

# **RVR & JC COLLEGE OF ENGINEERING::GUNTUR**

(AUTONOMOUS)

## **REGULATIONS (R-12) FOR FOUR YEAR B.TECH. DEGREE COURSE**

(w.e.f. the batch of students admitted into first year B.Tech. from the academic year 2012-2013).

### **1.0. MINIMUM QUALIFICATIONS FOR ADMISSION**

A candidate seeking admission into First Year of B.Tech. Degree Course should have passed either Intermediate examination conducted by the Board of Intermediate Education, Andhra Pradesh with Mathematics, Physics, and Chemistry as optional subjects (or any equivalent examination recognized by the Acharya Nagarjuna University) or Diploma in Engineering in the relevant branch conducted by the State Board of Technical Education & Training of Andhra Pradesh (or equivalent Diploma recognized by Acharya Nagarjuna University).

The selection is based on the rank secured by the candidate at the EAMCET / ECET (FDH) examination conducted by A.P. State Council of Higher Education. The candidate shall also satisfy any other eligibility requirements stipulated by the University and / or the Government of Andhra Pradesh from time to time.

### **2.0. BRANCHES OF STUDY**

**2.1.** The B.Tech. Course is offered in the following branches of study:

- 1 Biotechnology
- 2 Chemical Engineering
- 3 Civil Engineering
- 4 Computer Science & Engineering
- 5 Electrical & Electronics Engineering
- 6 Electronics & Communication Engineering
- 7 Information Technology
- 8 Mechanical Engineering

**2.2** In addition to the core electives, an open elective (non-departmental elective) is to be offered in the first semester of fourth year by all branches of B.Tech. courses.

### **3.0. DURATION OF THE COURSE AND MEDIUM OF INSTRUCTION**

**3.1** The duration of the course is four academic years consisting of two semesters in each academic year. The medium of instruction and examination is English.

**3.2** The duration of the course for the students (Diploma Holders) admitted under lateral entry into II/IV B.Tech. is three academic years consisting of two semesters in each academic year. The medium of instruction and the Examination is English.

#### 4.0. MINIMUM INSTRUCTION DAYS

Each semester shall consist of a minimum number of 90 days of instruction excluding the days allotted for tests, examinations and preparation holidays.

#### 5.0 EVALUATION

The performance of the students in each semester shall be evaluated subject wise

- 5.1. The distribution of marks between sessionals (based on internal assessment) and Semester end Examination is as follows:

Nature of the subject	Sessional Marks	End Semester Exam. Marks
Theory subjects/Design and / or Drawing/Practicals	40	60
Mini Project/Term Paper	100	--
Project work	80	120 (Viva voce)

- 5.2. In each of the Semesters, there shall be two Mid Term examinations and two Assignment Tests in every theory subject. The Sessional marks for the midterm examinations shall be awarded giving a weightage of 15 marks out of 18 marks (80% approx.) to that midterm examination in which the student scores more marks and the remaining 3 marks (20% approx.) for other midterm examination in which the student scores less marks. Similarly a weightage of 10 marks (80% approx.) out of 12 marks earmarked for assignment tests shall be given for the assignment in which the student scores more marks and remaining 2 marks (20% approx.) shall be given for the assignment test in which the student scores less marks.

Five marks are allotted for attendance in the respective theory subjects in a graded manner as indicated in *clause 7.2*. The remaining 5 marks out of the 40 marks earmarked for the internal sessional marks are awarded (quiz/online examination) by the concerned teacher in the respective theory subjects.

- 5.3. The evaluation for Laboratory class work consists of a weightage of 25 marks for day to day laboratory work including record work and 15 marks for internal laboratory examination including Viva-voce examination.

In case of Project work, the sessional marks shall be awarded based on the weekly progress, the performance in two Seminars and the Project Report submitted at the end of the semester. The allotment of sessional marks for Seminars and day-to-day class work shall be 30 and 50 respectively.

NOTE : A student who is absent for any Assignment / Mid Term Exam, for any reason whatsoever, shall be deemed to have scored zero marks in that Test / Exam and no make-up test / Exam shall be conducted.

- 5.4. A student who could not secure a minimum of 50% aggregate sessional marks is not eligible to appear for the semester-end examination and shall have to repeat that semester.

## **6.0. LABORATORY / PRACTICAL CLASSES**

In any semester, a minimum of 90 percent experiments / exercises specified in the syllabus for laboratory course shall be completed by the student and get the record certified by the concerned Head of the Department, to be eligible to face the Semester end Examination in that Practical subject.

