CMR UNIVERSITY

Private University Established in Karnataka State by Act No. 45 of 2013

SCHOOL OF ENGINEERING AND TECHNOLOGY

BACHELOR OF TECHNOLOGY (B.Tech.)

PROGRAMME REGULATIONS-2017

(Amended w.e.f. September 2022)

(For batch of 2022-2023)

Main Campus: Off Hennur - Bagalur Main Road, Chagalatti, Bangalore-562149

T: 080-25426977 / 6988 M: 7022007674 F: 080-25427840

E: info@cmr.edu.in www.cmr.edu.in

INDEX

Sl. No.	Clause	Title	Page No.
1	--	Definition of Key Words	3
2	17BSET 1.0	Title and Duration of the Programme	5
3	17BSET 2.0	Eligibility for Admission	5
4	17BSET 3.0	Choice Based Credit System and Academic Process	7
5	17BSET 4.0	Attendance Requirement	19
6	17BSET 5.0	Examinations and Evaluation	20
7	17BSET 6.0	Criteria for Passing a Course	23
8	17BSET 7.0	Progression to Higher Semesters	25
9	17BSET 8.0	Passing Standards and Class Declaration	25
10	17BSET 9.0	Eligibility for the Award of Degree, Prizes, Medals and Ranks	27
11	17BSET 10.0	Maximum Duration for Programme Completion	28
12	17BSET 11.0	Transfer of Students	28
13	17BSET 12.0	Miscellaneous	29

© CMR University, Bangalore (2022)

REGULATIONS GOVERNING
BACHELOR of TECHNOLOGY (B. Tech.) PROGRAMME
Based on
Choice Based Credit System (CBCS)

DEFINITION OF KEY WORDS:

1. **Academic Year:** Two consecutive semesters (one odd followed by one even) constitute one academic year.
2. **Audit Courses:** Courses, outside the prescribed range of credits required for the degree, the students can register if interested to supplement their knowledge/ skills.
3. **Branch:** Specialization or discipline of B. Tech. Degree Programme, like Computer Engineering, Electronics & Communication Engineering, etc.
4. **Choice Based Credit System (CBCS):** The CBCS provides choice for students to select from the prescribed set of courses viz. Engineering Sciences, Professional core and electives, Professional and Open Electives and Skill Courses.
5. **Course:** Referred to as 'papers', is a component of a programme, with defined learning objectives, outcomes and number of credits. A course may be designed to comprise lectures/ assignments/ tutorials/ laboratory work/ field work/ outreach activities/ project work/ self-study/ vocational training/ viva/ seminars/ term papers/ presentations/ quiz etc. or a combination of these as defined in the Scheme of Teaching. The course credits vary depending on the required teaching-learning hours to accomplish the learning outcomes, specified in the course syllabus.
6. **Credit:** A unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of lecture or two hours of tutorial/ practical work/ fieldwork per week.
7. **Credit Based Semester System (CBSS):** Under CBSS, the requirement for awarding a degree or diploma or certificate is prescribed in terms of number of credits to be earned by the students.
8. **Credit Point:** It is the product of grade point and number of credits for a course.
9. **Cumulative Grade Point Average (CGPA):** It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points earned by a student in various courses in all semesters to the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places. However, the CGPA is invariably calculated from second semester onwards to facilitate students to know their academic progress.

© CMR University, Bangalore (2022)

10. **Dean:** Dean of the School of Engineering and Technology of the University.
11. **First Attempt**: If a student has completed all formalities and become eligible to attend examinations and has attended at least one head of passing, such attempt (first sitting) shall be considered as first attempt.
12. **Grade Point:** It is a numerical weightage allotted to each letter grade on a 10-point scale.
13. **Letter Grade:** An index of the performance of students in a said course. Grades are denoted by letters.
14. **Passing Standards:** A student is passing a Course only when getting GP greater than or equal to 04 (P Grade). A student is declared successful at the Semester-end only when getting SGPA equal to or greater than 4.00, with none of the Courses registered in a Semester having either F-RA or F-RR Grade.
15. **Programme:** A planned series of events/activities comprising of a combination of courses leading to the award of degree.
16. **Programme Council:** The committee consisting of the Director of the programme, HOD and the concerned Faculty members from each cadre.
17. **Semester:** Each semester will consist of 15-18 weeks of academic work equivalent to about 90 teaching days. The odd semester may be scheduled from August to November/ December and even semester from January to April/ May, or as may be declared by the University.
18. **Semester Grade Point Average (SGPA):** It is a measure of academic performance of student in a semester. It is the ratio of total credit points secured by a student in various courses registered in a semester to the total course credits taken during that semester. It shall be expressed up to two decimal places.
19. **SOET:** School of Engineering and Technology of the University.
20. **Transcript, Grade Certificate and Grade Card:** Grade card shall be issued to candidates indicating the programme details (Course code, title, number of credits, grade secured and grade points) for all the registered courses after every semester.

    On successful completion of all courses/earning credits, specified in a semester, the grade certificate is issued indicating the programme details along with SGPA of that semester and also CGPA earned till that semester.

    Transcripts to the successful candidates shall be issued after completion of the programme.
21. **University:** CMR University, Bangalore.

REGULATIONS

17BSET1.0	**TITLE AND DURATION OF THE PROGRAMME**
17BSET1.1	The programme, which is an Under Graduate Programme, shall be called Bachelor of Technology, abbreviated as B.Tech., followed by specialization indicated within parenthesis. The Programmes covered under these regulations are: 1) Bachelor of Technology – Computer Science and Engineering 2) Bachelor of Technology – Electronics and Communication Engineering 3) Bachelor of Technology – Information Technology 4) Bachelor of Technology – Computer Science and Engineering (AI & ML) 5) Bachelor of Technology – Computer Science and Engineering (Data Science)
17BSET1.2	The programme shall be of four academic years duration and organized in eight semesters, with each semester having duration of 15-18 weeks.
17BSET1.3	The annual Academic Calendar of events in respect of the Programme of study approved by the Academic Council, shall be notified at least a month before the commencement of each academic year. It is mandatory for students, faculty members and all concerned to strictly adhere to the Academic Calendar for completion of academic activities. Academic Calendar shall be displayed on the homepage of the University website.
17BSET2.0	**ELIGIBILITY FOR ADMISSION**
17BSET2.1	The rules specified in the following clauses shall be followed, but the orders issued from the Government/ the regulatory bodies from time to time shall prevail.
17BSET2.2	Admission to First year First semester B. Tech. shall be open to the applicants who have passed the second year Pre-University or XII standard or three-year diploma or equivalent examination recognized by the University. For the prerequisite qualification earned from foreign Universities, equivalence as notified by the Association of Indian Universities from time to time is mandatory. However, in case if no prior equivalence has been established by the other recognized bodies, the decision of the Equivalence Committee of the University shall be final in establishing the eligibility of the student.

