



ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

"ವಿಜಯ ಅಧಿನಿಯಮ ೧೯೯೪"ರ ಅಡಿಯಲ್ಲಿ, ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಪ್ರತಿಷ್ಠಾಪಿಸಿದ ರಾಜ್ಯ ವಿಶ್ವವಿದ್ಯಾಲಯ
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Date:

3 MAY 2022

NOTIFICATION

Subject: Regulation Governing B.E./B.Tech., programs under CBCS from academic year 2021-22 regarding...

Reference

1. EC Proceeding no. 2.2.1 of 164th meeting held on 09.03.2022
2. EC Proceeding no. 2.2.1 of 165th meeting held on 26.04.2022

The regulations governing B.E./B.Tech., programs Under Outcome Based Education (OBE) and Choice Based Credit System (CBCS) effective from the Academic Year 2021-22 are hereby notified. These regulations are applicable to all the students who are admitted to B.E./B.Tech. programs from the academic year 2021-22 for regular students and for lateral students admitting in the year 2022-23 and onwards.

All the Principals of Constituent /Affiliated Autonomous / non-Autonomous colleges coming under the ambit of University are hereby informed to bring the content of this notification to the notice of all concerned.

By Order,
Sd/-
REGISTRAR

To,

1. All the Principals of Constituent /Affiliated Autonomous / non-Autonomous colleges coming under the ambit of University
2. The Chairperson, Department of Mechanical Engineering/Computer Science and Engineering of University

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 I/c Regional Directors of all the Regional Offices of VTU for information and circulate to colleges among your respective region.
4. The Director (I/c) ITI SMU VTU Belagavi for information and request to make arrangement for uploading on VTU web portal.
5. The Special Officers of Academic Section, VTU, Belagavi for information

REGISTRAR



**Regulations Governing the Degree of Bachelor of
Engineering/Technology (B.E./B.Tech.)
Effective from the Academic Year 2021-22**

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Regulations Governing the Degree of Bachelor of Engineering/Technology (B.E./B.Tech.)
Under Outcome Based Education (OBE) and Choice Based Credit System (CBCS)
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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. Programs:

- 1. Program:** This is an educational program in a particular stream/ branch of Engineering/branch of specialization leading to the award of the Degree. It involves events/activities, comprising of lectures/tutorials/laboratory work/fieldwork/outreach activities/project work/vocational training/viva-voce/ seminars/ internship/assignments/ presentations/ self-study, etc., or a combination of some of these.
- 2. Semester:** Refers to one of the two sessions of an academic year (vide: serial number 3), each session being of sixteen weeks' duration (with not less than 90 working days). The odd and even semesters shall be as per the University academic calendar.
- 3. Academic Year:** Refers to two consecutive semesters (odd followed by an even) sessions, including intervening periods.
- 4. Course:** Usually referred to as subject and is a component of a Program. All Courses may not carry the same weightage. Each Course will have course objectives and course outcomes. A Course may be designed to comprise lectures/ tutorials/ laboratory work/ fieldwork/ outreach activities/project work/ vocational training/ viva-voce/ seminars/ term papers/assignments/ presentations/ self-study components etc., or a combination of some of these.
- 5. Credit:** Refers to a unit or weightage by which the Coursework is measured. It represents the number of hours of instructions prescribed per week. One credit is equivalent to one hour of lecture or two hours of laboratory/practical Courses/ tutorials/ fieldwork etc., per week.
- 6. Choice Based Credit System (CBCS):** The education model refers to customizing the Coursework, through Core, Professional Elective, Open Electives, Skill-based ability Enhancement Courses, Non-Credit Mandatory Courses, and Internships to provide the necessary support for the students to achieve their goals.
- 7. Course Registration:** Refers to formal registration to Courses of study in every semester by every student under the supervision of a Faculty Advisor (also called Mentor, Counsellor, Class teacher, etc.), in the Institution to maintain the proper record. Registration to the University portal is mandatory.





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8. **Course Evaluation:** Represents the measurement of the impact of the teaching-learning process and offers an opportunity for improving the quality of learning in courses and teaching performance. Courses evaluation is done by adopting different methods such as tests, quizzes, assignments, etc., during the teaching-learning period at the end of some modules or chapters of syllabus contents and at the end of the semester. While the former part of the evaluation is called the Continuous Internal Evaluation (CIE) and the later part of the evaluation is called Semester End Evaluation (SEE).
9. **Continuous Internal Evaluation (CIE)**(also known as formative assessment): Refers to the evaluation of students' performance in the course during the teaching-learning process. CIE shall be done by the faculty teaching course and evaluation components may include tests, assignments, group discussion, quizzes, course-specific projects, seminars, etc., conducted during the semester tenure with a weightage for different activities as specified by the University.
10. **Semester End Examinations Evaluation (SEE)**(also called summative assessment): Refers to the examinations conducted by the University covering the entire Course Syllabus. For this purpose, Syllabi shall be modularized, and SEE questions shall be set from each module as specified by the University.
11. **First Attempt:** Refers to some students who have studied in a current semester and have attended any one of the University examinations of that semester after satisfying attendance and CIE requirements of all the prescribed courses of that semester and registering for SEE. Such an attempt shall be considered as the first attempt. Even if students absent themselves for all the semester examinations after registering for SEE, such an attempt shall also be considered the first attempt.
12. **Credit Representation:** Refers to the Credit Values for different academic activities considered, as per Table-1. Credits for the seminar, project phases, project viva-voce and internship shall be as specified in the Scheme of Teaching and Examinations.





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Table-1, Calculation of Credits

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	2	3:0:1	4
2	2	2	2:1:1	4
3	0	0	3:0:0	3
2	2	0	2:1:0	3
2	0	2	2:0:1	3
0	0	6	0:0:3	3
2	0	0	2:0:0	2
1	0	0	1:0:0	1
0	2	0	0:1:0	1
0	1	1	0:0.5:0.5	1
0	0	2	0:0:1	1

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

13. Non-Credit Mandatory Course (NCMC): In the case of non-credit mandatory courses, students shall attend the classes during the respective semesters to satisfy the attendance requirements and as well as CIE requirements. In case, any student fails to register for the said course/fails to secure the minimum 40% of the prescribed CIE marks, he/she shall be deemed to have not satisfied. In such a case, the student has to fulfill the requirements during subsequent semester/s to appear for CIE. These Courses shall not be considered for CGPA calculation and vertical progression, but completion of the courses shall be mandatory for the award of degree.

14. Letter Grade: Course Letter Grade (or simply letter grade or grade) is an index of performance of a student in a said course and refers to a qualitative measure of achievement of a student in each course, based on the percentage range of marks secured in CIE and SEE put together or CIE alone. Grades are denoted by letters O, A, B, C, D, E, and F. The rubrics attached to letter grades are as follows:

O – Outstanding, **A+** – Excellent, **A** – Very Good, **B+** – Good, **B** – Above Average, **C** – Average,



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P- Pass and F – Fail. If a student remains absent for SEE of any of the course/s, the letter grade assigned to that course shall be F. If a student is not eligible for appearing, SEE due to non-comply of any of the course/s then the letter grade assigned against that course shall be NE

15. Grade Point (GP): Refers to a numerical weightage allotted to each letter grade on a 10-point scale against a preconceived range of percentage of marks secured by students in a course as shown in Table 2.

Table 2, Letter Grade and corresponding Grade Points on a typical 10 - Point scale

Letter Grade and corresponding Grade Points on a typical 10 - Point scale								
Letter Grade	O	A+	A	B+	B	C	P	F
	Outstanding	Excellent	Very Good	Good	Above Average	Average	Pass	Fail
Grade Point	10	9	8	7	6	5	4	0
% of Marks secured	90-100	80-89	70-79	60-69	55-59	50-54	40-49	0-39

16. Passing Standards: Refers to passing a Course only when GP is greater than or equal to 04.

17. Credit Point: This is the product of GP and number of credits for a Course i.e.,

$$\text{Credit points (CrP)} = \text{GP} \times \text{Credits for the Course.}$$

18. Semester Grade Point Average (SGPA): Refers to the measure of a student's academic performance in a semester. It is the weighted average or weighted mean of the grade points obtained by a student in the various courses of any semester. It results in a number that lies between 0 and 10.

19. Cumulative Grade Point Average (CGPA): This is a measure of the cumulative performance of a student of all semesters and is computed from the 2nd semester onwards. It is a measure of the overall cumulative academic performance of a student over the entire span of the academic program. CGPA is not an arithmetic mean a but weighted mean. It is also a number that lies between 0 and 10.

20. 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 shall have the Program details (Course code, title, number of credits, grades secured, number of attempts, and alternate course taken instead of successive failure after 4 attempts) along with the SGPA of that semester and CGPA (except for the first semester) earned till that semester.



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- 21. Academic Bank of Credits (ABC):** The Academic Bank of Credits (ABC), is a national-level facility which will promote the flexibility of the curriculum framework and interdisciplinary/multidisciplinary academic mobility of students across the HEIs in the country with appropriate "credit transfer" mechanism.
- 22. Multiple Entry Multiple Exit:** The multiple entries and exit points in the academic programs offered at Higher Education Institutions (HEIs) would remove rigid boundaries and create new possibilities for students. There are occasions when learners have to give up their education mid-way for various reasons. To facilitate flexible learning within the stipulated period (eight years for regular students and 06 years for lateral entry students), multiple exist and entry options are given to the needy students. The student can exit from the program only at the end of the even semester/s (2nd, 4th, and 6th semester) and the entry option is provided to the students at the beginning of the odd semester/s (3rd, 5th and 7th semester).
- 23. University:** Visvesvaraya Technological University (VTU), Belagavi.





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21OB1.0	Title and Credits of the Program of Study.	
	21OB1.1	The Program of study shall be called the degree of Bachelor of Engineering/Bachelor of Technology, abbreviated as B.E./B.Tech.
	21OB1.2	Prescribed Number of Credits for the Program (a) The total number of credits to be earned by students admitted to the first semester of 04 years B.E./B.Tech., the program shall be 160 . (b) The total number of credits to be earned by students admitted to the third semester of 04 years B.E./B.Tech., program under lateral entry scheme shall be 120 . (c) A student shall be eligible to obtain an Undergraduate degree with Honours / Minors , if he/she earns minimum additional 18 credits , as specified by university norms from time to time regarding the earning of additional credits [To be read along with Regulations Governing the Award of Honors/ Minors in B.E./B.Tech., Degree Programs].
	21OB1.3	(a) Definition of Credits: 1. 1-hour Lecture (L) per week per semester =1 Credit 2. 2 hours Tutorial / (T) per week per semester =1 Credit 3. 2 hours Practical/Laboratory/Drawing (P) per week per semester =1 Credit. 4. Four-credit theory courses shall be designed for 50 hours of the Teaching-Learning process. 5. Three-credit theory courses shall be designed for 40 hours of the Teaching-Learning process. 6. Two-credit theory courses shall be designed for 25 hours of the Teaching-Learning process 7. One credit theory course shall be designed for 15 hours of the Teaching-Learning process
21OB2.0	Academic Eligibility for Admission	
	21OB2.1	Admission to 1st year: Eligibility for candidates who have Passed Second PUC or equivalent I. As notified by the Government of Karnataka from time to time II. 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 an eligibility certificate for seeking admission to 1 st year B.E./B.Tech. Degree Program from Visvesvaraya Technological University, Belagavi.
21OB2.2		Admission to 2nd year (Lateral Entry): Eligibility for candidates who have Passed a 3-years Diploma in Engineering and B.Sc. Degree I. As notified by the Government of Karnataka and university from time to time for admission to 3 rd -semester B.E./B.Tech., degree program II. Those candidates who have completed Engineering Diploma from other than Karnataka state shall submit the Equivalence/ Eligibility Certificate issued from the Director of Technical Education, Karnataka.
21OB2.3		Qualification earned from foreign countries: With regard to the qualification earned from foreign countries, an equivalence certificate from the University/ Association of Indian Universities is mandatory for admission to B.E./B.Tech. Programs. In case of any dispute about the equivalence in qualification earned from foreign countries, the decision of the University in this regard shall be final and binding on all concerned.
21OB3.0	Minimum and Maximum Duration of the Program	
	21OB3.1	Students admitted to first-semester B.E./B.Tech., shall complete the program within eight academic years from the year of the first admission, failing which they will not be eligible for the award of a degree Students admitted to third semester B.E./ B.Tech., under the lateral entry category shall complete the program within six academic years from the year of the first admission, failing which they will not be eligible for the award of degree.



