks on continuous evaluation based on conduct of experiment, viva and report writing) and one practical test (10 Marks) to be conducted at the end of the semester. |
| 17OB8.4 | (i) The CIE marks for I year Computer Aided Engineering / Drawing: a) 24 marks for class work (sketching and Computer Aided engineering Drawing). b) 16 marks for test conducted in the same pattern as that of SEE (The marks secured can be taken as best of the two tests). (ii) The CIE marks for other Drawings/ Design Drawings offered by various branches shall be based on the evaluation of the sheets and one test in the ratio 60:40. |
| 17OB8.5 | The CIE marks in the case of projects and seminars in the final year shall be based on the evaluation at the end of VIII semester by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the project / seminar guide. |
| 17OB8.6 | i. For theory Courses, there shall not be any minimum requirements of CIE marks. ii. Minimum requirement of CIE marks for Practical/ Internship/Project work shall be 50% of the maximum marks. iii. For seminar, the minimum requirement of CIE marks shall be 40% of the maximum marks. |
| 17OB8.7 | i) Students failing to secure a minimum of 50% of the CIE marks in Practical/ Internship/Project work shall not be eligible for the Practical / Internship/Project examination conducted by the University and they shall be considered as failed in that/those Course/s. However, they can appear for University examinations conducted in other Courses of the same semester and backlog Courses if any. Students after satisfying the prescribed minimum CIE marks in the Course/s when offered during subsequent semester shall appear for SEE. ii) If any student fails to secure a minimum of 40% of the maximum CIE marks in seminar/ fails to deliver the seminar, he/she shall be considered as failed in that Course and shall not be eligible for the award of degree. However, the student shall become eligible for the award of degree after satisfying the requirements prescribed for seminar during the subsequent semester/s. iii) The Course/s under 17OB8.6 (ii) and (iii), when repeated are considered as attempts. |
| 17OB8.8 | CIE marks of those students, who come under 17OB8.7, shall be sent separately to the Registrar (Evaluation). |
| 17OB8.9 | If a student remains absent for all the CIE tests conducted, the CIE Marks shall be marked as AB for the Courses against the University Seat Number (USN) of the student in the marks sheet submitted to the University by the Principal of the College. |
| 17OB8.10 | Improvement of CIE marks shall not be allowed in a. Theory Courses and b. Laboratory/Workshop/Seminar/Internship/Project where the student has already secured the minimum required marks. |
| 17OB8.11 | The final list, incorporating corrections (if any) of CIE marks awarded to the students in the Theory/Practical/Internship/Project work/ Seminar, shall be displayed on the notice board of the college at least seven days before the closure of the semester and a certified copy of the same shall be sent by the Principal to the University Examination Section within the stipulated date. Every page of the CIE marks sheet shall bear the signatures of the concerned Teacher/Teachers, Head of the Department and Principal. |
| 17OB8.12 | Any corrections or overwriting of CIE marks shall bear the signature(s) of concerned Teacher(s) and in such cases the Head of the Department shall indicate the number of corrections on every sheet and attest it with his/her signature. |

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| 17OB8.13 | CIE marks shall reach the University before the commencement of examination as per the notification issued from the office of the Registrar (Evaluation) from time to time. After the submission of CIE marks to the University, any request under any circumstances for change of CIE marks shall not be considered. |
| 17OB 9.0 | Eligibility for Passing and Award of Degree (To be read along with 17OB4.2, 5.1, 5.2, 8.6 and 8.7) |
| 17OB 9.1 | <p>(a) For a pass in a theory Course/Drawing, the student shall secure minimum of 35% of the maximum marks prescribed in the University examination and in total 40% of the maximum marks (i.e., prescribed for SEE and CIE) including the CIE marks secured by the student.</p> <p>(b) The Minimum Passing letter grade in a Course is 'E'.</p> <p>(c) For a pass in a Practical/Internship/Project/Viva-voce examination, a student shall secure a minimum of 40% of the maximum marks prescribed for the University Examination. The Minimum Passing Grade in a Course is 'E'.</p> |
| 17OB 9.2 | <p>1) A student who obtain any grade from 'S' to 'E' shall be considered as passed.</p> <p>2) If a student secure F grade in any of the head of passing (17 OB 4.2, 17 OB 5.1, 17 OB 5.2 and 17 OB 11.2) he/she has to reappear in that head for the SEE.</p> <p>3) A student will be declared successful at the end of academic year if he/she has not more than four 'F' grades in the immediate preceding two semesters.</p> <p>4) A student will be declared successful at the end of program, when he/she has none of the Courses remaining with F grade and shall have CGPA of greater than or equal to 5.00.</p> <p>5) In case, the CGPA falls below 5.00 at the end of the program, the student shall be permitted to appear again for SEE in full or part of the previous semester Courses by rejecting the performance for required number of Course/s (other than seminar, Project and Practical's) and times, subject to the provision of 17OB1.5, to make up CGPA equal to or greater than 5.0. The student should reject the SEE results of the previous attempt and obtain written permission from the Registrar (Evaluation) to reappear in the subsequent SEE.</p> |
| 17OB 9.3 | <p>The students who do not satisfy the provision 17OB9.2 (1) and the students who remain absent for the University examinations shall be deemed to have failed in that Course/s. They have to reappear for the University examination in the subsequent examinations. The CIE marks awarded to the student/s at first attempt in the concerned theory Course/s will be carried forward.</p> <p>Revised CIE marks are considered only in cases under the provisions of 17OB8.7.</p> |
| 17OB 9.4 | Students who pass a Course of a semester as per 17OB 9.1 and has earned CGPA equal to or greater than 5.00 shall not be allowed to appear for any individual Course/s again, unless they opt for rejection of results of entire semester as per 17OB 9.5. |
| 17OB9.5 | A student may, at his/her desire, reject the total performance of a semester (including CIE marks) or reject only the result of his/her performance in University examination of a semester. The rejection is permitted only once during the entire programme of study. |
| 17OB9.6 | The student who desires to reject the results of a semester shall reject performance in all the Courses of the semester, irrespective of whether the student has passed or failed in any Course. However, the rejection of performance of VIII semester project shall not be permitted. |

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| 17OB9.7 | <p>A student, who desires to reject the total performance of a semester including CIE marks, has to take readmission for that semester.</p> <p>Application for approval of readmission shall be sent to the Registrar through the Principal of College within 30 days from the date of the announcement of the results. Late submission of application shall not be accepted for any reasons.</p> <p>Readmission to First semester in such cases shall not be considered as fresh admission and therefore the student will continue to have the same University Seat Number, which was allotted earlier. The Course duration (as per 17OB1.5) will be counted with reference to old USN.</p> |
| 17OB9.8 | <p>The student, who rejects only the results of University examination of a semester, shall be permitted to re-appear for University examinations of all the Courses of that semester in the subsequent examinations. However, the CIE marks obtained by the student in the rejected semester shall be retained.</p> <p>Applications for rejection and approval to reappear for University examination shall be sent to the Registrar (Evaluation) through the Principal of the College within 30 days from the date of announcement of the results. Late submission of applications shall not be accepted for any reasons.</p> <p>If the rejection of results of University examination is of odd semester, the student shall be allowed to take admission to the immediate next even semester. However, if the rejection of results of University examination is of even semester, then the student shall not be allowed to take admission to the next odd semester (as per 17OB11.2).</p> |
| 17OB9.9 | <p>Students who opt for rejection of results of University examination are eligible for the award of class and distinction, but are not eligible for the award of ranks.</p> |
| 17OB9.10 | <p>A student shall be declared to have completed the program of B.E. / B.Tech. degree, provided the student has undergone the stipulated Course work as per the Scheme of Teaching and Examination and has earned the prescribed number of credits as per the provision 17OB1.6, having CGPA ≥ 5 with none of the registered courses remaining with 'F' grade.</p> |
| 17OB10.0 | <p>Attendance Requirement</p> |
| 17OB10.1 | <p>Courses of each semester shall be treated as a separate unit for calculation of the attendance. The candidate has to put in a minimum attendance of 85% in each Course with a provision to condone 10% of the attendance by the Vice-Chancellor on the specific recommendations of the Principal of the college where the candidate is studying, based on medical grounds, participation in University/State/ National/ International level sports and cultural activities, seminars, workshops, paper presentation etc., of significant value. The supporting documents for condoning the shortage of attendance are to be submitted along with the recommendations.</p> |
| 17OB 10.2 | <p>The datum for the calculation of attendance shall be the number of Teaching hours prescribed for a Course [50 hours for 04 credit Courses (theory), and 40 hours for 03 credit Courses (theory) counted from the date of commencement of the semester. In case of Laboratories, the number of classes (deemed as teaching hours) is equal to the number of experiments prescribed under main heading].</p> <p>In case of late admission, approved by competent authority (DTE/VTU), to I semester/III semester (lateral entry scheme)/ III semester (lateral entry scheme) of Engineering programme conducted during evening the attendance shall be reckoned from the date of admission to the programme.</p> |

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| 17OB10.3 | The Course Instructor/ Mentor/College shall inform the students as well as their parents about the attendance status periodically. Students who are facing the shortage of attendance be mentored to make up the shortage. Principals shall also notify every month, the list of candidates who are under short of attendance. |
| 17OB10.4 | A candidate, who does not satisfy the attendance requirement (in one or more Courses) as mentioned in 17OB10.1 shall not be eligible to appear for the SEE of that semester and shall not be permitted to take admission to next higher semester. The candidate shall be required to repeat that semester during the subsequent year. |
| 17OB 10.5 | The list of the candidates falling short of attendance shall be sent to Registrar (Evaluation) at least once in a month and final list shall be sent one week prior to the commencement of the examination. The detained students should obtain permission from Registrar, VTU for readmission to the semester concerned as a repeater. |
| 17OB 11.0 | Promotion and Eligibility |
| 17OB 11.1 | There shall be no restriction for promotion from an odd semester to the next even semester, provided the student has fulfilled the attendance requirement. |
| 17OB 11.2 | <p>A student shall be eligible for promotion from an even semester to next odd semester if the student has not failed in more than four heads of passing of the immediately preceding two semesters and has passed in all the Courses of all the lower semester examinations. Each credit Course shall be treated as a head of passing.</p> <p>Illustrations:</p> <ol style="list-style-type: none"> a) A student seeking eligibility to III semester should not have failed in more than 4 heads of passing of I and II semesters considered together. b) A student seeking eligibility to V semester should have passed in all the subjects of I and II semesters and should not have failed in more than 4 heads of passing of III and IV semesters considered together. c) A student seeking eligibility to VII semester should have passed in all the subjects up to IV semester and should not have failed in more than 4 heads of passing of V and VI semesters considered together. <p>Lateral entry scheme:</p> <ol style="list-style-type: none"> a. A student seeking eligibility to V semester should not have failed in more than 4 heads of passing of III and IV semesters considered together. b. A student seeking eligibility to VII semester should have passed in all the subjects of III and IV semesters and should not have failed in more than 4 heads of passing of fifth and sixth semesters considered together. |

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| 17OB 11.3 | <p>a. All students admitted to I semester and to III semester under lateral entry scheme to B.E./B.Tech. programme have to undergo the Mandatory non – credit Courses viz., Environmental Studies and English Language. However these Courses shall not be considered for the Eligibility criterion prescribed for promotion, award of Class, calculation of SGPA and CGPA.</p> <p>b. The Courses viz., Advanced Mathematics I and II, to be completed by the candidates (diploma holders) admitted to III semester under lateral entry scheme shall not be considered for the eligibility criterion prescribed for promotion, award of Class, calculation of SGPA and CGPA. However, a pass in the above Courses is mandatory for the completion of the programme and award of degree.</p> <p>c. The Courses Viz., (i) Computer Aided Engineering Drawing (ii) Programming in C and Data structure and (iii) Environmental Studies (if not studied at B.Sc. level), to be completed by the candidates who have passed B.Sc. degree and admitted to III semester of the programme; shall not be considered for the award of Class, calculation of SGPA and CGPA. However, a pass in the above Courses is mandatory for the completion of the programme and award of degree.</p> |
| 17OB 12.0 | Temporary Discontinuation/Break in the Program |
| 17OB 12.1 | <p>a) If a candidate, for any reason, temporarily discontinues the Programme or take a break from the programme during any semester intentionally, he/she may be permitted to continue the programme by registering to the same semester of the prevailing scheme. The candidate shall complete all the remaining Course work subject to the provision 17 OB 1.5. Also the Candidates may have to complete additional Course/s, if any, as per the decision of concerned Board of Studies and approval of Dean, Faculty of Engineering, on establishing equivalence between two schemes. A Grade card shall be issued to that effect. Additional Course/s shall not be considered for the eligibility criterion prescribed for promotion. However, based on the individual cases, it is considered to decide the SGPA and CGPA to admit the student for the award of degree. Such candidates shall not be eligible for the award of rank.</p> <p>b) Candidates who takes admission to any semester of the existing scheme from another scheme, as a repeater/fresher because of various reasons have to complete additional Course/s, if any, as per the decision of concerned Board of Studies and approval of Dean, Faculty of Engineering, on establishing equivalence between two schemes. A Grade card shall be issued to that effect. Additional Course/s shall not be considered for the eligibility criterion prescribed for promotion. However, based on the individual cases, it is considered to decide the SGPA and CGPA to admit the student for the award of degree. Such candidate shall not be eligible for the award of rank.</p> |

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| 17OB 13.0 | Award of Prizes, Medals and Ranks |
| 17OB 13.1 | For the award of Prizes and Medals, the conditions stipulated by the Donor shall be considered subject to the provisions of the statutes framed by the University for such awards. |
| 17OB 13.2 | <p>1) For award of rank in a Specialization of Bachelor of Engineering/ Technology, the CGPA secured by the students from III to VIII semester is considered.</p> <p>2) A student shall be eligible for a rank at the time of award of degree of Bachelor of Engineering/ Technology, provided the student,</p> <p>a)</p> <p>(i) Has passed I to VIII semester in all the Courses in first attempt only in case of candidates admitted I year.</p> <p>(ii) Has passed III to VIII semester in all the Courses in first attempt only in case of candidates admitted under lateral entry scheme.</p> <p>(iii) Has completed all the prescribed Audit/mandatory Courses.</p> <p>b) Is not a repeater in any semester because of rejection of result of a semester/ shortage of attendance etc.</p> <p>c) Has completed all the semesters without any break/discontinuity.</p> <p>d) Has completed all the semesters (I to VIII/III to VIII) in VTU constituent college or in any VTU affiliated non-autonomous college.</p> <p>e) Has not been transferred from autonomous institution affiliated to VTU or from any other University.</p> <p>3) The total number of ranks awarded shall be 10% of total number of students appeared in VIII semester subject to a maximum of 10 ranks in a Specialization.</p> <p>4) For award of ranks in a Specialization, a minimum of 10 students should have appeared in the VIII semester examination.</p> <p>Illustration:</p> <p>a. If 1228 students appeared for the VIII semester in Electronics and Communication Engineering programme, the number of ranks to be awarded for Electronics and Communication Engineering shall be 10.</p> <p>b. If 90 students appeared for the VIII semester in Biomedical Engineering, the number of ranks to be awarded for Biomedical Engineering will be 09.</p> <p>5) In case of fractional number of ranks, it is rounded to higher integer only when the first decimal place value is greater than or equal to 5.</p> |
| 17 OB 13.3 | Ranks are awarded based on the merit of the students as determined CGPA. If two or more students get the same CGPA, the tie shall be resolved by considering the number of times a student has obtained higher SGPA. If it is not resolved even at this stage, the number of times a student has obtained higher grades like S, A, B etc., shall be taken into account to decide the order of the rank. |

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| 17OB 14.0 | Transfers of Students |
| 17OB 14.1 | <p>Transfer of students from one college to another college within Karnataka state shall be permitted only at the beginning of third, fifth, and seventh semesters, subject to availability of seats within the permitted intake in respective Colleges and subject to the prior approval of the University.</p> <p>(a) Transfer of students from one non - autonomous to another non – autonomous college affiliated to VTU is permitted with the approval of the Registrar, VTU subject to the provision 17OB11.2.</p> <p>The students seeking transfer shall have to,</p> <p>(i) Obtain No Objection certificate for admission from the University and from both the colleges before the commencement of term as notified by VTU.</p> <p>(ii) Complete the programme subject to the provision 17OB1.5.</p> <p>(b) Transfer of students from an autonomous to non – autonomous college affiliated to VTU is permitted with the approval of the Registrar, VTU provided the candidates have passed in all the Courses of the previous semesters.</p> <p>The students seeking transfer shall have to,</p> <p>(i) Obtain No Objection certificate for admission from the University and from both the colleges before commencement of term as notified by VTU.</p> <p>(ii) Complete additional Course/s, if any, as per the decision of concerned Board of Studies and approval of Dean, Faculty of Engineering, on establishing equivalence between two schemes. A Grade card shall be issued to that effect.</p> <p>Additional Course/s shall not be considered for the Eligibility criterion prescribed for promotion, Class, calculation of SGPA and CGPA. However, a pass in the Additional Courses, if any, is mandatory before the completion of Degree.</p> <p>iii) Complete the programme subject to the provision 17OB1.5.</p> <p>(c) In the case of students from Universities other than VTU, the students must have passed in all the Courses of I and II semesters for admission to III semester and all the Courses of I to IV semesters for admission to V semester and all the Courses of I to VI semesters for admission to VII semester.</p> <p>The students seeking admission from other Universities to VTU shall have to,</p> <p>i) Apply for establishment of equivalence with prescribed fees as notified by the VTU and obtain No Objection certificate for admission from the University before commencement of term as notified by VTU.</p> <p>ii) Produce No Objection certificate for admission from both the colleges before commencement of term as notified by VTU.</p> <p>iii) Complete additional Course/s, if any, as per the decision of concerned Board of Studies and approval of Dean, Faculty of Engineering, on establishing equivalence between two schemes. A Grade card shall be issued to that effect.</p> <p>Additional Course/s shall not be considered for the eligibility criterion prescribed for promotion, Class, calculation of SGPA and CGPA. However, a pass in the additional Courses, if any, is mandatory before the completion of Degree.</p> <p>(ii) Complete the programme subject to the provision 17OB1.5.</p> |
| 17 OB 14.2 | <p>Transfer of students within the College from one branch to another branch at the start of III semester shall be permitted with the approval of the Registrar, VTU subject to the provisions made by the Government of Karnataka and AICTE in this behalf.</p> |
| 17OB 14.3 | <p>The University may prescribe fee for administrative purpose, which shall be notified from time to time, for transfer from one college to another (Change of College) or one branch to another branch (change of branch within the college).</p> |