© CMR University, Bangalore (2022)

17BSET2.3	In addition to 17BSET 2.2, the applicant shall have secured not less than forty five percent (45%) marks in aggregate in optional with Physics and Mathematics as compulsory courses, along with any one of the following subjects, namely, Chemistry, Bio-Technology, Computer Science, Biology and Electronics or any other subject, as notified by the Government of Karnataka. The minimum marks for the purpose of eligibility shall be forty percent (40%) in optional subjects in case of applicants belonging to SC/ST and OBC from Karnataka or as notified by the Government of Karnataka from time to time. Further, the applicant shall have studied and passed English as one of the subjects at eligibility qualification level.
17BSET2.4	**Lateral Entry Admissions:** 1) Admission to Second year (Third semester) B.Tech. (Lateral Entry) shall be open to the following category of applicants: **a) Diploma Holders:** i) Applicant must have passed diploma or equivalent qualification as recognized by University and secured not less than forty five percent (45%) marks in the final year examination (fifth and sixth semesters) in the appropriate branch of engineering. In case of SC/ST and OBC students from Karnataka the minimum marks for eligibility shall be forty percent (40%). ii) Applicant who has completed his/her Diploma in Engineering from other than Karnataka state shall provide the Equivalence/ Eligibility Certificate from the Director of Technical Education, Karnataka. **b) B.Sc. Graduates** Must have passed B.Sc. degree, with subjects relevant for study of B.Tech., from a recognized University, established by law or other equivalent qualification, as recognized by the University and secured not less than forty five percent (45%) marks in aggregate (including all six semesters). In case of SC/ST and OBC applicants from Karnataka, the minimum marks for eligibility shall be forty percent (40%). Applicants must have studied Mathematics as a subject of study at XII Standard. 2) All the Diploma and B.Sc. degree holder applicants, seeking admission to lateral entry, shall also pass the following courses, or equivalent courses as specified by the University, before the completion of degree: a) Computer Aided Engineering Drawing (CAED), b) Computer Programming and c) Environmental studies and d) Constitution of India.

	3) Further, all the Diploma and B.Sc. degree holder applicants shall also be required to pass the Mathematics bridge course(s) specified by the University, within one year of joining the programme. However, applicants with B.Sc. degree (with Mathematics major) may apply to the Dean seeking exemption from the bridge course.
17BSET3.0	**CHOICE BASED CREDIT SYSTEM AND ACADEMIC PROCESS**
17BSET3.1	**Odd & Even Semesters and Summer Term:** The University follows the Choice Based Credit System and the Semester Scheme. There are two regular semesters and one additional term in an academic year. The semester that begins in August (August to November/ December) is known as the Odd Semester and the semester that begins in January (January to April/ May) is known as the Even Semester. During the summer vacation (i.e., May/ June to July), the Summer term is conducted to offer courses as per 17BSET 3.2.
17BSET3.2	**Summer Term:** The summer Term is an additional term conducted during an academic year. During summer term, a limited number of courses may be offered to enable the students to clear their backlog courses (F-RR) and/ or register for additional regular credit courses on audit basis, subject to strict adherence to the following guidelines: 1) The Programme Council shall identify the courses to be offered along with the Course Instructor and recommend offering of such summer course(s) to the Dean for consideration. The identified faculty members shall offer the courses only on approval by the Dean. 2) The course is offered in the same manner as a regular semester course without compromising the course requirements in terms of knowledge delivery, course work, assessment and evaluation. The University shall notify the fee payable by the students for the summer term courses. 3) The duration of the course is six to eight weeks. The registration, examination, assessment and grading etc. are done in the same way as is done for regular semester courses. The total number of contact hours for the courses remain the same as that during the regular semesters, and therefore, the courses are run at an accelerated pace. The Academic Calendar specially made in this connection shall be strictly followed. 4) The dropping of a Summer Course is permitted within 7 days from the first lecture of the course. However, the registration fee paid for the course is not refundable. 5) Time slots will be assigned and notified by the Dean as done for the regular semester courses

	7) A notified summer course can be withdrawn if the number of students registered for the course is less than five. 8) A student can register up to a maximum of 12 credits or 3 courses in any summer term, depending on his academic standing. 9) Courses offered in a summer term will be treated as equivalent to a regular semester courses for all accounting purposes.
17BSET3.3	**Curriculum:** Every Programme has a prescribed course structure which, in general terms, is known as the Curriculum or the Courses of Study or the Scheme of Teaching and Evaluation. It prescribes all the courses/ laboratory/ other requirements for the degree and sets out the nominal sequence semester wise. It provides the syllabus and a list of text/ reference books (or other learning material sources) for each course. The Courses of Study details are updated every semester and are made available at the University website: http://cmru.edu.in Curriculum may also include SWAYAM and Massive Open Online Courses (MOOCs), offered by premier institutions. However, selection of such courses, if any, shall always be within prescribed guidelines of the relevant regulatory bodies.
17BSET3.4	**Course Credit Structure:** 1) A certain quantum of academic work, measured in terms of credits, is laid down as the requirement for completion of B. Tech degree in the different available specialization areas. A student earns credits by satisfactorily completing courses/other academic activities every semester. 2) The credits are distributed semester wise, as prescribed in the Scheme of Teaching and Evaluation for each of the programmes. The courses generally progress in sequences, building competencies as per the course learning outcomes. The positioning of a course indicates certain academic maturity on the part of the students.