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210B4.0	Courses and Course Registration	
210B4.1		There shall be the following types of Courses:
		(a) Humanities, Social Sciences, and Management Courses (HSMC): These are mandatory for all disciplines.
		(b) Basic Science 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/ Civil/ Mechanical/ Computer Engineering, etc. These are mandatory for all disciplines.
		(d) Professional Core Courses (PCC): These are the professional Core Courses, relevant to the chosen specialization/ branch. The core courses shall be compulsorily studied by students and it is mandatory to complete them to fulfill the requirements of a Program.
		(e) Professional Elective Courses (PEC): These are professional Electives, relevant to the chosen specialization/branch and can be chosen from the pool of courses. It shall be supportive to the discipline providing extended scope/enabling exposure to some other discipline /domain and nurturing student proficiency skills
		(f) Open Elective Courses (OEC): These are the Elective Courses from other technical areas and/ or from emerging fields. Students of other departments shall opt for these courses to fulfilling of eligibility and prerequisite mentioned in the syllabus.
		(g) Integrated Professional Core Courses (IPCC): It refers to Professional Theory Core Course Integrated with Practical of the same course. Credit for IPCC shall be 04 considering L: T: P as 3:0:1 or L:T:P as 2:1:1, (where L,T and P represents credits not hours per week)
	(h) Project Work: Mini-project and Project work carried out at the parent Institution or any university / Government recognized organization without affecting the regular class work.	



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		(i) Seminar: Each student has to present the seminar on specific topic chosen from the relevant field /list provided by the department under the supervision of a faculty coordinator.
		(j) Internship (INT): The internship (a form of experimental learning) program not only helps fresh pass-outs in gaining professional know-how but also benefits corporate sectors. The internship also enhances the employability skills of the student passing out from Technical Institutions
		(k) Non-Credit Mandatory Courses (NCMC): These Courses are mandatory, without the benefit of a grade or credit, passing in each mandatory Course is required to qualify for the award of degree.
		(l) Ability Enhancement Courses (AEC): These courses are designed to help students to enhance their skills in communication, language, and personality development etc. They also promote a deeper understanding of courses like social sciences, ethics, culture, human behavior human rights, and the law. Ability Enhancement Courses are based upon the content that leads to Knowledge enhancement.
		(m) Universal Human Values Courses (UHV): The courses which teach a holistic perspective based on self-exploration about themselves (human being), family, society, and nature. Understanding (or developing clarity) of the harmony in the human being, family, society, and nature. These are mandatory for all disciplines
21OB4.2	Course Registration:	In order to maintain a proper academic record at the Institution, every student shall register for the Courses of a semester (Credit) under the supervision of a Faculty Advisor (also called Mentor, Counselor, class teacher, etc.,) at the beginning of each semester. The registration of courses in each semester with the University portal is mandatory.



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210B4.3	The minimum number of students registered to any professional Elective Course/Open Elective Course /Ability Enhancement course (from 3 rd semester onward) offered by the Departments shall not be less than ten. In such cases. If the number of registrants for the elective course is less than 10, the college must seek permission from the Registrar (Evaluation) within 15 days from the date of commencement of the semester as per the academic calendar of the University, if that professional Elective Course/Open Elective Course/Ability Enhancement course is to be offered in that college.
210B4.4	A student shall exercise the option in respect of a higher semester professional Elective Course/Open Elective Course /Ability Enhancement course and register for the same at the end of the previous semester. However, the student may be permitted to opt for a change of Elective Course/s preferably within 15 days from the date of commencement of the semester as per the academic calendar of the University.
210B5.0	Attendance Requirement
210B5.1	Every prescribed course shall be considered as a unit for the calculation of attendance. All students are required to attend all the lectures, tutorials, practicals, and other prescribed curricular and co-curricular activities, and thus the attendance is 100%. However, the candidate has to put in a minimum attendance of 85% in each course with a provision for condoning up to 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 NSS/NCC/Red cross/National level Republic Day and Independence Day Parade/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 through the office of the Principal along with the recommendations to the office of the Registrar (Evaluation).



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21OB5.2	<p>a) The basis for the calculation of attendance shall be the period prescribed by the University by its academic calendar of events and as notified by the Registrar.</p> <p>b) In case of late admissions, approved by competent authority (KEA/DTE/VTU), to I semester (for the regular scheme) and III semesters (for lateral entry scheme) of Engineering Program, the attendance shall be reckoned from the date of admission to the Program.</p>
21OB5.3	<p>The Course Instructor/ Mentor/Class-teacher or the College office shall inform the students as well as their parents /guardians about the attendance status every month. Students who are facing a shortage of attendance shall be mentored to make up for the shortage. The principal shall also notify every month, the list of candidates who are falling short of required attendance.</p>
21OB5.4	<p>A student who does not satisfy the attendance requirement in one or more Courses (including bridge courses for lateral entry students) shall not be eligible to appear for the Semester End Examinations (SEE) of that course(s). The grade card for such courses shall be marked as NE (not eligible). The candidate shall be required to repeat that course/s whenever that course/s offered next.</p>
21OB5.5	<p>If a student fails to satisfy the attendance requirement of the course/s of the semester, he/she will not be permitted to appear for SEE of that course/s. However, the student will be allowed to appear for the Semester End Examination (SEE) for other courses of the semester.</p> <p>The student will repeat the course/s in which he/she falls short of attendance only, whenever the course/s is offered next.</p> <p>These courses of shortage of attendance will not be considered for vertical progression.</p>
21OB6.0	Internship
21OB6.1	<p>Internship: The internship is an extended period of work experience undertaken by</p>



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university/Institute students looking to supplement their degree with professional development. The students are allowed to prepare themselves for the workplace and develop practical skills.

The Internship shall be completed during the period specified in the Scheme of Teaching and Examinations. There will be three internships:

- 1) **Inter/Intra Institutional Internship:** (In the case of the students admitted to 1st-year B.E./B.Tech. program) All the students admitted to engineering programs shall have to undergo a mandatory summer internship of 03 weeks during the intervening semester period of the II and III semesters. The internship shall include Inter / Intra Institutional activities (refer to Annexure-IV). CIE shall be carried out during the Internship period/III semester and prescribed marks shall be included in the IV semester grade cards.

Inter/Intra Institutional Internship: (In case of students admitted under Lateral Entry): All the students admitted to engineering programs under the lateral entry category shall have to undergo a mandatory internship of 03 weeks during the intervening semester period of the III and IV semesters. The internship shall include Inter / Intra Institutional activities (refer to Annexure-IV). CIE shall be carried out during the Internship period/IV semester and prescribed marks shall be included in the IV semester grade cards.

Inter /Intra Institutional Internship will have only CIE and no SEE.

- 2) **Innovation/Societal/Entrepreneurship-based Internship:**
During the intervening period of IV and V semester the Internship of 04 weeks period shall be carried out in industries /Govt. organization/NGO/MSME. Focus may be given to Rural Internship/Innovative activities and Entrepreneurship (Social/Industrial). CIE shall be carried out during the Internship period/V semester and prescribed marks shall be included in the VI semester grade cards. **Innovation/Societal/Entrepreneurship based, will have only CIE and no SEE.**



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3) **Research Internship/Industry Internship of 24 weeks duration:** At the beginning of the IV academic year, students can opt for VII semester course work or VII semester Internship depending on the opportunities available for enrolling to either Research Internship or Industry Internship. With reference to this, both VII and VIII semesters shall be in progress simultaneously. Research Internship / Industry Internship shall be carried out at Industry / government organizations, non-governmental organizations (NGOs)/ Micro, Small & Medium Enterprises (MSME) /Research and development organizations/Organizations of National or international repute/Institution Research Centers / Innovation and Incubation Centres/Start-ups /entrepreneur cells. The institution shall encourage students to take up (i) interdisciplinary Research Internship or Industry internship and (ii) rural internship, a work-based activity carried out to learn practical experiences in rural areas, for the upliftment of living standards. In case students want to undergo an internship at his/her family business, he/she shall be permitted to provide; a declaration by a parent that is submitted directly to the Principal of the Institution. With the consent of the internal guide and Principal of the Institution, students shall be allowed to carry out the internship at their hometown (within or outside the state or abroad), provided favourable facilities are available for the internship and the student remains regularly in contact with the internal guide.

University shall not bear any cost involved in carrying out the internship by students. However, students can receive any financial assistance extended by the organization.

University Viva-Voce examination shall be conducted at the end of the internship period. Research Internship /Industry Internship shall be considered as head of passing and shall be considered for the award of the degree. Those who do not complete the internship shall be declared fail and shall have to complete it during subsequent University



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		<p>examinations after stratifying the internship requirements during subsequent semesters.</p> <p>Responsibilities of Department and Guides:</p> <ol style="list-style-type: none">1. The Department/college shall nominate department coordinator /staff member/s to facilitate, guide, and supervise students under internship.2. The students shall report the progress of the internship to the Guide at regular intervals and seek his/her advice. The Guide shall maintain the progress record/diary of the candidates undergoing internship.3. After the completion of the Internship, students shall submit a report with a completion certificate to the Head of the Department with the approval of internal Guides.4. There shall be 100 marks for CIE for Inter/Intra Institutional Internship and Innovation/Societal /Entrepreneurship based Internship. For Research /industry internship 100 marks for CIE and 100 marks for SEE. The minimum requirement of CIE and SEE marks shall be 40% and 35% of the maximum marks respectively. In total, the student has to secure 40% of the course maximum marks i.e., the sum of the CIE and SEE marks prescribed for the course.5. The internal Guide and one senior faculty shall be the internal examiners for CIE Inter/Intra Institutional Internship and Innovation/Societal /Entrepreneurship based Internship.6. For Research /Industry Internship, External Guide for the 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.7. In case, the external Guide expresses his/her inability to conduct the Examination, the Principal /examination Chief Superintendent of the Institute appointed by the University shall appoint a senior faculty of the Department to conduct the Examination along with the internal Guide.
21OB7.0	Technical Seminar	
	21OB7.1	Technical Seminar: Technical Seminar is one of the heads of passing.



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		<p>i. Each student has to present the seminar on a specific topic chosen from the relevant field /list provided by the department under the supervision of a faculty coordinator.</p> <p>ii. The Head of the Department/designated coordinator for technical seminar shall make arrangements for the conduct of seminars through a committee of faculty members of the Department. The committee constituted for the purpose of the Head of the Department, shall award the CIE marks for the seminar. The committee shall consist of three senior faculty members of the Department and the senior-most among them is to act as the Chairperson. There is no SEE for the seminar.</p>
210B8.0	210B8.1	<p>Mini-Project: A Mini Project is a laboratory-oriented course that will provide a platform to students to enhance their practical knowledge and skills by the development of small systems/applications</p> <p>Based on the ability/abilities of the student/s and recommendations of the mentor, a single disciplinary or a multidisciplinary Mini-project can be assigned to an individual student or a group having not more than 4 students.</p> <p>There is only CIE and no SEE for Mini-Project.</p>
	210B8.2	<p>Project Work: Based on the ability/abilities of the student/s and recommendations of the mentor, a single disciplinary or a multidisciplinary Major-project can be assigned to a group having not more than 4 students. The main project work needs to be taken up within the institute/ research laboratory/industry. It is desirable, that the outcome of the project work may be published /patented.</p>
210B9.0	Continuous Internal Evaluation (CIE)	
	210B9.1	<p>At the beginning of the semester, the course instructor or the faculty who is teaching the course shall have to announce the methods used for CIE.</p> <p>Continuous Internal Evaluation Procedure:</p> <p>The minimum CIE marks to be secured in all courses shall be 40% of the maximum marks for successful completion of courses having only CIE marks and appearing for SEE in case of courses having both CIE and SEE</p>



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210B9.1a	<p>marks. (refer Annexure VIII)</p> <p>Theory Courses (03 Credits):</p> <p>Three Tests each of 20 Marks (duration 01 hour)</p> <ul style="list-style-type: none">• First test at the end of 5th week of the semester• Second test at the end of the 10th week of the semester• Third test at the end of the 15th week of the semester <p>Two assignments each of 10 Marks</p> <ul style="list-style-type: none">• First assignment at the end of 4th week of the semester• Second assignment at the end of 9th week of the semester <p>Seminar/quiz/group discussion suitably planned to attain the COs and POs for 20 Marks(duration 01 hours)</p> <p>The total CIE marks shall be the sum of the marks secured in each of the tests, two assignments, and quiz/seminar/group discussion will be out of 100 marks and will be scaled down to 50 marks.</p>
210B9.1b	<p>Integrated Professional Core Courses (IPCC): Theory Integrated with practical Courses. (4 Credits)</p> <p>The CIE marks for the theory component of the IPCC shall be 30 marks and for the laboratory component 20 Marks.</p> <p>CIE for the theory component of IPCC</p> <p>Two Tests each of 20 Marks (duration 01 hour)</p> <ul style="list-style-type: none">• First test at the end of 5th week of the semester• Second test at the end of the 10th week of the semester <p>Two assignments each of 10 Marks</p> <ul style="list-style-type: none">• First assignment at the end of 4th week of the semester• Second assignment at the end of 9th week of the semester <p>CIE for the practical component of IPCC</p> <ul style="list-style-type: none">• On completion of every experiment/program in the laboratory, the students shall be evaluated and marks shall be awarded on the same day. The 15 marks are for conducting the experiment and