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| 17 OB 15.0 | Applicability and Power to Modify |
| 17 OB15.1 | The regulations governing the Degree of Bachelor of Engineering/Technology of Visvesvaraya Technological University shall be a binding on all concerned. |
| 17 OB15.2 | <ul style="list-style-type: none">i) Notwithstanding anything contained in the foregoing, the University shall have the power to issue directions/ orders to address any difficulty.ii) Nothing in the foregoing may be construed as limiting the power of the University to amend, modify or repeal any or all of the above. |



Visvesvaraya Technological University, Belagavi
Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E./B.Tech)
Under Choice Based Credit System (CBCS)
(w.e.f. the academic year 2017 – 18)

Annexure -1

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
Scheme of Teaching and Examination 2017-2018
Choice Based Credit System (CBCS)

I SEMESTER B.E./B.Tech. (PHYSICS GROUP)

| Sl. No | Course Code | Course Title | Teaching Department | Board | Teaching Hours /Week | | Examination | | | | Credits |
|--------------|-------------|---|------------------------------------|------------------------|--|--------------------|-------------------|------------|------------|-------------|-----------|
| | | | | | Theory | Practical/ Drawing | Duration in hours | SEE Marks | CIE Marks | Total Marks | |
| 1 | 17MAT11 | Engineering Mathematics -I | Mathematics | Basic Science | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 2 | 17PHY12 | Engineering Physics | Physics | Basic Science | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 3 | 17CIV13 | Elements of Civil Engineering and Mechanics | Civil Engineering | Civil Engineering | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 4 | 17EME14 | Elements of Mechanical Engineering | Mechanical Engineering | Mechanical Engineering | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 5 | 17ELE15 | 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, Mfg Engineering | Mechanical Engineering | 01Hour Instruction 02Hour Practical | | 03 | 60 | 40 | 100 | 2 |
| 7 | 17PHYL17 | Engineering Physics Laboratory | Physics | Basic Science | 01Hour Instruction 02Hour Practical | | 03 | 60 | 40 | 100 | 2 |
| 8 | 17ENG18 | Language – English (Audit Course) | Humanities | -- | 01 | -- | -- | -- | -- | -- | -- |
| TOTAL | | | | | Theory:21 hours Practical: 06 hours | | 21 | 420 | 280 | 700 | 24 |

II SEMESTER B.E./B.Tech. (CHEMISTRY GROUP)

| | | | | | | | | | | | |
|--------------|----------|--------------------------------------|------------------------------------|----------------------------------|--|----|-----------|------------|------------|------------|-----------|
| 1 | 17MAT21 | Engineering Mathematics -II | Mathematics | Basic Science | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 2 | 17CHE22 | Engineering Chemistry | Chemistry | Basic Science | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 3 | 17PCD23 | Programming in C and Data Structures | Any Engineering Department | Computer Science and Engineering | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 4 | 17CED24 | Computer Aided Engineering Drawing | ME, Auto, IP, IEM, Mfg Engineering | Mechanical Engineering | 02Hour Instruction 04-Hour Practice | | 03 | 60 | 40 | 100 | 4 |
| 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 | 01Hour Tutorial 02Hour Practical | | 03 | 60 | 40 | 100 | 2 |
| 7 | 17CHEL27 | Engineering Chemistry Laboratory | Chemistry | Basic Science | 01Hour Tutorial 02Hour Practical | | 03 | 60 | 40 | 100 | 2 |
| 8 | 17CIV28 | Environmental Studies (Audit Course) | Civil/ Environmental Engineering | Civil Engineering | 01Tutorial | | -- | 30 | 20 | 50 | -- |
| TOTAL | | | | | Theory:21 hours Practical: 08 hours | | 21 | 450 | 300 | 750 | 24 |

Visvesvaraya Technological University, Belagavi
Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E./B.Tech.)
Under Choice Based Credit System (CBCS)
(w.e.f. academic year 2017 – 18)

Annexure -1

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

Scheme of Teaching and Examination 2017-2018

Choice Based Credit System (CBCS)

I SEMESTER B.E./B.Tech (CHEMISTRY GROUP)

| Sl. No | Course Code | Course Title | Teaching Department | Board | Teaching Hours /Week | | Examination | | | Credits | |
|--------------|-------------|--------------------------------------|------------------------------------|----------------------------------|--|--------------------|-------------------|------------|------------|------------|-------------|
| | | | | | Theory | Practical/ Drawing | Duration in hours | SEE Marks | CIE Marks | | Total Marks |
| 1 | 17MAT11 | Engineering Mathematics -I | Mathematics | Basic Science | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 2 | 17PHY12 | Engineering Chemistry | Chemistry | Basic Science | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 3 | 17PCD13 | Programming in C and Data Structures | Any Engineering Department | Computer Science and Engineering | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 4 | 17CED14 | Computer Aided Engineering Drawing | ME, Auto, IP, IEM, Mfg Engineering | Mechanical Engineering | 02Hour Instruction 04Hour Practice | | 03 | 60 | 40 | 100 | 4 |
| 5 | 17ELN15 | Basic Electronics | ECE/EEE/TC/E and I. | E and C Engineering | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 6 | 17CPL16 | Computer Programming Laboratory | Any Engineering Department | Computer Science and Engineering | 01Hour Tutorial 02Hour Practical | | 03 | 60 | 40 | 100 | 2 |
| 7 | 17CHEL17 | Engineering Chemistry Laboratory | Chemistry | Basic Science | 01Hour Tutorial 02Hour Practical | | 03 | 60 | 40 | 100 | 2 |
| 8 | 17CIV18 | Environmental Studies (Audit Course) | Civil/ Environmental Engineering | Civil Engineering | 01Hour Tutorial | | -- | 30 | 20 | 50 | -- |
| TOTAL | | | | | Theory:21 hours Practical: 08 hours | | 21 | 450 | 300 | 750 | 24 |

II SEMESTER B.E./B.Tech (PHYSICS GROUP)

| | | | | | | | | | | | |
|--------------|----------|---|------------------------------------|------------------------|--|----|-----------|------------|------------|------------|-----------|
| 1 | 17MAT21 | Engineering Mathematics -II | Mathematics | Basic Science | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 2 | 17PHY22 | Engineering Physics | Physics | Basic Science | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 3 | 17CIV23 | Elements of Civil Engineering and Mechanics | Civil Engineering | Civil Engineering | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 4 | 17EME24 | Elements of Mechanical Engineering | Mechanical Engineering | Mechanical Engineering | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 5 | 17ELE25 | Basic Electrical Engineering | E and E Engineering | E and E Engineering | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 6 | 17WSL26 | Workshop Practice | ME, Auto, IP, IEM, Mfg Engineering | Mechanical Engineering | 01-Hour Instruction 02-Hour Practical | | 03 | 60 | 40 | 100 | 2 |
| 7 | 17PHYL27 | Engineering Physics Laboratory | Physics | Basic Science | 01-Hour Instruction 02-Hour Practical | | 03 | 60 | 40 | 100 | 2 |
| 8 | 17ENG28 | Language – English (Audit Course) | Humanities | -- | 01 | -- | -- | -- | -- | -- | -- |
| TOTAL | | | | | Theory:21 hours Practical: 06 hours | | 21 | 420 | 280 | 700 | 24 |

Visvesvaraya Technological University, Belagavi
Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E./B.Tech.)
Under Choice Based Credit System (CBCS)
(w.e.f. academic year 2017 - 18)
Annexure -1

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

Scheme of Teaching and Examination 2017-2018
Choice Based Credit System (CBCS)

B.E./B.Tech

III SEMESTER

| Sl. No | Course Code | Course | Course Title | Teaching Department | Teaching Hours /Week | | Examination | | | | Credits |
|--------------|---------------|-------------------|---|---------------------|---|--------------------|-------------------|------------|------------|-------------|-----------|
| | | | | | Theory | Practical/ Drawing | Duration in hours | SEE Marks | CIE Marks | Total Marks | |
| 1 | 17MAT31 | Core Course | Engineering Mathematics-III | | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 2 | 17XX32 | Core Course | | | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 3 | 17XX33 | Core Course | | | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 4 | 17XX34 | Core Course | | | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 5 | 17XX35 | Core Course | | | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 6 | 17XX36 | Foundation Course | | | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 7 | 17XXL37 | Laboratory | | | 03 | -- | 03 | 60 | 40 | 100 | 3 |
| 8 | 17XXL38 | Laboratory | | | 01-Hour Instruction 02-Hour Practical | | 03 | 60 | 40 | 100 | 2 |
| 9 | 17KL/CPH39/49 | Core Course | Kannada/Constitution of India, Professional Ethics and Human Rights | Humanities | 01 | | 03 | 60 | 40 | 100 | 2 |
| TOTAL | | | | | Theory: 4hours Practical: 06 hours | | 25 | 510 | 340 | 850 | 28 |

1. **Core Course:** 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. **Foundation Course:** The courses based upon the content that leads to Knowledge enhancement.
3. **Kannada/Constitution of India, Professional Ethics and Human Rights:** 50 % of the programs of the Institution have teach Kannada/Constitution of India, Professional Ethics and Human Rights in cycle based concept during III and IV semesters.
4. **Audit Course:**
 - (i) All lateral entry students (except B.Sc candidates) have to register for Additional Mathematics - I which is 04 contact hours per week.
 - (ii) Language English (Audit Course) be compulsorily studied by all lateral entry students (except B. Sc candidates)

Visvesvaraya Technological University, Belagavi
Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E./B.Tech.)
Under Choice Based Credit System (CBCS)
(w.e.f. academic year 2017 – 18)

Annexure -1 (page -4)

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

Scheme of Teaching and Examination 2017-2018

Choice Based Credit System (CBCS)

B.E./B.Tech _____

IV SEMESTER

| Sl. No | Course Code | Course | Course Title | Teaching Department | Teaching Hours /Week | | Examination | | | | Credits |
|--------------|---------------|-------------------|---|---------------------|---|-----------------------|-------------------|------------|------------|-------------|-----------|
| | | | | | Theory | Practical/ Drawing | Duration in hours | SEE Marks | CIE Marks | Total Marks | |
| 1 | 17MAT41 | Core Course | Engineering Mathematics-IV | | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 2 | 17XX42 | Core Course | | | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 3 | 17XX43 | Core Course | | | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 4 | 17XX44 | Core Course | | | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 5 | 17XX45 | Core Course | | | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 6 | 17XX46 | Foundation Course | | | 03 | - | 03 | 60 | 40 | 100 | 3 |
| 7 | 17XXL47 | Laboratory | | | 01-Hour Instruction 02-Hour Practical | | 03 | 60 | 40 | 100 | 2 |
| 8 | 17XXL48 | Laboratory | | | 01-Hour Instruction 02-Hour Practical | | 03 | 60 | 40 | 100 | 2 |
| 9 | 17KL/CPH39/49 | Core Course | Kannada/Constitution of India, Professional Ethics and Human Rights | Humanities | 01 | | 01 | 30 | 20 | 50 | 01 |
| TOTAL | | | | | Theory:24hours Practical: 06 hours | | 25 | 510 | 340 | 850 | 28 |

1. Core Course: 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. Foundation Course: The courses based upon the content that leads to Knowledge enhancement.

3. Kannada/Constitution of India, Professional Ethics and Human Rights: 50 % of the programs of the Institution have teach Kannada/ Constitution of India, Professional Ethics and Human Rights in cycle based concept during III and IV semesters.

4. Audit Course:

(i) All lateral entry students (except B. Sc candidates) have to register for Additional Mathematics – II which is 04 contact hours per week.

(ii) Language English (Audit Course) be compulsorily studied by all lateral entry students (except B. Sc candidates)

Visvesvaraya Technological University, Belagavi
Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E./B.Tech.)
Under Choice Based Credit System (CBCS)
 (w.e.f. academic year 2017 - 18)
Annexure -1 (page -5)

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

Scheme of Teaching and Examination 2017-2018
 Choice Based Credit System (CBCS)

B.E./B.Tech _____

| V SEMESTER | | | | | | | | | | | |
|---|---------------------|-----------------------|---|--|---|-----------------------|-------------------|------------|------------|-------------|-----------|
| Sl. No | Course Code | Course | Course Title | Teaching Department | Teaching Hours /Week | | Examination | | | | Credits |
| | | | | | Theory | Practical/ Drawing | Duration in hours | SEE Marks | CIE Marks | Total Marks | |
| 1 | 17XX51 | Core Course | Management and Entrepreneurship Excluding CSE, ISE and EV Programs. (The course must be related to Management and Entrepreneurship. However, the title and syllabus content can be as per the programme requirement). | | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 2 | 17XX52 | Core Course | | | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 3 | 17XX53 | Core Course | | | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 4 | 17XX54 | Core Course | | | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 5 | 17XX55X | Professional Elective | | | 03 | -- | 03 | 60 | 40 | 100 | 3 |
| 6 | 17XX56Y | Open Elective | | | 03 | -- | 03 | 60 | 40 | 100 | 3 |
| 7 | 17XXL57 | Laboratory | | | 01-Hour instruction 02-Hour Practical | | 03 | 60 | 40 | 100 | 2 |
| 8 | 17XXL58 | Laboratory | | | 01-Hour Instruction 02-Hour Practical | | 03 | 60 | 40 | 100 | 2 |
| TOTAL | | | | | Theory:22hours Practical: 06 hours | | 24 | 480 | 320 | 800 | 26 |
| Electives | | | | | | | | | | | |
| Professional Elective | | | | Open Elective*** Offered by the Department of | | | | | | | |
| Courses under Code 17XX55X | Course Title | | | Courses under Code 17XX56Y | Course Title | | | | | | |
| 17XX551 | | | | 17XX561 | | | | | | | |
| 17XX552 | | | | 17XX562 | | | | | | | |
| 17XX553 | | | | 17XX563 | | | | | | | |
| 17XX554 | | | | 17XX564 | | | | | | | |
| <p>*** Students can select any one of the open electives offered by any Department (Please refer to consolidated list of VTU for open electives). Selection of an open elective is not allowed provided;</p> <ul style="list-style-type: none"> • The candidate has pre - requisite knowledge. • The candidate has not studied during I and II year of the programme. • The syllabus content of open elective is similar to that of Departmental core courses or professional electives. • A similar course, under any category, is prescribed in the higher semesters. <p>Registration to electives shall be documented under the guidance of Programme Coordinator and Adviser.</p> <p>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.</p> <p>2. Professional Elective: Electives relevant to chosen specialization/ branch.</p> <p>3. Open Elective: Electives from other technical and/ or emerging subject areas.</p> | | | | | | | | | | | |

Visvesvaraya Technological University, Belagavi
Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E./B.Tech.)
Under Choice Based Credit System (CBCS)
(w.e.f. academic year 2017 – 18)

Annexure -1 (page -6)

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

Scheme of Teaching and Examination 2017-2018
 Choice Based Credit System (CBCS)

B.E./B.Tech

| VI SEMESTER | | | | | | | | | | | | |
|--------------|-------------|-----------------------|---|---------------------|--|-----------------------|-------------------|------------|------------|-------------|-----------|--|
| Sl. No | Course Code | Course | Course Title | Teaching Department | Teaching Hours /Week | | Examination | | | | Credits | |
| | | | | | Theory | Practical/ Drawing | Duration in hours | SEE Marks | CIE Marks | Total Marks | | |
| 1 | 17XX61 | Core Course | Management and Entrepreneurship Excluding CSE, ISE and EV Programs. (The course must be related to Management and Entrepreneurship. However, the title and syllabus content can be as per the programme requirement). | | 04 | -- | 03 | 60 | 40 | 100 | 4 | |
| 2 | 17XX62 | Core Course | | | 04 | -- | 03 | 60 | 40 | 100 | 4 | |
| 3 | 17XX63 | Core Course | | | 04 | -- | 03 | 60 | 40 | 100 | 4 | |
| 4 | 17XX64 | Core Course | | | 04 | -- | 03 | 60 | 40 | 100 | 4 | |
| 5 | 17XX65X | Professional Elective | | | 03 | -- | 03 | 60 | 40 | 100 | 3 | |
| 6 | 17XX66Y | Open Elective | | | 03 | -- | 03 | 60 | 40 | 100 | 3 | |
| 7 | 17XXL67 | Laboratory | | | 01-Hour Instruction 02-Hour Practical | | 03 | 60 | 40 | 100 | 2 | |
| 8 | 17XXL68 | Laboratory | | | 01-Hour Instruction 02-Hour Practical | | 03 | 60 | 40 | 100 | 2 | |
| TOTAL | | | | | Theory: 22hours Practical: 06 hours | | 24 | 480 | 320 | 800 | 26 | |

Electives

| Professional Elective | | Open Elective ^{***} Offered by the Department of | |
|----------------------------|--------------|--|--------------|
| Courses under Code 17XX65X | Course Title | Courses under Code 17XX66Y | Course Title |
| 17XX651 | | 17XX661 | |
| 17XX652 | | 17XX662 | |
| 17XX653 | | 17XX663 | |
| 17XX654 | | 17XX664 | |

^{***} Students can select any one of the open electives offered by any Department (Please refer to consolidated list of VTU for open electives). Selection of an open elective is not allowed provided;

- The candidate has pre – requisite knowledge.
- The candidate has not studied during I and II year of the programme.
- The syllabus content of open elective is similar to that of Departmental core courses or professional electives.
- A similar course, under any category, is prescribed in the higher semesters.

