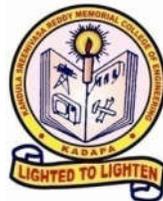


**Regulations for
UG Programs in Engineering (R20UG)
(Effective from 2020-21 for Regular students and
from 2021-22 for Lateral Entry students)**



**Kandula Srinivasa Reddy Memorial College of Engineering
(Autonomous)**

Kadapa – 516005, A.P.

**(Approved by AICTE, Affiliated to JNTUA, Ananthapuramu, Accredited by NAAC)
(An ISO 9001-2008 Certified Institution)**

KSRM College of Engineering (Autonomous), Kadapa-516005, AP

Regulations for UG Programs in Engineering (R20UG)
(Effective from 2020-21)

Index

1.0	Nomenclature	1
2.0	Short Title and Application	1
3.0	Suspension and Amendment of Rules	2
4.0	Requirements for Admission.....	2
5.0	Structure of the B. Tech course	2
6.0	Registration and Enrolment.....	3
7.0	Assessment Procedure – Internal Tests and End Examinations	3
8.0	Method of Assigning Letter Grades and Grade Points	6
9.0	Requirements for Completing Subjects.....	7
10.0	Requirements for taking End Examinations and Promotion.....	8
11.0	Revaluation of End Examination Scripts	9
12.0	Supplementary End Examinations	9
13.0	Requirements for Award of B. Tech degree	9
14.0	Regulations for Lateral Entry students under	12
15.0	Transitory Regulations	12

KSRM College of Engineering (Autonomous), Kadapa-516005, A.P.

Regulations for UG Programs in Engineering (R20 UG) (Effective from 2020-21)

1.0 Nomenclature

- 1.1 *Academic Year*: Period of academic instruction of, approximately, one year duration that usually starts in June/July and ends in April/May next
- 1.2 *Semester*: Either of two divisions of an academic year
- 1.3 *Major*: A specific field of study. Example: Civil Engineering
- 1.4 *Minor*: An area outside of, or complementary to, a Major. Example: For Civil Engineering major, Computer Science is a minor and vice versa
- 1.5 *Subject*: An area of knowledge that is studied as part of a Course
- 1.6 *Core*: A subject that is mandatory for a Major course of study
- 1.7 *Elective*: A subject that is selected for study to suit one's individual needs
- 1.8 *Mandatory Subject*: A subject that is studied to meet certain requirements but has no credits assigned to it
- 1.9 *Humanities subjects*: Subjects that describe and interpret human achievements, problems and historical changes at individual and societal levels covering the disciplines of literature, history, and philosophy
- 1.10 *Social Sciences*: Subjects that describe the mental and behavioural activities of individuals, groups, organizations, institutions, and nations covering the disciplines of anthropology, economics, linguistics, political science, and psychology
- 1.11 *Exam*: A test to measure one's progress, knowledge, or ability in a subject
- 1.12 *Credit*: A numerical weight given to a subject, usually based on quantum of academic work
- 1.13 *Grade*: A numerical or alphabetic designation measuring the level of achievement in an exam
- 1.14 *Attendance*: Physical presence of oneself in a classroom/laboratory for purpose of a scheduled academic instruction
- 1.15 *Course*: A series of subjects that constitute a Major field of study
- 1.16 *Branch*: Same as Course
- 1.17 *Program*: Same as Course
- 1.18 *Degree*: An academic title conferred to honour distinguished achievement
- 1.19 *Minor Degree*: An Academic honour conferred on achieving 20 extra credits in one's minor area of study
- 1.20 *Honours*: An Academic honour conferred on achieving 20 extra credits in one's major area of study

2.0 Short Title and Application

- 2.1 These rules and regulations may be called as R20UG and come into force from Academic Year 2020-21 and exists until superseded by new regulations. These rules are applicable for students who join the institute from academic year 2020-21 onwards. Students who have joined in earlier regulations will continue in their respective regulations.