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	<p>preparation of the laboratory record, the other 05 marks shall be for the test conducted at the end of the semester.</p> <ul style="list-style-type: none">• The CIE marks awarded in the case of the Practical component shall be based on the continuous evaluation of the laboratory report. Each experiment report can be evaluated for 10 marks. Marks of all experiments' write-ups are added and scaled down to 15 marks.• The laboratory test (duration 03 hours) at the end of the 15th week of the semester /after completion of all the experiments (whichever is early) shall be conducted for 50 marks and scaled down to 05 marks. <p>Scaled-down marks of write-up evaluations and tests added will be CIE marks for the laboratory component of IPCC for 20 marks.</p> <ul style="list-style-type: none">• The minimum marks to be secured in CIE to appear for SEE shall be the 12 (40% of maximum marks) in the theory component and 08 (40% of maximum marks) in the practical component. The laboratory component of the IPCC shall be for CIE only. However, in SEE, the questions from the laboratory component shall be included. The maximum of 05 questions to be set from the practical component of IPCC, total marks of all questions should not be more than the 25 marks. <p>The theory component of the IPCC shall be for both CIE and SEE.</p>
210B9.1c	<p>Theory Course with 01 credit</p> <p>Three Tests (preferably in MCQ pattern with 20 questions) each of 20 Marks (duration 01 hour)</p> <ol style="list-style-type: none">1. First test at the end of 5th week of the semester2. Second test at the end of the 10th week of the semester3. Third test at the end of the 15th week of the semester <p>Two assignments each of 10 Marks</p> <ol style="list-style-type: none">1. First assignment at the end of 4th week of the semester2. Second assignment at the end of 9th week of the semester



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210B9.1d	<p>Quiz/Group discussion/Seminar, any two of three suitably planned to attain the COs and POs for 20 Marks (duration 01 hours)</p> <p>The sum of total marks of three tests, two assignments, and quiz /seminar/ group discussion will be out of 100 marks and shall be scaled down to 50 marks</p> <p>Theory Course with 02 credits</p> <p>CIE will same as 1 credit theory course for the 1st and 2nd semester; however, for higher semesters depending upon the type of the course, the CIE pattern may be MCQ type (100 questions) or the same as other core theory courses.</p> <p>CIE methods /question paper is designed to attain the different levels of Bloom's taxonomy as per the outcome defined for the course.</p> <p>At the beginning of the semester, the instructor/faculty teaching the course has to announce the methods of CIE for the course.</p>
210B9.2 210B9.2a	<p>Engineering Graphics/ Drawing /Field Works:</p> <p>Engineering Graphics /Drawing / Engineering Visualization Course</p> <ol style="list-style-type: none">1. The CIE marks awarded in the case of Drawing shall be based on the weekly evaluation of class work (sketching and computer-aided drawing). Each drawing will be evaluated for marks as mentioned module-wise in the syllabus. Marks for all the drawing sheets are added and scaled down to 30 marks.2. One class test similar to SEE will be conducted after completion of the syllabus for 100 marks and scaled down to 20 marks.3. CIE marks (out of 50) scored by the student shall the sum of class work evaluation and test marks.
210B9.2b	<p>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 80:20.</p> <p>Continuous Evaluation(CIE) of Field Work</p>



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	<p>Surveying Practice / Socio-Economic survey/ Marketing survey /traffic survey/ environmental survey. CIE marks will be split into two components 80% of maximum marks (40 marks) are given for fieldwork report evaluation and 20% of maximum marks (10 marks) for internal assessment test evaluation.</p> <p>Fieldwork evaluation includes attendance, data collection through survey, use of data for design drawing, and report. The split-up of marks for the report shall be decided by the faculty member who is guiding them for the design drawing and report. The criteria for split-up of marks shall be done to achieve the course outcomes. The report evaluation shall be carried out for 100 marks and scored marks shall be scaled down to 40 marks.</p> <p>The assessment shall be through a presentation of the report followed by the viva-voce. This test shall be conducted by the fieldwork project guide and fieldwork coordinator. If the fieldwork coordinator happens to be the same faculty then, HOD or senior faculty member will conduct the test with the guide. A test similar to SEE will be conducted for 100 marks and marks scored by the student will be scaled down to 10 marks.</p> <p>The sum of the report and test marks will be total CIE marks for fieldwork.</p>
210B9.3	<p>Practical Courses: CIE marks for the practical course is 50 Marks.</p> <p>The split-up of CIE marks for record/ journal and test are in the ratio 60:40.</p> <ul style="list-style-type: none">• Each experiment to be evaluated for conduction with observation sheet and record write-up. Spit up of marks for the evaluation of the journal/write-up for hardware/software experiments designed by the faculty who is handling the laboratory session and shall be made known to students at the beginning of the practical session. (Split-up of marks for CIE is as suggested in Annexure-I)• Record should contain all the specified experiments in the syllabus and each experiment write-up will be evaluated for 10 marks.• Total marks scored by the students shall be scaled down to 30



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	<p>marks (60% of maximum marks).</p> <ul style="list-style-type: none">• Weightage to be given for neatness and submission of record/write-up on time.• Department shall conduct 02 tests for 100 marks, the first test shall be conducted after the 8th week of the semester and the second test shall be conducted after the 14th week of the semester.• In each test, test write-up, conduction of experiment, acceptable result, and procedural knowledge will carry a weightage of 60% and the rest 40% for viva-voce.• The suitable split up of marks can be designed to evaluate each student's performance and learning ability (Split-up of marks is as suggested in Annexure-I).• The average of 02 tests is scaled down to 20 marks (40% of the maximum marks). <p>The Sum of scaled-down marks scored in the report write-up/journal and average marks of two tests is the total CIE marks scored by the student.</p> <p>Internal tests for laboratory courses with software experiments will be conducted for 100 marks</p> <p>Observation, write-up of procedure/ Algorithm/program, and execution of experiment will be assessed for 80 marks and Viva-voce for 20 marks.</p> <p>Scored marks out of 100 is scaled down to 50 marks</p>
210B9.4	<p>Internship:</p> <p>The Internship shall be taken up during the period specified in the Scheme of Teaching and Examinations.</p> <p>The Department/ College shall nominate faculty member/s to facilitate, Guide, and supervise students under an internship.</p> <p>The students shall report the progress of the internship to the Guide in regular intervals and seek his/her advice. The Guide shall</p>



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maintain the progress record of the candidates undergoing internship.

Duration of Internships

- Inter/Intra Institutional Internship 03 weeks
- Innovation /Societal /Entrepreneurship based Internship 04 weeks
- Industry / Research Internship 24 weeks

There shall be only a CIE of 100 marks for Inter/Intra Institutional Internship and Innovation /Societal /Entrepreneurship based Internship.

Inter/Intra Institutional Internship and Innovation /Societal /Entrepreneurship based Internship (refer 21OB6.1, part B point 4 and 5). However, Research / Industry internship will have both CIE and SEE components (refers to 21OB6.1, part B point 6 to 9).

Report evaluation for Research / Industry internships shall be evaluated for 50% maximum marks - The split-up of marks suggested for report evaluation shall be based on the

- Report formatting (20% of marks of CIE for report)
- presentation of the outcomes in the report (40% of marks for CIE for report) and
- Technical content of the report (40% of marks for CIE for report)

(Weightage may be given for paper publication in reputed journal/refereed journal/ Conferences/Product developed/ Patent filed -only for Industry/Research Internship).

Viva-Voce conducted for 50% of marks of CIE. The split-up of marks suggested are

- For a demonstration of (soft) skills/Engineering Knowledge gained



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		<p>(50% of marks of CIE for Viva-voce).</p> <ul style="list-style-type: none">• The question-answer session will be checked for the understanding of the fundamentals and concepts (40% of CIE marks for Viva-voce)• Clarity in answering the questions (10% of CIE marks for Viva-voce) <p><i>Viva-voce will be conducted by the Mentor /guide and Head of the department /one of the senior faculty assigned by the head of the department</i></p>
21OB9.5	Technical Seminar:	<p>The Technical Seminar performance evaluation shall be through CIE only. The Technical Seminar is one of the heads of passing. The maximum marks prescribed for CIE shall be 100. The marks awarded for Technical Seminar shall be based on the evaluation of the Seminar Report, Presentation skill, and Question and Answer session in the ratio of 50:25:25.</p> <p>Technical Seminar is one of the heads of passing.</p> <p>The Head of the Department shall make arrangements for the conduct of seminars through a committee of 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 senior faculty members of the Department and the senior-most acting as the Chairperson.</p> <p>Split up of Marks suggested</p> <p>Report marks to be allotted by the seminar guide/s</p> <ul style="list-style-type: none">• Formatting of the report (10 marks)• Literature survey (20 Marks) and• Technical content of the report (20 marks) <p>Seminar Presentation marks to be allotted by the committee: (25 marks)</p> <p>Viva-Voce (Question answer session): 25 marks</p> <ul style="list-style-type: none">• Understanding of fundamentals and concepts (15 marks)• Clarity in answering the questions (10 Marks)
21OB9.6	Mini - Project:	<p>(also refer 21OB8.1 page 15)</p>



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	<p>The Mini-Project shall be under CIE only. The maximum marks prescribed for CIE shall be 100. The CIE marks awarded for Mini-Project, shall be based on the evaluation of the Mini-Project Report, Project Presentation skill, and Question and Answer session in the ratio of 50:25:25. The marks awarded for the Mini-Project report shall be the same for all the batch mates.</p> <p>50 marks of CIE for the report shall be evaluated by the faculty guide /mentor who is guiding the mini-project.</p> <p>The Head of the Department shall make arrangements for the conduct of viva-voce evaluation of the mini-project. The committee shall consist of a guide/mentor and two senior faculty members of the Department. This committee shall evaluate Mini-project Work for 50 marks considering project presentation and question-answer session.</p> <ul style="list-style-type: none">• Project presentation: 25 marks• Question and answer session:25 marks
210B9,7	<p>Project Work: The project work shall be evaluated considering both CIE and SEE; the maximum mark for CIE is 100. The maximum marks prescribed for CIE shall be 100. The CIE marks awarded for Project Work shall be based on the evaluation of the Project Report, Project Presentation skill, and Question and Answer session in the ratio of 50:25:25. The marks awarded for the Project report shall be the same for all the batch mates.</p> <p>50 marks of CIE for the report shall be evaluated by the faculty guide /mentor who is guiding the project work.</p> <p>The Head of the Department shall make arrangements for the conduct of viva-voce evaluation of the project work. The committee shall consist of a guide/mentor and two senior faculty members of the Department. This committee shall evaluate Project Work for 50 marks considering project presentation and question-answer session.</p>



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	<ul style="list-style-type: none">• Project presentation: 25 marks• Question and answer session: 25 marks <p>Split-up of marks to be followed for evaluation is suggested in Annexure-II</p>
210B9.8	The candidate shall write tests, assignments/unit-tests /written quizzes in Blue-Books, which shall be preserved by the Principal/ Head of the Department for at least 3 years after the announcement of University results and shall be made available for verification as per the direction of the Registrar (Evaluation).
210B9.9	<p>Maximum and Minimum CIE and SEE Marks:</p> <p>The maximum CIE marks shall be 50. To appear for the SEE, the minimum CIE marks to be secured in all the courses shall be 40 % of the maximum marks.</p> <p>Inter/Intra Institutional Internship and Innovation /Societal /Entrepreneurship based Internship, Technical Seminar, Mini-Project Works will have only CIE component, maximum CIE marks shall be 100. Minimum CIE marks to be secured shall be 40% of the maximum marks, to qualify in these courses.</p> <p>For Research Internship/ Industry Internship /Major Project the maximum CIE marks shall be 100. To appear the SEE, the minimum CIE marks to be secured shall be 40% of the maximum marks i.e., 40 out of 100 marks.</p> <p>Maximum and Minimum SEE Marks:</p> <p>The maximum SEE marks for Research /Industry Internship, Major Project Work is 100, and minimum SEE marks to secure shall be 35% of the maximum marks i.e. 35 marks.</p> <p>For remaining all the courses mentioned in the scheme of teaching and examination maximum SEE marks are 50 and minimum SEE marks to secure shall be 35% of the maximum marks i.e. 18marks</p> <p>No SEE component for Inter/Intra Institutional Internship and Innovation/Societal /Entrepreneurship based Internship, Technical Seminar and, Mini Project.</p>
210B9.10	Any corrections or overwriting of CIE marks on the blue book/drawing sheet laboratory record etc., where CIE marks are awarded, shall bear the

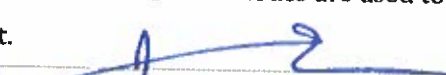


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	signature(s) of concerned Teacher(s) and the Head of the Department.
21OB9.11	CIE marks shall reach the University before the commencement of examinations as per the notification from the office of the Registrar (Evaluation) from time to time. After submission of CIE marks to the University, any request under any circumstances for change of CIE marks shall not be considered.
21OB9.12	<ol style="list-style-type: none">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 and marked as NE in the grade cards against this course/s. However, they can appear for University examinations conducted for other Courses of the same semester and backlog course/s if any.ii. Students who have satisfied the attendance requirement but not the CIE requirements can be permitted to register afresh and appear for SEE after satisfying the CIE requirements in the same Course(s) when offered during the next immediate semester/s or later.iii. Each appearance to SEE or absence after completing CIE and attendance requirements to complete a course shall be treated as an attempt.iv. The student shall be permitted to register for total courses not exceeding 28 credits. These 28 credits include the courses of the regular semester and backlogs. The registration of these additional credits includes the courses having a shortage of attendance and the courses whose CIE requirements are not fulfilled. A student has to pay the prescribed fee as notified by the University from time to time.
21OB9.13	CIE marks of those students, who come under 21OB9.12 (i) and (ii), shall also be sent to the Registrar (Evaluation) along with other course CIE Marks.
21OB9.14	<ol style="list-style-type: none">i. The final list, incorporating corrections (if any), of CIE marks awarded to the students in the Theory/Practical/Internship/ Technical Seminar / Mini - Project Work/Major-Project Work shall be displayed on the