Registration to electives shall be documented under the guidance of Programme Coordinator and Adviser.

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:** Electives relevant to chosen specialization/ branch.
3. **Open Elective:** Electives from other technical and/ or emerging subject areas.

Visvesvaraya Technological University, Belagavi
Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E./B.Tech.)
Under Choice Based Credit System (CBCS)
(w.e.f. academic year 2017 – 18)
Annexure -1 (page -7)

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

Scheme of Teaching and Examination 2017-2018
Choice Based Credit System (CBCS)

B.E./B.Tech _____

| VII SEMESTER | | | | | | | | | | | |
|--|-------------|-----------------------|--|---------------------|--|------------------------------|---------------------|------------|------------|-------------|-----------|
| Sl. No | Course Code | Course | Course Title | Teaching Department | Teaching Hours /Week | | Examination | | | | Credits |
| | | | | | Theory | Practical/ Drawing | Duration in hours | SEE Marks | CIE Marks | Total Marks | |
| 1 | 17XX71 | Core Course | | | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 2 | 17XX72 | Core Course | | | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 3 | 17XX73 | Core Course | | | 04 | -- | 03 | 60 | 40 | 100 | 4 |
| 4 | 17XX74 X | Professional Elective | | | 03 | -- | 03 | 60 | 40 | 100 | 3 |
| 5 | 17XX75Y | Professional Elective | | | 03 | -- | 03 | 60 | 40 | 100 | 3 |
| 6 | 17XXL76 | Laboratory | | | 01-Hour Instruction 02-Hour Practical | | 03 | 60 | 40 | 100 | 2 |
| 7 | 17XXL77 | Laboratory | | | 01-Hour Instruction 02-Hour Practical | | 03 | 60 | 40 | 100 | 2 |
| 8 | 17XXP78 | Core Course | Project Phase – I and Project seminar | | | 03 | -- | -- | 100 | 100 | 2 |
| TOTAL | | | | | Theory: 8 hours Practical and Project: 09 hours | | 21 | 420 | 380 | 800 | 24 |
| Electives | | | | | | | | | | | |
| Professional Elective | | | | | | Professional Elective | | | | | |
| Courses under Code 17XX74X | | Course Title | | | Courses under Code 17XX75Y | | Course Title | | | | |
| 17XX741 | | | | | 17XX751 | | | | | | |
| 17XX742 | | | | | 17XX752 | | | | | | |
| 17XX743 | | | | | 17XX753 | | | | | | |
| 17XX744 | | | | | 17XX754 | | | | | | |
| <p>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.</p> <p>2. Professional Elective: Electives relevant to chosen specialization/ branch.</p> <p>3. Project Phase – I and Project seminar: Comprises of Literature Survey, Problem identification, Objectives and Methodology. CIE marks shall be based on the report covering Literature Survey, Problem identification, Objectives and Methodology and seminar presentation skill.</p> | | | | | | | | | | | |

Visvesvaraya Technological University, Belagavi
Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E./B.Tech.)
Under Choice Based Credit System (CBCS)
(w.e.f. academic year 2017 – 18)
Annexure -1 (page -8)

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

Scheme of Teaching and Examination 2017-2018
Choice Based Credit System (CBCS)

B.E./B.Tech _____

VIII SEMESTER

| Sl. No | Course Code | Course | Course Title | Teaching Department | Teaching Hours /Week | | Examination | | | Credits | |
|--------------|-------------|-----------------------|-----------------------------------|---------------------|--|--------------------|-------------------|------------|------------|------------|-------------|
| | | | | | Theory | Practical/ Drawing | Duration in hours | SEE Marks | CIE Marks | | Total Marks |
| 1 | 17XX81 | Core Course | | | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 2 | 17XX82 | Core Course | | | 04 | - | 03 | 60 | 40 | 100 | 4 |
| 3 | 17XX83X | Professional Elective | | | 03 | - | 03 | 60 | 40 | 100 | 3 |
| 4 | 17XX84 | Core Course | Internship/ Professional Practice | | Working hours of the place of Internship | | 03 | 50 | 50 | 100 | 2 |
| 5 | 17XXP85 | Core Course | Project work Phase -II | | -- | 06 | 03 | 100 | 100 | 200 | 6 |
| 6 | 17XXS86 | Core Course | Technical Seminar | | -- | 04 | -- | -- | 100 | 100 | 1 |
| TOTAL | | | | | Theory:11 hours Project and Seminar: 10 hours | | 15 | 390 | 310 | 700 | 20 |

Professional Electives

Courses under Code 17XX83X

Course Title

17XX831

17XX832

17XX833

17XX834

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: Electives relevant to chosen specialization/ branch.

3. Internship/ Professional Practice: To be completed between the V and VI semester vacation and/or VI and VII semester vacation period.





Visvesvaraya Technological University

"Jnana Sangama", Belagavi - 590 018

Dr. H. N. Jagannatha Reddy, B.E., M.E., Ph.D.
REGISTRAR

Phone: (0831) 2405468
Fax : (0831) 2405467

Ref No. VTU/Aca/A12/2017-18/4880

Date: 14 SEP 2017

NOTIFICATION

Sub: Regulations B.E/B.Tech & Scheme for 2017-18 admitted students and onwards
Ref: 1. Resolution No 2 of 133rd Extraordinary Executive Council Meeting, dated: 11th September 2017.
2. Vice-Chancellor's order, dated 14.09.2017

With reference to the above subject, the Scheme & Regulations governing B.E/B.Tech programme from the academic year 2017-18 has been updated on the website.

In this regard following is brought to the notice:

1. The Course Evaluation shall be carried in the ratio 60 and 40 for SEE (Semester End Examination) and CIE (Continuous Internal Evaluation) respectively.
 - The SEE will be conducted for 100 marks and proportionally reduced to 60 marks.
 - The CIE is prescribed for maximum of 40 marks. Marks prescribed for test shall be 30 and that for assignment is 10. The CIE marks for test in a theory Course shall be based on three tests generally conducted at the end of fifth, tenth and fourteenth week of each semester. Each test shall be conducted for a maximum of 30 marks and the final marks shall be the average of three tests. The remaining 10 marks shall be awarded based on the evaluation of Assignments/Unit tests/written Quizzes that support to cover some of the Course/program outcomes. Final CIE marks awarded shall be the sum of these two out of maximum of 40 marks.
 - In the case of Practical, the CIE marks shall be based on the laboratory journals/ records (30 Marks for continuous evaluation based on conduct of experiment, viva and report writing) and one practical test (10 Marks) to be conducted at the end of the semester.
2. The Scheme of teaching from the academic year 2017-18 admitted batch and onwards has been changed by retaining the contents of the syllabus of 2015-16 scheme as it is.

Principals of Constituent and Affiliated Engineering Colleges are required to conduct an orientation program for the students, clearly mentioning the guidelines of Regulations & Scheme.

Contents of this notification may kindly be brought to the notice of all the concerned.

By order,
Sd/-
REGISTRAR

To,
The Principals of Constituent & Affiliated Engineering Colleges.

Copy FWCs to:

1. The Vice Chancellor, through Secretary to VC, VTU, Belagavi, for information.
2. The Registrar, VTU, Belagavi, for information.
3. The Registrar (Evaluation), VTU, Belagavi, for information and needful.
4. The In-Charge Regional Director's of VTU Regional Offices at Belagavi, Bengaluru, Mysuru & Kalaburagi, for information.
5. The Special Officer, Academic Section, VTU, for information.
6. Office Superintendent, Academic Section, VTU, for information.
7. CNC to upload.

REGISTRAR





Visvesvaraya Technological University
"Jnana Sangama", Belagavi - 590 018, Karnataka State

Prof. A S. Deshpande B.E. M.Tech., Ph.D.
REGISTRAR

Phone : (0831) 2498100
Fax : (0831) 2405467

Ref VTU/BGM/Aca-OS/Gen-Cirs/2019-20/ 3013

Date : 21 AUG 2019

NOTIFICATION

**Sub: Regulations Governing the Degree of B.E./ B.Tech.
under OBE and CBSE (Revised-2018) - reg...**

Ref: Executive Council Resolution. No. 2.2.1 dt: 30th May, 2019

Pursuant to the aforesaid Executive Council Resolution, the "Regulations Governing the Degree of B.E./ B.Tech. under outcome Based Education and Choice Based Credit System - (Revised - 2018)" are hereby notified.

These Regulations are applicable for the following students:

1. Admitted to I semester/I year from the academic year 2018-19 (i.e. USN XXX18XXXXX)
2. Admitted to III semester/II year from the academic year 2019-20 (i.e. USN XXX19XX4XX)

You are hereby directed to bring the same to the notice of all the concerned and to follow them scrupulously.

The previous regulations in this regard (published on VTU website and printed in syllabus books are treated as null and void.

Encl: as above

BY ORDER

01.08.2019
REGISTRAR

To,
The of Principals of All Engineering Colleges under the ambit of VTU, Belagavi

Copy to:

1. Hon'ble Vice-Chancellor through the Secretary to VC, VTU, Belagavi for kind information
2. The Registrar (Evaluation), VTU, Belagavi
3. The Regional Directors (I/C) of all the Regional Offices of VTU for circulation
4. The Computer Network Centre, VTU, Belagavi- to upload on VTU website
5. PS to Registrar, VTU, Belagavi
6. All the concerned Special Officer and Case-workers of Academic Section, VTU, Belagavi





Visvesvaraya Technological University

"Jnana Sangama", Belagavi - 590 018, Karnataka State

Prof. A S. Deshpande B.E. M.Tech., Ph.D.
REGISTRAR

Phone : (0831) 2498100

Fax : (0831) 2405467

Ref VTU/BGM/Aca-OS/Gen-Cirs/2019-20/ 3013

Date : 21 AUG 2019

NOTIFICATION

**Sub: Regulations Governing the Degree of B.E./ B.Tech.
under OBE and CBCS (Revised-2018) - reg...**

Ref: Executive Council Resolution. No. 2.2.1 dt: 30th May, 2019

Pursuant to the aforesaid Executive Council Resolution, the "Regulations Governing the Degree of B.E./ B.Tech. under outcome Based Education and Choice Based Credit System - (Revised - 2018)" are hereby notified.

These Regulations are applicable for the following students:

1. Admitted to I semester/I year from the academic year 2018-19 (i.e. USN XXX18XXXXX)
2. Admitted to III semester/II year from the academic year 2019-20 (i.e. USN XXX19XX4XX)

You are hereby directed to bring the same to the notice of all the concerned and to follow them scrupulously.

The previous regulations in this regard (published on VTU website and printed in syllabus books are treated as null and void.

Encl: as above

BY ORDER

01.08.2019
REGISTRAR

To,
The of Principals of All Engineering Colleges under the ambit of VTU, Belagavi

Copy to:

1. Hon'ble Vice-Chancellor through the Secretary to VC, VTU, Belagavi for kind information
2. The Registrar (Evaluation), VTU, Belagavi
3. The Regional Directors (I/C) of all the Regional Offices of VTU for circulation
4. The Computer Network Centre, VTU, Belagavi- to upload on VTU website
5. PS to Registrar, VTU, Belagavi
6. All the concerned Special Officer and Case-workers of Academic Section, VTU, Belagavi



**Regulations Governing the Degree of Bachelor of Engineering/Technology (B.E./B.Tech.)
Under Outcome Based Education (OBE) and Choice Based Credit System (CBCS)
Effective from the Academic Year 2018 – 19**

Definitions of Keywords

The following are the definitions/descriptions that have been followed for the different terms used in the Regulations of B.E./B.Tech. Programmes:

- 1) **Programme:** Is an educational Programme in a particular stream/ branch of Engineering/branch of specialization leading to award of the Degree. It involves events/activities, comprising of lectures/tutorials/laboratory work/field work, outreach activities/project work/vocational training/viva voce/ seminars/ internship/assignments/ presentations/ self-study etc., or a combination of some of these.
- 2) **Branch:** Means Specialization or discipline of B.E./B.Tech. Degree Programme, like Civil Engineering, Mechanical Engineering, Textile Engineering, etc.
- 3) **Semester:** Refers to one of the two sessions of an academic year (vide: serial number 4), each session being of sixteen weeks duration (with working days greater than or equal to ninety). The odd and even semesters shall be as per the University academic calendar.
- 4) **Academic Year:** Refers to the sessions of two consecutive semesters (odd followed by an even) including periods of vacation.
- 5) **Course:** Refers to usually referred to as 'papers' and is a component of a Programme. All Courses need not carry the same weight. The Courses should define learning objectives and learning outcomes. A Course may be designed to comprise lectures/ tutorials/ laboratory work/ field work/ outreach activities/project work/ vocational training/ viva voce/ seminars/ term papers/assignments/ presentations/ self-study etc., or a combination of some of these.
Credit: Refers to a unit by which the Course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of lecture or two hours of laboratory/practical Courses/ tutorials/ fieldwork per week etc.
- 7) **Audit Courses:** Means the Knowledge/ Skill enhancing Courses without the benefit of a grade or credit for a Course.
- 8) **Choice Based Credit System (CBCS):** Refers to customizing the Course work, through Core, Elective and soft skill Courses, to provide necessary support for the students to achieve their goals.
- 9) **Course Registration:** Refers to formal registration for the Courses of a semester (Credits) by every student under the supervision of a Faculty Advisor (also called Mentor, Counsellor etc.) in each semester for the Institution to maintain proper record.
- 10) **Course Evaluation:** Means Continuous Internal Evaluation (CIE) and Semester End Examinations (SEE) to constitute the major evaluations prescribed for each Course. CIE and SEE to carry 40 % and 60 % respectively, to enable each Course to be evaluated for 100 marks, irrespective of its Credits.
- 11) **Continuous Internal Evaluation (CIE):** Refers to evaluation of students' achievement in the learning process. CIE shall be by the Course Instructor and includes tests, homework, problem solving, group discussion, quiz, mini-project and seminar throughout the semester, with a weightage for the different components being fixed by the University.
- 12) **Semester End Examinations (SEE):** Refers to the examinations conducted by the University covering the entire Course Syllabus. For this purpose, Syllabi to be modularized and SEE questions to be set from each module, with a choice confined to the concerned module only. SEE is also termed as University examination.
- 13) **First Attempt:** Refers to a student who has completed all formalities and has become eligible to attend the SEE and has attended at least one head of passing, such attempt shall be considered as first attempt.

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- 14) **Credit Based System (CBS):** Refers to quantification of Course work, after a student completes teaching – learning process, followed by passing in both CIE and SEE. Under CBS, the requirement for awarding degree is prescribed in terms of total number of credits to be earned by the students.
- 15) **Credit Representation:** Refers to the Credit Values for different academic activities considered, as per the Table.1 Credits for seminar, project phases, project viva-voce and internship shall be as specified in the Scheme of Teaching and Examinations.
- 16) **Letter Grade:**

| Table 1: Credit Values | | | | |
|--|--|---|--------------------|------------------|
| Theory/Lectures (L) (hours/week/Semester) | Tutorials (T) (hours/week/Semester) | Laboratory/Practical (P) (hours/week/Semester) | Credits (L:T:P) | Total Credits |
| 4 | 0 | 0 | 4:0:0 | 4 |
| 3 | 0 | 0 | 3:0:0 | 3 |
| 2 | 2 | 0 | 2:1:0 | 3 |
| 2 | 0 | 2 | 2:0:1 | 3 |
| 2 | 2 | 2 | 2:1:1 | 4 |
| 0 | 0 | 6 | 0:0:3 | 3 |

NOTE: Activities like, practical training, study tour and participation in Guest lectures not to carry Credits.

It is an index of the performance of students in a said Course. Grades are denoted by letters S, A, B, C, D, E and F.

