

Kandula Srinivasa Reddy Memorial College of Engineering, Kadapa
(Autonomous)

(Affiliated to JNTUA, Anantapur, Accredited By NBA, Accredited By NAAC)
(An ISO 9001-2000 Certified Institute)

Regulations for UG Programs in Engineering (R14UG)

KSRM College of Engineering, Kadapa-516003, AP

Regulations for UG Programs in Engineering (R14UG)

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Regulations for UG Programs in Engineering

1.0 Nomenclature

- 1.1 *Academic Term*: Extent of time during which academic instructions are initiated and completed
- 1.2 *Academic Year*: Academic Term of, approximately, one year duration that usually starts in June/July and ends in April/May next
- 1.3 *Semester*: Either of two Academic Terms that make up an Academic Year
- 1.4 *Major*: A specific field of study. Example: Civil Engineering
- 1.5 *Minor*: An area outside of, or complementary to, a Major. Example: For Civil Engineering major, Computer Science is a minor and vice versa
- 1.6 *Subject*: An area of knowledge that is studied as part of a Course
- 1.7 *Core*: A subject that is mandatory for a Major course of study
- 1.8 *Elective*: A subject that is selected for study to suit one's individual needs
- 1.9 *Audit Subject*: A subject that is studied to meet certain requirements but has no credits assigned to it
- 1.10 *Self-Study Subject*: A subject that is learnt by a student on own under the guidance of a Faculty member
- 1.11 *Humanities*: Subjects that describe and interpret human achievements, problems and historical changes at individual and societal levels covering the disciplines of literature, history, and philosophy
- 1.12 *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
- 1.13 *Exam*: A test to measure one's progress, knowledge, or ability in a subject
- 1.14 *Credit*: A numerical weight given to a subject
- 1.15 *Grade*: A numerical or alphabetic designation measuring the level of achievement in an exam
- 1.16 *Attendance*: Physical presence of oneself in a classroom/laboratory for purpose of a scheduled academic instruction
- 1.17 *Course*: A series of subjects that constitute a Major field of study
- 1.18 *Branch*: Same as Course
- 1.19 *Program*: Same as Course
- 1.20 *Degree*: An academic title conferred to honour distinguished achievement

2.0 Short Title and Application

- 2.1 These rules and regulations may be called as R14UG and come into force from Academic Year 2014-15 and exist until superseded by new 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 Communications Engineering
 - 2.3.5 Computer Science and Engineering
 - 2.3.6 Chemical 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 admission 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 four academic years
- 5.2 Terms: At present, the four academic years consists of one Academic Year term for First-year and two semester terms for each of second, third, and fourth academic years of study
- 5.3 Working Days: Calendar for any academic term shall be announced at least four weeks before its commencement. Minimum number of working days are 180 and 90 for year- and semester-terms respectively
- 5.4 Curriculum: Each Major shall have core, elective and audit subjects drawn from five categories of subject areas - i) Basic Sciences (BS), ii) Humanities and Social Sciences (HS), iii) Basic Engineering and Design (ED), iv)

Professional Major (PJ), and v) Professional Minor (PN). The curriculum for each Major shall be approved by its corresponding Board of Studies and then by the Academic Council. First year curriculum is common to all Majors

- 5.5 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 180 for all Majors. The distribution of total credits Academic Term-wise is given in Table 1

Table 1 Academic Term-wise Total Credits

Academic Term	Total Credits
First Year	45
Second Year – First Semester	22
Second Year – Second Semester	22
Third Year – First Semester	22
Third Year – Second Semester	22
Fourth Year – First Semester	22
Fourth Year – Second Semester	25
Total for entire course	180

- 5.6 The curriculum and syllabus for First Year is given in Annexure-1 and Annexure-2 respectively
- 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 in to 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

6.0 Registration and Enrolment

- 6.1 Prior to opening of each regular term, every student shall register for all the credit-bearing and audit subjects listed in curriculum of the term. Excepting first-year, the registration for a term shall be done during a specified week after end examinations of previous term. In first-year, 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 also register optionally for one self-study subject per term that does not carry any credits. A student can take any subject of any Major as self-study subject, satisfying any prerequisites if any, on the recommendation of concerned Faculty Advisor
- 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 term if she or he i) is promoted to that term, ii) has cleared all fees to the Institute, library and hostel of previous term, 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 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 30 marks for internal assessment and 70 marks for End examination totalling 100 marks
 - 7.2.2 For laboratory/drawing/project work subjects, the allocation is 50 marks for internal assessment and 50 marks for End examination totalling 100 marks
 - 7.2.3 For seminar/viva voce/industrial training subjects' total 100 marks are allocated for internal assessment. There shall be no end examination for these subjects
 - 7.2.4 For all audit subjects the allocation is 30 marks for internal assessment and no allocation for End examination
- 7.3 Internal Assessment Examinations
 - 7.3.1 Internal assessment means performance evaluation of students by faculty members who teach the subjects
 - 7.3.2 For theory subjects, including audit subjects, the internal assessment shall be done by midterm tests. For a year-term subject three midterm tests shall be conducted. For a semester-term subject two midterm tests shall be conducted. The faculty member of the concerned subject will assess the marks in midterm tests.