	3) Some courses do, in addition, specify passing in other courses, offered earlier in the programmes, as prerequisites for the course. 4) Students are required to follow the semester wise schedule of courses specified in Scheme of Teaching and Evaluation; they do, however, have freedom to follow alternative schedules to optimize their academic profile with additional courses, keeping the requirements for each course in mind. These additional courses may be from the prescribed scheme of teaching and evaluation or the courses offered under other programmes. Credits earned beyond the requirement for the award of the degree shall be treated as additional credits. For students with backlog courses, such rescheduling may even become necessary. Such departures from suggested schedules need to be done very carefully, and always with advice from the Faculty Adviser.
17BSET3.5	**Courses:** There will be following types of courses in a B. Tech. programme, namely: 1) Humanities and Social Sciences (HS), include Management, Skill enhancement and Economics. These courses will have 1 to 3 credits per course. 2) Basic Sciences (BS) include Mathematics, Physics and Chemistry. These courses will have 2 to 4 credits per course. 3) Engineering Sciences (ES) are engineering foundation courses and include Workshop, Drawing, Basics of Electrical/ Civil/ Mechanical/ Computer Engineering, Materials, and Instrumentation. These courses are common across all disciplines and will have 2 to 4 credits per course. 4) Professional Core Courses (PC): These are the courses to be compulsorily studied by a student as a core requirement to complete the requirements of a program in a said discipline of study. These courses will have 2 to 4 credits per course. 5) Professional Elective Courses (PE): These are the courses from which a student can choose and study as part of the requirement to complete the program in a said discipline of study. These courses will have 2 to 4 credits per course. 6) Open Elective Courses (OE): These courses are supportive to the discipline/ providing extended scope/enabling an exposure to some other discipline/ domain and they are chosen from the pool of courses. These courses may have 2 to 4 credits per course. 7) Skill development Courses (SD): These are to nurture student proficiency skills. These courses are offered to achieve the programme outcomes not specifically covered by the other courses and may have 1 to 3 credits per course.

8) Graduate Requirement (GR) Courses: These are courses on peripheral subjects in a programme, wherein completion of the course is considered mandatory to qualify for the award of the Degree.
9) Project work, Mini Project work and Internship and Seminar are also considered as courses in the B.Tech.. programme.

The Courses of the B.Tech. Programme are further classified as follows:

1) **Program Core (Credit Courses):** Each academic programme is divided into Program Core or Common core courses which are further divided into mandatory and choice segments, with levels within them.

The Program Core courses are broadly categorized into Foundation, Electives and Interdisciplinary.

Foundation, Elective and interdisciplinary courses are discipline specific or allied to the program. Foundation courses are mandatory courses that are offered through the period of study of the program. Foundation courses are offered as fundamental, intermediate and advanced courses based on the prerequisite and difficulty level (100 Level / 200 Level / 300 Level etc.) of the course. Elective courses are a basket of courses from which the student gets to choose. Elective courses are either specialization courses or generic courses. Elective courses include mini projects, dissertations, internships and capstone projects. Students also have the option to choose from a set of interdisciplinary courses which are varied from their discipline and offered by other Schools of Studies of the University.

Mandatory segments are those which lay a firm foundation of the knowledge required to complete a programme in the chosen domain, ending with a multifaceted assignment that serves as a culminating academic and intellectual experience for students, typically during their final year.

Choice segments are those which a student could opt for to specialize further and / or to improve their interdisciplinary skills.

All segments carry credits, and the students are expected to earn the minimum number of credits in their coursework towards program core to earn the degree.

2) **Common Core (Credit Courses):** Common Core Curriculum (CCC) courses are to be pursued by all students of the University regardless of their School of Study. It also encourages students to explore themselves and issues of fundamental importance to society through the Common Core Curriculum (CCC) courses. Students are expected to earn a certain specified number of credits in their

coursework towards the Common Core Curriculum (CCC), during their academic programmes. While some courses are in workshop mode, which can be completed over a few days at a stretch, there are other courses which are offered for a specific number of hours per week throughout a semester.

Students take these courses planned for each academic programme, over multiple semesters. Credits range from 1 to 4, which are directly proportional to the number of hours required to complete a course. There are both 'mandatory' and 'choice' courses, with levels within them.

3) **Common Core (Non-credit Courses / Engagement) - Graduate Requirement (GR):** Engagements for this category do not carry any credit(s) but are mandatory for the students to complete them within the duration of the programme, to be considered eligible to graduate (or) earn the degree. These shall be:
   a) **Courses** embedded in the academic programme, where the students must ensure that they attend a minimum attendance percentage.
   b) **Community Service Program** are activities implemented under the Common Core Curriculum Community Service Program (CCC CSP) in which the students have to complete a minimum number of volunteering hours in a semester by rendering services to the society and submit a Reflection Record (RRD) for every volunteering activity completed. In case of a student not having completed the minimum number of volunteering hours in a semester, the shortage in number of hours is to be completed in the subsequent semester(s). However, the student has to complete the mandated total number of volunteering hours within the duration of the programme and submit a Reflection Record (RRD) for every volunteering activity completed.

4) **Advanced Course:** Courses that involve higher and more complex levels of knowledge and understanding than introductory or foundational learning. It means the student has attained a level of knowledge and understanding of a particular area or topic that goes beyond basic terminology and definitions and is ready to be involved in Analysis, Synthesis and Evaluation of information related to a specific topic or area of learning.

5) **Prerequisite course:** Course or other requirement that a student must have taken prior to enrolling in a specific course. Students might or might not have a choice of prerequisites to complete.

	Courses under various categories can be further classified as: • **100 Level Courses**: These courses offer an introduction to a subject area and are designed for students in the first year of study. These courses have no prerequisites and are generally courses defining basic concepts or presenting the terminology of a discipline • **200 Level Courses**: These courses are built on previous units and are normally taken in the second year or later; they may also be available to students with advanced prior knowledge. They are Courses of intermediate college-level difficulty; courses with 100-level course(s) as prerequisite(s) • **300 Level Courses**: These courses are usually taken in third year or later, after 200-level study in the area. They may also be available to students with advanced prior knowledge. They are courses of advanced college-level difficulty offered for students clearly interested in the discipline or in any stream of the discipline • **400 Level Courses**: These units of study are advanced courses and are normally taken in the third year or later as the final elements of a three year or four year degree or an integrated degree. The level indicates that the student will be demonstrating coherence and breadth or depth of knowledge and skills. The student may need to have completed a prerequisite course to study a 400 level course. • **500 Level Courses:** These are foundation level courses for higher education qualifications, usually taken in the first year of the masters or postgraduate degree programmes. These are courses meant for students aspiring to specialise in a discipline and would have prerequisites to study a course at this level, which would have been covered in the core curriculum at the bachelor's degree programme in the same discipline. • **600 Level Courses:** These courses are usually opted for at the second year of the masters or postgraduate degree programmes, which enhance the learning experience of the previous units. The difficulty level is clearly higher and the student is expected to demonstrate a certain level of proficiency and competence in grasping and interpreting the knowledge gained in the discipline at this level. • **700 Level Courses:** The courses prescribed at this level serve as a culminating academic and intellectual experience for students, and are usually taken towards the final semesters of the masters or postgraduate degree programmes where they acquire the skills and knowledge to analyse, evaluate, and solve challenges akin to those faced in real life situations, resulting in achieving mastery in the discipline.

