

ACADEMIC REGULATIONS (R22) - UG
COURSE STRUCTURE & DETAILED SYLLABUS

For
B. Tech – FOUR YEAR DEGREE COURSE
(Applicable for batches admitted from 2022-2023)



St. ANN'S COLLEGE OF ENGINEERING & TECHNOLOGY
(AUTONOMOUS)
CHIRALA – 523187, ANDHRA PRADESH, INDIA

ACADEMIC REGULATIONS (R22) FOR B. TECH. (REGULAR)

Applicable for students of B. Tech. (Regular) from Academic Year 2022-23 Onwards

St. Ann's College of Engineering and Technology (Autonomous), Chirala, Regulations (R22 Regulations) are applicable to all under graduate programmes given here under. These regulations are applicable to the B. Tech programmes offered by the institution with effect from the Academic Year 2022-23.

1. Programmes of study:

The following programmes of study are offered at present as specializations for the B. Tech courses in the institution:

S. No	Name of the Branch	Branch Code
1	Civil Engineering	01
2	Electrical & Electronics Engineering	02
3	Mechanical Engineering	03
4	Electronics and Communication Engineering	04
5	Computer Science Engineering	05
6	CSE (Artificial Intelligence & Machine Learning)	42
7	CSE (Data Science)	44
8	CSE (Cyber Security)	46
9	CSE (Internet of Things)	49

2. Medium of Instruction:

The medium of instruction of the entire B. Tech undergraduate programme in Engineering & Technology (including examinations and project reports) will be in **English** only.

3. Admissions:

Admission to the B. Tech Programme shall be made subject to the eligibility, qualifications and specialization prescribed by the A.P. State Government/University from time to time. Admissions shall be made either on the basis of the merit rank obtained by the student in the common entrance examination conducted by the A.P. Government/University or on the basis of any other order of merit approved by the A.P. Government/University, subject to reservations as prescribed by the Government/University from time to time.

4. Programme Pattern:

- Total duration of the of B. Tech (Regular) Programme is four academic years
- Each Academic year of study is divided in to **two semesters**.
- Minimum number of instruction days in each semester is 90.
- Grade points, based on percentage of marks awarded for each course will form the basis for calculation of SGPA (Semester Grade Point Average) and CGPA (Cumulative Grade Point Average).
- The total credits for the Programme are 160.
- A two-week induction program is mandatory for all first year UG students and shall be conducted as per AICTE/UGC/APSCE guidelines.

- g) Student will be introduced to “Choice Based Credit System (CBCS)”.
- h) A pool of inter disciplinary and job-oriented mandatory skill courses which are relevant to the industry are integrated into the curriculum of concerned branch of engineering (total five skill courses: two basic level skill courses, one on soft skills and other two on advanced level skill courses)
- i) A student has to register for all courses in a semester.
- j) All the registered credits will be considered for the calculation of final CGPA.
- k) Each semester has - ‘Continuous Internal Evaluation (CIE)’ and ‘Semester End Examination (SEE)’. Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) as indicated by UGC and course structure as suggested by AICTE are followed.
- l) A 10 months industry/field mandatory internship, both industry and social, during the summer vacation and also in the final semester to acquire the skills required for job and make engineering graduates to connect with the needs of the industry and society at large.
- m) All students shall be mandatorily registered for NCC/NSS activities.
- n) Each college shall assign a faculty advisor/mentor after admission to each student or group of students from same department to provide guidance in courses registration/career growth/placements/opportunities for higher studies/ GATE/ other competitive exams etc.

5. Subject/Course Classification:

All subjects/courses offered for the undergraduate programme in E & T(B. Tech degree programmes) are broadly classified as follows:

S. No	Category	Code	APSCHE breakup of Credits	AICTE Credits of breakup
1	Humanities and Social Science Courses	HS	10.5	12
2	Basic Science Courses	BS	21	25
3	Engineering Science Courses	ES	24	24
4	Professional Core Courses	PC	51	48
5	Open Elective Courses	OE	12	18
6	Professional Courses Elective	PE	15	18
7	Internship, Seminar, Project Work	PROJ	16.5	15
8	Skill Oriented Courses	SC	10	-
9	Laboratory Courses	LC	-	-
10	Mandatory courses	MC	Non-credit	Non-credit
Total Credits			160	160

6. Registration for Courses:

- i) The college shall invite registration forms from the students at the beginning of the semester for the registration for courses each semester. The registration process shall be closed within one week. If any student wishes to withdraw the registration, he/she shall submit a letter to the principal through the class teacher/instructor and HOD. The principal shall communicate the registration and withdraw details courses of each student in a consolidated form to the college examination section and University without fail.

