SCHOOL OF ENGINEERING AND APPLIED SCIENCE (SEAS) REGULATIONS 2019

(Common to all B.Tech Degree Programmes of SEAS)
(w.e.f. 2019 – 2020)

CREDIT SYSTEM

Degree of Bachelor of Technology

1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In these Regulations, unless the context otherwise requires:

I)   **"University"** means SRM UNIVERSITY AP, AMARAVATI, AMARAVATI.

II) "**Programme**" means Degree Programme that is B.Tech. Degree Programme.

III) "**Discipline"** means Branch or specialization or discipline of B.Tech. Degree Programme, like Computer Science and Engineering, Civil Engineering, Mechanical Engineering, etc.

IV)   "**Specialization**" means specialized academic domain offered along with B.Tech. Degree Programme, like B.Tech Computer Science and Engineering with Artificial Intelligence and Machine Learning, etc. by parent department

V)   **"Minors"** means specialized academic domain offered to other departments along with B.Tech. Degree Programme, like B.Tech Computer Science and Engineering minor in Robotics

VI)   "**Course**" means a theory or practical subject that is normally studied in a semester, such as Introduction to Computer Science, Mathematics, Physics, Engineering Graphics, etc.

B. TECH REGULATIONS – 2019

(For students admitted from the academic year 2019-20)

REGULATIONS

R.1.0 Admission

R.1.1   The number of seats in each branch of the B. Tech programme in the School of Engineering and Applied Sciences (SEAS) is decided by the Academic Council of SRM University, AP – Amaravati.

R.1.2   Admission to the B.Tech programme in any year is based on multiple criteria decided by the Admission Committee which includes the results of the Joint Entrance Examinations conducted across the Nation in that year, such as SRM Joint Engineering Entrance Examination (SRMJEEE) and the percentage of marks obtained in specified subjects of the qualifying examinations (R.1.3).

R.1.3   The minimum qualification for admission to B. Tech degree programs (Regular) shall be a pass in the 10 + 2 (higher secondary) examination or any other equivalent examination by any competent authority, recognized by this University, with a minimum aggregate of marks in Mathematics, Physics, and Chemistry, as decided by the Admission Committee and the Board of Management.

R.1.4   The Admission Committee will decide on the procedure for conducting the SRM Joint Engineering Entrance Examination (SRMJEEE). Subject to a minimum performance criterion in the entrance examination, as decided by the Admissions Committee, from year to year and the percentage of marks obtained in specified subjects of the qualifying examinations (R.1.3), the Admission Committee shall prepare a merit list. According to the prepared merit list, the students would be

admitted through a Counseling process, considering the choice of program indicated by the candidates and the availability of seats.

R.1.5 The number of counseling sessions shall be decided by the Admission Committee

R.1.6 Notwithstanding the above, the actual admission is based on the rules and regulations of the UGC/Competent authorities.

R.1.7 Candidates have to fulfill the medical standards required for admission as set out by the Admission Committee.

R.1.9 The selected candidate is admitted to the B. Tech programme after he/she fulfills all the admission requirements as indicated in the letter of admission and payment of the prescribed fees decided by the Fee Fixation Committee.

R.1.10 In the case of admission to the B.Tech programme, the decision of Admission Committee is final.

R.1.11 If, at any time after admission, it is found that a candidate has not fulfilled all the requirements stipulated in the offer letter of admission; the Dean, SEAS, shall have the authority to revoke the admission and report the same to the Vice Chancellor of the University.

R.1.12 **Degree seeking full time students:** The students who seek admission to University with an objective of studying full time and getting awarded the degree fall under this category. Such students have to necessarily fulfill all requirements needed for the award of the degree as stipulated in R.3.0

R.1.13 **Transfer of Students:** Students who wish to transfer from a different institute/university with an objective of getting awarded a degree is referred to as Transfer Students. Such students may transfer some or all their prior courses based on approval from the University Equivalency Committee. The students shall necessarily fulfill all requirements needed for the award of degree (inclusive of transferred courses) as stipulated in R.3.0.