17BSET3.6	**Seminars:** Some Programmes may prescribe Seminar as a requirement for the B.Tech.. degree. Seminar may be an assessment component or a course itself wherein the student is expected to do an in-depth study in a specialized area under the guidance of a faculty member. This may include surveying published technical literature, understanding different aspects of the problem and arriving at a status report. While doing a seminar, the student is expected to: critically analyze works of various authors/ researchers; learn the investigation methodologies, study concepts, techniques and the results presented in these papers; and submit a seminar report. It is mandatory to give a seminar presentation before a panel constituted for the purpose. Seminars typically carry 1 to 2 credits.
17BSET3.7	**Projects:** Programmes prescribe project as a requirement for the degree, wherein under the guidance of a Faculty member, a student is required to do some applied, creative and original work, based on the application of knowledge gained while undergoing various courses in the earlier years. The student is expected to do a survey of literature in the subject, work out a project plan and carry it out through experimentation and/ or modeling/ computation. Through the project work the student has to exhibit skills for analysis, design and synthesis. These projects may be offered as a single unit of 16 credits or two modules of 4 and 12 credits in two successive semesters. Departments may also prescribe a minimum performance in the first module for being eligible for second module. The details of the project requirements shall be as per the prescribed project guidelines.
17BSET3.8	**Audit Courses:** A student desirous of additional exposure to a course, without the rigors of obtaining a good grade, 'audits' a course. The minimum requirement of attendance for an 'Audit Course' is 75%, with any additional requirements as set by the instructor such as submission of assignments and minimum performance in some of the in-semester evaluations. Auditing of courses during regular semesters from 3rd semester onwards is permitted under the following conditions: 1) Students with CGPA > 6.0 will be permitted to 'Audit' a course. A course can be audited provided the course is offered in the semester as a credit course for others, and there is no slot clash. Prior permission of the Instructor is required. 2) Audit courses would be restricted to a maximum of two (2) courses per student in the entire period of the programme. 3) The instructor would award the 'AU' grade, if the attendance is satisfactory and additional requirements, as set out by the instructor, are met. If the attendance and performance is not satisfactory, the instructor will award 'No Grade'. The grade 'AU'

	does not carry any grade points and therefore does not figure in SGPA/ CGPA calculations. 4) The course successfully completed in Audit mode will be reflected in the Semester Grade Card, Grade Certificate and the Transcript as Audit Course.
17BSET3.9	**Registration:** It is mandatory for every student to register for semester to attend various courses/ earn credits, using the prescribed Course Registration Form (CRF), till he completes his programme. The registration shall be completed on or before the prescribed last date for registration announced in the Academic Calendar. 1) On joining the Programme, each student is assigned to a Faculty Adviser or an Advisory group. A student shall register for required courses each semester with prior permission of the Faculty Adviser. 2) The student can register for courses he intends to take during a given semester (including courses in summer term) on the basis of his plan for each Programme, as given in the Scheme of Teaching and Evaluation and as per the advice given by his Faculty Adviser. 3) The Faculty Adviser is expected to discuss with the student his academic performance during the previous semesters and then decide the number and nature of the courses for which the student can register during the semester within the framework of the Regulations.
	4) The Faculty Adviser may advise the student to drop one or more courses/activities based on his academic performance. The Faculty Adviser may even advise a reduced load program over several semesters for students with poor performance at the end of the first semester/ year. 5) Students are not permitted to reregister for course(s), which they have already passed. 6) The registration is deemed to be complete only on approval by the Dean. 7) Without registration, any academic activity (course/ seminar etc.) undergone by a student will not be counted towards the requirements of his degree. 8) Students having outstanding dues to the University or a hostel shall not be permitted to register.

17BSET3.10	**1) Procedure for Registration:** The procedure involves the following steps: a) The students shall decide on the courses to be registered during the ensuing semester as per the advice of their Faculty Adviser. b) They shall fill up the CRF online, stating the courses that they propose to complete during the ensuing semester as per the prescribed curriculum. c) They shall submit a printout of the completed CRF, duly attested by the Faculty Adviser to the Dean through the departmental office within the date notified by the University for registration. d) Every student shall register between a minimum of 16 credits and a maximum of 26 credits in any semester. **2) Registration for the first two semesters:** In each of the first two semesters, courses common to all branches are offered. A student is normally required to register for all the courses listed in the Scheme of Teaching and Evaluation for these two semesters. **3) Registration for third and subsequent semesters:** a) From third semester onwards, registration is dependent on the academic standing of the student. A student with a low academic standing registers for the academic load specified by the Faculty Adviser. In addition he may add one more courses (2-5 credits) towards additional learning or to clear backlog courses, without this being considered an overload. b) Students with average academic standing are advised not to attempt full load. Faculty Advisers after careful scrutiny will advise academic loads depending on previous performance. **4) Late Registration:** Registration beyond the last date may be permitted only in special cases till the date specified in the Academic Calendar, on payment of a late registration fee.
17BSET3.11	**Registration for Graduate Requirement (GR) Courses:** Graduate Requirement (GR) courses which are mandatory Non-credit courses are treated as complete or incomplete subject to the fulfillment of the minimum requirements of these courses and a minimum of 75% attendance. The award of degree is subject to successful completion of these courses. Formal registration for these courses shall be done along with other courses, at the beginning of the semesters. Not satisfying the minimum requirements of the course will result in a F-RR grade and the student has to re- register for the course when offered next. This requirement must be completed before the end of the Programme.