- 2.2 These rules and regulations are applicable to all under graduate courses in engineering and technology leading to Bachelor's Degree in Technology (B. Tech)
- 2.3 The Major courses offered, at present, are:
 - 2.3.1 Civil Engineering
 - 2.3.2 Electrical and Electronics Engineering
 - 2.3.3 Mechanical Engineering
 - 2.3.4 Electronics and Communication Engineering
 - 2.3.5 Computer Science and Engineering
- 2.4 The Institute may offer new Majors in future to which these rules and regulations will be applicable.

3.0 Suspension and Amendment of Rules

- 3.1 Academic Council has the authority to suspend a rule temporarily.
- 3.2 Academic Council has the authority to amend a rule.
- 3.3 For affirmative action on any suspension or amendment of a rule, an affirmative vote of three-fifths of the members present and voting shall be required in Academic Council.

4.0 Requirements for Admission

- 4.1 At present, admissions into first-year class of various Majors are governed by Government and the Affiliating University. The eligibility criteria and procedure for admissions are prescribed by Government and Affiliating University.
- 4.2 A student is not allowed change of Major after admission into first-year.
- 4.3 A student must fulfil medical standards required for admission.
- 4.4 The selected students are admitted into first-year class after payment of the prescribed fees.

5.0 Structure of the B. Tech course

- 5.1 *Duration:* The duration of B. Tech degree course is eight semesters spread over four academic years. Semesters are named sequentially from First Semester to Eighth Semester.
- 5.2 *Working Days:* Calendar for any semester shall be announced at least four weeks before its commencement. Minimum number of working days shall be 90 for any semester.
- 5.3 *Curriculum:* Each major shall have core, elective and mandatory subjects drawn from six categories of subject areas - i) Basic Sciences (BSC), ii) Humanities and Social Sciences including Management Courses (HSMC), iii) Engineering Science Courses (ESC), iv) Professional Core Course (PCC), v) Professional Elective Course (PEC), and vi) Open Elective Course (OEC). The curriculum for each branch shall be approved by its corresponding Board of Studies and Academic Council.
- 5.4 *Credits:* All subjects that are assessed for marks have credits assigned to them. The credits assigned to subjects shall be given in curriculum. The total number of credits for entire course is 160 for all branches.

- 5.5 *Curriculum and Syllabus*: The curriculum and syllabus for first and second semesters is given in Annexure-1 and Annexure-2 respectively.
- 5.6 *Medium of Instruction*: The medium of instruction, examinations and all other related activities is English.
- 5.7 *Responsibility and Advising*: It is the responsibility of the student to understand and know the regulations and requirements to earn the degree. Each student admitted into the degree programs is assigned to a Faculty Advisor who assists the student in designing an effective program of study. Students should consult their Faculty Advisors for selection of electives and for general advice on academic program.
- 5.8 *Gap-Year*: Outstanding students who wish to pursue entrepreneurship are allowed to take a break of one year at any time after II Year / III Year to pursue entrepreneurship full time. This period shall be counted for the maximum time for graduation. College Academic Council shall evaluate the proposal submitted by the student and decide on permitting the student for availing the gap-year. Gap-year can be availed once in the entire course.

6.0 Registration and Enrolment

- 6.1 Prior to start of each semester, every student shall register for all the subjects listed in curriculum and additional subjects required for achieving honours/ minor degree. Excepting first semester, the registration for a semester shall be done during a specified week after end examinations of previous semester. In first semester, the registration shall be done within six working days from date of joining. Recommendation of Faculty Advisor is needed for registration.
- 6.2 A student can register utmost 8 theory subjects, including mandatory subjects, in any semester.
- 6.3 Late registration will be permitted with a fine, decided from time to time, up to six working days from the last date specified for registration.
- 6.4 A student will be eligible for registration for a semester if she or he i) is promoted to that semester, ii) has cleared all fees to the Institute, library and hostel of previous semester, and iii) is not disqualified for registration by a disciplinary action of the Institute.
- 6.5 A student will be enrolled and allowed to attend the classes on successful registration and payment of necessary fees to Institution, library, and hostel.
- 6.6 Registration and enrolment will be controlled by the Office of the Controller of Examinations.