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	<p>notice board of the college much before the closure of the semester.</p> <p>ii. The college/institution shall enter the CIE marks of each semester in the format of the University 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>
210B9.15	<p>Moderation Committee for CIE;</p> <p>Moderation of assessment is an organized procedure that ensures the use of valid assessment methods and consistent application of criteria, to provide fair academic judgment and reliable outcomes in the form of marks or grades. It assures appropriate designing and implementation of assessment activities along with the generation of valid and reliable results.</p> <p>There shall be a Moderating Committee for Internal Assessments in every Department, which shall be chaired by the Head of Department and two senior faculty members to be nominated by the Principal. This Committee shall be responsible for the entire process of Internal Assessment in the Department, including redressal of grievances if any.</p> <p>Guideline for the moderation Committee-</p> <p>Moderation may be conducted after each test or after the tests in case there is a large number of fail grades or higher letter grades, or when large numbers of students who have received the same grade or clustering of students on letter grades, or when there are discrepancies between marks allocated to individual students in different courses,</p> <ul style="list-style-type: none">• Split-up of marks used for each of the different types of assessment in the course to be checked• Checking of the questions whether it maps with course outcomes.• Checking of the level of difficulty of questions paper i.e is difficulty level on the extremes, very easy or otherwise.• Whether the assessment modes are used to cover the entire syllabus or not. 



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21OB10.0	Semester End Examination (SEE) Marks and Passing Standards	
	21OB10.1	<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 scaled down to a maximum of 50 marks to add the same with the CIE marks for the award of the letter grade.</p> <p>b. The University examinations for all the Programs of study shall be conducted at the end of each semester.</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> <ol style="list-style-type: none">1. Two examinations scheduled at the same time of the day,2. To take two examinations on the same day, one during the morning session and the other in the afternoon session, and3. Examinations on consecutive days. <p>d. As changing the examination dates is not an option, the examination timetable 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 the second and third cases, the students shall manage the examinations as per their decision.</p> <p>e. For all theory Courses /drawing Courses of the Program, the maximum SEE marks shall be 50, the minimum SEE marks to be secured shall be 35 % of the maximum marks i.e., 18 marks</p> <p>f. For Practical/Fieldwork/ the maximum SEE marks shall be 50, the minimum SEE marks to be secured shall be 35 % of the maximum marks i.e., 18 marks. Inter/Intra Institutional Internship, Innovation /Societal /Entrepreneurship based Internship, Technical Seminar and Mini-Project is not having any SEE component.</p>



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	<p>g. For 24 weeks of Research / Industry Internship /Major Project the maximum SEE marks shall be 100, the minimum SEE marks to be secured shall be 35% of the maximum marks i.e., 35 marks.</p> <p>h. Students who satisfy the conditions (e), (f), and (g) above, and obtain any grade from O to P in a course shall be considered to have passed that course.</p> <p>i. A student shall be declared fail if he/she</p> <ul style="list-style-type: none">• Fails to satisfy the conditions (h) above• Absents himself/herself to the University examination.• Is held guilty of examination malpractice and for any other reasons and declared the performance of any course/s as null and void by the competent authority.• The course/s in which student/s fail to satisfy attendance and CIE requirement (NE courses) are also considered as F only. <p>j. If a student secures an F grade in any of the Courses, he/she shall reappear for that Course(s) during the subsequent SEE. The CIE marks awarded to the student at the first attempt in the concerned Course(s) shall be carried forward. Revised CIE marks are considered only in cases NE (not eligible to appear for SEE due to non-comply of attendance and CIE) cases.</p> <p>The sum total of CIE and SEE marks must be 40% of the maximum marks prescribed for a course as per the scheme of teaching and examination.</p>
210B10.1a	<p>Theory Course with 3 Credits</p> <p>Theory SEE will be conducted by University as per the scheduled timetable, with common question papers for the course(duration 03 hours)</p> <ol style="list-style-type: none">1. The question paper will have ten questions. Each question is set for 20 marks.2. There will be 2 questions from each module. Each of the two questions under a module (with a maximum of 3 sub-questions), should have a mix of topics under that module.



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21OB10.1b	<p>The students have to answer 5 full questions, selecting one full question from each module.</p> <p>Integrated Professional Core Courses (IPCC):Theory Integrated with Practical Course</p> <p>SEE for the theory part (Duration 03 hours) is the same as that mentioned in serial no. 02 (questions mentioned in the SEE paper shall include questions from the practical component).</p>
21OB10.1c	<p>Theory Course with 1 Credit</p> <p>SEE paper shall be set for 50 questions, each of 01 mark. The pattern of the question paper is MCQ (multiple choice questions). The time allotted for SEE is 01 hour</p>
21OB10.1d	<p>Theory Course with 2 Credits</p> <p>SEE paper will be set for 100 questions each of 01 mark. The pattern of the question paper is MCQ (multiple choice questions). The time allotted for SEE is 120 minutes. Marks scored are scaled down to 50 Marks.</p> <p>The suggested question paper pattern is MCQ for the 1st and 2nd semester however, for higher semester/s depending on the type of the course SEE may be a written examination, a pattern similar to other theory courses as mentioned in clause 21OB10.1a</p>
21OB10.1e	<p>Engineering Graphics and Drawing(Laboratory Course)</p> <p>SEE shall be conducted and evaluated for maximum marks 100. Marks obtained shall be accounted for SEE final marks, reducing it by 50%</p> <ol style="list-style-type: none">1. SEE will be conducted by the two examiners of same institute one act as Internal Examiner and other act as External Examiner.2. Question paper shall be set jointly by both Internal and External Examiner and made available for each batch as per schedule. Examiners may refer question bank.3. Evaluation shall be carried out jointly by both the examiners as per the scheme.



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21OB10.1f	<p>Scheme of Evaluation: To be defined by the examiners jointly as per VTU norms</p> <p>Fieldwork</p> <p>SEE for fieldwork Conducted by the Internal and External examiners appointed by University.</p> <p>Report and design drawing evaluation and viva-voce are in the ratio 60:40. Fieldwork will be jointly evaluated by the Internal and External examiners. The duration of SEE is 03 hours.</p>
21OB10.1g	<p>Practical Course</p> <p>SEE marks for the practical course shall 50 Marks.</p> <p>SEE shall be conducted jointly by the two examiners of the same institute one act as internal and another as external examiner. Examiners are appointed by the University.</p> <ul style="list-style-type: none">• All laboratory experiments are to be included for practical examination.• Breakup of marks and the instructions printed on the cover page of the answer script to be strictly adhered to by the examiners. OR based on the course requirement, a split-up of marks for evaluation shall be decided jointly by internal and external examiners.• Students can pick one question (experiment) from the questions lot prepared by the internal /external examiners jointly.• Evaluation of write-up/ conduction procedure and result/viva will be conducted jointly by Internal and external examiners.• General split-up of marks for SEE mentioned are procedure / writeup- 20%, Conduction and result in 60%, Viva-voce 20% of maximum marks. SEE for the practical course shall be evaluated for 100 marks and scored marks shall be scaled down to 50 marks (however, based on course type, split-up of the marks shall be decided by the examiners)• Change of experiment is allowed only once and 20% Marks allotted to the procedure/write-up part to be made zero (Evaluation is to be carried out for 80% of total maximum marks). <p>The duration of SEE is 03 hours.</p>



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21OB10.1h	Research /Industry Internship <p>SEE shall be conducted by the Internal and external examiners approved by the university. The internal examiner shall be the guide for SEE. 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.</p> <p>In case the external Guide expresses his inability to conduct the Examination at the last moment, the Principal /Chief Superintendent appointed by the university for the concerned examination of the Institute shall appoint a senior faculty of the Department to conduct the Examination along with the internal Guide.</p> <p>Split up of marks for evaluation may be the same as suggested for CIE or Internal and external examiners shall devise split up of marks for SEE and the same may be submitted to the University along with evaluation marks.</p>
21OB10.1i	Project Work: <p>As project work is evaluated for 200 marks (CIE: 100 marks, SEE:100 marks), the marks awarded in SEE for 100 marks must take as it is to decide the letter grade along with the CIE marks also awarded for 100 marks. SEE for Project Work will be conducted by the two examiners one internal and one external examiner appointed by University. SEE marks for the project shall be awarded based on the quality of report and presentation skill, participation in the question and answer session in the ratio 50:25:25 as per the University norms jointly by the examiners.</p> <p>Split up marks to be followed are suggested for CIE or Internal and external examiners shall decide the split-up of marks for SEE and the same may be submitted to the University along with evaluation marks</p>
21OB10.2	Rejection of Result: <p>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</p>



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	<p>performance in University examinations (SEE) of a semester. The rejection is permitted only once during the entire Program of study.</p>
21OB10.3	<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 the VIII semester project shall not be permitted.</p> <p>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 readmission and Maximum duration clauses (21OB14.1-7 and 21OB3.1)</p> <p>(i) If the rejection of SEE results excluding CIE marks is of the odd semester, students shall be allowed to take admission to the immediate next even semester.</p> <p>(ii) If the rejection of SEE results excluding CIE marks is of even semester, then students shall be allowed to take admission to the next odd semester (applicable only from 3rd semester onwards as per clause no. 21OB14.1-1).</p> <p>(iii) Readmission to odd/even semester 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 Program shall be counted with reference to the University Seat Number (USN).</p> <p>(iv) Applications for rejection of results excluding CIE 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, with prescribed fee as notified by the university from time to time. Late submission of applications shall not be accepted for any reason.</p> <p>(v) Application for rejection of results including CIE and approval for</p>



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		readmission shall be sent to the Registrar through the Principal of the College within 30 days from the date of the announcement of the results with prescribed fee as notified by the university from time to time. Late submission of application shall not be accepted for any reason.
	21OB10.4	Registration for SEE is compulsory if the student/s has satisfied the attendance and CIE requirement of ODD /EVEN semester. In case, the students fail to register for SEE of the odd semester after satisfying the attendance and CIE requirements of the semester, they shall be permitted to move to an even semester of that academic year. However, such students have to register for odd semester examinations conducted at the end of the academic year for all the semesters and registration shall be considered for the first attempt. In case, students fail to register for odd semester SEE after completing successfully the even semester, they shall not be permitted to move to the higher odd semester of the subsequent academic year. Irrespective of student appearing for SEE, he/she has to register for SEE of odd and even semesters before completing the academic year.
	21OB10.5	Students who opt for rejection of results of University examination shall be eligible for the award of the degree and Minor Degree but not for the award of ranks and Honors degree.
21OB11.0	Multiple Entry and Exit Option	
	21OB11.1	Entry 1: (at 1 st semester) A program of study leading to entry into the first year of the Bachelor's degree is open to those who have met the entrance requirements, including specified levels of attainment at the secondary level of education specified in the program admission regulations at clause no. 21OB2.1 Exit 1: The exit option is given to the student at the end of year 1 (after the 2 nd semester). The student has to complete all academic requirements of 1 st year of the undergraduate program and earned requisite credits of 1 st and 2 nd semester and recommendation of the counselling team of the Institute.