17BSET3.12	**Registration for Summer Term Courses:** Students are permitted to register for courses during summer term under the regulations specified under 17BSET 3.2, on payment of prescribed registration and course fees.
17BSET3.13	**Course Adjustment/Dropping of Courses:** 1) The Academic Calendar sets a date, within two weeks after the commencement of the semester, for Course Adjustment. On or before this date, a student is permitted to make adjustments in his academic load by addition or deletion of one or more courses, projects etc., provided the total credits do not exceed 26 or fall below 16, by such adjustments. Course adjustment has to be done in consultation with the Faculty Adviser. When the need for course adjustment through addition, substitution or dropping of course/s arises, the student without any backlog should do online course adjustment and students with backlog course/s should do it manually by filling a Course Adjustment Form. CAF has to be signed by both the student and the Faculty Adviser and the same is to be submitted to the Dean. 2) If in the second or any of the subsequent semesters, a student finds his academic load too heavy, he may drop one or two courses out of the registered ones on advice from the Faculty Adviser, provided the minimum credit requirements is fulfilled. The last date for doing this is within 10 days after the end of the first test, or as specified in the Academic Calendar. 3) Course/s dropped by a student may be taken during a subsequent semester including the summer term, if offered. 4) The minimum number of students to be registered for an Elective/ course to be offered shall be not less than five, or as decided by the University.
17BSET3.14	**Course substitution:** In case a student obtains P grades or drops courses due to a valid reason or fails in a course, he may like to substitute courses in order to complete the course requirements within the stipulated duration. Following are the guidelines for course substitution: 1) Course substitution is not permitted for Core Courses. The student has to reregister for the same courses and complete them. 2) An elective course may be substituted by another elective course from the same group.

17BSET3.15	**Dropping of a Semester:** 1) A student may opt or be advised to drop an entire semester, with prior approval of Programme Council due to the following reasons: a) A student may seek a semester drop, due to severe personal health problem, unavoidable family commitments or other valid reasons beyond his control, on advice from the Faculty Adviser, prior to the commencement of the semester itself. b) During a registered semester, if a student finds that he is unable to cope up with the studies and/or does not have sufficient exposure to most of the courses registered in that semester, he can opt to drop the entire semester, on advice from the Faculty Adviser. 2) In all cases of severe health problems, medical certificate issued by a University recognized Medical Practitioner is essential. In all other cases, requests for dropping the semester should be accompanied by supporting documents as required. 3) Such break from studies is normally not permitted for a continuous period in excess of one year. 4) Not registering for any semester before the last date for registration without prior approval of the Dean will result in automatic dropping of semester leading to temporary discontinuation of the programme. 5) The credits of the dropped semester shall be earned subsequently by registering to the courses specified in the Scheme of Teaching and Evaluation or equivalent courses when offered next.
17BSET3.16	**1) Faculty Adviser:** On joining the University, a student or a group of students' is/ are assigned to a Faculty Adviser from the concerned programme. Students are advised to consult the Faculty Adviser on any matter relating to their academic performance and the courses they may take in various semesters/ terms. **2) Role of the Faculty Adviser:** The Faculty Adviser guides the students to complete their courses of study for the required degree in a smooth and satisfactory manner. For effective utilization of the opportunities for additional academic accomplishments, planning of the individual's academic progress needs careful consideration, and constant consultation with the Faculty Advisers is imperative. Thus, the role of the Faculty Adviser is of immense importance. The Faculty Adviser is the person whom the parents/ guardians should contact for performance related issues of their ward.

	The Faculty Advisor shall, a) Guide the students about the rules and regulations governing the courses of study for a particular degree. b) Advise the students for registering courses as per prescribed curriculum or otherwise but within the scope of the rules and regulations prescribed by the University from time to time. For this purpose the Faculty Adviser has to discuss with the student his academic performance during the previous semester and then decide the number and nature of the courses for which he can register during the semester.
	c) Approve the CRF by attesting same, before the prescribed last date. d) Advice students to overload/ drop one or more courses/ activities based on his academic performance. e) At the end of the first semester/ year, may even advise a reduced load programme for a poorly performing student. This reduced load programme may spread over several semesters subject to minimum load for the semester and completion of the degree programme within the prescribed maximum period by registering in summer terms. Such reduced load programme is to be prepared by the Faculty Adviser in consultation with the Student and his parent and the Faculty Adviser has to recommend the same through the Programme Council to the Dean for consideration and approval before the commencement of the semester. f) Pay special attention to weak students and carefully monitor performance of students recommended for slow track option. g) Advice students for Course Adjustment/ Dropping of courses during the Semester within the stipulated time frame given in the Academic calendar. h) Advice students seeking semester drop either during the ongoing semester or before the commencement of the semester. Ensure strict compliance of rules and regulations laid down for this purpose. Recommend the cases to the Dean for consideration. i) Make revised plan of study for weak/bright students based on their semester wise performance. j) Suggest modalities for course/credit requirements for the students recommended for exchange programme. k) Provide guidance and liaison with the parents for their improved performance. l) Ensure that students are not permitted to re-register for courses, which they have already passed. m) Inform students that any academic activity (course/ Laboratory/ seminar/ project/ noncredit requirement etc.) undergone without proper registration will not be counted towards the requirements of his degree. n) Strictly warn students that if he fails to register during any semester without prior approval, his studentship is liable to be cancelled. o) Keep the students updated about the Academic Administration of CBCS system at the University.

17BSET4.0	**ATTENDANCE REQUIREMENT**
17BSET4.1	Attendance in the class is compulsory and is monitored. The University expects 100% attendance. Each Course is considered as a unit for attendance requirement and, 1) The minimum number of lectures, tutorials, seminars and practicals which a student shall be required to attend for eligibility to appear at the SEE shall not be less than 85% of the total number of lectures, tutorials, seminars, practicals, and any other prescribed requirements.
	2) Condonation of 10% in the attendance is permitted by the Vice-Chancellor on specific recommendation of the Dean, for valid reasons such as medical grounds, participation in University level sports, cultural activities, seminars, workshops, paper presentation, etc. The decision of the Vice-Chancellor in this regard will be final. 3) If a student obtains less than 75% attendance in any one or more of the courses, he shall not be permitted to appear for the SEE of those courses and he shall re-register for them in subsequent semester/s when offered and obtain passing grades, subject to 17BSET 4.1 (1).
17BSET4.2	The basis for the calculation of attendance shall be the period prescribed by the University in its Academic Calendar of events. For the first semester students, the same is reckoned from the date of admission to the programme as per allotment from KEA / University.
17BSET4.3	The Dean shall inform the students about their attendance position periodically so that the students shall be cautioned to make up the shortage. The Dean shall submit the list of students who have been detained for shortage of attendance by the end of the semester to the Registrar (Evaluation) with a copy to the Registrar. It may be noted that mere omission by Dean to inform the student about the shortage of attendance shall not entitle him to appear for examination.
17BSET4.4	**Temporary Discontinuation of programme:** A student, who wishes to temporarily discontinue the programme and continue subsequently, has to obtain prior permission from the University by applying through the Dean. Such student shall take admission once again to the same semester in the following academic year or later. However, such student shall pay the tuition fee and other fees for the entire academic year; and shall complete the programme as per 17BSET 10.2.