- 17) **Grading:** Grade refers to qualitative measure of achievement of a student in each Course, based on the percentage of marks secured in CIE and SEE. Grading is done by Absolute Grading [Refer: 18 OB 6.0]. The rubrics attached to letter grades are as follows: S – Outstanding, A – Excellent, B – Very Good, C – Good, D – Above Average, E – Average and F – Fail.
- 18) **Grade Point (GP):** Refers to a numerical weightage allotted to each letter grade on a 10-point scale as under.

| Letter Grade and corresponding Grade Points on a typical 10 – Point scale | | | | | | | |
|--|----|----|----|----|----|----|----|
| Letter Grade | S | A | B | C | D | E | F |
| Grade Point | 10 | 09 | 08 | 07 | 06 | 04 | 00 |

- 19) **Passing Standards:** Refers to passing a Course only when getting GP greater than or equal to 04 (as per serial number 18).
- 20) **Credit Point:** Is the product of GP and number of credits for a Course i.e.,
Credit points (CrP) = GP × Credits for the Course.
- 21) **Semester Grade Point Average (SGPA):** Refers to the measure of academic performance of student/s in a semester. [Refer: 18OB6.2]
- 22) **Cumulative Grade Point Average (CGPA):** Is a measure of overall cumulative performance of a student over all semesters. [Refer: 18OB6.2]
- 23) **Grade Card:** Refers to the certificate showing the grades earned by a student. A grade card shall be issued to all the registered students after every semester end examination. The grade card will display the Programme details (Course code, title, number of credits, grades secured) along with SGPA of that semester and CGPA earned till that semester.
- 24) **University:** Visvesvaraya Technological University (VTU), Belagavi.

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| 18OB1.0 | Title, Duration and Credits of the Programme of Study. |
| 18OB1.1 | The Programme of study shall be called the degree of Bachelor of Engineering /Bachelor of Technology, abbreviated as B.E./B.Tech. |
| 18OB1.2 | <p>(a) The Programme to which students are admitted to First semester of B.E./B.Tech. Programme shall be of four academic year duration divided into eight semesters. The actual Teaching and Learning days shall be for at least 90 working days in a semester.</p> <p>(b) The Programme to which students are admitted to third semester of B.E./B.Tech. Programme under lateral entry shall be of three academic year duration, divided into six semesters. The actual Teaching and Learning days shall be at least 90 working days in a semester.</p> <p>(c) The Programme (conducted during evening) to which students are admitted to third semester of B.E./B.Tech. Programme under lateral entry scheme shall be of three academic year duration, divided into six semesters. The actual Teaching and Learning days shall be for at least 90 working days in a semester. The deficit contact hours of the Programme, conducted during evening on all working days, shall be compensated on all Sundays (except on general holidays).</p> |
| 18OB1.3 | The calendar of events in respect of the Programme of study shall be notified by the University in advance. |
| 18OB1.4 | <p>Maximum Duration for Programme Completion:</p> <p>(a) In case of students admitted to First semester of First year B.E./B.Tech. Programme</p> <p>(i) Students admitted to First year first semester B.E./B.Tech. shall complete the Programme within a period of eight academic years from the date of first admission, failing which they have to discontinue the Programme.</p> <p>(ii) A student who has not obtained eligibility to third semester even after three academic years from the date of first admission to first semester shall discontinue the Programme or get readmitted to first semester of first year B.E./B.Tech. with a revised University Seat Number having the same year of admission but serial number of the student starting with SIX hundred series (6XX).</p> <p>(iii) A student who has joined first year (to I or II semester) as a repeater and has not obtained eligibility to third semester even after three academic years from the date of readmission to first year shall discontinue the Programme or get readmitted to first semester of first year B.E./B.Tech., subject to the provision of 18OB1.4 (a)(i), with a revised University Seat Number having the same year of admission but serial number of the student starting with SIX hundred series (6XX).</p> <p>(iv) A student, who has been readmitted to First year [as per 18OB1.4 (a) (ii)and (iii)], does not get eligibility to third semester even after two academic years from the date of readmission, he/she shall discontinue the Programme or seek fresh admission following the prevailing admission procedure at that time.</p> <p>(v) A student who gets admitted to III semester from I year in three or less than three years shall complete the Programme, with or without break, within a period of eight academic years from the date of first admission, failing which they have to discontinue the Programme or seek fresh admission following the prevailing admission procedure at that time.</p> <p>(b) In case of lateral entry students admitted to Third semester of Second year B.E./B.Tech. Programme.</p> <p>(i) Students admitted to second year third semester B.E./ B.Tech. shall complete the Programme within a period of six academic years from the date of first admission, failing which they have to discontinue the Programme.</p> <p>(ii) A student who has not obtained eligibility to fifth semester even after two academic years from the date of first admission to third semester shall discontinue the Programme or get readmitted to third semester of second year B.E./B.Tech. with a revised University Seat Number having the same year of admission but serial number of the student starting with SEVEN hundred series (7XX).</p> <p>(iii) A student who has joined second year (to III or IV semester) as a repeater and has not</p> |

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| | <p>obtained eligibility to fifth semester even after three academic years from the date of readmission to second year shall discontinue the Programme or get readmitted to third semester of second year B.E./B.Tech., subject to the provision of 18OB1.4 (b) (i), with a revised University Seat Number having the same year of admission but serial number of the student starting with SEVEN hundred series (7XX).</p> <p>(iv) A student, who has been readmitted to second year [as per 18OB1.4 (b) (ii) and (iii)], does not get eligibility to fifth semester even after two academic years from the date of readmission to second year, he/she shall discontinue the Programme or seek fresh admission following the prevailing admission procedure at that time.</p> <p>(v) A student who gets admitted to V semester from II year in two or less than two years shall complete the Programme, with or without break, within a period of six academic years from the date of first admission, failing which they have to discontinue the Programme or seek fresh admission following the prevailing admission procedure at that time.</p> |
| 18OB1.5 | <p>Prescribed Number of Credits for the Programme [to be read along with 18OB12.2]:</p> <p>(a) The number of credits to be completed by students admitted to first semester of B.E./B.Tech. Programme shall be 175.</p> <p>(b) The number of credits to be completed by students admitted to third semester of B.E./B.Tech. Programme under lateral entry scheme shall be 135.</p> <p>(c) A student shall be eligible to get Undergraduate degree with Honours, if he/she earns additional 20 credits, as per VTU norms issued from time to time regarding the earning of additional credits. [To be read along with Regulations Governing the award of Honours' in B.E./B.Tech. Degree Programmes.]</p> |
| 18OB1.6 | <p>(a) Definition of Credits:</p> <p>(a.1) 1 hour Lecture (L) per week per semester = 1 Credit</p> <p>(a.2) 2 hours Tutorial (T) per week per semester = 1 Credit</p> <p>(a.3) 2 hours Practical/Laboratory/Drawing (P) per week per semester = 1 Credit.</p> <p>(a.4) Four credit theory courses shall be designed for 50 hours of Teaching - Learning process.</p> <p>(a.5) Three credit theory courses shall be designed for 40 hours of Teaching - Learning process.</p> |
| 18OB2.0 | <p>Eligibility for Admission to B.E./B.Tech. Programmes (As per the Government orders issued from time to time)</p> |
| 18OB2.1 | <p>(a) Day Engineering College (Eligibility: Candidates who have Passed Second PUC/ Twelfth standard)</p> <p>(i) Passed Second PUC/12th standard/Equivalent examination with English as one of the Languages and obtained a minimum of 45 % of Marks in aggregate in Physics and Mathematics along with Chemistry/Bio-Technology/Biology/Electronics/Computer. 40 % for SC, ST, Category - 1, 2A, 2B, 3A and 3B category candidates of Karnataka only.</p> <p>(ii) Those students, who have passed a qualifying examination other than the PUC II examination of the Pre-University Education Board of Karnataka, have to obtain eligibility certificate for seeking admission to B.E./B.Tech. Degree Programme from Visvesvaraya Technological University, Belagavi.</p> <p>(b) Day Engineering College (Eligibility: Candidates who have Passed 3 year Diploma)</p> <p>(i) A candidate who has passed any Engineering diploma examination or equivalent examination and obtained an aggregate minimum of 45 % marks taken together in all the subjects of the final year (Fifth and Sixth semester) diploma examination (qualified examination) is eligible for admission to B.E./B.Tech. Programmes, in respective branch of Engineering (as notified by the Government of Karnataka for admission to 3rd semester / 2nd year B.E./B.Tech.) and 40 % of marks in qualified examination in case of SC, ST and Backward Classes of Karnataka candidates.</p> <p>(ii) Those candidates who have completed Engineering Diploma from other than Karnataka state shall provide the Equivalence/ Eligibility Certificate issued from the Director of Technical Education, Karnataka.</p> |

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(c) Evening Engineering College (Eligibility: Candidates who have Passed 3 year Diploma):

(i) A candidate who has passed any Engineering diploma examination or equivalent examination and obtained an aggregate minimum of 45 % marks taken together in all the subjects of the final year (Fifth and Sixth semesters) diploma examination (qualified examination) is eligible for admission to B.E./B.Tech. Programmes, in respective branch of Engineering (as notified by the Government of Karnataka for admission to 3rd semester / 2nd year B.E./B.Tech.) and 40 % of marks in qualified examination in case SC, ST and Backward Classes of Karnataka candidates.

In addition to this a candidate after passing the diploma, must have minimum of Two years full-time work experience as on 1st September of the year of admission, in a registered firm/Company/Industry/Educational Institution /Government/Autonomous Organizations in the branch of Engineering/Technology, in which the candidates holds a diploma and in which admission is sought by him/her.

Professional experience refers to the experience earned as an employee on regular basis in Government, Government Undertaking, Public Sector Undertaking, Corporation or Private company registered under the Directorate of Industries and Commerce or the Directorate of Small Scale Industries or Government recognized Institutions as technical staff. Provided that the period of apprenticeship undergone shall also be treated as professional experience , if sponsored by the Board of Apprenticeship Training, Southern Region, Chennai or by Government, Government Undertakings and Public Sector Undertakings.

Note: In case where genuineness of the employment certificate is questionable, such candidates have to produce supportive documents specifying the registration details of the Industry/Company (e.g., SSI Registration) and or identity cards provided to them together with latest salary certificate and provident fund certificate. However, the employer has to fill up the NOC duly signed by the company authority.

(d) Day Engineering College (Eligibility: Candidates who have Passed B.Sc Degree)

Passed B.Sc. Degree from a recognized University as defined by UGC, with at least 45% marks (40% in case of candidates belonging to reserved category) and passed 10+2 examination with Mathematics as a subject.

18OB2.2 With regard to the qualification earned from foreign countries, Equivalence certificate from the University/ Association of Indian Universities is mandatory for admission to B.E./B.Tech. Programmes. In case of any dispute about the equivalence in qualification earned from foreign countries, the decision of the University Equivalence Committee shall be the final in establishing the eligibility of the student.

18OB3.0 Courses

18OB3.1 There shall be the following types of Courses:

(a) Humanities, Social Sciences and Management Courses (HSMC): These are mandatory for all disciplines.

(b) Basic Sciences Courses (BSC): Physics, Chemistry and Mathematics. These are mandatory for all disciplines.

(c) Engineering Science Courses (ESC): Materials, Workshop, Drawing, and Basics of Electrical/ Electronics/ Instrumentation/ Civil/ Mechanical/ Computer Engineering etc. These are mandatory for all disciplines.

(d) Professional Core Courses (PCC) – Core: Are the professional Core Courses, relevant to the chosen specialization/ branch. The core Courses are to be compulsorily studied by students and are mandatory to complete them to fulfill the requirements of a Programme.

(e) Professional Elective Courses (PEC): Are the professional Electives, relevant to the chosen specialization / branch and can be chosen from the pool of papers. It shall be supportive to the discipline providing extended scope/enabling an exposure to some other discipline /domain and nurturing student proficiency skills.

(f) Open Elective Courses (OEC): Are the Elective Courses from other technical areas and/ or from emerging fields.

(g) Project Work (PROJ): Mini project and Main Project. Carried out at the Institution or elsewhere without affecting with the regular classwork.

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| | <p>(h) Seminar: Deliverable at the Institution under the supervision of a Faculty.</p> <p>(i) Internship: Preferably at an industry/R and D organization/IT company/Government organization or elsewhere of significant repute for a specified period as mentioned in Scheme of Teaching and Examinations.</p> <p>(j) Mandatory Courses (MC): These Courses are mandatory, without the benefit of a grade or credit, for students admitted to B.E./B.Tech. Programme. A pass in each mandatory Course is required to qualify for the award of degree.</p> |
| 18OB3.2 | <p>The minimum number of students registered to any Elective Course offered by the Departments shall be not less than ten.</p> <p>However, the above condition shall not be applicable to Programmes having class strength of less than 10. In such cases, only one elective course shall be offered.</p> |
| 18OB3.3 | <p>A student shall exercise his option in respect of Elective Course/s and registered for the same at the beginning of the concerned semester. The student may be permitted to opt for a change of Elective Course/s within 15 days from the date of commencement of the semester as per the calendar of the University.</p> |
| 18OB3.4 | <p>Course Registration:</p> <p>In order to maintain proper academic record of each student at the Institution, every student shall register for the Courses of a semester (Credits) under the supervision of a Faculty Advisor (also called Mentor, Counselor, etc.,) in each semester.</p> |
| 18OB4.0 | <p>Internship/Professional Practice</p> |
| 18OB4.1 | <p>Internship / Professional Practice</p> <p>The Internship shall be completed during the period specified in the Scheme of Teaching and Examinations.</p> <ol style="list-style-type: none"> 1) The internship shall preferably be at an industry/R and D organization/IT company/ Government organization of significant repute for a specified period as mentioned in Scheme of Teaching and Examinations. 2) The Department/college shall nominate staff member/s to facilitate, Guide and supervise students under internship. 3) The students shall report progress of the internship to the Guide in regular intervals and seek his/her advice. The Guide shall maintain the progress record of the candidates undergoing internship. 4) After the completion of Internship, students shall submit a report with completion certificate and attendance certificate to the Head of the Department with the approval of both internal and external Guides. 5) There shall be 40 marks for CIE and 60 marks for SEE. The minimum requirement of CIE marks shall be 50% of the maximum marks. 6) The internal Guide shall be the internal examiner for the SEE. 7) The external Guide for Internship shall be the external examiner for SEE. Examination for internship shall be conducted at the college and the date shall be fixed in consultation with the external Guide. The Examiners shall jointly award the SEE marks. [To be read along with 18OB8.9 (f)] 8) In case the external Guide expresses his inability to conduct the Examination, the Principal /Chief Superintendent of the Institute shall appoint a senior faculty of the Department to conduct the Examination along with the internal Guide. 9) Non-availability of Internal guide due to inevitable situations for the conduct of SEE, the Principal /Chief Superintendent of respective institute shall appoint a senior faculty of the Department to conduct the Examination. 10) The students are permitted to carry out the internship anywhere in India or abroad. The University will not provide any kind of financial assistance to any student for carrying out the Internship. |
| 18OB 5.0 | <p>Technical Seminar and Project</p> |
| 18OB 5.1 | <p>Technical Seminar: Technical Seminar is one of the head of passing.</p> <ol style="list-style-type: none"> (i) Each candidate shall deliver Technical seminar as per the Scheme of Teaching and Examinations on the topic chosen from the relevant field. (ii) The Head of the Department shall make arrangements for the conduct of seminars |

