

# ACADEMIC REGULATIONS FOR B.TECH PROGRAMME UNDER AUTONOMOUS STATUS

*(W.E.F. THE ADMITTED BATCH OF 2019-20)*

## **I. Admissions:**

Admissions into first year of B.Tech. programme and admissions into second year (lateral entry) of B.Tech. programme of the Institute will be as per the norms stipulated by Andhra University & Andhra Pradesh State Council for Higher Education (APSCHE), Govt. of Andhra Pradesh. The academic regulations formulated will be applicable for the batch of students admitted in 2019-20 and in case of Lateral Entry admissions from 2020-21.

## **II. Programmes Offered:**

The following are the B.Tech. Programmes offered by the Institute.

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

## **III. Structure of the B. Tech. Programme:**

The programme consists of Humanities, Basic Sciences, Engineering Sciences, Engineering and Technology courses. The complete programme is distributed over eight semesters with two semesters per academic year. Every branch of B.Tech programme will have a curriculum and syllabi for the courses recommended by the Board of Studies and approved by the Academic Council. The academic programmes of the Institute follow the credit system. The curriculum of B.Tech programme is designed to have a total of 160 credits of which a student should acquire all 160 credits to get the degree awarded and to determine the final CGPA. The lateral entry students shall have a total of 122 credits of which one should acquire all 122 credits to get the degree awarded and to determine the final CGPA.

## **Different types of courses offered:**

Apart from the Professional Core (PC), Basic Sciences (BS), Humanities and Social Sciences (HS), Engineering Sciences (ES) and project (PR), various other courses are offered in the programme as mentioned below.

## **Open Elective (OE) category:**

Under this category electives from other technical and / or emerging subjects / inter disciplinary subjects / MOOCS are offered.

Open elective is a course offered by any other department than home department and the student has to choose elective offered by other departments as and when offered by the department.

To make the students abreast with the latest technological developments, the departments also offer emerging subjects in the curriculum.

The student can register for MOOCs course as per the curriculum designed and as and when scheduled by the department. However, its grade will be accorded by a duly constituted departmental committee.

### **Professional Elective category (PE):**

Professional elective is a specialized course offered by the department. The student has to register for professional electives as offered by the department during the programme as per his choice and as provided in the curriculum.

### **Mandatory Non Credit Courses**

In order to enhance the life skills of the students and acquaint them with general awareness in multi disciplinary fields, mandatory non credit courses were designed which will have student engagement with faculty but does not carry any credits. Induction programme, courses such as Human values & Professional Ethics, Environmental Studies etc., are categorized as Mandatory non credit courses.

**For the award of the degree**, the student has to secure a minimum pass grade or above in all the mandatory courses, registered open electives, MOOCS, registered professional electives.

### **IV. Duration of the Programme:**

The duration of the programme is four academic years consisting of two semesters in each academic year. A student is permitted to complete the programme in a stipulated time frame of 8 consecutive academic years from the date of initial admission. Students joining the programme in the 2<sup>nd</sup> year through lateral entry scheme shall have to complete the programme in a stipulated time frame of 6 consecutive academic years from the date of initial admission.

### **V. Medium of Instruction:**

The medium of instruction and examination is in English.

### **VI. Minimum Instruction Days:**

Each semester normally consists of a minimum of 90 working days.

### **VII. Academic Calendar:**

The dates of all important events, such as commencement of class work, examinations, vacations, etc., during the academic year will be specified in the Academic Calendar of the Institute.

### **VIII. Examinations & Evaluation Process:**

The performance of a student in each semester shall be evaluated subject-wise with a maximum of 100 marks each for theory and practical/ drawing subjects.

#### **(A) Theory Course:**

For all lecture based theory courses, the assessment shall be for 40 marks through internal evaluation and 60 marks through external semester-end examination.

##### **i) Internal evaluation:**

The sessional marks shall be awarded through internal evaluation by the teachers concerned based on the continuous assessment which includes class tests, quiz, viva-voce, assignments, student regularity, two mid-examinations etc., according to a scheme notified by the department at the beginning of the semester.

Out of the 40 internal evaluation marks, 20 marks are assigned for 2 internal-mid exams, 10 marks for assignments, 5 marks for projects/ case studies /quiz/tests and 5 marks for attendance. The weighted average of 2 internal-mid exams is considered for the 20 marks allocated.

Under any circumstances, no re-examination shall be conducted for the internal mid examinations.

**ii) External evaluation:**

The question paper shall be set externally and the answer scripts are valued through a double valuation system.

The average of the two valuations will be taken for the award of marks. In case, the difference of the marks obtained in the two valuations is more than 20%, then a third examiner shall value the script. Out of the three valuations, the average of marks obtained in third valuation and the marks obtained nearer to third valuation out of first two valuations shall be considered. No revaluation for any subject/course shall be entertained as already double valuation system is in existence. However, recounting is allowed on the request of the candidate on payment of specified fee. Challenge valuation shall also be entertained within a stipulated period set by examination section on payment of specified fee.