## **7.0. ATTENDANCE REGULATIONS**

**7.1** Regular course of study means a minimum average attendance of 75% in all the subjects computed by totalling the number of hours / periods of lectures, design and / or drawing, practical's and project work as the case may be, held in every subject as the denominator and the total number of hours / periods actually attended by the student in all the subjects, as the numerator.

**7.2** A weightage in sessional marks up to a maximum of 5 marks out of 40 marks in each theory subject shall be given for those students who put in a minimum of 75% attendance in the respective theory in a graded manner as indicated below:

Attendance of 75% and above but less than 80%	- 1 mark
Attendance of 80% and above but less than 85%	- 2 marks
Attendance of 85% and above but less than 90%	- 4 marks
Attendance of 90% and above	- 5 marks

**7.3** Condonation of shortage in attendance may be recommended on genuine medical grounds, up to a maximum of 10% provided the student puts in at least 65% attendance as calculated in *clause 7.1* above, provided the Principal is satisfied with the genuineness of the reasons and the conduct of the student.

**7.4** A student who could not satisfy the minimum attendance requirements as given above, in any semester, is not eligible to appear for the semester end examinations and shall have to repeat that semester.

## **8.0. DETENTION**

A student, who fails to satisfy either the minimum attendance requirements as stipulated in *Clause-7*, or the requirement of minimum aggregate sessional marks as stipulated in *Clause 5*, shall be detained. Such a student shall have to repeat the same semester subsequently and satisfy the above requirements afresh to become eligible to appear for the semester-end examination.

## 9.0. SEMESTER END EXAMINATION

9.1. For each theory subject, there shall be a comprehensive semester end Examination of three hours duration at the end of each Semester, unless stated otherwise in the detailed Scheme of Instruction.

Question paper setting shall be entrusted to external examiners from the panels approved by the respective Boards of Studies.

9.2. For each Practical subject, the semester end examination shall be conducted by one internal and one external examiner appointed by the Principal of the College, the duration being that approved in the detailed Schemes of Instruction & Examination.

9.3. Viva-voce Examination in Project Work shall be conducted by one internal examiner and one external examiner appointed by the Principal.

## 10.0 CONDITIONS FOR PASS

A candidate shall be declared to have passed the Semester end Examination in individual subjects if he / she secures a minimum of 35% marks in theory and 50% marks in Practical subjects and drawing subjects (including Project Viva-voce).

## 11.0 AWARD OF CREDITS

Credits are awarded for each Theory/Practical Subjects. Each theory subject is awarded four credits and each practical subject is awarded two credits. Project work is awarded ten credits. However for some specific subjects more/less than four credits may be awarded by individual boards. The total number of credits for all the four years put together should be in the range of 218-224 for any branch.

### 11.1 AWARD OF GRADES

S.No.	Range of Marks	Grade	Grade Points
1	$\geq 85\%$	S	10.0
2	75%-84%	A	9.0
3	65%-74%	B	8.0
4	55%-64%	C	7.0
5	45%-54%	D	6.0
6	40%-44%	E	5.0
7	$\leq 39\%$	F (Fail)	0.0
8	The grade “-W” represents withdrawal/absent (subsequently changed into pass or E to S or F grade in the same semester)	W	0.0

11.2 A Student securing ‘F’ grade in any subject there by securing zero grade points has to reappear and secure at least ‘E’ grade in the subsequent examinations for that subject.

11.3 After each semester, Grade sheet will be issued which will contain the following details:

- The list of subjects for each semester and corresponding credits and Grades obtained
- The Grade Point Average(GPA) for each semester and
- The Cumulative Grade Point Average(CGPA) of all subjects put together up to that semester from first semester onwards

GPA is calculated based on the following formula:

$$\frac{\sum [\text{No. of Credits X Grade Points}]}{\sum \text{of Credits}}$$

CGPA will be calculated in a similar manner, considering all the subjects enrolled from first semester onwards.