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| | through concerned faculty members of the Department. The committee, constituted for the purpose by the Head of the Department, shall award the CIE marks for the seminar. The committee shall consist of two senior faculty members of the Department and the senior most acting as the Chairperson. [To be read along with 18OB8.2 (e)] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|-----------------------------|-------------|-------------------|---------------------|--------------------------------|---------------------|------------|------|--------------|-----------|---|---|--------|--------------------------------|---|-------|--------------|-----------|---|--------|---|-------|-----------|----|--|--------|------------|------------|------------|------------|------------|--------|-----------|-----------|-----------|----------|-----------|-----------|----------|
| 18OB 5.2 | Project: Project (Mini and Main) is one of the head of passing. Mini Project Work and Main Project Work shall preferably be batch wise, the strength of each batch shall not exceed a maximum of four students. [To be read along with 18OB 8.2 (f), (g) 18OB8.9 (f) and the details mentioned in Scheme of Teaching and Examinations.] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18OB 5.3 | Examinations in Mini Project Work and Main Project Work shall be conducted batch-wise. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18OB 6.0 | Computation of SGPA and CGPA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18OB 6.1 | (i) The University adopts absolute grading system wherein the marks are converted to grades, and every semester results shall be declared in terms of Semester Grade Point Average (SGPA) considering all the courses appeared in that Semester End Examinations including backlog course/s/arrear papers (refers to courses other than the current semester courses that have not yet been completed) and Cumulative Grade Point Average (CGPA). The CGPA will be calculated for every semester, except for the first semester. (ii) The grading system with the letter grades and the assigned range of marks under absolute grading system shall be as given below: <table border="1" style="width:100%; text-align:center;"> <tr> <th>Level</th> <th>Outstanding</th> <th>Excellent</th> <th>Very Good</th> <th>Good</th> <th>Above Average</th> <th>Average</th> <th>Fail</th> </tr> <tr> <td>Letter Grade</td> <td>S</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> <td>F</td> </tr> <tr> <td>Grade Points</td> <td>10</td> <td>9</td> <td>8</td> <td>7</td> <td>6</td> <td>4</td> <td>00</td> </tr> <tr> <td rowspan="2">Percentage of Marks Scored in a Course</td> <td>≥ 90</td> <td><90 ≥80</td> <td><80 ≥70</td> <td><70 ≥60</td> <td><60 ≥45</td> <td><45 ≥40</td> <td><40</td> </tr> <tr> <td>(90 -100)</td> <td>(80 - 89)</td> <td>(70 - 79)</td> <td>(60- 69)</td> <td>(45 - 59)</td> <td>(40 - 44)</td> <td>(0 - 39)</td> </tr> </table> (iii) A student obtaining Grade F in a Course shall be considered fail and is required to reappear in the subsequent SEE. Whatever the letter grade secured by the student during his /her reappearance shall be awarded. The number of attempts taken to clear Course/s shall be indicated in the grade card. | Level | Outstanding | Excellent | Very Good | Good | Above Average | Average | Fail | Letter Grade | S | A | B | C | D | E | F | Grade Points | 10 | 9 | 8 | 7 | 6 | 4 | 00 | Percentage of Marks Scored in a Course | ≥ 90 | <90 ≥80 | <80 ≥70 | <70 ≥60 | <60 ≥45 | <45 ≥40 | <40 | (90 -100) | (80 - 89) | (70 - 79) | (60- 69) | (45 - 59) | (40 - 44) | (0 - 39) |
| Level | Outstanding | Excellent | Very Good | Good | Above Average | Average | Fail | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Letter Grade | S | A | B | C | D | E | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grade Points | 10 | 9 | 8 | 7 | 6 | 4 | 00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Percentage of Marks Scored in a Course | ≥ 90 | <90 ≥80 | <80 ≥70 | <70 ≥60 | <60 ≥45 | <45 ≥40 | <40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (90 -100) | (80 - 89) | (70 - 79) | (60- 69) | (45 - 59) | (40 - 44) | (0 - 39) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18OB6.2 | Computation of SGPA and CGPA The following expressions shall be used to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) respectively: $SGPA = \frac{\sum [Course Credits \times Grade Points] \text{ for all the Courses in that Semester}}{\sum [Course Credits] \text{ for all the Courses in that Semester}}$ $CGPA = \frac{\sum [Course Credits \times Grade Points] \text{ for all Courses excluding those with F grades until that Semester}}{\sum [Course Credits] \text{ for all Courses excluding those with F grades until that semester}}$ The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the grade cards. (a) SGPA and CGPA Calculations: An Illustrative Example for one academic year <table border="1" style="width:100%; text-align:center;"> <thead> <tr> <th>Semester (Odd :I, Even: II)</th> <th>Course Code</th> <th>Credits</th> <th>Grade</th> <th>Grade Points (GP)</th> <th>Credit Points (CrP)</th> <th>SGPA, CGPA</th> </tr> </thead> <tbody> <tr> <td>I</td> <td>XX101</td> <td>5:0:0 = 5</td> <td>B</td> <td>8</td> <td>5x8=40</td> <td rowspan="4">$SGPA = \frac{117}{25} = 4.68$</td> </tr> <tr> <td>I</td> <td>XX102</td> <td>3:2:0 = 5</td> <td>Absent(F)</td> <td>0</td> <td>5x0=00</td> </tr> <tr> <td>I</td> <td>XX103</td> <td>3:0:0 = 3</td> <td>A</td> <td>9</td> <td>3x9=27</td> </tr> <tr> <td>I</td> <td>XX104</td> <td>0:1:1 = 2</td> <td>F</td> <td>0</td> <td>2x0=00</td> </tr> </tbody> </table> | Semester (Odd :I, Even: II) | Course Code | Credits | Grade | Grade Points (GP) | Credit Points (CrP) | SGPA, CGPA | I | XX101 | 5:0:0 = 5 | B | 8 | 5x8=40 | $SGPA = \frac{117}{25} = 4.68$ | I | XX102 | 3:2:0 = 5 | Absent(F) | 0 | 5x0=00 | I | XX103 | 3:0:0 = 3 | A | 9 | 3x9=27 | I | XX104 | 0:1:1 = 2 | F | 0 | 2x0=00 | | | | | | | |
| Semester (Odd :I, Even: II) | Course Code | Credits | Grade | Grade Points (GP) | Credit Points (CrP) | SGPA, CGPA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I | XX101 | 5:0:0 = 5 | B | 8 | 5x8=40 | $SGPA = \frac{117}{25} = 4.68$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I | XX102 | 3:2:0 = 5 | Absent(F) | 0 | 5x0=00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I | XX103 | 3:0:0 = 3 | A | 9 | 3x9=27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I | XX104 | 0:1:1 = 2 | F | 0 | 2x0=00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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**Regulations Governing the Degree of Bachelor of Engineering/Technology (B.E./B.Tech.)
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|---|---|-----------|------|-------|--------|--|------|------|
| I | XX105 | 4:1:0 = 5 | D | 6 | 5x6=30 | | | |
| I | XX106 | 5:0:0 = 5 | E | 4 | 5x4=20 | | | |
| Total | | 25(18*) | | Total | 117 | | | |
| (18*): Total credits of the semester excluding the credits of the courses under F grade. Considered for the calculation of CGPA of the two consecutive semesters under consideration. | | | | | | | | |
| II | XX107 | 3:1:1=5 | C | 7 | 5x7=35 | $SGPA = \frac{201}{32} = 6.28$ | | |
| II | XX108 | 4:0:0=4 | B | 8 | 4x8=32 | | | |
| II | XX109 | 3:0:0=3 | D | 6 | 3x6=18 | | | |
| II | XX110 | 4:1:0=5 | E | 4 | 5x4=20 | | | |
| II | XX111 | 2:1:1=4 | A | 9 | 4x9=27 | | | |
| II | XX112 | 2:0:0=2 | F | 0 | 2x0=00 | | | |
| II | XX113 | 3:2:0=2 | B | 8 | 2x8=16 | | | |
| I semester | | | | | | | | |
| I | XX102 | 3:2:0=5 | D | 6 | 5x6=30 | $CGPA = \frac{(117 + 201)}{18 + 30} = \frac{318}{48} = 6.63$ | | |
| I | XX104 | 0:1:1=2 | C | 7 | 2x7=14 | | | |
| Total | | 32 (30*) | | Total | 201 | | | |
| (30*): Total credits of the semester excluding the credits of the courses under F grade. Considered for the calculation of CGPA of the two consecutive semesters under consideration. | | | | | | | | |
| (b) CGPA Calculation of the Programme: An Illustrative Example | | | | | | | | |
| Semester | I | II | III | IV | V | VI | VII | VIII |
| Credits of the semester | 20 | 20 | 24 | 24 | 25 | 24 | 20 | 18 |
| SGPA | 4.68 | 6.28 | 9.20 | 6.86 | 8.18 | 7.73 | 9.18 | 9.40 |
| $\sum CrP$ | 117 | 201 | 22 | 165 | 204 | 185 | 184 | 169 |
| $CGPA = \frac{[117 + 201 + 220 + 165 + 204 + 185 + 184 + 169]}{175} = \frac{[1445]}{175} = 8.26$ | | | | | | | | |
| 18OB6.3 | Grade Card: Based on the secured letter grades, grade points, SGPA and CGPA, a grade card for each semester and a consolidated grade card indicating the performance in all semesters shall be issued. | | | | | | | |
| 18OB7.0 | Conversions of CGPA into Percentage of marks and Class Equivalence | | | | | | | |
| 18OB7.1 | Formula for the conversion of CGPA into percentage of marks. Percentage of marks secured, $P = [CGPA \text{ Earned} - 0.75] \times 10$ Illustration for a CGPA of 8.20: $P = [CGPA \text{ Earned } 8.20 - 0.75] \times 10$ $= 74.5 \%$ | | | | | | | |
| 18OB7.2 | Class Equivalence: Subsequent to the conversion of final CGPA, after successful completion of the Programme, into percentage of marks (P), a graduating student is reckoned to have passed in (i) First Class with Distinction (FCD) if $P \geq 70\%$ (ii) First Class (FC) if $P \geq 60\%$ but $< 70\%$ and (iii) Second Class (SC) if $P < 60\%$. | | | | | | | |
| 18OB8.0 | Continuous Internal Evaluation, Semester End Evaluation and Minimum CIE and SEE Marks | | | | | | | |
| 18OB8.1 | Continuous Internal Evaluation Marks and Minimum CIE Marks: (a) For Vyavaharika Kannada (Balake Kannada)/Aadalitha Kannada (Samskruthika Kannada) the maximum CIE marks shall be 100. For the award of credit, the minimum CIE marks to be secured shall be 40 % of the maximum marks i.e., 40 marks. (b) For Project work Phase - I and Technical seminar the maximum CIE marks shall be 100. For the award of credit, the minimum CIE marks to be secured shall be 50 % of the maximum marks i.e., 50 marks. | | | | | | | |

Approved by VTU Executive Council: Resolution No. 2.2.1 in its 146th meeting held on 30th May, 2019

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| | <p>(c) For Practical/ Mini-project/Internship/Project work- Phase 2 the maximum CIE marks shall be 40. To appear for the SEE, the minimum CIE marks to be secured shall be 50 % of the maximum marks i.e., 20 marks.</p> <p>(d) For all other theory Courses of the Programme, the maximum CIE marks shall be 40. To appear for the SEE, the minimum CIE marks to be secured shall be 40 % of the maximum marks i.e., 16 marks.</p> <p>(f) For Additional Mathematics I and II (to be completed by diploma lateral entry students) the maximum CIE marks shall be 40. To appear for the SEE, the minimum CIE marks to be secured shall be 40 % of the maximum marks i.e., 16 marks.</p> <p>(g) For Engineering Graphics and Elements of Civil Engineering and Mechanics (of First Year Engineering and to be completed by B.Sc graduates under lateral entry) the maximum CIE marks shall be 40. To appear for the SEE, the minimum CIE marks to be secured shall be respectively 50 % and 40 % of the maximum marks i.e., 20 and 16 marks.</p> |
| <p>18OB8.2</p> | <p>Continuous Internal Evaluation Procedure: [To be read along with 18 OB 8.1 and 8.3]</p> <p>(a) Theory Courses:</p> <p>(i) CIE Marks in each theory Course (including 'Technical English I and II', 'Constitution of India, Professional Ethics and Cyber Law', 'Environmental Studies', 'Additional Mathematics I and II'), shall be the sum of marks prescribed for tests and assignments. Marks prescribed for tests shall be 30 and that for assignments 10.</p> <p>(ii) The CIE marks awarded for tests in the theory Courses shall be based on three tests generally conducted at the end of fifth, tenth and fifteenth week of each semester. Each test shall be conducted for a maximum of 50 marks and the final test marks shall be the average of three tests, proportionately reduced to a maximum of 30 marks.</p> <p>(iii) The remaining 10 marks shall be awarded based on the evaluation of assignments/unit tests/written quizzes that support to cover both lower and higher order thinking skills as per Revised Bloom's Taxonomy.</p> <p>(iv) Final CIE marks awarded shall be the sum of 18OB8.2 (a) (ii) and (iii) for a maximum of 40 marks.</p> <p>(v) The candidates shall write the tests, assignments/unit-tests /written quizzes in Blue Books which shall be preserved by the Principal/ Head of the Department for at least six months after the announcement of University results and shall be made available for verification at the direction of the Registrar (Evaluation).</p> <p>(b) Engineering Graphics/ Drawing/Field work Courses:</p> <p>The CIE marks awarded for I year Engineering Graphics Course shall be based on</p> <p>(i) Classwork for 24 marks (sketching and Computer Aided Engineering Drawing).</p> <p>(ii) Two Tests conducted in the same pattern as that of SEE for 16 marks (The marks secured can be taken as best of the two tests).</p> <p>(iii) Final CIE marks awarded for Engineering Graphics shall be the sum of 18OB8.2 (b) (i) and (ii) for a maximum of 40 marks.</p> <p>(iv) The CIE marks awarded for higher semester Drawings/ Design Drawings offered by various branches shall be based on the evaluation of the sheets and one test in the ratio 60:40.</p> <p>(v) The CIE marks awarded for field work (like Surveying Practice) shall be based on the evaluation of the associated field work and one test in the ratio 60:40.</p> <p>(c) Practical Courses:</p> <p>The CIE marks awarded in case of Practical shall be based on the weekly evaluation of laboratory journals/ reports after the conduction of every experiment and one practical test in the ratio 60:40.</p> <p>(d) Internship:</p> <p>The CIE marks awarded for internship shall be based on the evaluation of Internship Report, Presentation skill and Question and Answer session in the ratio 50:25:25.</p> <p>(e) Technical Seminar:</p> <p>The CIE marks awarded for Technical Seminar shall be based on the evaluation of Seminar Report, Presentation skill and Question and Answer session in the ratio 50:25:25.</p> <p>(f) Mini - Project:</p> |

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| | <p>The CIE marks awarded for Mini - Project, shall be based on the evaluation of Mini - Project Report, Project Presentation skill and Question and Answer session in the ratio 50:25:25. The marks awarded for Mini - Project report shall be the same for all the batch mates.</p> <p>(g) Main Project Work:</p> <p>(I) Project Work Phase - 1 The CIE marks awarded for project work phase -1 shall be based on the evaluation of project work phase -1 Report, Project Presentation skill and Question and Answer session in the ratio 50:25:25. The marks awarded for the Project report shall be the same for all the batch mates.</p> <p>(II) Project Work Phase - 2 The CIE marks awarded for project work phase -2 shall be based on the evaluation of project work phase -2 Report, Project Presentation skill and Question and Answer session in the ratio 50:25:25. The marks awarded for Project report shall be the same for all the batch mates.</p> |
| | <p>(h) Vyavaharika Kannada (Balake Kannada)/Aadalitha Kannada (Samskruthika Kannada)</p> <p>(i) CIE Marks in Vyavaharika Kannada (Balake Kannada)/Aadalitha Kannada (Samskruthika Kannada) shall be the sum of marks prescribed for tests and assignments. Marks prescribed for tests shall be 75 and that for the assignments shall be 25.</p> <p>(ii) The CIE marks awarded for the tests shall be based on three tests generally conducted at the end of fifth, tenth and fifteenth week of each semester. Each test shall be conducted for a maximum of 25 marks and the final CIE marks shall be the sum of the marks of all the three tests.</p> <p>(iii) The remaining 25 marks shall be awarded based on the evaluation of assignments/oral discussions/ quizzes that supports communication skills.</p> <p>(iv) Final marks awarded shall be the sum of 18OB8.2 (h) (ii) and (iii) for a maximum of 100 marks.</p> <p>(v) Students shall write the tests in Blue Books and complete the exercises/activates/ questions given in the University Kannada textbook. These shall be preserved by the Principal/ Head of the Department for at least six months after the announcement of University results and shall be made available for verification at the direction of the Registrar (Evaluation).</p> |
| 18OB8.3 | <p>(a) The CIE marks in the case of Internship/Technical Seminar/Mini-Project and Project Work Phase 1 and 2 shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.</p> <p>(b) A committee constituted by the Head of the Department of Humanities and Social Science shall inspect and authenticate the award the CIE marks for the Course Vyavaharika Kannada (Balake Kannada)/Aadalitha Kannada (Samskruthika Kannada). The committee shall consist of two senior faculty members of the Department and the senior most acting as the Chairperson.</p> |
| 18OB8.4 | <p>(i) Students satisfying the attendance requirement but failing to secure the minimum percentage of CIE marks, in any Course/s, shall not be eligible for the SEE conducted by the University and they shall be considered as fail in that Course /those Courses. However, they can appear for University examinations conducted in other Courses of the same semester and backlog Course/s if any.</p> <p>(ii) Students who have satisfied the attendance requirement but not the CIE requirements shall be permitted to register afresh and appear for SEE after satisfying the CIE requirements in the same Course/s (with or without satisfying the attendance requirement) when offered during subsequent semester/s.</p> <p>(iii) Each appearance to SEE to complete a course shall be treated as an attempt.</p> |
| 18OB8.5 | <p>CIE marks of those students, who come under 18OB8.4, shall also be sent to the Registrar (Evaluation) along with other course CIE Marks.</p> |