- ii) There are four open electives in each branch. All Open Electives are offered to students of all branches in general. A student shall choose an open elective, by consulting the HOD/advisor, from the list in such a manner that he/she has not studied the same course in any form during the Programme.
- iii) A student shall be permitted to pursue up to a maximum of two elective courses under MOOCs during the programme. Students are advised to register for only for minimum 12 weeks in duration MOOCs courses. Student has to pursue and acquire a certificate for a MOOC course only from the SWAYAM/NPTEL through online with the approval of Head of the Department in order to earn the 3 credits. The Head of the department shall notify the list of such courses at the beginning of the semester. The details of the MOOCs courses registered by the students shall be submitted to the institution examination center. The Head of the Department shall appoint a mentor for each of the MOOC subjects registered by the students to monitor the student's assignment submissions given by SWAYAM/NPTEL. The student needs to submit all the assignments given and needs to take final exam at the proctor center. The student needs to earn a certificate by passing the exam. The student will be awarded the credits given in curriculum only by submission of the certificate. In case if student does not pass subjects registered through SWAYAM/NPTEL, the same or alternative equivalent subject may be registered again through SWAYAM/NPTEL in the next semester with the recommendation of HOD and shall be passed.
- iv) Two summer internships each with a minimum of six weeks duration shall be mandatorily done/completed respectively at the end of second and third years (during summer vacations). The internship can be done by the students at local industries, Govt. Organizations, construction agencies, Industries, Hydel and thermal power projects and also in software MNCs. After completing the summer internship, the students shall register in the immediate respective odd semester and it will be evaluated at the end of the semester as per norms of the institution. The student has to produce the summer internship satisfactory report and certificate taken from the organization to be considered for evaluation. The College shall facilitate and monitor the student internship programs. Completion of internships is mandatory, if any student fails to complete internship, he/she will not be eligible for the award of degree. In such cases, the student shall repeat and complete the internship.
- v) In the final semester, the student should mandatorily register and undergo internship and in parallel he/she should work on a project with well-defined objectives. At the end of the semester the candidate shall submit an internship completion certificate and a project report. A student shall also be permitted to submit project report on the work carried out during the internship. The project report shall be evaluated with an external examiner.
- vi) Curricular Framework for Skill oriented courses
 - a) There are five (05) skill-oriented courses shall be offered during III to VII semesters and students must register and pass the courses successfully.
 - b) For skill oriented/skill advanced course, one theory and 2 practical hours (1-0-2) or two theory hours (2-0-0) may be allotted as per the decision of BOS concerned.
 - c) Out of the five skill courses; (i) two shall be skill-oriented courses from the same domain and shall be completed in second year (ii) Of the remaining 3 skill courses, one shall be necessarily be a soft skill course and the remaining 2 shall be skill-advanced courses either from the same domain or job-oriented skill courses, which can be of inter disciplinary nature.
 - d) Students may register the interdisciplinary job-oriented skill courses based on the prerequisites and eligibility in consultation with HOD.

- e) The student shall be given an option to choose either the skill courses being offered by the college or to choose a certificate course being offered by industries/Professional bodies/APSSDC or any other accredited bodies. However, the department has to assign mentors in the college to monitor the performance of the students.
- f) If a student chooses to take a Certificate Course offered by industries/Professional bodies/APSSDC or any other accredited bodies, in lieu of the skill advanced course offered by the Department, then the department shall mark overall attendance of the student for the remaining courses in that semester excluding the skill course in all the calculations of mandatory attendance requirements upon producing a valid certificate. However, the student is deemed to have fulfilled the attendance requirement of the course, if the external agency issues a certificate with satisfactory condition. If the certificate issued by external agency is marked with unsatisfactory condition, then the student shall repeat the course either in the college or at external agency. The credits will be awarded to the student upon producing the successful Course Completion Certificate from the agency/professional bodies and after passing in the viva-voce examination conducted at college as per college norms at the end of the semester.