7.0 Assessment Procedure – Internal Tests and End Examinations

- 7.1 Performance of students in all subjects is assessed continuously through assignments, internal assessment tests and an End examination.
- 7.2 Allocation of internal assessment and End examination marks
 - 7.2.1 For theory subjects, the allocation is 40 marks for internal assessment and 60 marks for End examination totalling 100 marks.
 - 7.2.2 For laboratory/drawing/project work subjects, the allocation is 40 marks for internal assessment and 60 marks for End examination totalling 100 marks.

7.2.3 For seminar/industrial training/internship subjects, the allocation is 100 marks for internal assessment. There is no end examination for these subjects.

7.2.4 For mandatory subjects the allocation is 40 marks for internal assessment and no allocation for End examination. These marks are specified for purpose of clause 9.3, and do not account for any credits.

7.3 Internal Assessment

7.3.1 Internal assessment means performance evaluation of students by faculty members who teach the subjects.

7.3.2 *Guidelines:*

a) *Allocation:* For theory subjects including mandatory subjects the total internal assessment marks is 40 of which 30 marks are assessed through midterm tests, 5 marks by surprise or sudden quiz and 5 marks by assignments. The faculty members of the concerned subject will assess the marks in the midterm tests and assignments.

b) *Midterm tests:* Each midterm test will be of two hours duration and evaluated for 30 marks. Internal assessment marks for midterm tests will be calculated as weighted sum of the two midterm test marks, with 80% weight for the best and 20% weight for the other marks. Internal assessment marks for assignments is calculated as the average of all assignments. Total internal marks are the sum of midterm tests, surprise or sudden quiz and assignments assessment marks.

If any student abstains for any midterm test, she or he will be awarded zero marks for that midterm test. If any student fails to submit any assignment within the specified deadline, she or he will be awarded zero marks for that assignment.

i. *Number and duration:* There shall be two midterm tests each with a duration of two hours.

ii. *Format of test and division of marks:* Internal test shall consist of only descriptive part for 30 marks.

iii. *Descriptive or Subjective part:* Subjective part shall contain three questions and all questions shall be answered. However, each question can have internal choice (either or type question). Generally, each question shall test one Course Outcome (CO).

iv. *Syllabus:* Each test shall cover 50% of the syllabus, approximately.

c) *Assignments:* The assignments shall aid and hone the daily routine of students. Assignments shall be stimulating and thought provoking to the student. While some questions may test student's understanding of the subject, there shall be questions that imply connect to real world applications. A variety of questions can posed in assignments.

i. *Number:* A minimum of four assignments shall be given in each subject with one assignment from Unit I to IV of syllabus of that subject.

- ii. *Quantum of work*: An assignment shall take about four to six hours of study / work per week. Assignments shall not be overloaded nor under loaded. As a guideline, each assignment may contain five questions, each question taking an hour to answer.
 - iii. *Marks*: Each assignment must be evaluated for fifty marks. Final marks are obtained by averaging all the assignment marks and reducing it to five marks.
 - iv. *Deadlines*: Students shall be given at least one-week time to complete and submit assignments. Assignments shall be submitted within deadline. Late submissions should be awarded zero marks.
 - v. *General*: It is advised to administer assignments using Google Classroom.
- d) *Quiz*: The concerned faculty has to conduct 8 surprise quiz exams in the regular class itself. From each unit two quiz exams shall be conducted and each quiz is for 10 marks. Out of 8 quizzes 6 best quizzes shall be considered and average of 6 quizzes will be reduced to 5 marks. Each quiz can be fill in the blanks or single sentence answer or definitions.
- 7.3.3 For laboratory/practical/drawing subjects, the internal assessment will be based on regular laboratory work over full semester. The assessment will be done by the faculty concerned. The students shall be informed sufficiently early of the procedure to be followed for internal assessment.
- 7.3.4 For subjects like seminar, project-work, industrial training/internship, and comprehensive viva-voce, the internal assessment will be done by a Department Committee consisting of two senior faculty members and faculty guide of concerned student. The assessment procedure will be informed sufficiently early to the students.
- a) *Mandatory internships*: University Guidelines shall apply.
 - b) *Evaluation of internships*: Shall be evaluated through the departmental committee. A student will be required to submit a summer internship report to the concerned department and appear for an oral presentation before the department committee. The report and the oral presentation shall carry 40% and 60% weightages respectively.
 - c) *Final Semester Internship*: A student should mandatorily undergo internship (University Guidelines shall apply) and should work parallelly on a project. At the end of the semester the candidate shall submit an internship completion certificate and a project report. The project report shall be evaluated with an external examiner.
- 7.3.5 After the course work is over, the student is permitted to improve his/her internal marks of any 3 theory subjects in the entire course. However he/she will have to attend the course work.