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| 18OB8.6 | <p>(i) The final list, incorporating corrections (if any), of CIE marks awarded to the students in the Theory/Practical/Internship/ Technical Seminar / Mini – Project/Project work –phase 1 and 2, shall be displayed on the notice board of the college much before the closure of the semester.</p> <p>(ii) The institution shall enter the CIE marks of each semester in the format of the VTU online CIE marks portal and submit a certified copy of the same to the University Examination Section within the stipulated date notified by University. Every page of the CIE marks sheet (hardcopy) shall bear the signatures of the concerned Teacher/Teachers, Head of the Department and Principal.</p> |
| 18OB8.7 | <p>Any corrections or overwriting of CIE marks shall bear the signature(s) of concerned Teacher(s) and in such cases the Head of the Department shall indicate the number of corrections on every sheet and attest it with his/her signature.</p> |
| 18OB8.8 | <p>CIE marks shall reach the University before the commencement of examination as per the notification from the office of the Registrar (Evaluation) from time to time. After the submission of CIE marks to the University, any request under any circumstances for change of CIE marks shall not be considered.</p> |
| 18OB8.9 | <p>Semester End Examination Marks and Passing standards</p> <p>(a) University examination for all Courses under SEE shall be conducted for a maximum of 100 Marks. The marks secured by the students for 100 marks shall be proportionately reduced to a maximum of 60 marks to add the same with the CIE marks for the award of letter grade.</p> <p>(b) The University examinations for all the Programmes of study shall be conducted at the end of each semester for all the eight semesters.</p> <p>(c) Students having no backlog course/s, may not have more than one examination on the same day. However, students having backlog course/s may face a situation where they may have</p> <p>(i) Two examinations scheduled at the same time of the day.</p> <p>(ii) To take two examinations on the same day, one during the morning session and the other in the afternoon session, and</p> <p>(iii) Examinations on consecutive days.</p> <p>As changing the examination dates is not an option, the examination time table shall not be modified/ altered/ adjusted in any of the above three cases. In the first case, the students shall select any one of the clashing courses and in second and third cases, the students shall manage the examinations as per their decision.</p> <p>(d) The pattern of the SEE question paper for Courses Technical English I and II, Constitution of India, Professional Ethics and Cyber Law, and Environmental Studies shall be objective type [Multiple Choice Questions (MCQ)].</p> <p>(e) For a pass in a theory Course/Drawing, students shall secure a minimum 35 % of the maximum marks prescribed for the University examination and in total 40 % of the Course maximum marks, i.e., the sum of the CIE and SEE marks prescribed for the Course.</p> <p>(f) For a pass in Practical/ Mini-project / Internship/Technical Seminar/Project work, students shall secure a minimum of 40 % of the Course maximum marks prescribed for the University examination (SEE).</p> <p>(g) Students who satisfy the conditions 18OB8.9 (e) and (f), and obtain any grade from S to E in a Course shall be considered to have passed that Course.</p> <p>(h) A student shall be declared fail if the candidate</p> <p>(h.a) Fails to satisfy the conditions 18OB8.9 (g).</p> <p>(h.b) Absents himself / herself to the University examination.</p> <p>(h.c) Is held guilty of examination malpractice and for any other reasons and declared the performance of any Course/s null and void by a competent authority.</p> <p>(i) If a student secures F grade in any of the Course/s, he/she shall reappear for that Course/s during the subsequent SEE. The CIE marks awarded to the student at first attempt in the concerned Course/s shall be carried forward. Revised CIE marks is considered only in cases under the provision of 18OB8.4 (ii).</p> |

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| 18OB8.10 | Students who pass a Course of a semester as per 18OB8.9 (g) shall not be allowed to appear for any individual Course again, unless they opt for rejection of results of entire semester. However, students who have CGPA less than 5.00 at the end of academic Programme, subject to the provision 18OB1.4, shall be allowed to appear for only SEE of Course/s to make up the deficiency in CGPA. |
| 18OB8.11 | A student may, at his/her desire, can reject the total performance of a semester (including CIE marks) or reject only the result of his/her performance in University examinations of a semester. The rejection is permitted only once during the entire Programme of study. |
| 18OB8.12 | <p>Students who desire to reject the SEE results of a semester shall reject the total performance (irrespective of the earned Course grades) in all the Courses of the semester either rejecting or retaining the CIE marks. However, rejection of the performance of VIII semester project shall not be permitted.</p> <p>(i) Students, who desire to reject the total SEE performance of an odd or even semester including CIE marks, have to repeat that odd or even semester of the prevailing scheme by taking readmission during the subsequent academic year/s. They shall also be governed by 18OB12.1, 12.2 and 1.4.</p> <p>(ii) If the rejection of SEE results excluding CIE marks is of odd semester, students shall be allowed to take admission to the immediate next even semester.</p> <p>(iii) If the rejection of SEE results excluding CIE marks is of even semester, then students shall not be allowed to take admission to the next odd semester as per 18OB10.3. In such cases, students shall take admission to the next odd semester of the prevailing scheme during the subsequent academic year/s, after obtaining the eligibility to move to higher semester. They shall also be governed by 18OB12.1, 12.2 and 1.4.</p> <p>(iv) Readmission to odd/even semester as per 18OB8.12 (i) and (iii) shall not be considered as fresh admission and therefore students shall continue to have the same University Seat Number, which was allotted earlier. The maximum duration of the Programme (as per 18OB1.4) shall be counted with reference to old University Seat Number.</p> <p>(v) Applications for rejection and approval to reappear for University examinations shall be sent to the Registrar (Evaluation) through the Principal of the College within 30 days from the date of announcement of the results. Late submission of applications shall not be accepted for any reasons.</p> <p>(vi) Application for approval of readmission shall be sent to the Registrar through the Principal of College within 30 days from the date of the announcement of the results. Late submission of application shall not be accepted for any reasons.</p> |
| 18OB8.13 | Students who opt for rejection of results of University examination shall be eligible for the award of degree and not for the award of ranks and Honours Degree. |
| 18OB9.0 | Attendance Requirement |
| 18OB9.1 | Each semester shall be considered as a unit for calculation of the attendance and the Candidates have to put in a minimum attendance of 85% in each Course with a provision of condonation of 10% of the attendance by the Vice-Chancellor on the specific recommendations of the Principal of the college where the candidate is studying, based on medical grounds, participation in University/State/ National/ International level sports and cultural activities, seminars, workshops, paper presentation etc., of significant value. The supporting documents for condoning the shortage of attendance shall be submitted along with the recommendations. |
| 18OB9.2 | <p>(a) The basis for the calculation of attendance shall be the period prescribed by the University by its calendar of events and as notified by the Registrar (Evaluation) from time to time.</p> <p>(b) In case of late admissions, approved by competent authority (DTE/VTU), to I semester/ III semester (lateral entry scheme) of day college/III semester (lateral entry scheme) of Engineering Programme conducted during evening, the attendance shall be reckoned from the date of admission to the Programme.</p> |

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| 18OB9.3 | The Course Instructor/ Mentor/College shall inform the students as well as their parents /guardians about the attendance status periodically. Students who are facing the shortage of attendance shall be mentored to make up the shortage. Principals shall also notify every month, the list of candidates who are under short of attendance. |
| 18OB9.4 | A candidate, who does not satisfy the attendance requirement (in one or more Courses and including the Courses Additional Mathematics I and II) as mentioned in 18OB 9.1 shall not be eligible to appear for the Semester End Examinations of that semester and shall not be permitted to take admission to next higher semester. The candidate shall be required to repeat that semester during the subsequent year. |
| 18OB10.0 | Vertical Progression (Promotion/ Eligibility to higher semesters) |
| 18OB10.1 | There shall be no restriction for promotion from an odd semester to the next even semester, provided the student has fulfilled the attendance requirement. |
| 18OB10.2 | Along with the reasons specified at 18OB8.9 (h), a student shall be declared fail if he/she (i) Has not satisfied the CIE requirements of any Course/s. (ii) Has not registered for the SEE even after satisfying the attendance and CIE requirements. |
| 18OB10.3 | <p>(A) Vertical Progression in case of students admitted to First year:</p> <p>(a) Students having not more than four F grades in the two semesters of first year of the Programme shall be eligible to move to second year.</p> <p>(a.1) Students having not more than four F grades in the four semesters of I and II year shall be eligible to move to III year.</p> <p>(a.2) Students who have earned all the prescribed credits of I year, and having not more than four F grades in the four semesters of II and III year shall be eligible to move to IV year.</p> <p>(B) Vertical Progression in case of Diploma students admitted to Second year (lateral entry):</p> <p>(a) Students having not more than four F grades (excluding the Fail or pass status of Additional Mathematics I and II) in the two semesters of II year of the Programme shall be eligible to move to III Year.</p> <p>(a.1) Students having not more than four F grades (excluding the Fail or pass status of Additional Mathematics I and II, if any) in the four semesters of II and III year shall be eligible to move to IV year.</p> <p>(b) The mandatory non – credit Courses Additional Mathematics I and II prescribed at III and IV semesters respectively, to lateral entry Diploma holders admitted to III semester of B.E./B.Tech. Programmes shall attend the classes during the respective semesters to satisfy attendance and CIE requirements and to appear for the University examinations.</p> <p>(b.1) In case, any student fails to satisfy the attendance requirement of the Courses Additional Mathematics I and II, he/she shall not be eligible to appear for the Semester End Examinations of that semester and shall not be permitted to take admission to next higher semester. The candidate shall be required to repeat that semester during the subsequent year.</p> <p>(b.2) Students who have satisfied the attendance requirement but not the CIE requirements of the Courses Additional Mathematics I and II shall be permitted to register afresh and appear for SEE after satisfying the CIE requirements in the same Course/s (with or without satisfying the attendance requirement) when offered during subsequent semester/s.</p> <p>(c) Completion of Additional Mathematics I and II shall be mandatory for the award of degree.</p> <p>(C) Vertical Progression in case of B.Sc students admitted to Second year (lateral entry):</p> <p>(a) Students having not more than four F grades (excluding the Fail or pass status of Engineering Graphics and Elements of Civil Engineering and Mechanics of First Year Engineering Programme) in the two semesters of II year of the Programme shall be eligible to move to III Year.</p> <p>(a.1) Students having not more than four F grades (excluding the Fail or pass status of Engineering Graphics and Elements of Civil Engineering and Mechanics of First Year Engineering Programme, if any) in the four semesters of II and III year shall be eligible to move to IV year.</p> |

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(b) The prescribed mandatory non – credit Courses Engineering Graphics and Elements of Civil Engineering and Mechanics of First Year Engineering Programme to lateral entry B.Sc. holders admitted to III semester of B.E./B.Tech. Programmes, shall attend the classes during the respective semesters to complete CIE and attendance requirements and to appear for the University examinations.

(b.1) In case, any student fails to satisfy the attendance requirement of the above said Courses, he/she shall not be eligible to appear for the Semester End Examinations of that semester and shall not be permitted to take admission to next higher semester. The candidate shall be required to repeat that semester during the subsequent year.

(b.2) Students who have satisfied the attendance requirement but not the CIE requirements of the above said Courses, shall be permitted to register afresh and appear for SEE after satisfying the CIE requirements in the same Course/s (with or without satisfying the attendance requirement) when offered during subsequent semester/s.

(c) Completion of Engineering Graphics and Elements of Civil Engineering and Mechanics shall be mandatory for the award of degree.

The Principal of each college shall make suitable arrangements in the timetable to facilitate the B.Sc students to attend the above mentioned courses to satisfy the CIE and attendance requirements and to appear for the University examinations.

18OB11.0 Award of Degree

18OB11.1 1. B.E./B.Tech. degree

(a) Students shall be declared to have completed the Programme of B.E. / B.Tech. degree and is eligible for the award of degree, provided the students have undergone the stipulated Course work of all the semesters under the Scheme of Teaching and Examinations and has earned the prescribed number of credits as per the provision 18OB1.5. [To be read along with 18 OB 12.1 and 12.2]

(b) For the award of degree, a CGPA \geq 5.00 at the end of Programme shall be mandatory. [To be read with 18OB11.2 (1)]

(c) Completion of Additional Mathematics I and II, shall be mandatory for the award of degree to lateral entry diploma students.

(d) Completion of Engineering Graphics and Elements of Civil Engineering and Mechanics of First Year Engineering Programme shall be mandatory for the award of degree to lateral entry B.Sc graduates.

(e)(i) Over and above the academic credits, every Day College regular student admitted to the 4 years Degree Programme and every student entering 4 years Degree Programme through lateral entry, shall earn 100 and 75 Activity Points respectively through AICTE Activity Point Programme for the award of degree. Students transferred from other Universities/ Autonomous colleges under VTU to fifth semester are required to earn 50 Activity Points from the year of entry to VTU. The Activity Points earned shall be reflected on the student's eight semester Grade Card.

(ii) Activity Points (non-credit) have no effect on SGPA/CGPA and shall not be considered for vertical progression.

In case students fail to earn the prescribed activity Points before the commencement of 8th semester examinations, 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.

2. B.E./B.Tech. (Honours) degree

(a) A student shall be declared to have completed the Programme of B.E. / B.Tech. degree and shall be eligible to get undergraduate BE/B.Tech degree with Honours, provided.

(a.1) The student has undergone the stipulated Course work of all the semesters under the same Scheme of Teaching and Examinations and has earned the prescribed number of credits as per the provision 18 OB1.5 (a) and (b).

(a.2) Has earned additional 20 or more credits through University approved online Courses.

(a.3) Satisfies the Regulations Governing the award of Honours at B.E./B.Tech. Degree Programmes.

REGISTRATION
VIT-TECHNOLOGICAL UNIVERSITY
REG. NO. VI - 590 018

**Regulations Governing the Degree of Bachelor of Engineering/Technology (B.E./B.Tech.)
Under Outcome Based Education (OBE) and Choice Based Credit System (CBCS)
Effective from the Academic Year 2018 - 19**

| | |
|----------|---|
| 18OB11.2 | <p>(1) Noncompliance of CGPA ≥ 5.00 at the end of the Programme</p> <p>(a) Students who have completed all the courses of the Programme but not having a CGPA ≥ 5.00 at the end of the Programme, shall not be eligible for the award of the degree.</p> <p>(b) In the cases of 18OB11.2 (1) (a), students shall be permitted to appear again for SEE in course/s [other than Internship, Technical seminar, Project (Mini and Main), and Laboratories] of any Semester/s without the rejection of CIE marks for any number of times, subject to the provision of maximum duration of the Programme to make up the CGPA equal to or greater than 5.00 for the award of the Degree.</p> <p>(c) In case, the students earn improved grade/s in all the reappeared course/s, the CGPA shall be calculated considering the improved grade/s. If it is ≥ 5.00, the students shall become eligible for the award of the degree. If CGPA < 5.00, the students shall follow the procedure laid in 18OB11.2(1) (b).</p> <p>(d) In case, the students earn improved grade/s in some course/s and the same or lesser than the previously earned pass grade/s in the other reappeared course/s, the CGPA shall be calculated considering the improved grade/s and the pass grades earned before the reappearance. If it is ≥ 5.00, the students shall become eligible for the award of the degree. If CGPA < 5.00, the students shall follow the procedure laid in 18OB11.2 (1) (b).</p> <p>(e) In case, the students earn improved grade/s in some courses and fail in the other reappeared course/s, the CGPA shall be calculated by considering the improved grade/s and the previously earned pass grade/s of the reappeared course/s in which the students have failed. If it is ≥ 5.00, the students shall become eligible for the award of the degree. If CGPA < 5.00, the students shall follow the procedure laid in 18OB11.2 (1) (b).</p> <p>(f) In case, the students fail (i.e., earns F grade) in all the reappeared course/s, pass grade/s of the course/s earned by the students before reappearance shall be retained. In such cases, the students shall follow the procedure laid in 18OB11.2 (1) (b).</p> <p>(g) Students shall obtain written permission from the Registrar (Evaluation) to reappear in SEE to make up the CGPA equal to or greater than 5.00.</p> <p>(2) Noncompliance of Mini-project</p> <p>(a) The mini-project shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the mini-project shall be declared fail in that course and shall have to complete the same during subsequent University examinations after satisfying the Mini-project requirements. Also, mini-project shall be considered for eligibility to VII semester.</p> <p>(3) Noncompliance of Internship</p> <p>(a) All the students of B.E./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 credits shall be included with the credits of VIII semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the internship shall be declared fail in that Course and shall have to complete the same during subsequent University examinations after satisfy the internship requirements.</p> |
| 18OB12.0 | Temporary Discontinuation/Break in the Programme/Change in Scheme of Study |
| 18OB12.1 | <p>(a) If a candidate, for any reason, temporarily discontinues the Programme or take a break from the Programme during any semester intentionally, he/she shall be permitted to continue the Programme by registering to the same semester of the prevailing scheme. The candidate from that semester shall attend and complete all the remaining Course works of all the semesters, adhering to the regulations of the prevailing scheme and subject to the provision 18OB1.4. Also the Candidates may have to complete additional Course/s, if any, as per the decision of concerned Board of Studies on establishing the equivalence between two schemes. A Grade card shall be issued to that effect. Additional Course/s shall not be considered for the eligibility criteria prescribed for promotion. Based on the individual cases, they shall be considered to decide the SGPA and CGPA to admit the student for the award of degree. Such candidates shall not be eligible for the award of rank / Honours degree.</p> |

REGISTRAR
VIT Vellore
Tel: 0420 - 2201010

Approved by VTU Executive Council: Resolution No. 2.2.1 in its 146th meeting held on 30th May, 2019