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21OB11.2	<p>Entry 2: (at 3rd semester) A program of study leading to the second year of the Bachelor's degree is open to those who have met the entrance requirements, including specified levels of attainment, in the program admission regulations clause no. 21OB2.2. Admission to a program of study is based on the evaluation of documentary evidence (including the academic record) of the applicant's ability to undertake and complete a Bachelor's degree program.</p> <p>This option is open to those who have left after completion of the 1st year of the program and want to join back for the continuation of their study subject to the condition of a maximum duration of 8 years from the date of 1st admission.</p> <p>Student opting for multiple entries a3rd-semester level has to undergo a mandatory Summer Internship-I (21INT49) of 03 weeks during the intervening period of semester III and IV. CIE shall be conducted in the 3rd semester and prescribed credits earned for the internship shall be entered into the grade card of the IV semester.</p> <p>Exit 2: The exit option is given to the student at the end of year 2 (after the 4thsemester). The student has to complete all academic requirements to complete the two years of the undergraduate program and earned requisite credits of 1st 2nd3rd and 4thsemesters and recommendation of the counselling team of the Institute</p>
21OB11.3	<p>Entry 3. This option is open to those who have left after completion of the 2nd year of the program and want to join back for the continuation of their study subject to the condition of a maximum duration of 8/6 years from the date of 1st admission.</p> <p>A program of study leading to the Bachelor's degree is open to those who have met the entrance requirements, including specified levels of attainment. Admission to a program of study is based on the evaluation of documentary evidence (including the academic record) of the applicant's</p>



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		<p>ability to undertake and complete a Bachelor's degree program.</p> <p>Students opting for multiple entries at the 5th-semester level have to undergo mandatory Summer Internship-II (21INT69) of 04 weeks during the intervening period of semesters V and VI. CIE shall be conducted in the 5th semester and prescribed credits earned for the internship shall be entered into the grade card of VI semesters.</p> <p>Exit 3. (after 6th semester) On successful completion of three years, the relevant degree shall be awarded. The student has to complete all academic requirements to complete the three years of the undergraduate program and earned requisite credits of 1st to 6th semester and recommendation of the counselling team of the Institute.</p>
	21OB11.4	<p>Counselling Team:</p> <p>The students who choose to drop out (exit) undergo counselling to understand why they are making such decisions. The exit option is given to students only after the recommendation of the counselling team constituted by the Principal of the Institute.</p>
21OB12.0	Grading	
	21OB12.1	<p>The University adopts an absolute grading system wherein the marks are converted to grades, and every examination result shall be declared in terms of Semester Grade Point Average (SGPA) considering all the courses that appeared in that Semester End Examinations including backlog course/s or 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 up to an academic session semester, except for the first semester.</p> 



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21OB12.2	<p>The grading system with the letter grades and the assigned range of marks under the absolute grading system shall be as given below:</p> <table border="1" data-bbox="470 604 1380 907"> <thead> <tr> <th colspan="9">Letter Grade and corresponding Grade Points on a typical 10 - Point scale</th> </tr> <tr> <th>Letter Grade</th> <th>O</th> <th>A+</th> <th>A</th> <th>B+</th> <th>B</th> <th>C</th> <th>P</th> <th>F</th> </tr> <tr> <td></td> <td>Outstanding</td> <td>Excellent</td> <td>Very Good</td> <td>Good</td> <td>Above Average</td> <td>Average</td> <td>Pass</td> <td>Fail</td> </tr> </thead> <tbody> <tr> <td>Grade Point</td> <td>10</td> <td>9</td> <td>8</td> <td>7</td> <td>6</td> <td>5</td> <td>4</td> <td>0</td> </tr> <tr> <td>% of Marks secured</td> <td>90-100</td> <td>80-89</td> <td>70-79</td> <td>60-69</td> <td>55-59</td> <td>50-54</td> <td>40-49</td> <td>0-39</td> </tr> </tbody> </table> <p>If a student remains absent for SEE of any of the courses, the letter grade assigned in the grade card to that course shall be F. If a student is not eligible to appear for SEE due to non-comply of any of the course/s then letter grade assigned against that course/s shall be NE.</p> <p>In the case of all the courses of the program, the maximum CIE marks shall be 50 and the maximum SEE marks shall be 50. The minimum CIE marks secured shall be 40% of maximum marks, i.e. 20 out of 50 marks for passing. The minimum SEE marks to be secured shall be 35 % of the maximum marks i.e., 18 out of 50marks for passing. In total, the student has to secure 40 % of the course maximum marks i.e., the sum of the CIE and SEE marks prescribed for the Course.</p>	Letter Grade and corresponding Grade Points on a typical 10 - Point scale									Letter Grade	O	A+	A	B+	B	C	P	F		Outstanding	Excellent	Very Good	Good	Above Average	Average	Pass	Fail	Grade Point	10	9	8	7	6	5	4	0	% of Marks secured	90-100	80-89	70-79	60-69	55-59	50-54	40-49	0-39
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21OB12.3	<p>A student obtaining Grade F in a Course/s shall be considered to fail in that course/s and is required to reappear for the corresponding course/s in the subsequent SEE. Whatever the letter grade secured by the student in his /her reappearance shall be awarded. The number of attempts taken to clear courses/s shall be indicated in the grade card.</p>																																													
21OB13.0	Computation of SGPA and CGPA																																													
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		<p>Point Average (SGPA) and Cumulative Grade Point Average (CGPA) respectively:</p> $SGPA = \frac{\sum [CourseCredits \times GradePoints] \text{ for all the Courses applied in that semester}}{\sum [CourseCredits] \text{ for all the Courses applied in that semester}}$ $CGPA = \frac{\sum [CourseCredits \times GradePoints] \text{ for all Courses excluding those with Fgrades until that semester}}{\sum [CourseCredits] \text{ for all Courses excluding those with Fgrades until that semester}}$ <p>The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the grade cards. SGPA and CGPA calculation: An illustrative example for one academic year is shown in Annexure-III.</p>
	21OB13.2	<p>Conversions of CGPA into Percentage of marks and Class Equivalence</p> <p>There is no formula for the conversion of CGPA into the percentage of marks. However, the following formula for conversion of the CGPA on a 10-point scale into the percentage of marks (M) for employment / higher studies, etc may be used;</p> <p>Percentage of marks secured, $M = CGPA \text{ Earned} \times 10$</p> <p>Illustration for a CGPA of 8.20;</p> <p>Percentage of marks secured $M = 8.20 \times 10$ = 82.0 %</p>
	21OB13.3	<p>Class Equivalence:</p> <p>Subsequent to the conversion of final CGPA, after successful completion of the Program, into the percentage of marks (M), a graduating student is reckoned to have passed in</p> <ul style="list-style-type: none"> (i). First Class with Distinction (FCD) if $M \geq 70$ (ii). First Class (FC) if $60\% \leq M < 70\%$ (iii). Second Class (SC) if $50\% \leq M < 60\%$ (iv). Pass Class (P) if $40\% \leq M \leq 50\%$
21OB14.0	Vertical Progression	
	21OB14.1	<p>All the below clauses are subject to a maximum duration of eight (for Regular Students) / six years (for Lateral Entry Students) as applicable.</p> <p>1) In case of students admitted to the first year:</p>



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- (a) Students have to fulfill the attendance and CIE requirement to appear for SEE of course/s of 1st year (refer to clause no. 210B5.4)
- (b) Students having not more than four F grades in the 1st and 2nd semesters of the first year of the program shall be eligible to move to the 3rd semester (2nd year) of the program. These courses include courses marked as NE as per clause no. 210B12.2 and 210B10.1i
- (c) The students who fail to satisfy CIE and attendance requirement has to repeat the courses whenever offered next and become eligible for the 2nd year. (refer to clause no. 210B9.9 and 210B5.1)
- 2) Obtaining CIE: From the (3rd semester) second year onwards the student who obtains the required attendance for the course, but not the required CIE marks is allowed to move forward to the next semester. However, the student has to mandatorily obtain the required CIE in the subsequent semester. Obtaining minimum CIE marks for the course is mandatory. It may also be noted that the student shall not be permitted to appear for SEE in such courses until he/she obtains the required CIE.(refer to clause no.210B9.9)
- 3) Carryover of backlog courses: From 3rd semester onwards the student/s who obtains required attendance, CIE, and appears for university examinations but fails (F Grade) to pass a course/s is allowed to move forward to the next semester (odd /even) irrespective of a number of F grades. However, for the award of degree, the student has to pass in all courses as per applicable scheme and regulations and earn the prescribed credits. This is subject to a permitted maximum duration. **It may also be noted that the student will be given admission to the IV year (7thsemester/8th semester) provided he/she passes all courses of 1st and 2nd semesters.**
- 4) From the second year onwards there shall be no restriction from promotion from an even to next odd semester (or odd to next even semester) even if the student has not satisfied the attendance requirement in one or more courses (including bridge courses for lateral entry students) shall not be eligible to appear for the Semester



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End Examination (SEE) of that course(s). The student shall be required to repeat that course whenever offered next.

5) Permitted Maximum credits for registration: The student shall be permitted to register for total courses not exceeding 28 credits. These 28 credits include the courses of the regular semester and backlogs. The registration of these additional credits includes the courses having a shortage of attendance and the courses whose CIE requirements are not fulfilled. A student has to pay the prescribed fee as notified by the University from time to time.

6) **Successive Failures:**

a) If a student fails to pass a Course even after four attempts, that course is deemed to be exempted for him/her. Then, the student may choose a course of his / her choice with the same number of credits from the pool of courses suggested by the concerned Board of Studies. The course so selected should not have been studied by the student or to be studied in higher semester/s. The faculty advisor shall guide/advise the student in this regard. The college has to make arrangements for the registration and conduction of CIE for the selected course.

b) This provision is given only for two courses (one at a time) during the entire maximum duration of a course.

7) This provision is optional; the student/s can continue appearing for SEE with the same course without opting for a change of course as mentioned in clause 210B14.1-6a.

Readmission:

a) Students who are temporarily discontinuing the program and getting readmitted or rejoin to the eligible semester are subject to a maximum duration of eight (for Regular students) / six (for lateral Entry students) years as applicable.

b) The permission for readmission is only on request through the Principal and is not treated as a matter of right. Such students shall not claim any benefits based on the readmission.



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		<p>c) Students who take re-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 program adhering to the regulations of the prevailing scheme and shall complete additional Course/s, if any, as per the decision of equivalence committee in concurrence with concerned Board of Studies on establishing the equivalence between two schemes. Such a candidate shall not be eligible for the award of rank.</p> <p>d) Readmission to odd/even semester shall not be considered as fresh admission and therefore students shall continue to have the same University Seat Number, which was allotted at the time of admission to the program. The maximum duration of the Program shall be counted with reference to the USN (University Seat Number) allotted during admission to the program.</p> <p>e) 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 (USN) but retaining the same year of admission. (to be read along with 210B14.1-1)</p> <p>8) Permitted Maximum credits for registration: The student shall be permitted to register for total courses not exceeding 28 credits. These 28 credits include the courses of the regular semester and backlogs. The registration of these additional credits includes the courses having a shortage of attendance and the courses whose CIE requirements are not fulfilled. A student has to pay the prescribed fee as notified by the University from time to time.</p>
	210B14.2	1) The candidates who have temporarily discontinued the Program of study or changed the scheme of study from one to another because of various reasons or transferred with credits from the autonomous college of VTU /other University to non-autonomous



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		<p>constituent/affiliated college of VTU, shall be eligible for the award of degree provided the credits earned at that stage are equal to or greater than the credits decided by the University in the individual cases.</p> <p>2) In case, the forecasted or estimated credits are going to be less than that of the credits prescribed by the University on the completion of all the semesters of the program under the prevailing scheme, the candidate shall register for a course or courses not studied earlier and make up the credits which are equal to or greater than the university prescribed credits.</p> <p>3) In case of any difficulty, Vice-Chancellor shall decide on individual cases, which shall be final.</p>												
210B15.0	Award of Degree													
	210B15.1	<p>B.E./B.Tech. degree</p> <p>(a) Students shall be declared to have completed the Program 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 have earned the prescribed number of credits within the permitted maximum duration.</p> <p>(b) For the award of degree, completion of bridge courses, if any, as applicable is compulsory.</p> <p>(c) Mandatory Earning of Activity points:</p> <table border="1" data-bbox="454 1556 1332 1848"> <thead> <tr> <th>Sl. No.</th> <th>Students Category</th> <th>Activity points prescribed by AICTE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Regular students admitted to the 4 years Degree program</td> <td>100</td> </tr> <tr> <td>2</td> <td>Students entering 4 years Degree programs through lateral entry</td> <td>75</td> </tr> <tr> <td>3</td> <td>Students transferred from other Universities to the fifth semester</td> <td>50</td> </tr> </tbody> </table> <p>The Activity Points earned shall be reflected on the student's eighth semester Grade Card.</p> <p>(i) AICTE Activity Points (non-credit) have no effect on SGPA/CGPA</p>	Sl. No.	Students Category	Activity points prescribed by AICTE	1	Regular students admitted to the 4 years Degree program	100	2	Students entering 4 years Degree programs through lateral entry	75	3	Students transferred from other Universities to the fifth semester	50
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	<p>In case a student fails to earn the prescribed activity Points before the commencement of 8th-semester examinations, the 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>(ii) The Guidelines and suggestive activities under Activity points are listed in Annexure -VII</p>
21OB15.2	<p>B.E./B.Tech. (Honors) Degree</p> <p>(a) A student shall be declared to have completed the Program of B.E./B.Tech., degree and shall be eligible to get undergraduate B.E./B.Tech., degree with Honours, provided.</p> <ul style="list-style-type: none">• (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, i.e. 160 credits for I semester admitted students and 120 for III semester admitted students as per 21OB15.1• (a.2) has earned additional 18 or more credits through University-approved online Courses.• (a.3) satisfied the Regulations Governing the Award of Honors at B.E./B.Tech. Degree Programs - Guidelines - Annexure-V
21OB15.3	<p>3. B.E./B.Tech. with Minor Degree</p> <p>a) A student shall be declared to have completed the Program of B.E./B.Tech. Degree and shall be eligible to get undergraduate B.E./B.Tech., degree with minors, provided.</p> <ul style="list-style-type: none">• (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, i.e. 160 credits for I semester admitted student and 120 for III semester admitted student• (a.2) Has earned additional 18 or more credits through a University-



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	approved courses list submitted by the board of studies. For Guidelines refer to Annexure-VI
21OB15.4	<p>Award of Degree for an Extraordinary Student:</p> <p>The University through college can offer a fast-track degree for an extraordinary student. The same is done by offering courses of his / her choice to fulfill the requirement of the program in three and half years. However, the degree shall be awarded on completion of 04 years. However, the course completion letter may be issued jointly by University and Institute immediately after completion of the program, notwithstanding the minimum duration.</p> <p>Aspirant students have to register with University through the Principal of the college at the 5th-semester level, with the prescribed registration fee as fixed by the University from time to time. A special provision to registering for more credits other than regular semester credits shall be made only after registration.</p> <p>The extraordinary student is one with a CGPA ≥ 9 in 2nd, 3rd, and 4th semesters and maintains the same in all the semesters. Otherwise, his/her registration will stand canceled automatically.</p>
21OB15.5	<p>(1) Noncompliance of CGPA ≥ 5.00 at the end of the Program</p> <p>(A) Students, who have completed all the courses of the Program but do not have a CGPA ≥ 5.00 at the end of the Program, shall not be eligible for the award of the degree.</p> <p>(B) In the cases of 21OB14.5 (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 the maximum duration of the Program to make up the CGPA equal to or greater than 5.00 for the award of the Degree.</p> <p>(C) In case the student earns 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</p>



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of the degree. If CGPA <5.00, the students shall follow the procedure laid down in 21OB14.5(B).