Each midterm test will be of one and half hour duration and evaluated for 30 marks. Internal assessment marks in a subject will be calculated as weighted average of individual midterm test marks in that subject. For a year-term subject the weights are: 20% for the least midterm mark and 40% weight for each of remaining two midterm marks. For a semester-term subject the weights are: 20% for the least midterm marks and 80% for the other midterm mark. Any fractional mark after adding all contributions is rounded up to next integer mark

If any student abstains for any midterm test, she or he will be awarded zero marks for that midterm test.

- 7.3.3 For laboratory/practical/drawing subjects, the internal assessment will be based on regular laboratory work over full term. 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 self-study subjects, the assessment is through assignments, quizzes, seminars and/or viva-voce. The students shall be informed sufficiently early of the procedure to be followed for assessment
- 7.3.5 For subjects like seminar, project-work, industrial training, 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
- 7.4 End examinations
 - 7.4.1 End examinations shall be conducted after completion of coursework in each term
 - 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 faculty members from outside of the Institute appointed by the Principal
 - 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 awarded zero marks in that subject
 - 7.4.7 There is no end examination for self-study and audit 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 and End examinations in that subject
- 8.3 Pass grade A+ to D- 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 marks and ii) 40% of marks in internal and End examination marks 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 A+ to D- or F
- 8.5 Grade X 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 2

Table 2 Letter Grades and Grade Points

Absolute Marks	Letter Grade	Grade Points	Remark
95-100	A+	10.0	Pass
90-94	A	9.5	Pass
85-89	A-	9.0	Pass
80-84	B+	8.5	Pass
75-79	B	8.0	Pass
70-74	B-	7.5	Pass
65-69	C+	7.0	Pass
60-64	C	6.5	Pass
55-59	C-	6.0	Pass
50-54	D+	5.5	Pass
45-49	D	5.0	Pass
40-44	D-	4.5	Pass
0-39	F	0.0	Fail
-	I	0.0	Result Withheld
-	X	0.0	Absent for End Exam

- 8.7 SGPA: Semester Grade Point Average indicates the performance of a student in all credit-bearing subjects of a term. SGPA is calculated as the weighted average of Grade Points of all subjects of the term with corresponding credits of subjects as weights. Audit and self-study subjects are not considered for SGPA calculation
- 8.8 CGPA: Cumulative Grade Point Average indicates the performance of a student in all terms up to and including the current term under consideration. CGPA is calculated as the weighted average of SGPAs with total credits in each term as the weights

- 8.9 Grade Card: All students shall be issued Grade Cards after the publication of results of a term. Grade Card is a statement of performance of a student in a term. 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 audit 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 A+ to D- in that subject. If a student receives fail grade F or X 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 Audit subjects: A student is considered to have successfully completed an audit subject if she or he earns at least 40% of marks in internal assessment marks. A student may request for makeup tests to satisfy this requirement by paying requisite fee
- 9.4 Self-study subjects: Based on internal assessment, the faculty guide concerned will certify whether a student has successfully completed the subject or not. Grade card will list successfully completed self-study subjects

10.0 Requirements for taking End Examinations and Promotion

- 10.1 A student is eligible to take regular End Examinations of current term if she or he full fills the attendance requirement
- 10.2 A student shall be promoted from current term to succeeding term 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 audit subjects as per the workload indicated in curriculum
- 10.3.2 Total class-periods conducted shall be reckoned from beginning to end of a term 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 class as the denominator
- 10.3.4 A minimum aggregate attendance of 75% is required for promotion to succeeding term and be eligible to take End examinations of current term
- 10.3.5 A student can appeal to the Principal for condoning deficiency in aggregate attendance if she or he gets 65% or more aggregate attendance 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 term when opportunity arises. The current term 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 second-year second-semester to third-year first-semester, and from third-year second-semester to fourth-year first-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 For promotion from second-year second-semester to third-year first-semester, a student must earn at least 26 credits from first year and second year–first semester subjects

10.4.4 For promotion from third-year second-semester to fourth-year first semester, a student must earn at least 44 credits from first year, second year and third year–first semester subjects

10.5 A student can forego promotion and opt to repeat the current term on written request. Recommendation of the concerned Faculty Advisor is required for cancellation of promotion. This option shall be exercised before the commencement of the End examinations of the current term^s

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 current valuation is annulled and the script will be sent for revaluation by an external examiner appointed by the Principal. Marks obtained in the revaluation 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 F or X only

12.2 Supplementary examinations for first year subjects will be conducted along with supplementary semester examinations of second, third and fourth year subjects

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

12.4 Supplementary examinations for odd semester subjects will be conducted with regular examinations of even semester subjects

- 12.5 For subjects of second semester of fourth year special supplementary examinations will be conducted in second week following the results publication date of the current semester
- 12.6 A student will be allowed to improve grade in any theory subject provided she or he has completed coursework of all terms but before award of provisional/final degree[§]

13.0 Requirements for Award of B. Tech degree

- 13.1 Time Limit for completion of requirements for award of degree is eight calendar years 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 audit subjects with a total of 180 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 3 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 Consolidated Grade Card and Degree will issued under the seal of affiliating University

14.0 Transitory Regulations

- 14.1 A student who initially joins the Institute in a previous Regulation and has to rejoin in an academic-term 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 rejoin the current Regulations

[§] Decision is pending on this clause