**(B) Laboratory Course:**

Each student will perform about 10 to 12 experiments in each laboratory course. Laboratory course will be evaluated for 100 marks, out of which 50 marks are for external examination and 50 marks are for internal evaluation. The internal marks are awarded based on continuous assessment, record work, internal lab examination and student regularity. The external examination will be conducted by two examiners, one of them being laboratory class teacher as internal examiner (nominated by the Principal on recommendation of HOD) and an external examiner nominated by the Principal from the panel of experts recommended by the HOD.

*A candidate shall be declared to have passed any theory subject/ course if he secures not less than 40% in external theory examination and also a minimum of 40% of total marks of that course which assures a minimum of 'P' grade.*

*A candidate shall be declared to have passed any practical course if he secures not less than 50% in external laboratory examination and also a minimum of 50% of total marks of that course which assures a minimum of 'C' grade.*

*In case of subjects evaluated through internal assessment such as QA-I &II, verbal aptitude, soft skills etc., if a candidate fails, he is given an opportunity to improve to pass grade (P) irrespective of the score he gets over and above pass mark in the re-examination within one month on payment of special examination fee. If he fails in the re-examination, he has to appear for the exam in the consecutive semester/ year along with the subsequent batches.*

*Any student appearing for the semester-end practical examination is eligible only if he submits the bonafide record certified by the laboratory class teacher and the HOD.*

**(C) Project Work:**

The project work is evaluated through internal assessment in the IV Year I semester through continuous assessment process and a final evaluation by a committee nominated by the HOD. In IV year II semester, the assessment process consists of both internal and external evaluation. The internal evaluation will be done through continuous assessment process and the external evaluation will be done by a duly constituted committee consisting of at least one external expert nominated by the Principal. If a student fails in the fourth year first semester project, he has to appear for re-assessment within one month for which he has to pay the re-examination fee if any.

**(D) Industrial Training:**

The industrial training is assessed internally for 100 marks by an internal evaluation committee constituted by the HOD.

**(E) Supplementary Exam:**

The supplementary examinations will be conducted after the completion of the regular examination of the corresponding semester.

## IX. Attendance Regulations:

Attendance of a student is computed by considering total number of periods conducted in all courses as the denominator and the total number of periods actually attended by the student in all courses, as the numerator. It is desirable for a student to put in 100% attendance in all the subjects. However, a candidate shall be permitted to appear for the semester end examination provided he maintains a minimum of 75% overall attendance in the semester.

The shortage of attendance on medical grounds can be condoned up to a maximum of 9% provided the student puts in at least 66% attendance and provided the Principal is satisfied with the genuineness of the reasons. The Medical Certificates are to be submitted to the Head of the Department when the candidate reports to the classes immediately after the absence. Medical certificates submitted after finalization of attendance shall not be entertained. Condonation fee as fixed by the institute for those who put in attendance greater than 66% and less than 75% shall be charged before the semester-end examinations.

In the case of students who participate in co-curricular, extra-curricular activities like student seminars, N.S.S, N.C.C, Inter-collegiate tournaments and any such other activities involving the representation of the Institute, with the prior approval of the Principal, the candidate may be deemed to have attended the classes during the actual period of such activity, solely for the purpose of attendance.

A student, who could not satisfy the minimum attendance requirement of 66% in any semester, shall be declared 'Detained'. He is not eligible to appear for the semester end examinations. He will not be promoted to the next semester and shall have to repeat that semester with the next batch(es) of students. Such students who are detained and seek readmission, should submit an undertaking/a declaration that they will abide by the regulations existing at the time of readmission.

## X. Minimum Academic Requirements:

The following academic requirements have to be satisfied in addition to the attendance requirements mentioned in item No. IX.

A student shall be deemed to have satisfied the minimum academic requirements and earned the credits allotted to each theory subject if only he secures not less than 40% marks in the semester-end examination and a minimum of 40% marks in the sum of the internal evaluation and semester-end examination taken together. In the labs/ projects, the student should secure a minimum of 50% marks in the external examination and a minimum of 50% marks in the sum of internal evaluation and external examination evaluation taken together.

Further, a candidate has to secure a minimum of 40 % in theory examination (excluding sessional marks) and a minimum of 50 % (excluding sessional marks) in the Practical Examination / Project / Field Work / Viva Voce / Industrial Training in Semester –End / Year – End Examination and 50% aggregate to pass.

***A student will be promoted to the next semester, if only he satisfies the minimum attendance requirement. Further the student should also satisfy minimum credit requirement to be promoted to III Year or to IV year as per the norms given below.***

A student shall be promoted from II Year to III Year only if he fulfills the academic requirement of total 40 % of all credits from regular and supplementary examinations of I Year and II Year – I Semester {i.e., total 3 semesters} examinations, irrespective of whether the candidate takes the examination in all the subjects or not.

A student shall be promoted from III Year to IV Year only if he fulfills the academic requirements of total 40% of credits from regular and supplementary examinations of I Year, II Year and III Year- I Semester {i.e., total 5 semesters}, irrespective of whether the candidate takes the examinations in all the subjects or not.