R.2.0 Structure of the B. Tech Programme

A candidate is offered any one of the branches of study approved by the University and offered by the various Departments of the University. Branches offered by the University are listed Faculty wise in the **Annexure – I**

R.2.1 The complete program of study consists of seven group of courses distributed over eight to twelve semesters with two semesters per year as listed below:

1) Humanities and Social Sciences (HS)

The Humanities and Social Sciences courses are aimed at developing communication skills, both oral and written; understanding human cultures, past and present; awareness of concepts, ideas, and systems of thought that underlie human activities; understanding of the social, political, and economic framework of societies; understanding the impact of science and technology on society. Courses pertaining to communication skills, critical thinking, and economics are compulsory for every student.

2) Basic Sciences (BS)

The Basic Sciences courses aim to provide the outgoing graduates with a strong foundation in the sciences. The basic sciences component covers required courses in Mathematics, Physics, Chemistry, Biology and Environmental Science. In addition, a student may choose electives in other areas within the Sciences, such as Geology, Planetary Science and others.

3) Engineering Sciences (ES)

The subjects under ES provides a foundation in the basic tools and methodologies common to all Engineering disciplines.

4) Disciplinary Core Courses (CE, CSE, ECE, EEE, ME)

The disciplinary core courses are aimed at providing the student with a solid foundation in their chosen field of study. The core courses are required of all students majoring in the chosen discipline. They constitute approximately 30% credits.

5) Technical Core Courses

The technical electives provide the student an option to gain exposure in different specializations within the discipline and its allied disciplines. It also lends an opportunity to study some of these in depth. They constitute approximately 10% credits.

6) Open Elective Courses

The open elective courses provide the student wide latitude to pursue their interests, be it in humanities, arts, their chosen field of study, a related discipline, or use it towards developing a concentration in another field as a Minor.

7) Research, Design, and Industry Practice

The Research, Design and Industry Practice component of the curriculum is substantive, and present starting from second year and culminates in the Project report in eight semester. It is aimed at preparing the student to enter the work force or graduate studies, fully equipped to be productive, contributing and innovating with a firm grasp of their discipline as well as the context in which they apply their knowledge. The various components of Research, Design and Industry Practice are: Undergraduate Research Opportunities Program (UROP), Summer

Internships with Industries, Specialized courses through the Study Abroad program, Senior Thesis Project, Industry CO-OP through the semester.

R.2.2　Every branch of the B. Tech programme shall have a curriculum and course contents (syllabi) proposed by the respective Boards of Studies (BoS) and shall be duly approved by the Academic Council.

R.2.3　Credits are assigned to the courses based on the following general pattern:

One credit for each lecture (L) period per week;

One credit for one tutorial (T) periods per week;

One credit for two or less laboratory/practical/project/seminar (P) periods per week

Theory based courses are those with 'L' & 'T' or 'L' alone.

A course with only "T" is NOT permissible.

Courses with theory and practical components are those with 'L', 'T' & 'P' or 'T' & 'P' or 'L' & 'P'.

Courses with only practical component are those with 'P' alone.

R.2.4　The curriculum of any branch of the B. Tech programme is designed to have a minimum of 150 credits for the award of the B. Tech degree. In any case, the aggregate of credit standing and the credits earned shall be 150-160 credits to award the B.Tech degree.

R.2.5　The medium of instruction, examination and project reports is English (Except Language specific examination/projects).

R.3.0　Registration / Enrollment for courses

.　The process of signing-up for courses is called registration. Students are enrolled after they pay the prescribed fees. For a student to attend classes he/she has to necessarily complete both registration and enrollment. All students shall formally register for the courses every semester to undergo course work.

R.3.1　Registration of any course is controlled by the concerned Head/Chair/Coordinator of the Department. Except for the first semester, the registration for a semester is done during a **specified week immediately after the end semester examination of the previous semester**. The first semester registration shall be completed within a week prior to the commencement of classes. Late enrollment may be permitted with a fine, decided from time to time, up to two weeks from the last date specified for enrollment.

R.3.2　The registration sheet contains the course number, course name, number of credits earned till date, number of credits opted for the current semester, and the remaining number of credits to earn for the award of the degree. The student shall

make the choice of courses on his own or in consultation with his/her Faculty Advisor.