7.4 End examinations

- 7.4.1 End examinations shall be conducted after completion of coursework in each semester. End exams assessment is for 60 marks. The question paper contains 5 questions and all questions shall be answered. Each question have internal choice (either or type question). Each question carries 12 marks.

- 7.4.2 The question papers for theory subjects shall be set by faculty members outside of the Institute. The external faculty members for question paper setting shall be appointed by the Principal.
- 7.4.3 Evaluation of answer scripts shall be done by either Internal or External examiners appointed by the Principal. A minimum of 50% of subjects will be evaluated by external examiners.
- 7.4.4 For laboratory subjects, end examination shall be conducted by a committee consisting of two internal examiners. One examiner shall be appointed by Head of Department of concerned Major, and the other examiner shall be appointed by the Principal.
- 7.4.5 For project work viva-voce, end examination shall be conducted by a committee consisting of one internal examiner, one external examiner, and the concerned guide of the student. Internal examiner shall be appointed by Head of Department of concerned Major, and the external examiner shall be appointed by the Principal.
- 7.4.6 If a student abstains from End examination of any subject, for any reason, she or he shall be marked as “ABSENT” in that subject.
- 7.4.7 There is no end examination for mandatory subjects.

8.0 Method of Assigning Letter Grades and Grade Points

- 8.1 For all credit-bearing subjects, performance of a student in a subject is indicated by a letter grade that corresponds to absolute marks earned in that subject. Each letter grade is assigned a numeric Grade Point that is used to compute Grade Point Average on a scale of 0 to 10.
- 8.2 Performance of a student in both internal assessment and End examination will be considered for awarding grades for credit bearing subjects. Total marks earned in a subject is the sum of marks obtained in internal assessment and End examination in that subject.
- 8.3 Pass grade S to E is assigned to a subject based on total marks earned in that subject provided that a student earns at least i) 35% of marks in End examination, and ii) 40% of marks in internal assessment and End examination put together; otherwise fail grade F will be assigned to that subject.
- 8.4 Grade I will be assigned to a subject if a disciplinary action is pending and is not resolved before publication of results. Office of Controller of Examinations shall resolve the pending disciplinary action within six working days from the date of publication of results and change the grade to any of S to F.
- 8.5 Grade *Ab* will be assigned to a subject if a student abstains for End examination of that subject.
- 8.6 The absolute marks and corresponding letter grade and grade points are given in Table 1.

Table 1: Letter Grades and Grade Points

Absolute Marks	Letter Grade	Grade Points assigned	Remark
≥ 90	S (Outstanding)	10	Pass
80 - 89	A (Excellent)	9	Pass

70 - 79	B (Very Good)	8	Pass
60 - 69	C (Good)	7	Pass
50 - 59	D (Average)	6	Pass
40 - 49	E (Below Average)	5	Pass
< 40	F (Fail)	0	Fail
Absent	Ab (Absent)	0	Fail
-	I	0	Result Withheld

- 8.7 *SGPA*: Semester Grade Point Average indicates the performance of a student in all credit-bearing subjects of a semester. SGPA is calculated as the weighted average of Grade Points of all subjects of the semester with corresponding credits of subjects as weights. Audit and Self-study subjects are not considered for SGPA calculation

$$SGPA = \frac{\sum GP_i \times CR_i}{\sum CR_i}$$

where GP_i = Grade Point earned in a subject

and CR_i = Credits allocated for that subject

- 8.8 *CGPA*: Cumulative Grade Point Average indicates the performance of a student in all semesters up to and including the current semester under consideration. CGPA is calculated as the weighted average of SGPA's with total credits in each semester as the weights.