**Regulations Governing the Degree of Bachelor of Engineering/Technology (B.E./B.Tech.)
Under Outcome Based Education (OBE) and Choice Based Credit System (CBCS)
Effective from the Academic Year 2018 - 19**

| | |
|----------|---|
| | <p>(b) Candidates who take admission to any semester of the existing scheme from another scheme, as a repeater/fresher because of various reasons, shall attend and complete all the remaining semester/s of the Programme adhering to the regulations of the prevailing scheme, and shall complete additional Course/s, if any, as per the decision of concerned Board of Studies on establishing the equivalence between two schemes. A Grade card shall be issued to that effect. Additional Courses shall not be considered for the eligibility criteria prescribed for promotion. Based on the individual cases, they shall be considered to decide the SGPA and CGPA to admit the student for the award of degree. Such candidate shall not be eligible for the award of rank/Honours Degree.</p> <p>(c) The credits to be earned by the candidates under 18OB12.1 (a) and (b) and 18OB14.1(b) and (c) shall be decided by the University along with the additional Course/s to be completed.</p> |
| 18OB12.2 | <p>(i) The candidates who have temporarily discontinued the Programme of study or changed the scheme of study from one to another because of various reasons, or transferred from autonomous/other University to non-autonomous VTU constituent/affiliated college, shall be eligible for the award of degree provided the credits earned is equal to or greater than the credits decided by the University in the individual cases.</p> <p>(ii) In case, the credits earned is less than the credits decided by the University in the individual cases, after the completion of all the semesters of the Programme under the prevailing scheme, the candidate shall register for a Course or courses not studied earlier and make up the credits earned equal to or greater than the required for the award of degree.</p> <p>(iii) If the earned Programme credits are greater than the prescribed, the CGPA shall be proportionately reduced to the prescribed Programme credits.</p> |
| 18OB13.0 | Award of Prizes, Medals and Ranks |
| 18OB13.1 | For the award of Prizes and Medals, the conditions stipulated by the Donor shall be considered subject to the provisions of the statutes framed by the University for such awards. |
| 18OB13.2 | <p>1) For award of rank in a Specialization of Bachelor of Engineering/ Technology, the CGPA secured by the students from III to VIII semester shall be considered.</p> <p>(2) The additional credits earned for the award of Honours degree shall not have any bearing for the Rank declaration.</p> <p>(3) A student shall be eligible for a rank at the time of award of degree of Bachelor of Engineering/ Technology, provided that the student,</p> <p>(a) (i) Has passed all the Courses of I to VIII semester in first attempt only in case of Candidates admitted to I year.</p> <p>(ii) Has passed all the Courses (including Additional Mathematics I and II in case Diploma students/ Engineering Graphics and Elements of Civil Engineering and Mechanics in case of B.Sc graduates under lateral entry) of III to VIII semester in first attempt only in case of Candidates admitted under lateral entry scheme.</p> <p>(b) Is not a repeater in any semester because of rejection of result of a semester/ shortage of attendance etc.</p> <p>(c) Has completed all the Courses/semesters of the same Scheme of Teaching and Examinations without any break/discontinuity.</p> <p>(d) Has completed all the semesters (I to VIII/III to VIII) in VTU constituent college or in any VTU affiliated non-autonomous college.</p> <p>(e) Has not been transferred from any autonomous institution affiliated to VTU or from any other University.</p> <p>(4) The total number of ranks awarded shall be 10% of total number of students appeared in VIII semester subject to a maximum of 10 ranks in a Specialization.</p> <p>(5) For award of ranks in a Specialization, a minimum of 10 students should have appeared in the VIII semester examination.</p> <p>Illustration:</p> <p>(a) If 1228 students appeared for the VIII semester in Electronics and Communication Engineering Programme, the number of ranks to be awarded for Electronics and Communication Engineering shall be 10.</p> |

REGISTRAR
VIT Vellore Technological University
REG. NO. 17 - 580 018

Approved by VTU Executive Council: Resolution No. 2.2.1 in its 146th meeting held on 30th May, 2019

**Regulations Governing the Degree of Bachelor of Engineering/Technology (B.E./B.Tech.)
Under Outcome Based Education (OBE) and Choice Based Credit System (CBCS)
Effective from the Academic Year 2018 – 19**

| | |
|----------|--|
| | <p>(b) If 90 students appeared for the VIII semester in Biomedical Engineering, the number of ranks to be awarded for Biomedical Engineering will be 09.</p> <p>(6) In case of fractional number of ranks, it is rounded to higher integer only when the first decimal place is greater than or equal to 5.</p> |
| 18OB13.3 | Ranks shall be awarded based on the merit of the students as determined by CGPA. If two or more students get the same CGPA, the tie shall be resolved by considering the number of times a student has obtained higher SGPA. If it is not resolved even at this stage, the number of times a student has obtained higher grades like S, A, B etc., shall be taken into account to decide the order of the rank. |
| 18OB14.0 | Transfer of students |
| 18OB14.1 | <p>(a) (i) Transfer of students from one VTU affiliated non – autonomous college to another VTU non – autonomous affiliated college shall be permitted only at the beginning of third, fifth and seventh semesters, subject to availability of seats within the permitted intake in respective Colleges with the approval of the Registrar, VTU subject to the provision 18OB10.3.</p> <p>(ii) The students seeking transfer as per 18OB14.1 (a) (i) shall have to obtain No Objection certificate for admission from the University and from both the colleges before the commencement of term as notified by VTU.</p> <p>(iii) Complete the Programme subject to the provision 18OB1.4.</p> <p>(b) Transfer of students from an autonomous to non – autonomous college, affiliated to VTU is permitted with the following conditions.</p> <p>(i) Transfer shall only be at the beginning of III and V semester B.E./B.Tech. Programme.</p> <p>(ii) No transfer shall be permitted to VII semester B.E./B.Tech. Programme.</p> <p>(iii) Students who are seeking transfer must have passed in all the Courses of the previous semesters.</p> <p>(iv) Obtain No Objection certificate for admission from the University and from both the colleges before commencement of term as notified by VTU.</p> <p>(v) Complete additional Course/s, if any, as per the decision of concerned Board of Studies on establishing the equivalence between two schemes. A Grade card shall be issued to that effect. Additional Course/s shall not be considered for the Eligibility criteria prescribed for promotion, calculation of SGPA and CGPA. However, a pass in the additional Courses, if any, is mandatory before the completion of Degree.</p> <p>(vi) Earn the credits decided by the University as per 18OB12.2.</p> <p>(vii) Complete the Programme subject to the provision 18OB1.4.</p> <p>(c) In the case of students seeking transfer from Universities other than VTU, the students must have passed in all the Courses of I and II semesters for admission to III semester and all the Courses of I to IV semesters for admission to V semester. No transfer shall be permitted to VII semester B.E./B.Tech. Programme of VTU from any other Universities. The students seeking admission from other Universities to VTU shall have to</p> <p>(i) Apply for establishment of equivalence with prescribed fees as notified by the VTU and obtain No Objection certificate for admission from the University before the commencement of term as notified by VTU.</p> <p>(ii) Produce No Objection certificate for admission from both the colleges before the commencement of term as notified by VTU.</p> <p>(iii) Complete additional Course/s, if any, as per the decision of concerned Board of Studies on establishing equivalence between two schemes. A Grade card shall be issued to that effect. Additional Course/s shall not be considered for the eligibility criteria prescribed for promotion, calculation of SGPA and CGPA. However, a pass in the additional Courses, if any, is mandatory before the completion of Degree.</p> <p>(iv) Earn the credits as decided by the University as per 18OB12.2.</p> <p>(v) Complete the Programme subject to the provision 18OB1.4.</p> |
| 18OB14.2 | Transfer of students within the College from one branch to another branch at the start of III semester shall be permitted with the approval of the Registrar, VTU subject to the provisions made by the appropriate authorities. |

REGISTRAR
VTU Technological University
VTU TEAM - 530 010

**Regulations Governing the Degree of Bachelor of Engineering/Technology (B.E./B.Tech.)
Under Outcome Based Education (OBE) and Choice Based Credit System (CBCS)
Effective from the Academic Year 2018 - 19**

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|-----------------|---|
| 18OB14.3 | The University may prescribe fee for administration purpose, which shall be notified from time to time, for transfer from one college to another (Change of College) or one branch to another branch (change of branch within the college). |
| 18OB15.0 | Applicability and Power to Modify |
| 18OB15.1 | The regulations governing the Degree of Bachelor of Engineering/Technology of Visvesvaraya Technological University shall be a binding on all concerned. |
| 18OB15.2 | i) Notwithstanding anything contained in the foregoing, the University shall have the power to issue directions/ orders to address any difficulty. ii) Nothing in the foregoing may be construed as limiting the power of the University to amend, modify or repeal any or all of the above. |




REGISTRAR
Visvesvaraya Technological University,
BELAGAVI - 590 018.

Approved by VTU Executive Council: Resolution No. 2.2.1 in its 146th meeting held on 30th May, 2019





Visvesvaraya Technological University

"Jnana Sangama", Belagavi - 590 018, Karnataka State

Dr. A S. Deshpande B.E. M.Tech., Ph.D.,
REGISTRAR

Phone : (0831) 2498100
Fax : (0831) 2405467

Ref: VTU/BGM/OS-Aca/Cirs/2020-21/ 2745

Date : 03 OCT 2020.

CIRCULAR

Sub: Schemes of study for the academic year 2020-21- reg..

Ref : Hon'ble Vice Chancellor's approval dated : 3-10-2020

With reference to the above, the following is informed:

Part I : Regular/ Readmission/ Repeater:

1. All readmissions and repeater admissions are subject to maximum duration as per their year of admission to programme.
2. Readmissions and repeater admissions will not claim any additional benefits.
3. They are governed by the applicable regulations of the University

| Academic year 2020-21 | | | | |
|-------------------------------|--|-------------|--|--|
| B.E/B.Tech. | Scheme offered and to be studied by students | | | |
| | Regular | | Repeaters/ readmission | |
| | Scheme | SEE : CIE | Scheme | SEE : CIE |
| I year (I / II sem) | 2018 scheme | CBCS 60: 40 | 2018 scheme | CBCS 60: 40 |
| II Year (III/ IV sem) | 2018 scheme | CBCS 60: 40 | III Sem : 2018 scheme (E.C. Res. No. 2.2.1 dt: 30-5-2019 (146 th meeting) | CBCS 60: 40 |
| | | | IV Sem : The scheme studied during 3 rd semester to be continued at IV sem. (2015/ 2017/2018) | As applicable & Parallel Classes to be conducted |
| III Year (V / VI sem) | 2018 scheme | CBCS 60: 40 | The scheme studied during 4 th semester to be continued at V sem (2015/ 2017/2018) | As applicable & Parallel Classes to be conducted |
| IV year (VII/VIII sem) | 2017 scheme | CBCS 60: 40 | To be continued in the scheme studied during 6 th semester (2015/ 2017) | CBCS 80: 20/ CBCS 60: 40 & Parallel Classes to be conducted |
| | 2015 parallel | CBCS 80: 20 | | |
| Batches under extension | Regular 2011 and Lateral Entry 2013 - attempts provided till June/ July 2021 | | | |
| 2010 Scheme | If any student of 2010 scheme seeks admission to 5 th and higher semesters (within maximum duration), shall continue in 2010 scheme provided he/she has not shifted from 2010 to 2015 scheme. | | | |

| scheme | Credits for award of Degree for the students admitted to I Sem. | Credits for award of Degree for the students admitted under lateral entry to III Sem. | SEE/CIE |
|--------|---|---|-------------|
| 2015 | 200 | 152 | CBCS 80: 20 |
| 2017 | 200 | 152 | CBCS 60: 40 |
| 2018 | 175 | 135 | CBCS 60: 40 |
| 2010 | Absolute marks | Absolute marks | |

| Academic year 2020-21 | | |
|------------------------|--|--|
| B.Arch. | Scheme offered and to be studied by students | |
| | Regular Scheme | Repeaters/ readmission Scheme |
| I year (I / II sem) | 2018 scheme | 2018 scheme |
| II Year (III/ IV sem) | 2018 scheme | III Sem : 2018 scheme (E.C. Res. No. 2.2.1 dt: 30-5-2019 (146 th meeting)) IV Sem : as per their admission (2015) |
| III Year (V / VI sem) | 2018 scheme | as per scheme studied upto 4 th semester |
| IV year (VII/VIII sem) | 2015 scheme | as per scheme studied upto 6 th semester |
| V Year (IX/ X sem) | 2015 scheme | as per scheme studied upto 8 th semester |

| B.Arch. | |
|-------------|-----------------------------|
| scheme | Credits for award of Degree |
| 2015 | 250 |
| 2018 | 260 |
| Before 2015 | Absolute marks |

Part II: Admission of Year back / students (only for 2020-21):

- The students are permitted to take admission to 3/5/7/9 semesters with any number of backlog subjects, provided
 - Must have attended classes up to 2nd semester to take admission to 3rd semester.
 - Must have attended classes up to 4th semester to take admission to 5th semester.
 - Must have attended classes up to 6th semester to take admission to 7th semester.
 - Must have attended classes up to 8th semester to take admission to 9th semester (B.Arch. only).

NOTE: The above facility is provided only for admission to higher semester during the academic year 2020-2021 and the students are required to gain eligibility to respective higher semesters while taking admission during the academic year 2021-2022.

2. The students who have taken admission to B.E./B.Tech. during the academic year 2017 -2018 and not become eligible to 3rd semester may seek readmission to 1st semester under 2018 scheme and such students are not permitted to take admission to 3rd semester during the academic year 2020-2021.

Part III: Grouping of students under B.E. Mechanical Engineering A and B subjects 2018 scheme:

1. The students are required to opt subjects from only one group i.e. either A or B at 3rd / 4th semester level.
2. Opting subjects from both A and B groups in a semester is not permitted.
3. If required, the students may be divided into two groups and each group may be given different group of subjects like how the Physics and Chemistry cycle subjects are offered during 1st year.

Part IV: Registering for Humanities Subjects:

If the student registers for 18KVK - Vyvaharika Kannada (Samskrutika Kannada) / Adalitha Kannada (Balake Kannada) in 3rd semester, he/she has to register for 18CPC- Constitution of India Professional Ethics and Cyber Law during 4th semester and vice-versa for 4th semester

Part V: Registration of students for higher semester:

1. Each and every student seeking admission to higher semester shall register with the University through its portal
2. A separate procedure for online registration will be notified shortly.
3. College shall maintain proper records of all above students.
4. In case if the students does not register for the semester, admission for the semester will be invalid.

BY ORDER,


REGISTRAR

To,
The of Principals of All Engineering (Affiliated/ Constituent) Colleges under the
ambit of VTU, Belagavi

03/10/2020

Copy to:

1. Hon'ble Vice-Chancellor through the Secretary to VC, VTU, Belagavi for kind information
2. The Registrar (Evaluation), VTU, Belagavi
3. The Regional Directors (I/C) of all the Regional Offices of VTU for circulation
4. The Director, Computer Network Centre, VTU, Belagavi- to upload on VTU website
5. PS to Registrar, VTU, Belagavi
6. All the concerned Special Officer and Case-workers of Academic Section, VTU, Belagavi



ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

ಶಿವಮೊಗ್ಗದ ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ವಿಶ್ವವಿದ್ಯಾಲಯ
"ಜ್ಞಾನ ಸಂಗಮ" ಬೆಲಗಾವಿ-೫೯೦೦೧೮, ಕರ್ನಾಟಕ, ಭಾರತ

Visvesvaraya Technological University

(State University of Government of Karnataka Established as per the VTU Act, 1991)
"Jnana Sangama" Belagavi-590018, Karnataka, India
Phone: (0831) 2498100, Fax: (0831) 2405467, Website: vtu.ac.in

Dr. A. S. Deshpande B.E., M.Tech., Ph.D.
Registrar

Phone: (0831) 2498100
Fax: (0831) 2405467

Ref: VTU/BGM/BOS/A9/2021-22 / 3991

Date: 3 DEC 2021

CIRCULAR

Subject: 1st and 2nd -semester scheme(2021) of Teaching and Examinations regarding...

Reference: Hon'ble Vice-Chancellor's approval dated: 03.12.2021

The courses, 211DT19- Innovation and Design Thinking (offered in 1st semester both for chemistry and physics groups) and 21SFH29- Scientific Foundations of Health (offered in 2nd semester both for chemistry and physics group) are compulsory courses for the students admitting to 1st year B.E./B.Tech. programs.

A slight modification is made in the scheme of teaching and examinations to offer both the courses in 1st as well as 2nd semester for 50:50 strength of intake. The scheme is attached with this circular for reference and needful. Also, 3-8 semesters scheme template has been attached for stakeholder's information.

All the principals of Engineering Colleges are hereby informed to bring the content of this circular to the notice of the concerned. Please note: corrected scheme of programs is made available @ <https://vtu.ac.in/en/b-e-scheme-syllabus/#menu05>

Sd/-

Registrar

Encl: As mentioned above.

To,

- All the Principals of the Engineering Colleges under the ambit of VTU Belagavi.