17BSET5.0	EXAMINATIONS AND EVALUATION
17BSET5.1	1) CIE and SEE constitute the major evaluations prescribed for each course, with only those students maintaining a minimum standard in CIE are permitted to appear in SEE of the course. 2) In such cases where a laboratory is attached to the course, CIE marks shall be awarded separately for both theory and the laboratory. However, the laboratory may not have the SEE component in the evaluation. 3) CIE and SEE to carry 50% weightage each, to enable the course to be evaluated for a total of 100 marks, irrespective of its credits.
	4) The evaluation system of the program is comprehensive and continuous during the entire period of Semester, by the faculty who is teaching the course. For a course, the evaluation and grading will be on the following parameters:

A	Continuous Internal Evaluation (CIE)	
A1	Continuous and Comprehensive Evaluation (CCE)	30 % marks
A2	Internal Assessment Tests (IAT)	20 % marks
	Total of CIE (A1+A2)	50 % marks
B	Semester End Examination (SEE)	50 % marks
	Total of CIE and SEE (A + B)	100 % marks

17BSET5.2	**Continuous Internal Evaluation:** 1) The CIE will carry a maximum of 50% weightage of total marks of a course. Before the start of the Academic session of each semester, a faculty may choose for his course Internal Assessment Test and a minimum of three and a maximum of four of the following assessment methods with suitable weightage for each. a) Assignments (Individual and/or Group) b) Seminars c) Quizzes d) Group Discussions e) Case studies/Case lets/Case discussions f) Practical orientation on Design Thinking, Creativity & Innovation g) Participatory & Industry-integrated learning h) Practical activities / problem solving exercises i) Class presentations j) Analysis of Industry/Technical/Business Reports k) Reports on Guest Lectures / Webinars / Industrial Visits

	l) Industrial / Social / Rural projects/ Field Work m) Participation in Seminars/ Academic Events/Symposia, etc. n) Any other academic activity suitable for the course 2) The faculty will submit the 'CCE Assessment Plan' to the Dean for approval and notify the same along with the course syllabus before the start of semester. The total marks of the above three or more assessment components shall be scaled down to 30% of total marks of the respective course. 3) To assess the students in a course under IAT component, two tests will be conducted in a semester. Each test will be conducted for 20 marks. The average marks obtained in these two tests will be taken as IAT Marks. If a student fails to attend both the IAT on the scheduled date due to any unavoidable circumstances, and produces documentary evidence, the faculty member, upon approval of the Dean, shall conduct an additional test at the end of the semester covering the syllabus of the test for which he was absent. 4) The CIE marks awarded to students at different stages during the course shall be displayed on the notice board of SOET to enable the students to point out any discrepancies. After due corrections, if any, faculty shall upload the CIE marks in the University's ERP system and a hard copy of the same shall be submitted to the Registrar (Evaluation) of the University duly signed by the concerned faculty and the Dean, before the commencement of semester end examinations. 5) The student shall obtain a minimum of 40% of marks allotted for CIE in a given course to be eligible to appear for the SEE in that course. 6) When laboratory is part of a theory course, the student shall obtain a minimum of 40% marks in CIE of the laboratory to be eligible to appear for SEE in that course. This is in addition to the requirement specified under (5) above. The CIE marks obtained by a student in the laboratory, if it is equal to or greater than 40%, shall be retained until the end of that academic year till he passes in the SEE. Otherwise, he shall re-register for the course. 7) If a student is unable to secure a minimum of 40% in CIE marks in any course, he shall not be eligible to take up SEE/ viva-voce examination in that particular course. It shall be the responsibility of Dean to scrutinize the list of candidates and permit only the eligible students to take up SEE. In the event of an ineligible student inadvertently being allowed to appear for the theory/viva voce examination, the result of the concerned student shall be withdrawn forthwith. 8) The list of such students, who have not secured the minimum in CIE marks, shall be sent separately to the Registrar (Evaluation) along with the submission of CIE marks of the successful students.

	9) After the submission of CIE marks to the Registrar (Evaluation) of the University, any request for changes in the marks by the Dean shall be considered by the Registrar (Evaluation) only after due approval of the Vice- Chancellor. 10) The students not obtaining 40% marks in CIE shall re-register for the course during the subsequent semester.
17BSET5.3	**Semester End Examination:** 1) The Semester End Examination for all the courses for which students registered during the semester shall be conducted at the end of each semester. 2) Only those students who satisfy the attendance requirement as per 17BSET 4.1 and CIE requirement as per 17BSET 5.2 (5) and (6) shall be eligible to appear for SEE of that course. 3) However, in those students, whose SEE results were withdrawn as a penalty for indulging in malpractice or who had satisfactory attendance & required minimum CIE marks but could not appear in the SEE for valid reasons, shall be permitted to carry forward the attendance and CIE marks from that semester and write the SEE when ever held for the same course as offered by the concerned School of Studies. Such students shall seek permission from the Dean and register for the SEE in the beginning of the semester and appear for SEE, on the dates notified by the University. Such students shall complete the course as per the sections 17BSET 6.0 and 7.0 of the concerned Programme Regulations.
17BSET5.4	**Viva-Voce Examination:** For a viva-voce examination, there shall be two examiners, one internal and one external. Internal examiner shall be the course teacher/project guide, and external examiner may be a teacher/ professional who has not taught that course during the given semester at SOET and also not in full-time employment with the University. The Vice Chancellor, on recommendation of the Board of Studies, shall appoint all appropriate qualified examiners for any examination. In all the cases, the evaluation shall be made jointly and one consolidated marks be awarded. In the event that the external examiner does not turn up for the examination, the Dean on approval of the Vice Chancellor, may appoint a suitable internal faculty to carry out the examination.
17BSET5.5	**Capstone Project:** 1) Students shall undertake a capstone project in the 8th semester, forming a project team comprising fellow classmates not exceeding four, and the project shall be carried out under the supervision of an allotted faculty. 2) All project teams shall make presentations to Project Committee notified by the Dean and submit the progress reports periodically with the approval of project guide.