$$CGPA = \frac{\sum S_i \times TC_i}{\sum TC_i}$$

where S_i = SGPA obtained in a semester

and TC_i = Total Credits for that semester

- 8.9 As per AICTE regulations, conversion of CGPA into equivalent percentage is as follows:

$$\text{Equivalent Percentage} = (CGPA - 0.50) \times 10$$

- 8.10 In *SGPA / CGPA* calculations credits earned towards honours / minor degree will not be counted.
- 8.11 *Grade Card*: All students shall be issued Grade Cards after the publication of results of a semester. Grade Card is a statement of performance of a student in a semester. It contains information about each registered subject: type of subject, allocated credits, and letter grade earned. SGPA and CGPA will also be indicated.

9.0 Requirements for Completing Subjects

- 9.1 A student shall complete all credit-bearing and mandatory subjects successfully to be eligible for award of degree.
- 9.2 *Credit-bearing subjects*: A student is considered to have completed a credit-bearing subject successfully and earned credits if she or he obtains a pass grade from S to E in that subject. If a student receives fail grade F or *Ab* in any subject, she or he must register for supplementary End examination for that subject as and when opportunity arises and improve grade to pass grade.

- 9.3 *Mandatory subjects:* A student is considered to have successfully completed a mandatory subject if she or he earns at least 40% of internal assessment marks in that subject.

Supplementary exam for mandatory subjects: If a student fails in mandatory subject, she or he shall register for supplementary examination in that subject as and when the opportunity arises and pass that subject. The supplementary exam will be conducted for 30 marks covering the entire syllabus and student is deemed to have passed in the subject if she or he earns 12 marks (40% marks) in the supplementary exam, disregard of her or his performance in assignments and internal tests.

10.0 Requirements for taking End Examinations and Promotion

- 10.1 A student is eligible to take regular End Examinations of current semester if she or he fulfils the attendance requirement.
- 10.2 A student shall be promoted from current semester to succeeding semester on satisfying the attendance and total credits-earned requirements.
- 10.3 Attendance Requirement
- 10.3.1 Attendance of students shall be recorded for credit-bearing and mandatory subjects as per the work load indicated in curriculum.
- 10.3.2 Total class-periods conducted shall be reckoned from beginning to end of a semester as published in academic calendar.
- 10.3.3 Aggregate Percentage of Attendance is calculated using total number of class-periods attended as numerator and total number of class-periods conducted for the concerned semester as the denominator.
- 10.3.4 A minimum aggregate attendance of 75% is required for promotion to succeeding semester and be eligible to take End examinations of current semester. In addition, student has to acquire a minimum of 40% attendance in each subject.
- 10.3.5 A student can appeal to the Principal for condoning deficiency in aggregate attendance if she or he gets an aggregate attendance of 65% or more but less than the required 75%, presenting a valid reason for deficiency. Such a student will be granted promotion if the Principal pardons the deficiency. Principal has the right to reject the appeal if he/she is not satisfied with the performance of the student or the reason cited for deficiency of the attendance.
- 10.3.6 A student earning less than 65% aggregate attendance will be denied promotion. A student who is not promoted on basis of attendance shall be removed from the rolls and shall register for the same semester when opportunity arises. The current semester record of the student is cancelled automatically.
- 10.4 Credits-Earned Requirement
- 10.4.1 This rule is applicable for promotion of a student from fourth semester to fifth semester, and from sixth semester to seventh semester.

10.4.2 A student who is denied promotion for want of requisite credits shall take supplementary examinations, as and when offered, and earn credits to be eligible for promotion.