(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 student shall become eligible for the award of the degree. If CGPA <5.00, the students shall follow the procedure laid down in 21OB14.5(B)

(E) In case the student earns improved grade/s in some courses and fails 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 student has failed. If it is ≥ 5.00 , the student shall become eligible for the award of the degree. If CGPA <5.00, the student shall follow the procedure laid in 21OB14.5(B).

(F) In case the student fails (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 student shall follow the procedure laid in 21OB14.5(B).

(G) The student shall obtain written permission from the Registrar (Evaluation) to reappear in SEE to make up the CGPA equal to or greater than 5.00.

(2) Noncompliance of Mini-project

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.

(3) Noncompliance of Major-project

The Project Work shall be considered as a head of passing and shall be



Regulations Governing the Degree of Bachelor of Engineering/Technology (B.E./B.Tech.)
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		<p>considered for the award of degree. Those, who do not take up/complete the Major-project shall be declared fail in that course and shall have to complete the same during subsequent University examinations after satisfying the Major-project requirements.</p> <p>(4) Noncompliance of Internship</p> <p>All the students of B.E./B.Tech. shall have to undergo mandatory internship as per 210B 6.1. 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 in that Course and shall have to complete the same during subsequent University examinations after satisfying the internship requirements.</p>
210B16.0	Award of Prizes, Medals, and Ranks	
	210B16.1	<p>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.</p>
	210B16.2	<p>(1) For the award of rank in a Specialization of Bachelor of Engineering/ Technology, the CGPA secured by the students from III to VIII semesters shall be considered.</p> <p>(2) The additional credits earned for the award of Honours / Minors 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 the degree of Bachelor of Engineering/ Technology, provided that the student,</p> <ul style="list-style-type: none">a) (i) Has passed all the Courses of I to VIII semester in the first attempt only in case of Candidates admitted to I year.(ii) Has passed all the Courses (including bridge courses) of III to VIII semester in the first attempt only in case of Candidates admitted under lateral entry scheme.b) Is not a repeater in any semester because of rejection of result of a semester/ shortage of attendance /temporarily discontinued and rejoined/readmitted etc.c) Has completed all the Courses/semesters of the same Scheme of Teaching and Examinations without any break/discontinuity.



Regulations Governing the Degree of Bachelor of Engineering/Technology (B.E./B.Tech.)
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		<p>d) Has completed all the semesters (I to VIII for regular/III to VIII for lateral entry) 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 the total number of students who appeared in the VIII semester subject to a maximum of 10 ranks in a specialization.</p> <p>(5) For an 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 Program, 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>c) In case of a fractional number of ranks, it is rounded to a higher integer only when the first decimal place is greater than or equal to 5.</p>
	210B16.3	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 a 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.
210B17.0	Change of College: Transfer of students: The Regulations Governing the Change of College shall be followed (Annexure-IX).	
210B18.0	Change of Branch: The Regulations Governing the Change of Branch shall be followed (Annexure-X)	
210B19.0	Applicability and Power to Modify	



Regulations Governing the Degree of Bachelor of Engineering/Technology (B.E./B.Tech.)
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	210B19.1	The regulations governing the degree of Bachelor of Engineering/Technology of Visvesvaraya Technological University shall be binding on all concerned.
	210B19.2	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.





Visvesvaraya Technological University

(State University Government of Karnataka Established as per VTU Act 1994)
"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/Aca-OS-Cirs/2021-22/104

Date : - 6 APR 2021

NOTIFICATION

Sub: Regulations Governing the Degree of Master of Technology effective from the academic year 2020-21- reg...

**Ref: 1. Joint Board of Studies approval 23-07-2020
2. Executive Council Resolution. No. 2.2.2. dt: 30-07-2020**

Pursuant to the aforesaid Executive Council Resolution, the "**Regulations Governing the Degree of Master of Technology effective from the academic year 2020-21**" are hereby notified.

These Regulations are uniformly applicable to Affiliated, Autonomous and Constituent Colleges under VTU

However, the evaluation pattern of Autonomous Colleges will be as per VTU guidelines issued from time to time.

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

Encl: as above

BY ORDER

REGISTRAR

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

Copy to:

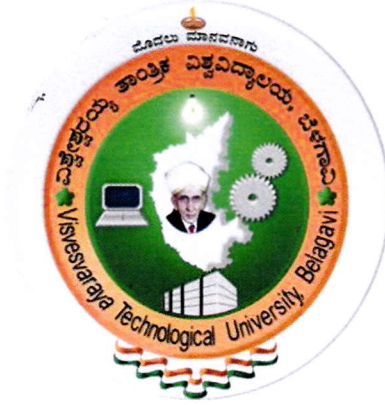
1. Hon'ble Vice-Chancellor through the Secretary to VC, VTU, Belagavi for kind information
2. The Registrar (Evaluation), VTU, Belagavi
3. The Regional Directors (I/C) of all the Regional Offices of VTU for circulation
4. The Director, Computer Network Centre, VTU, Belagavi- to upload on VTU website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

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnana Sangama, Belagavi – 590 018, Karnataka

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REGULATIONS GOVERNING
THE DEGREE OF MASTER OF TECHNOLOGY (M.Tech.)
Under Outcome Based Education (OBE)
AND
Choice Based Credit System (CBCS) Scheme
(Full-time and Part-time)
Effective from academic year 2020 -21

2020

Visvesvaraya Technological University, Belagavi

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(Full-time and Part-time)

Effective from academic year 2020 - 21

(Approved vide Executive Council Resolution Number. 2.2.2. dated 30-07-2020)

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(Approved vide Executive Council Resolution Number. 2.2.2. dated 30-07-2020)

Definitions of Keywords

The following are the definitions/descriptions that have been followed for the different terms used in the Regulations of M.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 M.Tech Degree Programme, like Power Electronics, Structures, Machine Design, 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: 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 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. 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 weightage for the different components being fixed at the University level.

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(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 's 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.

(16) Letter Grade: It is an index of the performance of students in a said Course. Grades are denoted

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 lecturers not to carry Credits.

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: 200MT6.0]. 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	S	A	B	C	D	E	F
Grade Point	10	09	08	07	06	04	00

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(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 points (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: 200MT6.0]

(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: 200MT6.0]

(23) Grade Card: Refers to a certificate showing the grades earned by a student. A grade card shall be issued to all the registered students after every semester. 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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(Approved vide Executive Council Resolution Number. 2.2.2. dated 30-07-2020)

Clause	Particulars
200MT1.0	Title, Duration and Credits of the Programme of Study
200MT1.1	The Programme shall be called Master of Technology (Subject of Specialization), abbreviated as M.Tech. (Subject of Specialization).
200MT1.2	There shall be two categories of Programme: (i) Full-time Programme (FT), and (ii) Part-Time Programme (PT).
200MT1.3	Full-time Programme: The Programme shall extend over a period of four semesters and each semester shall have 16 weeks duration.
200MT1.4	Part -Time Programme: (a) The Programme shall be of 6 semesters. (b) Each semester shall be 16 weeks duration. (c) First, second, third and fourth semesters shall comprise course work and fifth and Sixth semesters shall be same as that of III and IV Semesters of the Full-time Programme. (d) The candidate shall register for a maximum of three courses per semester. (e) The candidates shall register for Laboratory course and Seminar in first and
200MT1.5	A Faculty/ Employee working on Full Time basis in an Institution/ Organization and pursuing/ pursued any Course conducted in the timing of Regular/ First Shift for the same duration as that of Regular Shift shall be considered as ineligible for the purpose of employment/ higher studies.
200MT1.6	Maximum Duration for Programme Completion: (a) A Full-time candidate shall be allowed a maximum duration of 4 years from the first semester of admission to become eligible for the award of Master's Degree, failing which he/she may discontinue the programme or register once again as a fresh candidate to I semester of the programme. (b) A Part -Time candidate shall be allowed a maximum of 6 years duration from the first semester of admission to become eligible for the award of Master's Degree, failing which he/she may discontinue the programme or register once again as a fresh candidate to I semester of the programme.
200MT1.7	Prescribed Number of Credits for the Programme: The number of credits to be completed for the award of degree shall be 88.
200MT1.8	Definition of Credits: 01 hour Lecture (L) per week per semester =1 Credit 02 hours Tutorial (T) per week per semester =1 Credit 02 hours Practical/Laboratory/Drawing (P) per week per semester =1 Credit. Note: (i) Four credit Courses are designed for 50 hours Teaching – Learning process. (ii) Three credit Courses are designed for 40 hours Teaching – Learning process.
200MT1.9	The Calendar of events in respect of the Programme shall be notified by the University in advance.

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- 200MT2.0 Eligibility for Admission (As per the Government orders issued from time to time)**
- 200MT2.1** Admission to I year/I semester Master of Technology Programme shall be open to all the candidates who have passed B.E./ B. Tech. Examinations of VTU or any other recognized University/ Institution. The decision of the Equivalence committee shall be the final in establishing the eligibility of candidates for a particular Programme.
For the foreign degrees, Equivalence certificate from the Association of Indian Universities shall be a must.
The candidates who have completed their degree through the distance mode education from any University (National or International) are not eligible for admission to M.Tech. Programs under any quota.
- 200MT2.2** AMIE in respective branches shall be equivalent to B.E./ B. Tech. Programs of VTU for admission to M.Tech.
(Certificate/ qualification awarded by professional bodies/ institution in the field of Technical Education will be treated as equivalent to B.E. / B.Tech. programmes of VTU for admission to M.Tech. programmes subjects to the notification / approval from Government of and AICTE)
- 200MT2.3** Admission to M.Tech. Programme shall be open to the candidates (as per 200MT 2.1 and 2.2) who have passed the prescribed qualifying examination with not less than 50% of the marks in the aggregate of all the years of the degree examination. However, in the case of candidates belonging to SC/ST and Category I, the aggregate percentage of marks in the qualifying examinations shall not be less than 45%. Rounding off of percentage secured in qualifying examination is not permissible. (Reservation is applicable only for Karnataka Candidates).
- 200MT2.4** **For admissions under GATE/ PG CET qualification and Roaster system of Government of Karnataka:**
The candidates should be GATE qualified or should have appeared for the Entrance Examination conducted by an authority recognized by Government of Karnataka (PGCET)/VTU.
For admissions under Management Quota:
The candidates should be GATE qualified or should have appeared for the Entrance Examination conducted by an authority recognized by Government of Karnataka PGCET/VTU.
Further, there shall be an Admissions Committee for PG Programme in each college for each branch of PG studies consisting of the Principal of the College as the Chairman, Head of the concerned Department, one senior faculty of the concerned Department as members. The Admissions Committee shall conduct the interview and select the candidates for admissions.
For admissions under Sponsored Quota:
The candidates should be GATE qualified or should have appeared for the Entrance Examination conducted by an authority recognized by Government of Karnataka PGCET/VTU/any other University on approval by Government of Karnataka.
- 200MT2.5** The candidates, who are qualified in the GATE Examination for the appropriate branch of engineering, shall be given priority. They are exempted from taking Entrance Examination.
In case a GATE qualified Candidate appears for entrance examination and become qualified to claim a seat under entrance examination quota, he/she will be considered in the order of merit along with other candidates appeared for the entrance examination.