R.3.3 A student is considered eligible for enrollment only if he/she satisfies the enrollment requirement specified in R.6.0 and permitted to enroll only if he/she has cleared all dues to the University, Hostel, Library, NCC, etc. up to the end of the previous semester, provided he/ she is not debarred for enrollment as a result of any disciplinary action of the University.

R. 3.4 Minimum and maximum number of credits to be registered for each semester shall be as follows:

1. A candidate can register for credits as high as permissible maximum per semester.
2. A candidate can register for credits as low as permissible minimum per semester.
3. The permissible maximum is 8 credits beyond the regular load and the permissible minimum is two third credits of a semester or the remaining credits needed to meet the degree requirements, whichever is lesser.
4. A normal / average workload that a candidate may opt is the number of credits of a semester.
5. A candidate must necessarily register for courses for a minimum of 8 full semesters to complete the degree

R 3.5 A candidate has a provision to go with a normal pace (R.3.4.4). However, he/she may opt to go with a slow pace (R.3.4.3) per semester or with an accelerated pace (R.3.4.3) with the approval of the Department.

R 3.6 If a student elects to register only for minimum number of credits (R.3.4.3) in each semester, he/she have an opportunity to complete the degree in 12 semesters; alternatively, if a student elects to register for only the maximum number of credits(R.3.4.3), he/she will have an opportunity to complete the degree in 7 semesters. But in order to comply strictly with the rules and norms of UGC, no student is allowed to complete the degree in less than 8 full-semesters. Hence, R 3.4 (5) must necessarily be satisfied by all students.

R 3.7 A candidate may register for a minimum two third of credits per semester, but it is possible that he/she may earn less than two third credits in a semester. It may be theoretically possible that he/she may just earn ZERO credits in a semester. However, he/she should register for credits less than or equal to the permissible maximum (R.3.4.3) and more than or equal to permissible minimum (R.3.4.3) per semester, including the re- registration done for uncleared papers of earlier semester(s), if any. Notwithstanding the above, the minimum credits registered can be less than two third if and only if the remaining credits needed to meet the degree requirements is less than two third.

R 4.0 Classification and Numbering of Courses

R 4.1 **Course Numbering**

The courses under SEAS are assigned a code as 19CSE300. The first two digits represent the regulation and the alphabets refer to the department code which is offering the course

a). The first digit of last three digits(300) is used to denote the level of difficulty – 1xx is an introductory course in a subject; 2xx indicates a more in-depth study that assumes that background in the discipline; 3xx is used for more advanced courses that are specialization within a field and are appropriate for seniors, and offered as electives.

b) The second and third digits are largely used for discrimination and is not significant, otherwise.

R 4.2. **Category of Courses**

Preparatory Courses: Preparatory courses impart the minimum skills required for college-level work. Students completing preparatory course work may receive unit credit towards enrollment status; but credits is not considered towards the credit requirements for awarding the degree.

Prerequisite Courses: Prerequisites are courses that must be taken up prior advancing to the next course in a prescribed sequence of courses. The prerequisite courses must be registered by students, earn a minimum of 80% attendance prior advancing to the next course in a prescribed sequence of courses.

Co-requisites Course: Co-requisites are courses that must be taken at the same time as, or passed prior to, the designated course.

Core Courses: Core courses are mandatory courses for the students to satisfy the requirements of the Programme.

Elective Courses:

Elective course is chosen from a pool of subjects and it is:

- Supportive to the discipline of study
- Provides an extended scope
- Enabling an exposure to some other discipline/domain
- Nurturing candidate's proficiency/skill.

An elective may be "Discipline centric" called "Technical Elective." (or) chosen from an unrelated discipline called an "Open Elective."

Audited courses: Students may elect to audit courses during the first two weeks of the semester. A course taken for audit will not receive credit towards the degree requirement. It will not appear on the University transcript, unless the student gives the end-semester examination for the audited course.