10.4.3 Subjects registered for honours/minor degree shall not be considered towards credits-earned requirement.

10.4.4 For promotion from fourth semester to fifth semester, a student must earn at least 40% credits (rounded to lower integer) from first semester to third semester subjects. A student will get the following opportunities to pass the subjects:

First semester subjects : One regular and three supplementary exams

Second semester subjects : One regular and two supplementary exams

Third semester subjects : One regular and one supplementary exam

10.4.5 For promotion from sixth semester to seventh semester, a student must earn at least 40% credits (rounded to lower integer) from first semester to fifth semester subjects. A student will get the following opportunities to pass the subjects:

First semester subjects : One regular and five supplementary exams

Second semester subjects : One regular and four supplementary exams

Third semester subjects : One regular and three supplementary exams

Fourth semester subjects : One regular and two supplementary exams

Fifth semester subjects : One regular and one supplementary exam

11.0 Revaluation of End Examination Scripts

11.1 Revaluation of End Examination scripts is allowed for theory subjects only by paying requisite fee.

11.2 Procedure for Revaluation: The script will be revaluated by an examiner appointed by the Principal. The maximum of revaluation and regular end examination marks will be awarded for that subject.

11.3 A student can apply for revaluation in a subject only once.

12.0 Supplementary End Examinations

12.1 Students are eligible to take Supplementary examinations in subjects with fail grade either F or *Ab* only.

12.2 Supplementary examinations for even semester subjects will be conducted along with regular examinations of odd semester subjects.

12.3 Supplementary examinations for odd semester subjects will be conducted along with regular examinations of even semester subjects.

12.4 For eighth semester, special supplementary examinations will be conducted in second week following the results publication date of regular examination of eighth semester.

13.0 Requirements for Award of B. Tech degree

13.1 Time Limit for completion of requirements for award of degree is eight academic years including gap-year from the date of admission. A student who could not

complete all the requirements in this time limit shall forego admission and will be removed from the rolls of the Institute.

- 13.2 A student shall be eligible for award of B. Tech degree provided she or he has:
- 13.2.1 Registered and successfully completed all required credit-bearing and mandatory subjects with a total of 160 credits
 - 13.2.2 Secured a CGPA of 4.5 or more
 - 13.2.3 Cleared all dues to the Institute, library and hostel
 - 13.2.4 No disciplinary action is pending against her or him
 - 13.2.5 Satisfied any other stipulation of the affiliating university
- 13.3 *Award of Class*: Each student will be given class in degree based on CGPA as follows:

Table 2: Class of Degree

Class of Degree	Range of CGPA
Pass Class	≥ 4.5 but < 5.5
Second Class	≥ 5.5 but < 6.5
First Class	≥ 6.5 but < 7.5
First Class with Distinction	≥ 7.5

- 13.4 *Degree with Honours designation*: Students with higher learning capabilities are encouraged to opt for Honours designation. Degree with Honours imply a higher level of academic achievement. A student can earn B.Tech degree with honours designation by meeting the following requirements
- 13.4.1 Honours designation is optional. A student can opt for either Honours designation or Minor degree (clause 13.5) but not both.
 - 13.4.2 *Entry eligibility*: Students shall apply for Honours designation at the beginning of the fourth semester. Eligibility criteria are (i) minimum CGPA of 8.0 and (ii) no backlogs, reckoned up to second semester. The Chairperson of the concerned Board of Studies will process the applications and publish the list of eligible students.
 - 13.4.3 *Additional course work*: Students shall complete an additional 20-credits coursework, in addition to 160 regular credits, in her/his own major during fourth to seventh semesters. The Board of Studies (BoS) of the concerned major shall specify the list of advanced elective subjects for the purpose of honours designation.

Out of the 20 additional credits to be acquired, 16 credits shall be earned by undergoing specified courses listed as pools, with four courses, each carrying 4 credits. The remaining 4 credits must be acquired through two MOOCs, which shall be domain specific, each with 2 credits and with a minimum duration of 8/12 weeks as recommended by the BoS.

If minimum enrolments criteria are not met then the students shall be permitted to register for the equivalent MOOC courses as approved by the concerned Head of the department in consultation with BoS.

If a student drops or is terminated from the Honours program, the additional credits earned so far will remain extra. These additional courses will find mention in the transcript but not in the degree certificate.