## 12.0 CONDITIONS FOR PROMOTION

- 12.1** A student shall be eligible for promotion to II/IV B.Tech. Course if he / she satisfies the minimum requirements of attendance and sessional marks as stipulated in ***Clauses 5 and 7***, irrespective of the number of backlog subjects in I/IV B.Tech.
- 12.2** A student shall be eligible for promotion to III/IV B.Tech. Course if he / she secures a minimum of 70% of the total number of credits from two regular and one supplementary examinations of first semester and one regular and one supplementary examinations of second semester of I/IV B.Tech.(including practical subjects) in addition to satisfying the minimum requirements of attendance and sessional marks stipulated in ***Clauses 5 and 7*** in II/IV B.Tech.
- 12.3** A student shall be eligible for promotion to IV/IV B.Tech. course if he/she secures a minimum of 70% of the total number of credits from three regular and two supplementary examinations of first semester and two regular and two supplementary examinations of second semester of I/IV B.Tech. and two regular and one supplementary examinations of II/IV B.Tech. first semester and one regular and one supplementary examinations of II/IV B.Tech. second semester (including practical subjects) in addition to satisfying the minimum requirements of attendance and sessional marks stipulated in ***Clauses 5 and 7*** in III/IV B.Tech.
- 12.4** A student (Diploma Holder) admitted under lateral entry into II/IV B.Tech. shall be eligible for promotion to IV/IV B.Tech. course if he/she secures a minimum of 70% of the total number of credits from two regular & one supplementary examinations of II/IV B.Tech. first semester and one regular and one supplementary examinations of II/IV B.Tech. second semester (including practical subjects) in addition to satisfying the minimum requirements of attendance and sessional marks stipulated in ***Clauses 5 and 7*** in III/IV B.Tech.

### **13.0 ELIGIBILITY FOR AWARD OF B.TECH. DEGREE**

The B.Tech. Degree shall be conferred on a candidate who has satisfied the following requirements:

**13.1** The candidate must have satisfied the conditions for pass in all the subjects of all the years as stipulated in *clause 10*.

### **13.2 Maximum Time Limit for completion of B.Tech Degree**

A Student, who fails to fulfil all the academic requirements for the award of the degree within eight academic years from the year of admission, shall forfeit his/her seat in B.Tech. course.

**13.3** A student (Diploma Holder) admitted under lateral entry into II/IV B.Tech., who fails to fulfill all the academic requirements for the award of the degree within six academic years from the year of admission, shall forfeit his/her seat in B.Tech. course.

### **14.0 AWARD OF CLASS**

A candidate who becomes eligible for the award of B.Tech. Degree as stipulated in *Clause 12* shall be placed in one of the following Classes.

<b>S.No.</b>	<b>Class</b>	<b>CGPA</b>
<b>1</b>	<b>First Class With Distinction</b>	<b>8.0 or more</b>
<b>2</b>	<b>First Class</b>	<b>6.5 or more but less than 8.0</b>
<b>3</b>	<b>Second Class</b>	<b>5.0 or more but less than 6.5</b>

### **15.0 IMPROVEMENT OF CLASS**

**15.1** A candidate, after becoming eligible for the award of the Degree, may reappear for the semester end Examination in any of the theory subjects as and when conducted, for the purpose of improving the aggregate and the class. But this reappearance shall be within a period of two academic years after becoming eligible for the award of the Degree.

Candidates shall not be permitted to reappear either for Sessional Examinations or for Semester end Examinations in Practical subjects (including Project Viva-voce) for the purpose of improvement. However, this facility cannot be availed by a candidate who has taken the Original Degree Certificate.

**15.2** A single Grade sheet shall be issued to the candidate after incorporating the Credits and Grades secured in subsequent improvements.

**15.3** A consolidated Grade Sheet shall be issued to the candidate indicating the CGPA of all the four years put together along with the Provisional Certificate.

## **16.0 AWARD OF RANK**

The rank shall be awarded based on the following:

- 16.1** Ranks shall be awarded in each branch of study for the top ten percent of the students appearing for the Regular semester end Examinations or the top ten students whichever is lower.
- 16.2** Only such candidates who pass the Final year examination at the end of the fourth academic year after admission as regular final year student along with others in their batch and become eligible for the award of the Degree shall be eligible for the award of rank. The Rank will be awarded only to those candidates who complete their degree within four academic years.
- 16.3** For the purpose of awarding rank in each branch, the CGPA calculated based on the Grades secured at the first attempt only shall be considered.
- 16.4** Award of prizes, scholarships, or any other Honors shall be based on the rank secured by a candidate, consistent with the desire of the Donor, wherever applicable.

## **17.0 SUPPLEMENTARY EXAMINATIONS**

In addition to the Regular semester end Examinations held at the end of each semester, Supplementary Examinations will be conducted during the academic year. Such candidates taking the Regular / Supplementary examinations as Supplementary candidates may have to take more than one semester end Examination per day.

## **18.0 TRANSITORY REGULATIONS**

A Candidate, who is detained or discontinued in the semester, on readmission shall be required to do all the courses in the curriculum prescribed for such batch of students in which the student joins subsequently. However, exemption will be given to those candidates who have already passed in such courses, which he / she had passed in the earlier semester(s).