R 5.0 Adding and Dropping Courses

R 5.1 A student is allowed to withdraw from a course without academic penalty during the first 2 weeks of the semester. If the course is dropped within the first two weeks of the commencement of classes, it does not appear on the academic transcript; if the course is dropped any time after 2 weeks unilaterally by the student, for reasons whatsoever, it is recorded with a mark of "Ab" or "I" (Refer R15.1) depending on whether the student has earned the minimum prescribed attendance for the course or otherwise. After registering, it is the student's responsibility to withdraw officially from a course if he or she decides not to continue in a course. The students are not allowed to withdraw courses having co-requisites. Courses are added only during the first two weeks of the semester.

R.5.2 When a course is added within the permissible time frame, the attendance will be calculated from the date of registering the newly added course. No make-up classes need to be conducted for the individual student to compensate for the missed lectures.

R. 5.3 **Registration in Post-graduate level courses by B.Tech students:**

Exceptional B.Tech students who are in the sixth or later semester of the programme, and who possess CGPA of not less than 8.5, can enroll in postgraduate courses. In order to do so, students shall obtain a strong recommendation from his/her academic advisor/HoD/Chair/Coordinator.

R.6.0 Enrollment Requirement

R.6.1 The enrollment requirement is as stipulated below:

For a student to become eligible for enrollment to any semester (other than first semester) he / she shall have earned at least 50% of credits in the immediate preceding semester. In case the student does not meet the above requirements, he/she shall discontinue the studies temporarily (No advancement in studies is permitted), earn the requisite credits and re-join the programme from where he/she has left. The student has to pay a re-admission fee as stipulated by the university in addition to the regular tuition fee, provided the enrollment status is maintained in "Active" condition. During readmission no disciplinary action shall be in force against the student and the student has to pay the prescribed fee at the time of readmission.

R 6.2 If a student does not register for any of the courses for one full academic year, excepting approved withdrawal (R. 9.3), the student loses all the credits earned till date and also attracts automatic discontinuation of studies. In the event of the student desiring to continue his/her studies then he/she shall apply and seek admission afresh from the first year (refer R.9.4).

R.7.0 Re-registering for courses

R 7.1 Re-registering for courses is student's choice under the following two situations:

(1) A student who, due to whatsoever reasons, has not earned 80% attendance during the normal course of study (I grade) is NOT permitted to appear in the end-semester examination. In such a situation, the student shall re-register for the course in a later semester whenever the course is offered.

(2) If the above course happens to be a core (mandatory) course, the student shall register for the same course only, if and when he / she registers. If the course is an elective or not a mandatory course, the student either register for the same course or may elect another course of his/her choice, subject to satisfying the prerequisites and approval of the academic advisor/HoD/Coordinators.

(3) A student who has secured less than 5.0 (Fail) in a course, whether it is a theory course or a laboratory course, for two appearances (Regular + ONE Re-appearances), either consecutively or otherwise, has to re-register for the course during the subsequent term / semester, to continue his/her studies in that course. The re-registering of courses is in accordance with R.7.1.2

(4) A student who has secured less than 5.0 (Fail) in a course, whether it is a theory course or a laboratory course, will have an option to re-register for the same course (if the course is a core course) or another course of his /her choice (if the course is an elective course). Alternatively, he /she can opt for re-appearing for the end –semester examination, without violating R7.1.3 to secure a minimum of pass grade.

(5) All marks / grades – internal as well as external – shall be null and void if a course is re-registered.

(6) After obtaining grade "Ab" or "F" or "I" in a course, if the same course is re-registered, it is considered as second appearance in that course. However, if a new course is registered then it will be considered as first appearance in that course. In both the cases, the student will NOT be eligible for any rank (merit), medal or distinction.

R.8.0 Reappearing for Examination

R.8.1. A student who has secured less than 5.0 (Fail) in a course, after appearing the end semester examination in a course, whether it is a theory or a laboratory course, will have an option to just appear directly for the end semester examinations, as and when conducted or re-register for that course.

R.8.2 If a course has both theory and practical component, the student shall appear in the end semester examinations of both the theory and practical components.

R.8. 3. A student can re-appear for the examination in a course for a maximum of one time only, after which he/she must re-register.