7. (a) Award of B. Tech. Degree: A student will be declared eligible for the award of B. Tech. Degree if he fulfills the following academic regulations:

- i) A student shall be declared eligible for award of the B. Tech Degree, if he pursues a course of study in not less than four and not more than eight academic years.
- ii) After eight academic years from the year of their admission, he/she shall **forfeit** their seat in B.Tech course and their admission stands cancelled.
- iii) The student shall register for 160 credits and must secure all the 160 credits. All students shall register for NCC/NSS activities and will be required to participate in an activity specified by NSS officer during second and third semesters. Grade shall be awarded as Satisfactory or Unsatisfactory in the mark sheet on the basis of participation, attendance, performance and behavior. If a student gets an unsatisfactory Grade, he/she shall repeat the above activity in the subsequent years, in order to complete the degree requirements.
- iv) Courses like Environmental Sciences, Universal Human Values, Ethics, Indian Constitution, Essence of Indian Traditional Knowledge etc., shall be included in the curriculum as non- credit mandatory courses. Environmental Sciences is to be offered compulsorily as mandatory course for all branches. A student has to secure 40% of the marks allotted in the internal evaluation for passing the course. No marks or letter grade shall be allotted for all mandatory non-credit courses.
- v) Credit Definition:

1 Hour Lecture (L) per week	1 Credit
1 Hour Practical (P) per week	0.5 Credit
2 Hours Practical (Lab) per week	1 Credit

(b) Award of B. Tech. (Honors)/B. Tech. (Minor): B. Tech. with Honors or a B. Tech. with a Minor will be awarded if the student earns 20 additional credits are acquired as per the regulations/guidelines. The regulations/guidelines are separately provided in Annexure III. Registering for Honors/Minor is optional.

8. Attendance Requirements

- a. A student is eligible to write the Semester End Examinations if he acquires

- a minimum of 50% in each subject and 75% of attendance in aggregate of all the subjects.
- Condonation of shortage of attendance in aggregate up to 10% (65% and above and below 75%) may be granted by the College Academic Committee. However, this condonation concession is applicable only to any two semesters during the entire programme.
 - Shortage of Attendance below 65% in aggregate shall not be condoned.
 - A student who is short of attendance in a semester may seek re-admission into that semester when offered within 4 weeks from the date of commencement of class work.
 - Students whose shortage of attendance is not condoned in any semester are not eligible to write their end semester examination of that class.
 - A stipulated fee of Rs. 500/- in the concerned semester shall be payable towards condonation of shortage of attendance. Students availing condonation on medical ground shall produce a medical certificate issued by the competent authority.
 - A student will be promoted to the next semester if he satisfies the (i) attendance requirement of the present semester and (ii) minimum required credits.
 - If any candidate fulfills the attendance requirement in the present semester, he shall not be eligible for readmission into the same class.
 - For induction programme attendance requirements as per AICTE norms.
 - For non-credit mandatory courses the students shall obtain the attendance similar to credit courses

9. Evaluation-Distribution and Weightage of marks

- Paper setting and evaluation of the answer scripts shall be done as per the procedures laid down by the college examination section from time to time.
- For non-credit mandatory courses, like Environmental Sciences, Universal Human Values, Ethics, Indian Constitution, Essence of Indian Traditional Knowledge, the student has to secure 40% of the marks allotted in the internal evaluation for passing the course. No marks or letter grade shall be allotted for all mandatory non-credit courses.
- A student is deemed to have satisfied the minimum academic requirements if he has earned the credits allotted to each theory/practical design/drawing subject/project etc. by securing not less than 35% of marks in the end semester exam and minimum 40% of marks in the sum total of the internal marks and end semester examination marks together.
- Distribution and Weightage of marks:
The assessment of the student's performance in each course will be based on Continuous Internal Evaluation (CIE) and Semester-End Examination (SEE). The performance of a student in each semester shall be evaluated subject-wise with a maximum of 100 marks for theory subject and 50 marks for practical subject. For theory subjects the distribution shall be 30 marks for Internal Evaluation and 70 marks for the End Examinations.