- 18.1** A student, following the Acharya Nagarjuna University (ANU), Guntur curriculum, detained due to lack of academics/attendance at the end of the first semester of second year, shall join the autonomous batch of third semester. Such students will study all the courses prescribed for that batch, in which the student joins. The first year marks shall not be converted into course credits. However, the student has to clear all the first year backlog subjects by appearing the supplementary examinations, conducted by ANU, Guntur and courses prescribed by Autonomous stream for the award of Degree. The class will be awarded based on the academic performance of a student. Such candidates will be considered on par with lateral entry candidates of autonomous stream and will be governed by regulations applicable to lateral entry candidates' category.
- 18.2** A student, following ANU, Guntur curriculum, detained due to lack of academics / attendance at the end of the second semester of second year and also at the

subsequent semesters, shall join with the autonomous batch at the appropriate semester. Such candidates shall be required to pass in all the courses in the programme prescribed by concerned BOS for such batch of students, to be eligible for the award of degree. However, exemption will be given in all those courses of the semester(s) of the batch, which he / she had passed earlier. The student has to clear all his/her backlog subjects by appearing the supplementary examinations, conducted by ANU, Guntur and College (Autonomous stream) for the award of degree. The class will be awarded based on the academic performance of a student in the autonomous pattern.

## **19.0 CONDUCT AND DISCIPLINE**

- (a) Students shall conduct themselves within and outside the premises of the institute in a manner befitting the students of our institution.
- (b) As per the order of Honourable Supreme Court of India, ragging in any form is considered as a criminal offence and is banned. Any form of ragging will be severely dealt with.
- (c) The following acts of omission and / or commission shall constitute gross violation of the code of conduct and are liable to invoke disciplinary measures with regard to ragging.
  - (i) Lack of courtesy and decorum, indecent behaviour anywhere within or outside the campus.
  - (ii) Wilful damage of college / individual property
  - (iii) Possession, consumption or distribution of alcoholic drinks or any kind of narcotics or hallucinogenic drugs.
  - (iv) Mutilation or unauthorized possession of library books.
  - (v) Noisy and unseemly behaviour, disturbing studies of fellow students.
  - (vi) Hacking of computer systems (such as entering into other person's areas without prior permission, manipulation and / or damage of computer hardware and software or any other cyber-crime etc.)
  - (vii) Usage of camera / cell phone in the campus
  - (viii) Plagiarism of any nature
  - (ix) Any other acts of gross indiscipline as decided by the academic council from time to time.
- (d) Commensurate with the gravity of offense, the punishment may be reprimand, fine, expulsion from the institute / hostel, debar from examination, disallowing the use of certain facilities of the institute, rustication for a specified period or even outright expulsion from the institute or even handing over the case to appropriate law enforcement or the judiciary, as required by the circumstances.
- (e) For an offence committed in (i) a hostel (ii) a department or in a class room and (iii) elsewhere, the chief warden, the head of the department and the principal respectively, shall have the authority to reprimand or impose fine.



- (f) Cases of adoption of unfair means and / or any malpractice in an examination shall be reported to the principal for taking appropriate action.
- (g) All cases of serious offence, possibly requiring punishment other than reprimand, shall be reported to the academic council.
- (h) The institute level standing disciplinary action committee constituted by the academic council shall be the authority to investigate the details of the offence, and recommend disciplinary action based on the nature and extent of the offence committed.
- (i) The principal shall deal with any academic problem, which is not covered under these rules and regulations, in consultation with the programmes committee in an appropriate manner, and subsequently such actions shall be placed before the academic council for ratification. Any emergency modification of regulation, approved by the appropriate authority, shall be reported to the academic council for ratification.
- (j) “Grievance and Redressal Committee” (General) constituted by the Principal shall deal with all grievances pertaining to the academic / administrative / disciplinary matters.

## **20.0 MALPRACTICES**

**20.1** The Principal shall refer the cases of malpractices in internal assessment tests and semester-end examinations to a malpractice enquiry committee constituted by him / her for the purpose. Such committee shall follow the approved scales of punishment. The principal shall take necessary action, against the erring students basing on the recommendations of the committee.

**20.2** Any action on the part of a candidate during an examination trying to get undue advantage or trying to help another, or drive the same through unfair means is punishable according to the provisions contained hereunder. The involvement of the staff, who are in-charge of conducting examinations, valuing examination papers and preparing / keeping records of documents relating to the examinations in such acts (inclusive of providing incorrect or misleading information) that infringe upon the course of natural justice to one and all concerned in the examination shall be viewed seriously and recommended for award of appropriate punishment after thorough enquiry.

## **21.0 AMENDMENTS TO REGULATIONS**

The College may, from time to time, revise, amend, or change the Regulations, Schemes of Examinations, and / or Syllabus.