R.8. 4. If a student opts for re-appearing in an examination of a course after securing less than 5.0 (Fail) points, he/she will retain all the internal marks acquired during the first appearance. The student need not attend the regular classes for that course.

R.8.5 All applicable fees charged against examination shall apply for re-appearance courses as well.

R.9.0 Maximum and Minimum Duration of the Programme

R.9.1 Each semester shall normally consist of 90 working days or 450 hours. A student is ordinarily expected to complete the B.Tech programme in eight semesters for regular programme. However, a student may complete the programme at a slower pace by taking more time but in any case not more than 12 semesters excluding semesters withdrawn on medical grounds etc. as per R.9.5.

R 9.2 In compliance with the rules and norms of UGC, no student is allowed to complete the B.Tech degree in less than 8 full-semesters.

R.9.3 A student may be permitted by the Dean of SEAS to withdraw from the programme for a semester or longer for reasons of ill health or other valid reasons. Normally a student is permitted to discontinue from the programme only for a maximum continuous period of two semesters or the aggregate of individual discontinuation not exceeding two semesters.

R 9.4 The students who avail the temporary withdrawal as in R.9.3, after completing the approved period, shall obtain the approval from the Dean SEAS to rejoin the program.

R.10.0 Academic Advising

R. 10.1 In order to provide academic assistance and individualized attention, different levels of advising/attention is provided to the students by three types of officers. (1) Academic Advisors (2) Faculty Advisor (3) Student Counselor

R 10.2 Academic advisors help the student to evaluate and realize educational and career options. The Academic Advisor shall be a senior faculty, preferably at the Professor/Associate Professor level, who has good knowledge of the academic requirements, aspects of curricula and regulations. There can be one Academic Advisor for each programme (for small student strength) or 4 Academic Advisors - one for each year of the 4-year B.Tech degree program.

The basic responsibilities of the Academic Advisor are:

a. To assist the student in career planning and refer student to campus resources for such assistance.
b. To be knowledgeable about the program(s) for which he/she is advising and be familiar with published academic rules and regulations of the University
c. To inform the student of degree requirements.
d. To communicate and emphasize the student's responsibility for satisfying degree requirements in terms of credit earnings and pre-requisites.
e. To approve the course registration of the student at the department level
f. To consider and approve the application for adding / dropping / auditing of courses
g. To guide the students while applying for readmission / transfer etc.
h. To help student plan a suitable schedule of classes, at least one semester in advance.

In all these matters, the advisor or the advising team must judge whether the student's request is in order, in the student's best interest, and feasible under existing regulations.

R 10.3. Faculty Advisor and Student Counselor

R.10.3.1 To monitor student's academic performance, planning their courses of study, and providing general advice on the academic programme, the concerned School/Department will assign for a group of students a faculty member who will be called their Faculty Advisor.

R.10.0.2 In order to motivate the students personally and provide counseling on academic and nonacademic matters, a faculty member called Student Counselor shall be assigned for small group of students.

R.11.0 Discipline

R.11.1 Every student is required to maintain discipline and a decorous behavior both inside and outside the University campus. The students are strictly forbidden from indulging in any activity that will tend to bring down the prestige of the University.

R.11.2 Any act of indiscipline by a student is first to be considered by the Discipline and Welfare Committee of the Department/School for necessary action. If the issue

demands more serious consideration, the act of indiscipline is reported to the Dean of SEAS and he/she refers it to the Discipline and Welfare Committee of the University, constituted by the Vice Chancellor.

The Committee shall inquire into the charges and recommend suitable action if the charges are substantiated. The Dean of SEAS takes appropriate action on the recommendation of the Discipline and Welfare Committee of the University.

R.11.3 The Dean of SEAS is empowered to suspend a student pending inquiry depending upon the prima facie evidence.

R.11.4 Appeal: The aggrieved student may appeal to the Vice Chancellor whose decision is final and binding.

R.12.0 Attendance

R.12.1 *Attendance is the physical presence of the student in the class / laboratory / field work.* It is a well-observed fact that the students who score good grades are those who attend the class / laboratory / field work, regularly. Therefore, the students must strive to attend all the classes without fail.