S. No	Components	Internal	External	Total
1	Theory	30	70	100
2	Engineering Graphics/Design/Drawing	30	70	100
3	Practical	15	35	50
4	Mini Project/Internship/Industrial Training/ Skill Development programmes/Research Project	-	50	50
5	Project Work	60	140	200

(v) Continuous Internal Theory Evaluation:

- (a) For theory subjects, during a semester, there shall be two mid-term examinations. Each mid-term examination consists of (i) one online objective examination (ii) one descriptive examination and (iii) one assignment. The online examination (objective) shall be 10 marks and descriptive examination shall be for 15 marks with a total duration of 1 hour 50 minutes (20 minutes for objective and 90 minutes for descriptive paper).
- (b) The first online examination (objective) is set with 20 multiple choice questions for 10 marks (20 questions x ½ marks) from first two and half units (50% of the syllabus) and it is conducted by college examination section. The descriptive examination is set with 3 full questions for 5 marks each from first two and half units (50% of the syllabus), the student has to answer all questions. In the similar lines, the second online and descriptive examinations shall be conducted on the rest of the syllabus.
- (c) The assignment is given by the concerned class teacher for five marks from first two and half units (50% of the syllabus). The second assignment shall be given from rest of the syllabus. The first assignment should be submitted before the conduct of the first mid-term examination, and the second assignment should be submitted before the conduct of the second mid-term examination.
- (d) The total marks secured by the student in each mid-term examination are evaluated for 30 marks. The first mid marks (Mid-1) consisting of marks of online objective examination, descriptive examination and assignment shall be submitted to the University examination section within one week after completion of first mid examination.
- (e) The mid marks submitted to the University examination section shall be displayed in the college notice boards for the benefit of the students.
- (f) If any discrepancy found in the submitted Mid-1 marks, it shall be brought to the notice of university examination section within one week from the submission.
- (g) Second mid marks (Mid-2) consisting of marks of online objective examination, descriptive examination and assignment shall also be submitted to university examination section within one week after completion of second mid examination and it shall be displayed in the notice boards. If any discrepancy found in the submitted mid-2 marks, it shall be brought to the notice of university examination section within one week from the submission.
- (h) Internal marks can be calculated with 80% weightage for better of the two mid exams and 20% Weightage for another mid exam.

Example:

Mid-1 marks = Marks secured in (online examination-1+descriptive examination-1+one assignment-1)

Mid-2 marks = Marks secured in (online examination-2+descriptive examination-2+one assignment-2)

Final internal Marks = (Best of (Mid-1/Mid-2) marks x 0.8 + Least of (Mid-1/Mid-2) marks x 0.2)

- (i) With the above criteria, university examination section will send mid marks of all subjects in consolidated form to all the concerned colleges and same shall be displayed in the concerned college notice boards. If any discrepancy found, it shall be brought to the notice of university examination section through proper channel within one week with all proofs. Discrepancies brought after the given deadline will not be entertained under any circumstances.

(vi) Semester End Theory Examinations Evaluation:

- (a) The semester end examinations **will be conducted by the college examination** section for 70 marks consisting of two short answer questions carrying 2 marks each (compulsory) and one question carrying 10 marks from each unit. Each of 10 marks question is from one unit and may contain sub-questions. For each 10 marks question there will be an “either” “or”

choice, which means that there will be two questions from each unit and the student should answer either of the two questions.

- (b) For practical subjects there shall be continuous evaluation during the semester for 15 internal marks and 35 end examination marks. The internal 15 marks shall be awarded as follows: day to day work - 5 marks, Record - 5 marks and the remaining 5 marks to be awarded by conducting an internal laboratory test. The end examination shall be conducted by the teacher concerned and external examiner appointed by controller of examinations of the college.

Note: Laboratory marks and the internal marks awarded by the College are not final. The internal and laboratory marks awarded by the College will be referred to a committee. The Committee shall arrive at a scaling factor and the marks will be scaled as per the scaling factor. The recommendations of the Committee are final and binding. All the laboratory records and internal test papers shall be preserved in respective departments as per college norms and shall be produced to the Committees of college/university as and when they ask for.