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- 200MT2.6** If sufficient number of GATE qualified candidates are not available, the remaining vacant seats shall be filled from amongst the candidates appeared for Entrance Examination in the order of merit.
- 200MT2.7** The intake under various categories (regular, sponsored candidates and SC/ST) shall be as sanctioned by the AICTE, State Government and VTU, from time to time.
- 200MT2.8** Subject to the provisions of 200MT2.1 and 200MT2.2, members of the Teaching/Research Staff working in any Engineering College recognized by AICTE either in the State of Karnataka or outside and who have put in a minimum of 03 years of teaching experience on full-time basis in Engineering Colleges, Polytechnic institutions / any other institutions imparting Engineering education shall be eligible for admission to PG Programs under sponsored quota, if they are sponsored by the respective Institutions / DTE.
- 200MT2.9** Subject to the provisions of 200MT 2.1 and 200MT 2.2, members working in the State Government/ Central Government/ Quasi Government Organizations/ Public Sector Industries / Reputed Private Industries, who have put in a minimum of 03 years of working experience and sponsored by the concerned Organizations, shall also be eligible to seek admissions to PG Programs against sponsored quota. Preference for admission under 200MT2.8 and 2.9 shall be given to candidates sponsored by organizations of State and Central Governments.
- 200MT2.10** Further that employment of Part-time students shall be in an establishment situated within the 40km from the place of the institution to which the candidate is seeking admission.
- 200MT2.11** Engineering graduates other than the Karnataka candidates shall obtain Eligibility Certificate from VTU to seek admission to P.G. Programme in any of the colleges (Autonomous or Non - Autonomous) affiliated to VTU.
- 200MT2.12** **Admission to vacant seats:**
Seats remaining vacant (unfilled), after the completion of PG admission process by Karnataka Examination Authority, shall be filled by the Institution by inviting applications through Press notification. The seats shall be filled by Candidates preferably who have valid GATE/ PGCET score. In the absence of such Candidates, admission shall be based on merit in the entrance test conducted at the Institution level. An Admissions Committee, consisting of the Principal of the College, Head of the concerned Department and the subject experts, shall be in charge of admissions.
- 200MT3.0** **Courses**

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- 200MT3.1** The curriculum of the Programme shall be any combination of following type of courses:
- (i) One Course on Mathematics supportive to the concerned programme in the first semester.
 - (ii) Professional Core Courses (PCC) - relevant to the chosen specialization/branch [May be split into Hard (no choice) and Soft (with choice), if required]. The core course is to be compulsorily studied by a student and is mandatory to complete the requirements of a programme in a said discipline of study.
 - (iii) Professional Electives Courses (PEC) - relevant to the chosen specialization/branch: these are the courses, which 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 / nurturing student skills.
 - (iv) Open Electives Courses (OEC), from other technical and/ or emerging specialization areas.
 - (v) Project Work, Seminar.
 - (vi) Audit Courses (AC):
 - (a) The Audit course can be any credit course offered by the program to which the Candidate is admitted (other than the courses considered for completing the prescribed program credits) or other programs offered in the institution, where Audit course/s are non-credit courses opted by students for self - enrichment. Though, the CIE and SEE are not required, the attendance to be compulsorily satisfied, for the audit course/s to find a place in the grade card without the mention of letter grade and credit.
 - (vii) Internship: Preferably at an industry/R and D organization/IT company/ Government organization of significant repute for a specified period mentioned in Scheme of Teaching and Examination.
- 200MT3.2** A candidate shall exercise his /her option in respect of the electives and register for the same before the beginning of the concerned semester. The candidate may be permitted to opt for change of elective subject within 10 days from the date of commencement of the semester as per the calendar of the University.
- 200MT3.3** Students shall be allowed to choose the elective/s, depending on their career plans, and there shall not be any restriction to the minimum number of students to be registered for an elective course.
- 200MT4.0** **Internship**

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200MT4.1 Internship: The student shall undergo Internship as per the Scheme of Teaching and Examination.

(1) The internship shall be carried out in any industry/R&D Organization/Research Institute/Institute of national and international repute/recognized national and international Professional Bodies, Societies or Organizations.

(2) The Department/college shall nominate a faculty to facilitate, guide and supervise students under internship.

(3) The students shall report the progress of the internship to the internal guide in regular intervals and seek his/her advise.

(4) The Internship shall be completed during the period specified in Scheme of Teaching and Examination.

(5) After completion of Internship, students shall submit a report to the Head of the Department with the approval of both internal and external guides.

(6) There will be 40 marks for CIE (Seminar: 20, Internship report: 20) and 60 marks for Viva - Voce conducted during SEE. [To be read along with 200MT8.8 and 8.9]

(7) The internal guide shall award the CIE marks for seminar and internship report after evaluation. He/she will also be the internal examiner for Viva - Voce conducted during SEE.

(8) The external guide from the industry shall be an examiner for the Internship viva-voce examination. 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.

(9) (i) In case the external Guide is not available or expresses his inability to conduct viva voce, the Chief Superintendent shall be permitted to make alternate arrangement. The examiner, in the order of preference, shall be an industry person or a faculty of another institution chosen from the list of University examiners. The same shall be intimated to the concerned BOE Chairperson.

(ii) In case the external Guide accepts to conduct viva-voce examination from his/her workplace, it shall be arranged via Video/web conferencing/Webinar. The external Examiner shall send the mutually agreed signed marks (evaluated for SEE marks) list, soon after the examination, via email/any electronic media.

(10) The students shall be permitted to carry out the internship anywhere in India or abroad. The University shall not provide any kind of Financial Assistance to any student for internship.

200MT4.2 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 fail in that Course and shall not be permitted to appear for SEE in that Course. However, such students shall appear for SEE after satisfying the conditions prescribed for Internship. The reappearance shall be considered as an attempt.

200MT5.0 Seminar and Project

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- 200MT5.1 Seminar:** Seminar is one of the head of passing.
(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.
(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 200MT8.8]
- 200MT5.2 Project Work:** Project is one of the head of passing.
Project work shall preferably be on individual basis.
The candidate shall submit a soft copy (CD) of the dissertation work to the University. The CD should contain the entire Dissertation in monolithic form as a PDF file (not separate chapters).
The Guide, after checking the report for completeness shall upload the Dissertation along with name, University Seat Number, address, mobile number of the candidate, etc., as prescribed in the form available on online Dissertation evaluation portal. The guide shall submit a panel of four approved University Examiners for evaluation of dissertation.
- 200MT5.3 Plagiarism Check**
Once the Guide uploads the dissertation, the same shall be linked for plagiarism check. The allowable plagiarism index is less than or equal to 25%.
If the check indicates a plagiarism index greater than 25% :
(i) for the first time, the candidate has to resubmit the dissertation, to the Registrar (Evaluation), Regional Center/Head Office, VTU along with the penal fees of Rs. 2000/- (Rupees Two thousand only) in person.
(ii) for the second time, the candidate has to resubmit the dissertation along with the penal fees of Rs. 4000/- (Rupees four thousand only) in person.
(iii) If the dissertation is rejected again during second resubmission with reference to plagiarism index, the candidate shall redo the project and submit after a semester's time subject to provisions of 200MT1.6.
- 200MT5.4** The dissertation shall be sent through email for evaluation to two examiners - one internal examiner (guide/co-guide) and one external examiner (first) appointed by the University. The evaluation of the dissertation shall be made independently by each examiner.
- 200MT5.5** Examiners shall evaluate the dissertation normally within a period of not more than two weeks from the date of receipt of dissertation through email.
- 200MT5.6** The examiners shall independently submit the marks through the specified link.
- 200MT5.7** Average of the marks awarded by the two Examiners shall be the final evaluation marks for the Dissertation.

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- 200MT5.8** (a) Viva-voce examination of the candidate shall be conducted as per 200MT5.10, if the dissertation work and the reports are accepted by the external examiner (first).
(b) If the external examiner (first) finds that the dissertation work and the report are not up to the expected standard and the minimum passing marks cannot be awarded, the dissertation shall not be accepted for SEE.
The external examiner (first) can recommend for modifications/suggestions of dissertation or totally reject the dissertation. The examiner shall offer suggestions for improvement of the dissertation for resubmission or list the reasons for rejection of the dissertation.
- 200MT5.8 (continued)** (c) The resubmitted Dissertation incorporating the modifications/suggestions [as per 200MT5.8 (b)] of the external examiner (first) and satisfying the provision 200MT5.3 shall be sent again to the external examiner (first) for evaluation. If the dissertation and the report are accepted by the external examiner (first), Viva-voce examination of the candidate shall be conducted as per 200MT5.10.
(d) In case of rejection of Dissertation by the external examiner (first), the same will be sent to a Second Examiner (external) approved by the University. The decision of the Second Examiner (external) is final. If the dissertation and the report are accepted by the Second Examiner (external), Viva-voce examination of the candidate shall be conducted as per 200MT5.10. If the Second Examiner (external) rejects the dissertation and the report, the candidate shall have to carry out the dissertation work once again and submit the dissertation subject to provisions of 200MT1.6. In such cases of rejection, the candidate shall redo the entire procedure starting from the submission of Dissertation in soft copy.
(e) In case of rejection of Dissertation, with reasons, by the external examiner (first) [as per 200MT5.8 (b)], the same will be sent to a Second Examiner (external) [not necessarily the same examiner considered under 200MT5.8 (d)] approved by the University. The decision of the Second Examiner (external) is final. If the dissertation and the report are accepted by the Second Examiner (external), Viva-voce examination of the candidate shall be conducted as per 200MT5.10. If the Second Examiner (external) rejects the dissertation and the report, the candidate shall have to carry out the dissertation work once again and submit the dissertation subject to provisions of 200MT1.6. In such cases of rejection, the candidate shall redo the entire procedure starting from the submission of Dissertation in soft copy.
- 200MT5.9** The candidate, whose Dissertation is rejected, can rework on the same topic or choose another topic of dissertation under the same Guide or new Guide if necessary. In such an event, the report shall be submitted within four years in case of full-time student and six years in case of part-time student respectively from the date of admission to the Programme.
- 200MT5.10** Viva-voce examination of the candidate shall be conducted by the external examiner and internal examiner/ guide.
Internal examiner as per the direction of the University shall have to arrive at a mutually convenient date for the conduct of viva-voce examination of the concerned candidate with an intimation to the Registrar (Evaluation). In case one of the examiners expresses his/her inability to attend the viva-voce, the Registrar (Evaluation) shall appoint a substitute examiner in his/her place.
- 200MT5.11** The relative weights for the evaluation of dissertation and the performance at the viva voce shall be as per the scheme of teaching and examination.

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200MT5.12 The marks awarded by both the Examiners at the viva voce Examination shall be sent jointly to the University immediately after the examination.

200MT5.13 Examination fee as fixed from time to time by the University for evaluation of dissertation report and conduct of viva voce shall be remitted through the Head of the Institution as per the instructions of Registrar (Evaluation) from time to time.

200MT5.14 The candidates who fail to submit the dissertation work within the stipulated time have to submit the same at the time of next ensuing examination.

200MT6.0 Computation of SGPA and CGPA

200MT6.1 (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.

(ii) The grading system with the letter grades and the assigned range of marks under absolute grading system are as given below:

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	≥ 90	<90 ≥80	< 80 ≥70	< 70 ≥60	< 60 ≥ 55	< 55 ≥50	< 50
Scored in a Course	(90 -100)	(80 - 89)	(70 - 79)	(60 - 69)	(55 - 59)	(50- 54)	(0 - 49)

(iii) A student obtaining Grade F in a Course shall be considered fail 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.

200MT6.2 Grade Point Averages:

SGPA and CGPA:The credit index can be used further for calculating the Semester Grade Point Average (SGPA) and the Cumulative Grade Point Average (CGPA), both being important academic performance indices of the student. While SGPA is equal to the credit index for a semester divided by the total number of credits registered by the student in that semester, CGPA gives the sum total of credit indices of all the previous semesters divided by the total number of credits registered in all these semesters. Both the equations together facilitate the declaration of academic performance of a student, at the end of a semester and at the end of successive semesters respectively. Thus,

$$SGPA = \frac{\sum[\text{Course Credits} \times \text{Grade Points}] \text{ for all } t^{\text{th}} \text{ Courses in } t^{\text{th}} \text{ at Semester}}{\sum[\text{Course Credits}] \text{ for all } t^{\text{th}} \text{ Courses in } t^{\text{th}} \text{ at Semester}}$$

$$CGPA = \frac{\sum[\text{Course Credits} \times \text{Grade Points}] \text{ for all Courses excluding } t^{\text{th}} \text{ose wit}^{\text{h}} \text{ F and transitional grades until } t^{\text{th}} \text{ at Semester}}{\sum[\text{Course Credits}] \text{ for all Courses excluding } t^{\text{th}} \text{ose wit}^{\text{h}} \text{ F grades until } t^{\text{th}} \text{ at semester}}$$

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200MT6.2
(continued)