Copy to:

- The Hon'ble Vice-Chancellor through the secretary to VC for information
- The Registrar(Evaluation) for information and needful
- The Registrar's Office, VTU, Belagavi, for information.
- The Special Officer, Academic Section, VTU Belagavi, for information.
- The Director ITI SMU CNC for information and to upload the circular on the VTU web portal

REGISTRAR

Visvesvaraya Technological University, Belagavi
Scheme of Teaching and Examinations 2021
Outcome-Based Education (OBE) and Choice Based Credit System (CBCS)
 [Effective from the academic year 2021 - 22]

[Common to all B.E./B.Tech. Programs]

| I Semester (Physics Group) | | Course and Course Code | Course Title | Teaching Department (TD) and Paper Setting (PSB) | Teaching Hours/Week | | | | Examination | | | | Credits | |
|----------------------------|------|------------------------|---|---|---------------------|-----------|-------------------|------------|-------------|-------------------|------------|------------|-----------|-------------|
| Sl. No | | | | | Theory | Tutorial | Practical/Drawing | Self-Study | | Duration in hours | CIE Marks | SEE Marks | | Total Marks |
| | | | | | | | | P | S | | | | | |
| 1 | BSC | 21MAT11 | Calculus & Differential Equations | TD and PSB: Mathematics | 2 | 2 | -- | -- | 03 | 50 | 50 | 100 | 3 | |
| 2 | BSC | 21PHY12 | Engineering Physics | TD and PSB: Physics | 2 | 2 | -- | -- | 03 | 50 | 50 | 100 | 3 | |
| 3 | ESC | 21ELE13 | Basic Electrical Engineering | TD and PSB: E and E Engineering | 2 | 2 | -- | -- | 03 | 50 | 50 | 100 | 3 | |
| 4 | ESC | 21CIV14 | Elements of Civil Engineering and Mechanics | TD and PSB: Civil Engineering | 3 | -- | -- | -- | 03 | 50 | 50 | 100 | 3 | |
| 5 | ESC | 21EVN 15 | Engineering Visualization | TD: ME, Auto, IP, IEM, Mfg. Engineering PSB: Mechanical Engg | 2 | -- | 2 | -- | 03 | 50 | 50 | 100 | 3 | |
| 6 | BSC | 21PHYL16 | Engineering Physics Laboratory | TD and PSB: Physics | -- | -- | 2 | -- | 03 | 50 | 50 | 100 | 1 | |
| 7 | ESC | 21ELEL17 | Basic Electrical Engineering Laboratory | TD and PSB: E and E Engineering | -- | -- | 2 | -- | 03 | 50 | 50 | 100 | 1 | |
| 8 | HSMC | 21EGH18 | Communicative English | TD and PSB: Humanities | 1 | 1 | 1 | -- | 02 | 50 | 50 | 100 | 2 | |
| 9 | AEC | 21IDT19/29 | Innovation and Design Thinking | Any Engineering Department | 1 | -- | -- | -- | 01 | 50 | 50 | 100 | 1 | |
| | | 21SPH19/29 | Scientific Foundations of Health | | | | | | | | | | | |
| TOTAL | | | | | 13 | 07 | 07 | 07 | 24 | 450 | 450 | 900 | 20 | |

Note: BSC: Basic Science Course, ESC: Engineering Science Course, HSMC: Humanity and Social Science & Management Courses, AEC - Ability Enhancement Courses.



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|--|--|--|
| <p>L -Lecture, T - Tutorial, P- Practical/ Drawing, S - Self Study Component, CIE: Continuous Internal Evaluation, SEE: Semester End Examination</p> | <p>Credit definition: 1 hour Lecture (L) per week = 1 Credit 2 hours Tutorial (T) per week = 1 Credit 2 hours Practical /Drawing (P) per week = 1 Credit</p> | <p>(a) Four-credit courses are to be designed for 50 hours of Teaching-Learning process. (b) Three credit courses are to be designed for 40 hours of Teaching-Learning process. (c) Two credit courses are to be designed for 25 hours of Teaching-Learning process. (d) One-credit courses are to be designed for 15 hours of Teaching-Learning process.</p> <p>AICTE Activity Points to be earned by students admitted to BE/B.Tech., /B.Plan day college programme (For more details refer to Chapter 6,AICTE Activity Point Programme, Model Internship Guidelines): Over and above the academic grades, every Day College regular student admitted to the 4 years Degree programme and every student entering 4 years Degree programme through lateral entry, shall earn 100 and 75 Activity Points respectively for the award of degree through AICTE ActivityPoint Programme. Students transferred from other Universities to the fifth semester are required to earn 50 Activity Points from the year of entry toVTU. The Activity Points earned shall be reflected on the student's eighth semester Grade Card. The activities can be spread over the year's, anytime during the semester weekends and holidays, as per the liking and convenience of the student from the year of entry to the programme. However, the minimum hours' requirement should be fulfilled. Activity Points (non-credit) do not affect SGPA/CGPA and shall not be considered for vertical progression. In case students fail to earn the prescribed activity Points, an Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of the degree only after the release of the Eighth semester Grade Card.</p> <p>Summer Internship - I (21INT36): All the students admitted to engineering programmes shall have to undergo a mandatory summer internship of 03 weeks during the intervening vacation of II and III semesters. Summer Internship shall include Inter / Intra Institutional activities. A University Viva-voce examination (Presentation followed by question-answer session) shall be conducted during III semester and the prescribed credit shall be included in III semester. The internship shall be considered as a head of passing and shall be considered for the award 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. (The faculty coordinator or mentor has to monitor the students' internship progress and interact to guide them for the successful completion of the internship.)</p> |
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Visvesvaraya Technological University, Belagavi
Scheme of Teaching and Examinations 2021
Outcome-Based Education (OBE) and Choice Based Credit System (CBCS)
 (Effective from the academic year 2021 - 22)

[Common to all B.E./B.Tech Programs]

| II Semester (For students who attended I semester under Physics Group) | | Course and Course Code | Course Title | Teaching and Paper Setting (PSB) Department (TD) | Teaching Hours / Week | | | | Examination | | | | Credits |
|--|------|------------------------|---|--|-----------------------|-----------|--------------------|------------|-------------------|------------|------------|-------------|-----------|
| | | | | | Theory | Tutorial | Practical/ Drawing | Self-Study | Duration in hours | CIE Marks | SEE Marks | Total Marks | |
| | | | | | | | | | | | | | |
| 1 | BSC | 21MAT21 | Advanced Calculus and Numerical Methods | TD and PSB: Mathematics | 2 | 2 | -- | -- | 03 | 50 | 50 | 100 | 3 |
| 2 | BSC | 21CHE22 | Engineering Chemistry | TD and PSB: Chemistry | 2 | 2 | -- | -- | 03 | 50 | 50 | 100 | 3 |
| 3 | ESC | 21PSP23 | Problem-Solving through Programming | TD and PSB: Computer Science and Engineering | 2 | 2 | -- | -- | 03 | 50 | 50 | 100 | 3 |
| 4 | ESC | 21ELN24 | Basic Electronics & Communication Engineering | TD: ECE/E and I/ TCPSB: ECE | 2 | 2 | -- | -- | 03 | 50 | 50 | 100 | 3 |
| 5 | ESC | 21EME25 | Elements of Mechanical Engineering | TD: ME, Auto, IP, IEM, Mfg Engineering, PSB: Mechanical Engg | 2 | -- | 2 | -- | 03 | 50 | 50 | 100 | 3 |
| 6 | BSC | 21CHEL26 | Engineering Chemistry Laboratory | TD and PSB: Chemistry | -- | -- | 2 | -- | 03 | 50 | 50 | 100 | 1 |
| 7 | ESC | 21CPL27 | Computer Programming Laboratory | TD and PSB: Computer Science and Engineering | -- | -- | 2 | -- | 03 | 50 | 50 | 100 | 1 |
| 8 | HSMC | 21EGH28 | Professional Writing Skills in English | TD and PSB: Humanities | 1 | 1 | 1 | -- | 02 | 50 | 50 | 100 | 2 |
| 9 | AEC | 21SFH19/29 | Scientific Foundations of Health | Any Department | 1 | -- | -- | -- | 01 | 50 | 50 | 100 | 1 |
| | | 21IDT19/29 | Innovation and Design Thinking | | | | | | | | | | |
| TOTAL | | | | | 13 | 09 | 07 | | 24 | 450 | 450 | 900 | 20 |

Note: BSC: Basic Science Course, ESC: Engineering Science Course, HSMC: Humanity and Social Science & Management Courses, AEC - Ability Enhancement Courses.

L - Lecture, **T** - Tutorial, **P** - Practical/ Drawing, **S** - Self Study Component, **CIE**: Continuous Internal Evaluation, **SEE**: Semester End Examination

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| <p>Credit definition: 1hour Lecture (L) per week = 1 Credit 2 hours Tutorial (T) per week = 1 Credit 2 hours Practical /Drawing (P) per week = 1 Credit</p> | <p>(a) Four credit courses are to be designed for 50 hours of Teaching - Learning process. (b) Three credit courses are to be designed for 40 hours of Teaching - Learning process. (c) Two credit courses are to be designed for 25 hours of Teaching - Learning process. (d) One credit courses are to be designed for 15 hours of Teaching - Learning process.</p> |
| <p>AICTE Activity Points to be earned by students admitted to BE/B.Tech.,/B.Plan day college programme (For more details refer to Chapter 6,AICTE Activity Point Programme, Model Internship Guidelines): Over and above the academic grades, every Day College regular student admitted to the 4 years Degree programme and every student entering 4 years Degree programme through lateral entry, shall earn 100 and 75 Activity Points respectively for the award of degree through AICTE ActivityPoint Programme. Students transferred from other Universities to the fifth semester are required to earn 50 Activity Points from the year of entry to VTU. The Activity Points earned shall be reflected on the student's eighth semester Grade Card. The activities can be can be spread over the years, anytime during the semester weekends and holidays, as per the liking and convenience of the student from the year of entry to the programme. However, the minimum hours' requirement should be fulfilled. Activity Points (non-credit) do not affect SGPA/CGPA and shall not be considered for vertical progression. In case students fail to earn the prescribed activity Points, an Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of the degree only after the release of the Eighth semester Grade Card. Summer Internship - I (21INT36): All the students admitted to engineering programmes shall have to undergo a mandatory summer internship of 03 weeks during the intervening vacation of II and III semesters. Summer Internship shall include Inter / Intra Institutional activities. A University Viva-voce examination (Presentation followed by question-answer session) shall be conducted during III semester and the prescribed credit shall be included in III semester. The internship shall be considered as a head of passing and shall be considered for the award 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. (The faculty coordinator or mentor has to monitor the students' internship progress and interact to guide them for the successful completion of the internship.)</p> | |

Visvesvaraya Technological University, Belagavi
Scheme of Teaching and Examinations 2021
Outcome-Based Education(OBE) and Choice Based Credit System (CBCS)
(Effective from the academic year 2021 - 22)

[Common to all B.E./B.Tech. Programmes]

| I Semester (Chemistry Group) | | Course and Course Code | Course Title | Teaching Department (TD) and Paper Setting (PSB) | Teaching Hours/Week | | | | | | Examination | | | | Credits |
|------------------------------|------|------------------------|---|--|---------------------|-----------|-----------|----------|-------------------|------------|-------------------|------------|-----------|-------------|---------|
| Sl. No | BSC | | | | ESC | HSMC | Theory | Tutorial | Practical/Drawing | Self-Study | Duration in hours | CIS Marks | SBS Marks | Total Marks | |
| | | | | | | | | | | | | | | | |
| 1 | BSC | 21MAT11 | Calculus & Differential Equations | TD and PSB: Mathematics | 2 | 2 | -- | | 03 | 50 | 50 | 100 | 3 | | |
| 2 | BSC | 21CHE12 | Engineering Chemistry | TD and PSB: Chemistry | 2 | 2 | -- | | 03 | 50 | 50 | 100 | 3 | | |
| 3 | ESC | 21PSP13 | Problem-Solving through Programming | TD and PSB: Computer Science and Engineering | 2 | 2 | -- | | 03 | 50 | 50 | 100 | 3 | | |
| 4 | ESC | 21ELN14 | Basic Electronics & Communication Engineering | TD: ECE/E and I/ TCPSB: ECE | 2 | 2 | -- | | 03 | 50 | 50 | 100 | 3 | | |
| 5 | ESC | 21EME15 | Elements of Mechanical Engineering | TD: ME, Auto, IP, IEM, Mfg Engineering PSB: Mechanical Engg | 2 | -- | 2 | | 03 | 50 | 50 | 100 | 3 | | |
| 6 | BSC | 21CHEL16 | Engineering Chemistry Laboratory | TD and PSB: Chemistry | -- | -- | 2 | | 03 | 50 | 50 | 100 | 1 | | |
| 7 | ESC | 21CF-L17 | Computer Programming Laboratory | TD and PSB: Computer Science and Engineering | -- | -- | 2 | | 03 | 50 | 50 | 100 | 1 | | |
| 8 | HSMC | 21EGH18 | Communicative English | TD and PSB: Humanities | 1 | 1 | 1 | | 02 | 50 | 50 | 100 | 2 | | |
| 9 | AEC | 21IDT19/29 | Innovation and Design Thinking | Any Engineering Department | 1 | -- | -- | | 01 | 50 | 50 | 100 | 1 | | |
| | | 21SFH19/29 | Scientific Foundations of Health | | | | | | | | | | | | |
| TOTAL | | | | | 13 | 09 | 07 | | 24 | 450 | 450 | 900 | 20 | | |

Note: BSC: Basic Science Course, ESC: Engineering Science Course, HSMC: Humanity and Social Science & Management Courses, AEC - Ability Enhancement Courses.

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| <p>L -Lecture, T - Tutorial, P- Practical/ Drawing, S - Self Study Component, CIE: Continuous Internal Evaluation, SEE: Semester End Examination</p> <p>Credit definition:</p> <p>1 hour Lecture (L) per week = 1 Credit 2 hours Tutorial (T) per week = 1 Credit 2 hours Practical /Drawing (P) per week = 1 Credit</p> | <p>(a) Four-credit courses are to be designed for 50 hours of Teaching-Learning process. (b) Three credit courses are to be designed for 40 hours of Teaching-Learning process. (c) Two credit courses are to be designed for 25 hours of Teaching-Learning process. (d) One-credit courses are to be designed for 15 hours of Teaching-Learning process.</p> <p>AICTE Activity Points to be earned by students admitted to BE/B.Tech., /B.Plan day college programme (For more details refer to Chapter 6/AICTE Activity Point Programme, Model Internship Guidelines):</p> <p>Over and above the academic grades, every Day College regular student admitted to the 4 years Degree programme and every student entering 4 years Degree programme through lateral entry, shall earn 100 and 75 Activity Points respectively for the award of degree through AICTE ActivityPoint Programme. Students transferred from other Universities to the fifth semester are required to earn 50 Activity Points from the year of entry to VTU. The Activity Points earned shall be reflected on the student's eighth semester Grade Card.</p> <p>The activities can be spread over the years, anytime during the semester weekends and holidays, as per the liking and convenience of the student from the year of entry to the programme. However, the minimum hours' requirement should be fulfilled. Activity Points (non-credit) do not affect SGPA/CGPA and shall not be considered for vertical progression.</p> <p>In case students fail to earn the prescribed activity Points, an Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of the degree only after the release of the Eighth semester Grade Card.</p> <p>Summer Internship - I (21INT36): All the students admitted to engineering programmes shall have to undergo a mandatory summer internship of 03 weeks during the intervening vacation of II and III semesters. Summer Internship shall include Inter / Intra Institutional activities. A University Viva-voce examination (Presentation followed by question-answer session) shall be conducted during III semester and the prescribed credit shall be included in III semester. The internship shall be considered as a head of passing and shall be considered for the award 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. (The faculty coordinator or mentor has to monitor the students' internship progress and interact to guide them for the successful completion of the internship.)</p> |
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Visvesvaraya Technological University, Belagavi
Scheme of Teaching and Examinations 2021
Outcome-Based Education (OBE) and Choice Based Credit System (CBCS)
(Effective from the academic year 2021 - 22)

[Common to all B.E./B.Tech Programs]

| II Semester (For students who attended 1 st semester under Chemistry Group) | | Course Title | Teaching Department (TD) and Paper Setting (PSB) | Teaching Hours /Week | | | | | | Examination | | | | Credits |
|---|------------------------|---|--|----------------------|-----------|--------------------|------------|-------------------|------------|-------------|-------------|---|---|---------|
| Sl. No | Course and Course Code | | | Theory | T | Practical/ Drawing | Self-Study | Duration In hours | CIE Marks | SEE Marks | Total Marks | | | |
| | | | | | | | | | | | | L | S | |
| 1 | BSC 21MAT21 | Advanced Calculus and Numerical Methods | TD and PSB: Mathematics | 2 | 2 | -- | 03 | 50 | 50 | 100 | 3 | | | |
| 2 | BSC 21PHY22 | Engineering Physics | TD and PSB: Physics | 2 | 2 | -- | 03 | 50 | 50 | 100 | 3 | | | |
| 3 | ESC 21ELE23 | Basic Electrical Engineering | TD and PSB: E and E Engineering | 2 | 2 | -- | 03 | 50 | 50 | 100 | 3 | | | |
| 4 | ESC 21CIV24 | Elements of Civil Engineering and Mechanics | TD and PSB: Civil Engineering | 3 | -- | -- | 03 | 50 | 50 | 100 | 3 | | | |
| 5 | ESC 21EVN 25 | Engineering Visualization | TD: ME, Auto, IP, JEM, Mfg. Engineering PSB: Mechanical Engg | 2 | -- | 2 | 03 | 50 | 50 | 100 | 3 | | | |
| 6 | BSC 21PHYL26 | Engineering Physics Laboratory | TD and PSB: Physics | -- | -- | 2 | 03 | 50 | 50 | 100 | 1 | | | |
| 7 | ESC 21ELE27 | Basic Electrical Engineering Laboratory | TD and PSB: E and E Engineering | -- | -- | 2 | 03 | 50 | 50 | 100 | 1 | | | |
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 UNIVERSITY OF APPLIED SCIENCES
 VELLORE
 DEPARTMENT OF ENGINEERING
 2021-2022