For lateral entry students, there is no credit based restriction for promotion from II year to III year. But a lateral entry student shall be promoted from III year to IV year only if he fulfills the academic requirements of total 40% of credits from regular and supplementary examinations of II year and III year- I Semester {i.e., total 3 semesters} irrespective of whether the candidate takes the examinations in all the subjects or not.

Students, who fail to complete their B.Tech. Programme within eight academic years from the year of their admission or fail to acquire the credits stipulated for the programme shall forfeit their seat in B.Tech. Programme and their admission shall stand cancelled. For lateral entry students they have to complete the programme in six years from their year of admission.

## XI. Award of Grades:

The absolute grading system is adopted as follows:

S.No	Range of marks %		Grade	Grade Points	
1	> 90	≤ 100	O	10	Out Standing
2	> 80	≤ 90	A+	9	Excellent
3	> 70	≤ 80	A	8	Very Good
4	> 60	≤ 70	B+	7	Good
5	> 55	≤ 60	B	6	Above Average
6	≥ 50	≤ 55	C	5	Average
7	≥ 40	< 50	P	4	Pass
8		< 40	F	0	Fail
9			I	0	Ab (Absent)

**Note: Minimum grade to pass in a laboratory course is 'C'.**

The performance of a student at the end of each semester is indicated in terms of Semester Grade Point Average (SGPA). The SGPA is calculated as below:

$$SGPA = \frac{\sum(\text{credits of a course} \times \text{grade points awarded for a course})}{\sum(\text{Credits of a course})}$$

SGPA is calculated for the candidates who have passed in all the courses in that semester.

Cumulative Grade Point Average (CGPA) will be calculated from II semester onwards up to the final semester and its calculation is similar to that of SGPA, considering all the courses offered from the first semester onwards.

CGPA is calculated for those who clear all the courses including present semester.

## XII. Award of Class:

For award of class, all 160 credits are considered in case of four year programme and 122 credits in case of lateral entry admitted students. A candidate, who becomes eligible for the award of B.Tech., degree, shall be placed in one of the following classes.

S.No.	Class	CGPA
1	First Class with Distinction	7.0 or more*
2	First Class	6.0 or more
3	Second Class/Pass	5.0 or more but less than 6.0

**\*First class with Distinction will be awarded only to those students who clear all the subjects of the program in first attempt of regular examinations.**

The CGPA can be converted to aggregate percentage by multiplying CGPA with 10, in case of requirement by any other university or for any other purpose.

### **XIII. Eligibility for Award of B.Tech. Degree:**

A student shall be eligible for the award of the B.Tech degree if he fulfills all the following conditions:

- 1) Registered and successfully completed all the components prescribed for eligibility in the Programme of study to which he is admitted within the stipulated period,
- 2) Obtained CGPA greater than or equal to 5.0 (Minimum requirement for Pass),
- 3) No disciplinary action is pending against him and
- 4) Has no dues to the Institute including hostels.

### **XIV. Malpractices:**

The Controller of Examinations/Dean of Examinations shall refer the cases of suspected malpractices in mid examinations and semester-end examinations to Malpractice Enquiry Committee constituted by the Institute. Such committee shall follow the approved scales of punishment. The Principal shall take necessary action against the erring students based on the recommendations of the committee.

## **XV. Transitory Regulations**

1. The student who is detained, on re-admission has to continue the course work along with the regular students of the respective semester in which the student gets re-admission.
2. The student shall be required to do all the courses in the curriculum prescribed for the batch of students in which the student joins subsequently.
3. The student has to register for pre-requisite / substitute / Compulsory subjects offered in place of subjects already studied earlier. However, exemption will be given to those candidates who have already passed such courses in the earlier semester(s) he was originally admitted into and substitute subjects are offered in place of them as decided by the Board of Studies.
4. The mode of internal evaluation and end-semester examinations shall be on par with the regular students, i.e., the student has to follow the then mode of internal evaluation and the then question paper model for the end-semester examinations along with the regular students of the respective semester in which the student gets re-admission. The marks secured in the internal and end-semester examinations will be pro-rated in accordance with the regulations under which the student was first admitted.
5. For the subjects studied under earlier regulations but failed, the student has to appear, pass and acquire credits from the supplementary examinations as and when conducted. The question paper model shall remain same as one in which the student took examination during earlier regulations.
6. The promotion criteria based on attendance as well as credits shall be in accordance with the regulations under which the student was first admitted.
7. The decision of the Board of Studies will be final on any other clarification in this regard.

## **XVI. Amendments to Regulations:**

The Institute may, from time to time, revise, amend, or change the Regulations, Schemes of Examinations, and / or Syllabi and the changes or amendments made shall be applicable to all the students with effect from the dates notified by the Institute.

## **XVII. General:**

- (i) Where the words 'he', 'him', 'his', occur in the regulations, they include 'she', 'her', 'hers'.
- (ii) The academic regulation should be read as a whole for the purpose of any interpretation.
- (iii) In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Principal is final.