R.12.2 Every faculty member handling a course shall record attendance till the last instruction day in the semester.

R.12.3 A student must maintain an attendance record of at least 80% in individual courses, excluding leave of absence due to medical reasons, on-duty, extra-curricular / extramural activities, permitted assignments such as job interviews, unforeseen emergencies, etc. Without the minimum attendance of 80%, in any course, students become ineligible to appear for the end semester examination in the respective course and shall result in 'I' grade (I stands for Incomplete or registration canceled for want of minimum attendance) in that course. This grade shall appear in the grade card until the course is successfully completed. The student should register for and repeat the entire course when it is offered next.

The University may conduct makeup classes for students having attendance less than 80%. The students shall compensate his/her attendance by attending classes during summer/winter breaks. The students shall register separately for the summer/winter makeup classes. As this period shall be considered as extra working for the faculty and may be remunerated.

R.12.4 A student must strive to attend all the classes without fail. However, the minimum attendance requirement of 80% allows a student the facility to use the balance 20% to account for illnesses, permitted assignments such as job interviews, inter university sports meets, inter-collegiate/inter-university competitions, accidents, unforeseen emergencies etc. An attendance of 80% in a course (except in cases

governed by R.12.6) is considered to be the minimum required for a student to get just enough input on the course syllabus through class room contact hours to make him / her eligible to appear in the end semester examination for that course.

It is the responsibility of each and every student to keep track / monitor his / her percentage of attendance for each course and ensure that he / she satisfies the attendance norms prescribed by the University. If the student finds any discrepancy / error in the attendance status, he /she should immediately bring it to the attention of the concerned faculty member and seek redressal.

R.12.5 The faculty shall prepare the particulars of all students who have attendance less than 80% in his / her course. Copies of the same shall be sent to the Dean of SEAS, and Heads of Schools/ Coordinators of Departments concerned. ***The students who have less than 80% attendance will not be permitted to appear in end semester examination.***

R.12.6 **Condoning of Attendance**: In rare and genuine cases, a committee consisting of Dean of SEAS and Head/Coordinator of the Department of the concerned shall examine the case, based on the documents submitted by the student, facts and circumstances. Assessment is done, by the committee, on the merit of the case and spell out their recommendation to the Vice Chancellor. The Vice Chancellor, based on the recommendation of the committee may then give condoning of attendance, only if the Vice Chancellor deems it fit and deserving but in any case, the condoning cannot exceed 10%.

R.13.0 Assessment Procedure

R.13.1 In case of multi-section/teacher course, a course director is appointed by the department faculty Coordinator and the following procedure shall be followed by the course director in consultation with the team of faculty members.

R.13.2. The academic performance of a student is evaluated by the concerned instructor with the approval from the department coordinator, except in the case of project work where other examiners may be nominated from the University for the viva voce.

R.13.3 The student's performance in each course, in general, is evaluated based on *continuous assessment* (during the semester) and *end-semester examination* (immediately after completion of semester teaching). The *continuous assessment* is spread through the duration of course and is done by the faculty teaching the course. The assessment is at the discretion of the instructor and is done through various means including written tests, MCQ based quizzes, Presentations, Projects, Field visits, Seminars, Group discussions, and other activities.

The *end-semester examination* shall have assessment from the following perspective with respect to all courses:

1. Evaluation with respect to knowledge.

2. Evaluation with respect to understanding.

3. Evaluation with respect to skill.

4. Evaluation with respect to applications

5. Higher Order Thinking Skills

6. Communication and Presentation skills

R.13.4 Grading policy for each of the courses is decided by the faculty of the course and the students are informed of the same at the beginning of each course.

R.13.5 The assessment process for courses like NCC/NSS/NSO/YOGA, Industrial Training and Personality Development courses which form part of the curriculum may not follow R.13.3 and shall be decided by the instructor at the commencement of the semester and communicated to all concerned.

R 13.6 Whenever there is a deviation from procedures stated under 13.3-13.5, as warranted by the unique nature of the course, the same is specified by the concerned instructor and shall be approved by the Dean of SEAS through the department coordinator.