- (c) For the subject having design and / or drawing (such as Engineering Graphics, Engineering Drawing, Machine Drawing) and estimation, the distribution shall be 30 marks for internal evaluation (15 marks for continuous Assessment (day-to-day work) and 15 marks for internal tests) and 70 marks for end examination. There shall be two internal tests in a Semester for 15 marks each and final marks can be calculated with 80% weightage for better of the two tests and 20% weightage for other test and these are to be added to the marks obtained in day-to-day work.
- (d) Evaluation of the summer internships: It shall be completed in collaboration with local industries, Govt. Organizations, construction agencies, Industries, Hydel and thermal power projects and also in software MNCs in the area of concerned specialization of the UG programme. Students shall pursue this internship during summer vacation just before its offering as per course structure. The minimum duration of this course shall be at least 6 weeks. The student shall register for the internship as per course structure after commencement of academic year. A supervisor/mentor/advisor has to be allotted to guide the students for taking up the summer internship. The supervisor shall monitor the attendance of the students while taking up the internship. Attendance requirements are as per the norms of the institution. After successful completion, students shall submit a summer internship technical report to the concerned department and appear for an oral presentation before the departmental committee consists of an external examiner appointed by the institution; Head of the Department, supervisor of the internship and a senior faculty member of the department. A certificate from industry/skill development center shall be included in the report. The report and the oral presentation shall carry 40% and 60% weightages respectively. It shall be evaluated for 50 external marks at the end of the semester. There shall be no internal marks for Summer Internship. A student shall secure minimum 40% of marks for successful completion. In case, if a student fails, he/she shall reappear as and when semester supplementary examinations are conducted by the institution.
- (e) The job-oriented skill courses may be registered at the college or at any accredited external agency. A student shall submit a record/report on the on the list skills learned. If the student completes job-oriented skill course at external agency, a certificate from the agency shall be included in the report. The course will be evaluated at the end of the semester for 50 marks (record: 15 marks and viva-voce: 35 marks) along with laboratory end examinations in the presence of external (appointed by the institution) and internal

examiner (course instructor or mentor). There are no internal marks for the job-oriented skill courses.

- (f) **Mandatory Course (M.C):** Environmental Sciences, Universal Human Values, Ethics, Indian Constitution, Essence of Indian Traditional Knowledge etc. non-credit (zero credits) mandatory courses. Environmental Sciences shall be offered compulsorily as mandatory course for all branches. A minimum of 75% attendance is mandatory in these subjects. There shall be an external examination for 70 marks and it shall be conducted by the college internally. Two internal examinations shall be conducted for 30 marks and a student has to secure at least 40% of the marks for passing the course. There is no online internal exam for mandatory courses. No marks or letter grade shall be printed in the transcripts for all mandatory non-credit courses, but only Completed (Y)/Not-completed (N) will be specified.
- (g) **Procedure for Conduct and Evaluation of MOOC:** There shall be a Discipline Centric Elective Course through Massive Open Online Course (MOOC) as Program Elective course. The student shall register for the course (Minimum of 12 weeks) offered by SWAYAM/NPTEL through online with the approval of Head of the Department. The Head of the Department shall appoint one mentor for each of the MOOC subjects offered. The student needs to register the course in the SWAYAM/NPTEL portal. During the course, the mentor monitors the student's assignment submissions given by SWAYAM/NPTEL. The student needs to submit all the assignments given and needs to take final exam at the proctor center. The student needs to earn a certificate by passing the exam. The student will be awarded the credits given in curriculum only by submission of the certificate. In case if student does not pass subjects registered through SWAYAM/NPTEL, the same or alternative equivalent subject may be registered again through SWAYAM/NPTEL in the next semester with the recommendation of HOD and shall be passed.
- (h) **Major Project (Project - Project work, seminar and internship in industry):**
In the final semester, the student should mandatorily register and undergo internship and in parallel he/she should work on a project with well-defined objectives. At the end of the semester the candidate shall submit an internship completion certificate and a project report. A student shall also be permitted to submit project report on the work carried out during the internship. The project report shall be evaluated with an external examiner.
Evaluation: The total marks for project work 200 marks and distribution shall be 60 marks for internal and 140 marks for external evaluation. The supervisor assesses the student for 30 marks (Report: 15 marks, Seminar: 15 marks). At the end of the semester, all projects shall be showcased at the department for the benefit of all students and staff and the same is to be evaluated by the departmental Project Review Committee consisting of supervisor, a senior faculty and HOD for 30 marks. The external evaluation of Project Work is a Viva-Voce Examination conducted in the presence of internal examiner and external examiner appointed by the institution and is evaluated for 140 marks.