(a) SGPA and CGPA Calculations: An Illustrative Example for one academic year						
Semester (Odd :I, Even: II)	Course Number	Credits	Grade	Grade Points	Credit Points	SGPA, CGPA
I	XX101	5:0:0 = 5	B	8	5 × 8 = 40	$SGPA = \frac{117}{25}$ $= 4.68$
I	XX102	3:2:0 = 5	Absent(F)	0	5 × 0	
I	XX103	3:0:0 = 3	A	9	3 × 9	
I	XX104	0:1:1 = 2	F	0	2 × 0	
I	XX105	4:1:0 = 5	D	6	5 × 6	
I	XX106	5:0:0 = 5	E	4	5 × 4	
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	5 × 7	$SGPA = \frac{157}{25}$ $= 6.28$
II	XX108	4:0:0 = 4	B	8	4 × 8	
II	XX109	3:0:0 = 3	D	6	3 × 6	
II	XX110	4:1:0 = 5	E	4	5 × 4	
II	XX111	2:1:1 = 4	A	9	4 × 9	$CGPA = \frac{(117 + 157)}{18 + 23}$ $= 274/41 = 6.68$
II	XX112	2:0:0 = 2	F	0	2 × 0	
II	XX113	0:2:0 = 2	B	8	2 × 8	
Total		25 (23*)	Total	157		
(23*): 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.						
If the Student secures letter grades as detailed below after reappearance to SEE, then the SGPA and CGPA shall be calculated as indicated below.						
I	XX102	3:2:0 = 5	D	6	5 × 6 = 30	$SGPA (I Semester) = \frac{117 + 30 + 14}{25}$ $= 161/25 = 6.44$
I	XX104	0:1:1 = 2	C	7	2 × 7 = 14	
II	XX112	2:0:0 = 2	D	6	2 × 6 = 12	$SGPA (II Semester) = \frac{(157 + 12)}{25}$ $= 169/25 = 6.76$
$CGPA \text{ at the end of the academic year after passing all the Courses of the two consecutive semesters under consideration} = \frac{(6.44 \times 25 + 6.76 \times 25)}{50}$ $= 6.60$						
(b) CGPA Calculation of the Programme: An Illustrative Example						
Semester	I	II	III	IV		
Credits of the	24	24	20	20		
SGPA	7.00	8.50	9.20	6.86		
$CGPA = \frac{(24 \times 7.00 + 24 \times 8.50 + 20 \times 9.20 + 20 \times 6.86)}{88} = 7.88$						

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- 200MT6.3** **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.
- 200MT7.0** **Conversions of Grades into Percentage and Class Equivalence**
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:
 $P = [\text{CGPA Earned } 8.2 - 0.75] \times 10 = 74.5 \%$
- 200MT7.1** **Class Equivalence:**
After the conversion of final CGPA 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 $P < 60\%$.
- 200MT8.0** **Continuous Internal Evaluation and Semester End Evaluation**
- 200MT8.1** **Continuous Internal Evaluation**
For each theory and practical paper, the CIE marks shall be 40.
For seminar and Project Phase -I, the CIE marks shall be 100.
[To be read along with 200MT8.8]
- 200MT8.2** CIE Marks shall be based on
(a) Tests (for 20 Marks) and
(b) Assignments, Quizzes, Simulations, Experimentations, Mini project, oral examinations, field work etc., (for 20 Marks) conducted in respective courses.
- 200MT8.3** The CIE marks in a theory course, for 20 marks, shall be based on three tests covering the entire syllabus. An additional test may be conducted for the needy students to provide an opportunity to improve their CIE Marks before the end of the semester. The CIE marks shall be the average of the marks scored in three tests. [To be read along with 180MT8.8]
- 200MT8.4** The candidates shall write the Tests in Blue Book/s. The Blue book/s and other documents relating to award of CIE marks under 200MT8.2 (b) shall be preserved by the Principal / Head of the Department for at least six months from the date of announcement of University results and made available for verification at the directions of the Registrar (Evaluation).
- 200MT8.5** Every page of the CIE marks list shall bear the signatures of the concerned Teacher, Head of the Department and the Principal.
- 200MT8.6** The CIE marks list shall be displayed on the Notice Board and corrections, if any, shall be incorporated before submitting to the University.
- 200MT8.7** The CIE marks shall be sent to the university by the Principals well in advance before the commencement of Semester End Examinations. No corrections of the CIE marks shall be entertained after the submission of marks list to the University.
- 200MT8.8** Candidates obtaining less than 50% of the CIE marks in any course (Theory/Laboratory/Seminar/Internship/Project) shall not be eligible to appear for the University examination in that course/s. In such cases, the Head of the Department shall arrange for the improvement of CIE marks in the course/Laboratory when offered in the subsequent semester subject to the provision of 200MT1.6.

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- 200MT8.9 Semester End Evaluation:** There shall be a University examination at the end of each semester.
- 200MT8.10** There shall be double valuation of theory papers. The theory Answer booklets shall be valued independently by two examiners appointed by the University.
- 200MT8.11** If the difference between the marks awarded by the two Examiners is not more than 15 per cent of the maximum marks, the marks awarded to the candidate shall be the average of two evaluations.
- 200MT8.12** If the difference between the marks awarded by the two Examiners is more than 15 per cent of the maximum marks, the answer booklet shall be evaluated by a third Examiner appointed by the university. The average of the marks of nearest two valuations shall be considered as the marks secured by the candidate. In case, if one of the three marks falls exactly midway between the other two, then the highest two marks shall be taken for averaging.☐
- 200MT9.0 Eligibility for Passing and Award of Degree**
- 200MT9.1** (1) A student who obtains any grade S to E shall be considered as passed and if a student secures F grade in any of the head of passing he/she has to reappear in that head for the SEE.
(2) A student shall be declared successful at the end of the Programme for the award of Degree only on obtaining CGPA ≥ 5.00 , with none of the Courses remaining with F Grade.
(3) In case, the CGPA fall below 5.00, the student shall be permitted to appear again for SEE for required number of courses (other than seminar and Practical) and times, subject to the provision of 200MT1.6, to make up CGPA ≥ 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.
- 200MT9.2** For a pass in a theory course, the student shall secure minimum of 40% of the maximum marks prescribed in the Semester End Examination and 50% of marks in CIE and 50 % in the aggregate of CIE and SEE marks. The Minimum Passing Grade in a course is E.
- 200MT9.3** For a pass in Internship/Practical/Project/Dissertation/Viva-voce examination, a student shall secure a minimum of 50% of the maximum marks prescribed for the SEE in Internship/Practical/Project/Dissertation/Viva-voce. The Minimum Passing Grade in a course is E.
- 200MT9.4** IV semester Full-time candidates having backlog courses are permitted to upload the dissertation report and to appear for SEE. The IV semester grade card shall be released only when the candidate completes all the backlog courses and become eligible for the award of degree. [To be read along with 200MT11.2]
VI semester Part-time candidates having backlog courses are permitted to upload the dissertation report and to appear for SEE. The VI semester grade card shall be released only when the candidate completes all the backlog courses and become eligible for the award of degree.[To be read along with 200MT11.2]
- 200MT9.5** A candidate may at his/her desire reject his/her latest semester results of University examination in respect to all courses of that semester. However, in the IV semester the rejection shall not include the Project work. Rejection shall be permitted only once during the entire Programme. The CIE marks of the rejected semester shall remain the same.
Rejection of results of the University examination including CIE marks is not permitted.

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- 200MT9.6** If the rejection of the University examination results of the semester happens to be of an odd semester, the candidate can take admission to the immediate next even semester. However, if the rejection of the University result is of even semester, the candidate cannot take admission to the next odd semester.
- 200MT9.7** Application for rejection shall be submitted to the Registrar (Evaluation) through the Principal of the college, within thirty days from the date of announcement of results.
- 200MT9.8** A candidate, who opts for rejection of results of a semester shall be eligible for the award of class and distinction, but shall not be eligible for the award of rank.
- 200MT9.9** **Eligibility for Award of Degree:**
A student shall be declared to have completed the degree of Master of Technology, provided the student has undergone the stipulated course work as per the regulations and has earned the prescribed Credits, as per the Scheme of Teaching and Examination, of the programme.
- 200MT10.0** **Attendance Requirement**
- 200MT10.1** **Registration and Enrolment:**
(i) Except for the first semester, registration for a semester will be done during a specified week before the semester end examination of the previous semester.
(ii) The registration sheet should have the Candidate details, course name and code, number of credits and category (core/elective/audit) for each course of that semester.
(iii) The Faculty Adviser, assigned by the Head of the Department, will counsel the students in planning their courses of study and provide guidance, motivation, emotional support, and enable the mentees to reach the desired professional and career goals.
- 200MT10.2** Courses of each semester shall be treated as a separate unit for calculation of the attendance.
- 200MT10.3** 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 recommendation of the Principal of the college where the candidate is studying, based on medical grounds, participation in NSS/NCC/Red Cross /Republic Day and Independence Day parades/University/ State/ National/ International level sports and cultural activities, seminars, workshops, paper presentation etc., of significant value. The necessary documents in support are to be submitted along with recommendations to condone the shortage.
- 200MT10.4** In case of late admission, approved by competent authority (DTE/VTU), to I semester of the programme the attendance shall be reckoned from the date of admission to the programme.
- 200MT10.5** A candidate, who does not satisfy the attendance requirement (in one or more Courses) as mentioned in 200MT10.3 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.
- 200MT10.6** Principals of the concerned colleges shall notify regularly, the list of candidates who fall short of attendance.
- 200MT10.7** The list of the candidates falling short of attendance shall be sent to the University at least one week prior to the commencement of the examination.
- 200MT11.0** **Promotion and Eligibility (Vertical Progression)**

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200MT11.1 Promotion:

There shall be no restriction for promotion from an odd semester to the next even semester, provided the student has fulfilled the attendance requirement.

200MT11.2 (a) Candidates, under full-time programme, with a maximum of two backlog courses of first year shall be eligible for taking admission to second year (III semester).

(b)(i) Candidates, under part-time Programme, with one backlog subject of an academic year shall be eligible for taking admission to next odd semester from even semester.

(ii) For admission to V semester, Candidates under part-time Programme must have completed all the courses of I and II semesters.

200MT11.3 The Mandatory non – credit courses, if any, 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 before the completion of Degree.

200MT12.0 Provision to move to Integrated Ph.D. programme

200MT12.1 (a) The candidates pursuing M.Tech. Degree at the University and who have successfully completed the prescribed common coursework of the first three semesters of study with a minimum CGPA of 7.75 out of 10 or 70 % aggregate marks and published research papers in 'SCOPUS/SCI/WoS Indexed Journals /UGC-CARE Approved Journals' or obtained/filed patents shall be eligible for up-gradation to the I.Ph.D. Programme, subject to approval by the Admissions Committee.

(b) Integrated Ph.D. programme is a fulltime programme.

200MT13.0 Temporary Discontinuation/Break in the Program

200MT13.1 (a) If a candidate, for any reason, temporarily discontinues the Programme or take a break from programme during any semester, he/she may be permitted to continue in 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 200MT1.6. 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 candidate shall not be eligible for the award of rank.

(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.

200MT14.0 Award of Prizes, Medals and Ranks

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200MT14.1 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.

200MT14.2 (1) For award of rank in a Specialization of Master of Technology, the CGPA secured by the student on completion of the programme is considered.

(2) A student shall be eligible for a rank at the time of award of degree of Master of Technology, provided the student

(a) Is not a repeater in any semester

(b) Has not rejected the results of any semester.

(c) Has passed I to IV semester in all the courses in first attempt only

(3) The total number of ranks awarded shall be 10% of total number of students appeared in IV semester subject to a maximum of 10 ranks in a Specialization.

(4) For award of ranks in a Specialization, a minimum of 10 students should have appeared in the IV semester examination.

Illustration:

(a) If 150 students appeared for the IV semester in VLSI Design and Embedded Systems Branch, the number of ranks to be declared in VLSI Design and Embedded Systems will be 10.

(b) If 84 students appeared for the IV semester in Nano Technology, the number of ranks to be declared for Nano Technology will be 08.

(c) 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.

(5) Students under Part-time Programme are not considered for Rank declaration.

200MT14.3 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.

200MT15.0 Applicability and Power to Modify

200MT15.1 The regulations governing the Degree of Master of Technology of Visvesvaraya Technological University shall be binding on all concerned.

200MT15.2 (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.





Visvesvaraya Technological University

(State University of Government of Karnataka Established as per the VTU Act, 1994)

“Jnana Sangama” Belagavi-590018, Karnataka, India.

2021-2022 Program running under VTU

Sr.No	Programme name	Link
	B.Tech 1st year Common Syllabus	https://vtu.ac.in/pdf/naac/1.1/COMMON.pdf
1	B. Tech in Computer Science and Business Systems	https://vtu.ac.in/pdf/naac/1.1/CSE4.pdf
2	B.Tech in Robotics And Automation	https://vtu.ac.in/pdf/naac/1.1/MECH6.pdf
3	B.Tech in Mechanical and Smart Manufacturing	https://vtu.ac.in/pdf/naac/1.1/MECH7.pdf
4	M. Tech in Computer Science and Engineering	https://vtu.ac.in/pdf/naac/1.1/CSE1.pdf
5	M. Tech in Computer Network Engineering	https://vtu.ac.in/pdf/naac/1.1/CSE2.pdf
6	Master of Computer Applications	https://vtu.ac.in/pdf/naac/1.1/CSE3.pdf
7	M.Tech in Water and Land Management	https://vtu.ac.in/pdf/naac/1.1/CIVIL1.pdf
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9	M.Tech in Construction Technology	https://vtu.ac.in/pdf/naac/1.1/CIVIL3.pdf
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