3) The final project dissertation shall be written adhering to International standards. The dissertation, duly signed by the concerned guide, shall be submitted to the Dean with in the time notified. All students shall appear for the viva-voce examination on the project at the end of the semester.
4) The CIE marks in the case of Engineering Project (Thesis) of 8th semester shall be based on the evaluation of the project dissertation as prescribed from time to time in the Scheme of Teaching and Examination.

17BSET5.6 **Academic Malpractice:**

Academic malpractices shall be seriously viewed and appropriate action taken.

In case of malpractice during any of the examinations like assignments, quizzes, tests, and other CIE components, the matter shall be reported to the Dean for further action.

In case of malpractice during SEE, the Invigilator shall report the matter to the Chief Superintend, who in turn refers the matter to the Registrar (Evaluation) for further action.

17BSET6.0 **CRITERIA FOR PASSING A COURSE**

17BSET6.1 **Award of Grades:**

1) 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) on successful completion of all courses of that semester as per the scheme of teaching and evaluation.
2) If there is no SEE for a course, then the CIE marks alone will be the basis for the determination of letter grade.
3) The total marks obtained by the student in CIE and SEE of a course is expressed as a percentage to compute the grade points and the letter grade is awarded as indicated in the table below:

Classification			
% Marks scored in a course	**Grade Points**	**Letter Grade**	**Level**
≥ 95	10	O	Outstanding
≥ 85 < 95	9	A+	Excellent
≥ 75 < 85	8	A	Very Good
≥ 65 < 75	7	B+	Good
≥ 55 < 65	6	B	Above Average
≥ 45 <55	5	C	Average
≥ 40 <45	4	P	Fair
< 40	0	F - RA	Reappear
	0	F - RR	Re-register

Table: Marks (%) and Letter Grade relation

Grading Criteria for Graduate Requirement Courses

% of Marks Scored in a Course	Letter Grade	Level
≥ 95	O	Outstanding
≥ 85 < 95	A+	Excellent
≥ 75 < 85	A	Very Good
≥ 65 < 75	B+	Good
≥ 55 < 65	B	Above Average
≥ 45 < 55	C	Average
≥ 40 < 45	P	Fair
< 40	D	Unsatisfactory
NA (Not Attended)	F-RR	Re-register

17BSET6.2

Other Letter Grades:

The letter grades specified in 17BSET 6.1 are used as student performance measures in all kinds of assessments.

However, the following letter grades are also awarded under the circumstances defined below (Letter Grade: Grade Point - Circumstances).

1) F-RR: 0 - Not eligible to appear for the SEE of a course due to attendance being less than 75% and / or CIE being below 40%.
   To re-register for the course and appear for the SEE in the subsequent semester when it is being offered by the School of Studies.
   (In case of electives, course change within the group is permitted)
2) AU: 0 - Satisfactory in an Audit course
3) W: No credits – Dropped/ withdrawn (W is not a grade but only a place holder indicating that the course has been dropped/withdrawn and it has to be cleared in subsequent semesters in case it is a core subject).

17BSET6.3

Passing a Course:

For pass in a course, the student shall secure a minimum of 40% of marks prescribed for that course in CIE and 40 % in SEE or viva voce examinations. However, aggregate marks combining both CIE and SEE or viva voce should not be less than 40% under any circumstances. That is, Minimum passing grade in a course (head of passing) is P.

17BSET6.4	**Condition for Re-Registering a Course:** 1) Students who do not satisfy the condition of 17BSET 6.3 shall be deemed to have failed and will be awarded either 'F-RR' or 'F-RA' Grade. 2) Students who were not eligible to take up the Semester End Examination (SEE) of any semester shall be deemed to have failed and will be awarded 'F-RR' Grade and are required to re-register for the course in subsequent odd/even semesters respectively. 3) Students who were eligible to take up Semester End Examination but have not cleared the regular Semester End Examination (SEE) shall be deemed to have failed and will be awarded 'F-RA' Grade and are required only to re-register for the Semester End Examination during the subsequent odd/even semester respectively.
17BSET7.0	**PROGRESSION TO HIGHER SEMESTERS**
17BSET7.1	1) A theory, stand-alone practical or Theory with practical shall be treated as one head of passing. 2) The Mandatory Graduate Requirement Non–credit courses (GR) shall not be considered for progression to higher semesters, award of Class, and calculation of SGPA and CGPA. However, competition of these courses is mandatory for award of the Degree. 3) There shall be no restriction for progression from odd semester to an even semester in an academic year. 4) A student shall complete a minimum of 25% of all the credits offered till 4th semester, as per the Scheme of Teaching and Evaluation, to register for the courses of 5th semester. 5) Furthermore, a student shall complete a minimum of 25% of all the credits offered till 6th Semester and also satisfy the credit requirements of 1st and 2nd Semester as per the Scheme of Teaching and Evaluation, to register for the courses of 7th semester.
17BSET8.0	**PASSING STANDARDS AND CLASS DECLARATION**
17BSET8.1	**Computation of SGPA and CGPA:** 1) Semester Grade Point Average will be awarded at the end of each Semester and Cumulative Grade Point Average will be awarded at the end of the program. However, CGPA is calculated at the end of each semester from the second semester onwards and reflected in the grade certificate for indicating the progress of the student.