10. Integrated theory lab:

- a. The integrated course is in the ratio of 2:1 (total credit: 3).
- b. Attendance shall be counted for both in theory as well as lab (75:25 ratio). Minimum attendance shall be required individually in theory and lab as per institution norms
- c. Student has to attend the internal examination and external examination conducted by the institution as per the regulations.
- d. Student has to pass individually both the external examinations (Theory for 100 marks and Lab for 50 marks) conducted by the institution as per the regulations.

- e. If the student fails in either theory or laboratory, the final result is FAIL only.
 - f. The student has to pass separately both in the external theory examination and external lab examination as per the institution regulations.
- 11. Recounting of Marks in the End Semester Examination:** A student can request for recounting of his/her answer book on payment of a prescribed fee as per institution norms.
- 12. Re-evaluation or Revaluation by Challenge of the End Semester Examination:** A student can request for Revaluation or Revaluation by Challenge of his/her answer book on payment of a prescribed fee as per institution norms.
- 13. Supplementary Examinations:** A student who has failed to secure the required credits can appear for a supplementary examination, as per the schedule announced by the institution.
- 14. Advanced Supplementary Examinations:** For the current pass out batch students, advanced supplementary examinations (in addition to the regular supplementary examinations) shall be conducted in the subjects of all semesters (I to VIII) of the program, within six weeks of declaration of the final results.
- 15. Malpractices in Examinations:** Disciplinary action shall be taken in case of malpractices during Mid/End examinations as per the rules framed by the institution (Annexure II).
- 16. Promotion Rules**
The following academic requirements have to be satisfied in addition to the attendance requirements mentioned in item no.8 for promotion to higher classes
- a. A student shall be promoted from first year to second year if he fulfills the minimum attendance requirement as per institution norm.
 - b. A student will be promoted from II to III year if he fulfills the academic requirement of 40% of credits (33) up to II year II-Semester from all the examinations, whether or not the candidate takes the examinations and secures prescribed minimum attendance in II-year II semester.
 - c. A student shall be promoted from III year to IV year if he fulfills the academic requirements of 40% of the credits (50) up to III-year II semester from all the examinations, whether or not the candidate takes the examinations and secures prescribed minimum attendance in III-year II semester.
- 17. Programme Pattern**
- a. The entire programme of study is for four academic years; all years are on semester pattern.
 - b. A student eligible to appear for the semester end examination in a subject, but absent from or has failed in the end semester examination, may write the supplementary exam in that subject when conducted next.
 - c. When a student is detained for lack of credits/shortage of attendance, he may be re-admitted into the same semester/year in which he has been detained. However, the academic regulations under which he was first admitted shall continue to be applicable to him.
- 18. Earning of Credit:**
A student shall be considered to have completed a course successfully and earned the credits if he/she secures an acceptable letter grade in the range A+ to E as given below. Letter grade 'F' in any course implies failure of the student in that course and no credits earned. Absent is also treated as no credits earned. For project same % percentages will be followed for grading:

Marks Range Theory (Max – 100)	Marks Range Lab (Max – 50)	Level	Letter Grade	Grade Point
≥ 90	≥ 45	Outstanding	A+	10
≥80 to 90	≥40 to <45	Excellent	A	9
≥70 to 80	≥35 to <40	Very Good	B	8
≥60 to 70	≥30 to <35	Good	C	7
≥50 to 60	≥25 to <30	Fair	D	6
≥40 to 50	≥20 to <25	Satisfactory	E	5
<40	<20	Fail	F	0
-		Absent	AB	0

19. Computation of SGPA and CGPA

The UGC recommends the following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

- (i) **SGPA**(S_k) of k^{th} semester (1 to 8) is ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the total number of credits of all the courses undergone/registered by a student, i.e:

$$SGPA (s_k) = \frac{\sum_{i=1}^n (C_i * G_i)}{\sum_{i=1}^n (C_i)}$$

Where C_i is the number of credits of the i^{th} course/subject in a semester and G_i is the grade point scored by the student in the i^{th} course/subject and n is the number of courses/subjects registered in that semester.