R 13.7 The faculty may follow relative grading policy, and he/she decides the final grade and the weight for the mid-term examinations, quizzes and other components of the course. Guidelines on the implementation is as per R.14.0.

R.14.0 Course Wise Grading of Students

R.14.1 Letter Grades and Grade Points (GP)

Based on the performance, each student is awarded a final letter grade at the end of the each semester against each Course. The letter grades and the corresponding grade points are as follows:

Letter Grade	Grade Points
O (Outstanding)	10
A+ (Excellent)	9
A (Very Good)	8
B+ (Good)	7
B(Above Average)	6
C (Average)	5
F (Fail)	0
Ab(Absent)	0

I (Incomplete)	0

For noncredit courses 'Satisfactory' or "Unsatisfactory' shall be indicated instead of the letter grade and this is not counted for the computation of SGPA/CGPA.

R.14.2 The grading scheme can be absolute or relative for all the courses. The absolute grading is as per the UGC regulations and a typical scheme of relative grading is as given below.

S.No	The normalized mark range	Grade
1	Top 10 Percentile	O
2	Top 11 percentile to 20 percentile	A+
3	Top 21 percentile to 30 percentile	A
4	Top 31 percentile to 50 percentile	B+
5	Top 51 percentile to 65 percentile	B
6	Top 66 percentile to 80 percentile	C
7	Below 81 percentile	F
8	Non-Appearance in the examination	Ab
9	Insufficient attendance	I

R.14.3 A student is considered to have successfully completed a course and earned the credits if he / she secured a letter grade other than **F or Ab or I** in that course. *A letter grade F or Ab or I in any course implies a failure in that course.*

R.14.4 A course successfully completed cannot be repeated.

R.15.0 Declaration of Results

R.15.1 The letter grades for every course must be completed within 5 days of the completion of the end-semester examination. This may include showing the answer scripts to the students and modify the marks/grade if an error is noticed.

R.15.2 *The Ab / I grade once awarded stays in the record of the student and is deleted when he/she completes the course successfully later*. The grade acquired by the student is indicated in the grade card of the appropriate academic year with an indication of the month and the year of passing of that course.

R.15.3 *'F' grade obtained by a student is deleted in the grade card once that course is successfully completed*. The pass grade acquired by the student is indicated in the grade card of the appropriate year with an indication of the month and the year of passing. The CGPA is accordingly revised.

R.15.4 In case any student feels aggrieved on the final outcome of the assessment in any course, the student shall apply to the Controller of Examinations/Exam Coordinator, along with the prescribed fee, for the review of end semester examination answer script, within the stipulated time after the announcement of the results of the examinations. The Controller of Examinations/Exam Coordinator shall facilitate the review of the answer script jointly to be carried out by the student and the faculty. If any discrepancy is noticed during review the same shall be rectified and the originally awarded grade accordingly amended.

R.16.0 Grade Card

R.16.1 The grade card issued by the Controller of Examinations/Exam Coordinator to each student, after the announcement of the results contains the following:

a. The credits for each course registered for that semester,

b. The letter grade obtained in each course

c. The total number of credits earned by the student up to the end of that semester in each of the course categories

d. The Cumulative Grade Point Average (CGPA) of all the courses taken.

R.16.2 **Computation of Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA)**

(i) The SGPA will be calculated according to the formula

$$SGPA = \frac{\sum_1^n c_i \times (GP)_i}{\sum_1^n C_i}$$

Where C_i = credit for the ith course, $(GP)_i$ = the grade point obtained for the ith course (refer R.14.1), n = total number of courses and the sum is over all the courses taken in that semester, including those in which the student has secured F grades.

(ii) For the cumulative grade point average (CGPA) following formula is used:

$$CGPA = \frac{\sum_1^n S_i \times (SGPA)_i}{\sum_1^n S_i}$$

where S_i = Sum of credits in i^{th} semester, $(SGPA)_i$ = Semester Grade Point Average earned in i^{th} semester and n = number of semesters and the sum is over all the semesters under consideration.