	2) Each course in a program is associated with number of credits. Based on the number of credits for a course and obtained Grade Point for that course in a Semester, the GPA is calculated as given below: a) The SGPA is the ratio of sum of the product of the number of credits with the grade points secured by a student in all the courses taken by him to the sum of the number of credits of all the courses undergone by a student, i.e., $SGPA = \sum (C_i \times G_i) / \sum C_i$ Where C_i is the number of credits of the ith course and G_i is the grade point scored by the student in the ith course.
	b) The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e., $CGPA = \sum (C_n \times S_n) / \sum C_n$ Where S_n is the SGPA of the nth semester and C_n is the total number of credits in that semester. Finally the SGPA and CGPA shall be rounded off to 2 decimal places.
17BSET8.2	**Passing Standards:** 1) A student shall be declared successful or 'passed' in a semester, only when he gets a SGPA of 4.00 earning credits as per the scheme of teaching and evaluation, with grade point of 4 or more in every registered course. 2) A student shall be declared successful or 'passed' in the entire Under Graduate programme, only when he gets a minimum CGPA of 4.00 and has completed all the graduate requirement courses as mandated in the scheme of teaching and evaluation.
17BSET 8.3	**1) Conversion of Grade and Percentage of Marks:** Conversion formula for the conversion of CGPA into Percentage is: Percentage of marks scored, P = [CGPA earned] x 10 **2) Class Declaration:** After the conversion of final CGPA into Percentage of Marks (PM), a graduating student is declared to have passed in: a) First Class with Distinction (FCD): PM ≥ 75% (In First Attempt) b) First Class (FC): 60% ≤ PM < 75 % c) Second Class (SC): 50% ≤ PM < 60% d) Pass Class (P): 40% ≤ PM < 50%

17BSET8.4	**Grade Cards, Certificates and Transcripts:** 1) Grade Cards: At the end of each semester, a Grade Card shall be issued to all the registered students of that semester, indicating the Course code, Title, Number of credits, Letter grade awarded and Credits earned, for all the Courses as specified in the scheme of teaching and evaluation. This may have F-RA or F-RR grades awarded to the student. 2) Grade Certificate: On successful completion of all courses/earning credits, specified in a semester, the grade certificate is issued indicating the course details along with SGPA of that semester and also CGPA earned till that semester. 3) Transcripts: Transcript is the consolidated statement of the academic performance of a student for all the semesters since joining the programme and is generally given to a student on successful completion of the programme along with the degree certificate. a) For those students who have taken multiple attempts to clear a course, the transcript given on successful completion of the programme will only contain earned pass grade (O to P and AU); the courses cleared subsequently will however be shown in the respective semester with Month and Year in which the student has finally cleared the course. The transcript will show only the overall CGPA based on all the courses taken by the student. Credits earned beyond the requirement for the award of the degree shall be shown as additional courses separately, indicating the grade earned by the student. Additional copies of the transcript can be obtained if needed, on request submitted along with payment of applicable fee. b) Students who have not yet completed the programme can obtain an interim Transcript at the end of any semester, if needed, on request and upon payment of applicable fee. The interim Transcript includes failed courses, which have not been cleared at the time of issue.
17BSET9.0	**ELIGIBILITY FOR AWARD OF DEGREE, PRIZES, MEDALS AND RANKS**
17BSET9.1	**Minimum Credit Requirement:** A student of 2022-2023 batch shall obtain a total of at least 170 credits as specified by the University, along with satisfying the passing standards as per 17BSET 8.2 to be eligible for the award of Bachelor of Technology – Computer Science and Engineering, Bachelor of Technology – Electronics and Communication Engineering, Bachelor of Technology – Information Technology, Bachelor of Technology – Computer Science and Engineering (AI & ML) and Bachelor of Technology – Computer Science and Engineering (Data Science)

17BSET9.2	For the award of Prizes and Medals, the conditions stipulated by the donor/ University may be considered subject to the provisions of the statutes framed by the University for such awards from time to time.
17BSET9.3	For award of ranks in B.Tech., a minimum of 10 students should have appeared in the 8th semester examination. The total number of ranks awarded shall be 10% of total number of students appeared in 8th semester or 10 whichever is less.
17BSET9.4	A Student shall be eligible for a rank at the time of award of B.Tech. degree, provided the student has passed in all the courses from 1st to 8th semester in first attempt.
17BSET9.5	For awarding Rank the CGPA secured by the student from 1st to 8th semester shall be considered, provided 17BSET 9.4 is satisfied.
17BSET9.6	If two students get the same CGPA, the tie should be resolved by considering the number of times a student has obtained higher SGPA. But, if it is not resolved even at this stage, the number of times a student has obtained higher grades like O, A+, A, B+, B, C & P etc., shall be taken into account in Rank ordering of the students.
17BSET10.0	**MAXIMUM DURATION FOR PROGRAMME COMPLETION**
17BSET10.1	A student who has not secured 65 credits from all the first and second year and summer term examinations even after a period of three academic years from the date of first admission shall discontinue the program. However, the student is eligible for readmission for first year B. Tech. program of the University and he shall be allotted a new Registration Number from the date of new registration.
17BSET10.2	However, overriding the clause 17BSET 10.1, a student shall complete the programme within a period of eight academic years from the date of admission to the program, failing which he has to discontinue the program.
17BSET11.0	**TRANSFER OF STUDENTS**
17BSET11.1	Transfer of students from another University to SOET of this University is permitted only at the beginning of odd semesters, subject to availability of seats within the permitted intake and subject to the prior approval of the Vice Chancellor of the University. Such students should have passed in all courses of 1st and 2nd semesters for admission to 3rd semester, all the courses of 1st to 4th semesters for admission to 5th semester, and all the courses of 1st to 6th semesters for admission to 7th semester.

17BSET11.2	The students seeking admission shall have to: 1) Apply for establishment of equivalence with prescribed fees as notified by the University, and 2) Submit No Objection for admission from the migrating University before commencement of semester as notified by the University. 3) The University may prescribe fee for administrative purpose (for updating of the records), which shall be notified from time to time, for transfer.
17BSET12.0	**MISCELLANEOUS**
17BSET12.1	The academic regulations should be read as a whole for the purpose of any interpretation.
17BSET12.2	Wherever the words “he”, “him”, “his” occur in the regulations, they include “she”, “her”, “hers”.
17BSET12.3	In case of any doubt or ambiguity in the interpretation of the rules mentioned in the regulations, the decision of the Vice Chancellor shall be final.
17BSET12.4	The University may change or amend the regulations and/ or curriculum at any time, and the changes or amendments made shall be applicable to all the students with effect from the date notified by the University.
17BSET12.5	These regulations governing the Degree of Bachelor of Technology (B.Tech.) of the University may be modified from time to time with the approval of statutory bodies of the University and shall be binding on all.

Sd/- Dean	Sd/- Registrar	Sd/- Vice Chancellor

© CMR University, Bangalore (2022)