- 13.4.4 *Registration and enrollment*: Clause 6.0 shall apply
 - 13.4.5 *Evaluation*: The evaluation shall be as per clause 7.0
 - 13.4.6 *Continuous performance*: Students shall earn a minimum SGPA of 8.0 in all semesters, from fourth to seventh, and without backlogs to be eligible for award of Honours designation. Regular and additional subjects shall be considered for SGPA calculation. If a student does not get a minimum SGPA of 8.0 or fails in any subject during fourth to seventh semesters, she/he will lose candidature for honours designation.
- 13.5 *Minor Degree designation*: Students with higher learning capabilities are encouraged to opt for Minor degree designation. Minor degree imply a higher level of academic achievement and improves employability. A student can earn minor degree designation by meeting the following requirements
- 13.5.1 Minor degree is optional. A student can opt for either Minor degree or Honours designation (clause 13.4) but not both.
 - 13.5.2 *Entry eligibility*: Students shall apply for minor degree at the beginning of fourth semester. Eligibility criteria are (i) minimum CGPA of 8.0 and (ii) no backlogs, reckoned up to second semester. The Chairperson of the concerned Board of Studies (minor department) will process the applications and publish the list of eligible students.
 - 13.5.3 *Additional coursework*: Students shall complete an additional 20-credits coursework, in addition to 160 regular credits, in selected minor program during fourth to seventh semesters. The Board of Studies (BoS) of the concerned minor program shall specify the list of core and elective subjects for the purpose of minor degree. Out of the 20 credits, 16 credits shall be earned by undergoing specified courses listed by the concerned BoS and must pursue atleast 2 courses through MOOCs. (of 8 week duration)
 - 13.5.4 *Registration and enrollment*: Clause 6.0 shall apply.
 - 13.5.5 *Evaluation*: The evaluation shall be as per clause 7.0.
 - 13.5.6 *Continuous performance*: Students shall earn a minimum SGPA of 8.0 in all semesters, from fourth to seventh, and without backlogs to be eligible for award of minor degree. Regular and additional subjects shall be considered for SGPA calculation. If a student does not get a minimum SGPA of 8.0 or fails in any subject during fourth to seventh semesters, she/he will lose candidature for minor degree.
- 13.6 Degree will be issued under the seal of affiliating University.

14.0 Regulations for Lateral Entry Students under R20UG

- a) *Title and application:* These rules and regulations may be called R20UG-LE and come into force from academic year 2021-22 and exist in force until superseded by other regulations. These regulations are applicable to students admitted under lateral entry scheme leading to Bachelor's Degree in Technology (B.Tech).
- b) *Regulations and curriculum:* The regulations and curriculum of R20UG shall be applicable in general with the following modifications:
 - i. *Entry and duration:* The students will be admitted directly into third semester of regular 4-year B.Tech degree course governed by R20UG regulations. The duration of the course is three academic years.
 - ii. *Curriculum:* Third semester to eighth semester curriculum of R20UG.
 - iii. *Promotion by credits-earned requirement:* This is applicable for the promotion of a student from sixth semester to seventh semester only. She/he must earn at least 40% of total credits (rounded to lower integer) from third to fifth semesters for promotion from sixth semester to seventh semester.
- c) *Requirements for the award of B.Tech degree:*
 - i. Time limit for completion of requirements for award of degree is six academic years from the date of admission.
 - ii. Registered and successfully completed all required credit-bearing and mandatory subjects with a total of 121 credits. (third semester to eighth semester subjects)
 - iii. *Honours/minors designation:* shall earn extra 20 credits in addition to 121 credits.

15.0 Transitory Regulations

- 15.1 A student who initially joins the Institute in a previous Regulation and has to re-join in a semester of the present Regulations, due to any reason, shall be bound by the rules of the current Regulations. Board of Studies of the concerned Major will specify, extra or otherwise, academic coursework to be undertaken by such students who join the current Regulations.

THREE WEEK INDUCTION PROGRAM

Introduction

The graduating student must have knowledge and skills in the area of his study. However, he must also have broad understanding of society and relationships. Character needs to be nurtured as an essential quality by which he would understand and fulfil his responsibility as an engineer, a citizen and a human being. Besides the above, several meta-skills and underlying values are needed.