- (ii) **CGPA**: The CGPA is calculated in the same manner taking into account all the, m courses/subjects registered by student over all the semesters of a Programme i.e., in all eight semesters:

$$CGPA = \frac{\sum_{i=1}^m (C_i * S_i)}{\sum_{i=1}^m C_i}$$

Where S_i is SGPA of the i^{th} semester and C_i is total number of credits in that semester.

- (iii) SGPA and CGPA shall be rounded off to 2 decimal points and reported in transcripts.
 (iv) As per AICTE regulations, conversion of CGPA into equivalent percentage as follows:

$$\text{Equivalent Percentage} = (\text{CGPA} - 0.75) \times 10$$

- (v) Illustration of Computation of SGPA and CGPA

Illustration for SGPA: Let us assume there are 6 subjects in a semester. The

grades obtained are as follows:

Course	Credit	Grade Obtained	Grade Point	S _i = Credit Point (Credit x Grade)
Subject 1	3	B	8	3 X 8 = 24
Subject 2	4	C	7	4 X 7 = 28
Subject 3	3	D	6	3 X 6 = 18
Subject 4	3	A+	10	3 X 10 = 30
Subject 5	3	E	5	3 X 5 = 15
Subject 6	4	D	6	4 X 6 = 24
	20			139

Thus, $SGPA = 139/20 = 6.95 = 6.9$ (approx.)

Illustration for CGPA:

Semester 1	Semester 2	Semester 3	Semester 4
Credits: 20 SGPA: 6.9	Credits: 22 SGPA: 7.8	Credits: 25 SGPA: 5.6	Credits: 26 SGPA: 6.0
Semester 5	Semester 6	Semester 7	Semester 8
Credits: 26 SGPA: 6.3	Credits: 25 SGPA: 8.0	Credits: 21 SGPA: 6.4	Credits: 23 SGPA: 7.5

Thus,

$$CGPA = \frac{20 \times 6.9 + 22 \times 7.8 + 25 \times 5.6 + 26 \times 6.0 + 26 \times 6.3 + 25 \times 8.0 + 21 \times 6.4 + 23 \times 7.5}{188} = \frac{1276.3}{188} = 6.78$$

20. Award of Class

After a student has satisfied the requirements prescribed for the completion of the program and is eligible for the award of B. Tech. Degree, he shall be placed in one of the following four classes:

Class Awarded	CGPA to be secured	Remarks
First Class with Distinction	≥ 7.75 (Without any supplementary appearance)	From the CGPA secured from 160 Credits
First Class	≥ 6.75	
Second Class	≥ 5.75 to < 6.75	
Pass Class	≥ 5.00 to < 5.75	

21. Minimum Instruction Days

The minimum instruction days for each semester shall be 90 working days. There shall be no branch transfers after the completion of the admission process.

22. Withholding of Results

If the student is involved in indiscipline/malpractices/court cases, the result of the student will be withheld.

23. Transitory Regulations

- (a) Discontinued or detained candidates are eligible for re-admission as and when next offered.

- (b) The re-admitted candidate will be governed by the rules & regulations under which the candidate has been admitted.
- (c) (i) In case of transferred students from other Universities/institutions, credits shall be transferred to SACET as per the academic regulations and course structure of SACET.
(ii) In addition, the transferred candidates have to pass the failed subjects at the earlier Institute with already obtained internal/sessional marks to be conducted by SACET.

24. Gap - Year

Gap Year concept of Student Entrepreneur in Residence shall be introduced and outstanding students who wish to pursue entrepreneurship are allowed to take a break of one year at any time after I/II/III year to pursue entrepreneurship full time. This period shall be counted for the maximum time for graduation. An evaluation committee at institution level shall be constituted to evaluate the proposal submitted by the student and the committee shall decide on permitting the student for availing the Gap Year.

25. General

- (a) Wherever the words “he”, “him”, “his”, occur in the regulations, they include “she”, “her”, “hers”.
- (b) The academic regulation should be read as a whole for the purpose of any interpretation.
- (c) In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Vice-Chancellor is final.
- (d) The institution may change or amend the academic regulations or syllabi at any time and the changes or amendments made shall be applicable to all the students with effect from the dates notified by the institution.