(iii). The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

R.16.3 Class/Distinction is awarded to the students after they successfully complete the B.Tech programme as per the norms stipulated below:

Category of the Students	CGPA	Class / Distinction
Students who successfully complete the B. Tech programme	≥ 5.0 and <5.5	Pass
	≥ 5.5 and <6.0	Second Class
	≥ 6.0 and ≤10.0	First Class
	≥ 8.5 (without F or I or temporary withdrawal-R.9.3 in any Semester)	First Class with distinction

R17.0 Branch Change

R17.1 A student may request for a branch change from a particular programme (initial) to another programme (new) two weeks prior to the starting of any semester.

R17.2 The branch change requires approval from the Department coordinators of the new programme and the Dean of SEAS.

R17.3 The student may require more than the typical eight semesters to complete since the new programme may have very different requirements compared to the initial programme.

R 18.0 Minors/Honors

R.18.1 Students may choose to obtain minor (certificate) offered from a different discipline by completing an additional 20 credits of course work stipulated by the programme offering the minor.

R.18.2 Students may choose to obtain Honors Degree by completing an additional 20 credits within their programme.

R19.0 Semester Abroad Programme

R19.1 University encourages students to study abroad for short and long term. The long term may be up to a semester and upon special approval may extend to more semesters. The student is expected to register for course work while studying abroad.

R19.2 The course work completed abroad is ratified by the *Academic Equivalency Committee* and the grades is reported on grade card accordingly

R19.3 The mandatory course work missed by the students while studying abroad is completed in subsequent semesters as an independent study courses under the supervision of department assigned faculty. The rules for assessments and grades follow that of regular courses.

R 20.0 Academic dishonesty

When a student is found responsible for a violation of the University code of conduct pertaining to academic dishonesty (Malpractice in Examinations), the Office of Controller of Examinations/ Exam Coordinator shall initiate action based on the pre-approved procedures. Appropriate penalty or punishment is awarded to the student and communication sent to the concerned Head/Coordinator of the Department.

R.21.0 Eligibility for Award of the B. Tech Degree

R.21.1 A student shall be declared to be eligible for the award of the B. Tech degree if he/she has

   a. Registered and successfully completed the courses and projects as per the curriculum and obtaining an aggregate of credits in the range of 150-160.

   b. Successfully acquired the required credits as specified in the curriculum corresponding to the branch of his/her study within the stipulated time duration.

   c. No disciplinary action pending against him/her

R.22.0 Change of Regulations

R.22.1 Any regulation can be modified by the Academic Council of University.

ANNEXURE – I

A candidate may be offered one of the following programmes of study approved by the University

1. Department of Civil Engineering

I.   B.Tech Civil Engineering
II.   B.Tech Civil Engineering - Specialization in Transportation Engineering

2. Department of Computer Science and Engineering

I.   B.Tech Computer Science and Engineering
II.   B.Tech Computer Science and Engineering – Specialization in Artificial Engineering and Machine Learning
III. B.Tech Computer Science and Engineering – Specialization in Big Data Analytics
IV.   B.Tech Computer Science and Engineering – Specialization in Cyber Security
V.   B.Tech Computer Science and Engineering – Specialization in Internet of Things
VI.   B.Tech Computer Science and Business Systems   - Jointly Offered by Tata Consultancy Services (TCS)
VII. Minor in Artificial Intelligence and Machine Learning
VIII. Minor in Data Science
IX.   Minor in Cyber Security

3. Department of Electrical and Electronic Engineering

I.   B.Tech Electrical and Electronic Engineering
II.   B.Tech Electrical and Electronic Engineering - Specialization in Power Systems

4. Department of Electronics and Communication Engineering

I.   B.Tech Electronics and Communication Engineering
II.   B.Tech Electronics and Communication Engineering – Specialization in Signal Processing

III. B.Tech Electronics and Communication Engineering – Specialization in Systems Design

5. Department Mechanical Engineering
I. B.Tech Mechanical Engineering
II. B.Tech Mechanical Engineering - Specialization in Robotics
III. B.Tech Mechanical Engineering - Specialization in Additive Manufacturing