1. Induction Program

When new students enter an institution, they come with diverse thoughts, backgrounds and preparations. It is important to help them adjust to the new environment and inculcate in them the ethos of the institution with a sense of larger purpose.

We propose a 3-week long induction program for the UG students entering the institution, right at the start. Normal classes start only after the induction program is over. Its purpose is to make the students feel comfortable in their new environment, open them up, set a healthy daily routine, create bonding in the batch as well as between faculty and students, develop awareness, sensitivity and understanding of the self, people around them, society at large, and nature.

The time during the Induction Program is also used to rectify some critical lacunas, for example, English background, for those students who have deficiency in it.

The following are the activities under the induction program in which the student would be fully engaged throughout the day for the entire duration of the program.

2.1 Physical Activity

This would involve a daily routine of physical activity with games and sports. It would start with all students coming to the field at 6 am for light physical exercise or yoga. There would also be games in the evening or at other suitable times according to the local climate. These would help develop team work. Each student should pick one game and learn it for three weeks. There could also be gardening or other suitably designed activity where labour yields fruits from nature.

2.2 Creative Arts

Every student would chose one skill related to the arts whether visual arts or performing arts. Examples are painting, music, dance etc. The student would pursue it every day for the duration of the program.

These would allow for creative expression. It would develop a sense of aesthetics and also enhance creativity which would, hopefully, flow into engineering design later.

2.3 Universal Human Values

The teachers must come from all the departments rather than only one department like HSS or from outside of the Institute.

Discussions would be conducted in small groups of about 20 students with a faculty mentor each. It is to open thinking towards the self.

2.4 Literary

Literary activity would encompass reading, writing and possibly, debating, enacting a play etc.

2.5 Proficiency Modules

This period can be used to overcome some critical lacunas that students might have, for example, English, computer familiarity etc. These should run like crash courses.

2.6 Lectures by Eminent People

This period can be utilized for lectures by eminent people, say, once a week. It would give the students exposure to people who are socially active or in public life.

2.7 Visits to Local Area

A couple of visits to the landmarks of the city, or a hospital or orphanage could be organized. This would familiarize them with the area as well as expose them to the under privileged.

2.8 Familiarization to Dept. / Branch & Innovations

They should be told about what getting into a branch or department means what role it plays in society, through its technology. They should also be shown the laboratories, workshops & other facilities.

Amendments to R20 UG Regulations :-

1. Skill courses shall be conducted from III Sem to VI Sem.
2. Internships/ Socially relevant projects, which can be conducted during IV Sem& V Sem break, VI Sem & VII Sem break and the same may be evaluated during V & VII semesters.
3. The eligibility criteria for Minor/ Honor degree is minimum CGPA of 8.0 and no backlogs, reckoned up to III semester.
4. Minimum CGPA of 7.5 with no backlogs up to III semester for registration of Minor and honor degree for SC/ST students.
5. The respective departments shall give a list of standard MOOCs providers including SWAYAM whose credentials are endorsed by respective Chairman Board of Studies.
6. He/ She has to obtain a certificate from the provider in which he/ She has registered and submit the same to the concerned department.
7. Any MOOC course selected by the student shall be of 12 weeks course with 3 credits and also from the reputed provider.
8. If provider explicitly declares letter grade, pass or fail and credits of that particular course, the letter grade can be converted to grade point as per the table given below:

Absolute Marks	Letter Grade	Grade Points assigned	Remark
≥ 90	S (Outstanding)	10	Pass
80 - 89	A (Excellent)	9	Pass
70 - 79	B (Very Good)	8	Pass
60 - 69	C (Good)	7	Pass
50 - 59	D (Average)	6	Pass
40 - 49	E (Below Average)	5	Pass
< 40	F (Fail)	0	Fail
Absent	Ab (Absent)	0	Fail
--	I	0	Result Withheld

9. In case of any deviation in the above clause, the committee appointed by the Principal shall take a decision for converting MOOC results into the relevant grade points.
10. Credits awarded in the MOOC certificate are directly transferred to the grade sheet.

11. If the student fails to complete the MOOCs he/ She has to write two internal tests besides the End examinations conducted by the Institute (offered in place of MOOCs by the department) like other subjects.