ACADEMIC REGULATIONS (R22) FOR B. TECH (LATERAL ENTRY SCHEME)

Applicable for students admitted into II B. Tech. from the Academic Year 2023-24 onwards.

1 Award of B. Tech. Degree

A student will be declared eligible for the award of B. Tech. Degree if he fulfills the following academic regulations:

- a) A student shall be declared eligible for the award of the B. Tech Degree, if he pursues a course of study in not less than three academic years and not more than six academic years. After six academic years from the year of their admission, he/she shall **forfeit** their seat in B. Tech course and their admission stands cancelled.
- b) The candidate shall register for 121 credits and secure all the 121 credits.

2. The attendance regulations of B. Tech. (Regular) shall be applicable to B.Tech (lateral entry).

3. Promotion Rule

A student shall be promoted from second year to third year if he fulfills the minimum attendance requirement.

A student shall be promoted from III year to IV year if he fulfills the academic requirements of 40% of the credits up to either III year I semester or III-year II semester from all the examinations, whether or not the candidate takes the examinations and secures prescribed minimum attendance in III-year II semester.

4. Award of Class

After a student has satisfied the requirement prescribed for the completion of the program and is eligible for the award of B. Tech. Degree, he shall be placed in one of the following four classes:

Class Awarded	CGPA to be secured	Remarks
First Class with Distinction	≥ 7.75 (Without any supplementary appearance)	From the CGPA secured from 121 Credits from II Year to IV Year
First Class	≥ 6.75	
Second Class	≥ 5.75 to < 6.75	
Pass Class	≥ 5.00 to < 5.75	

The Grades secured, Grade points and Credits obtained will be shown separately in the memorandum of marks.

5. All the other regulations as applicable to **B. Tech. 4-year degree course (Regular)** will hold good for **B. Tech. (Lateral Entry Scheme)**.

COMMUNITY SERVICE PROJECT

Introduction

1. Community Service Project is an experiential learning strategy that integrates meaningful community service with instruction, participation, learning and community development
2. Community Service Project involves students in community development and service activities and applies the experience to personal and academic development.
3. Community Service Project is meant to link the community with the college for mutual benefit. The community will be benefited with the focused contribution of the college students for the village/ local development. The college finds an opportunity to develop social sensibility and responsibility among students and also emerge as a socially responsible institution.

Objective

Community Service Project should be an integral part of the curriculum, as an alternative to the 2 months of Summer Internships / Apprenticeships / On the Job Training, whenever there is an exigency when students cannot pursue their summer internships. The specific objectives are:

1. To sensitize the students to the living conditions of the people who are around them,
2. To help students to realize the stark realities of the society.
3. To bring about an attitudinal change in the students and help them to develop societal consciousness, sensibility, responsibility and accountability
4. To make students aware of their inner strength and help them to find new /out of box solutions to the social problems.
5. To make students socially responsible citizens who are sensitive to the needs of the disadvantaged sections.
6. To help students to initiate developmental activities in the community in coordination with public and government authorities.
7. To develop a holistic life perspective among the students by making them study culture, traditions, habits, lifestyles, resource utilization, wastages and its management, social problems, public administration system and the roles and responsibilities of different persons across different social systems.

Implementation of Community Service Project

1. Every student should put in a minimum of **180 hours** for the Community Service Project during the summer vacation.
2. Each class/section should be assigned with a mentor.
3. Specific Departments could concentrate on their major areas of concern. For example, Dept. of Computer Science can take up activities related to Computer Literacy to different sections of people like - youth, women, house-wives, etc
4. A log book has to be maintained by each of the student, where the activities undertaken/involved to be recorded.
5. The log book has to be countersigned by the concerned mentor/faculty in charge.
6. Evaluation to be done based on the active participation of the student and grade could be awarded by the mentor/faculty member.
7. The final evaluation to be reflected in the grade memo of the student.
8. The Community Service Project should be different from the regular programmes of NSS/NCC/Green Corps/Red Ribbon Club, etc.
9. Minor project report should be submitted by each student. An internal Viva shall also be conducted by a committee constituted by the principal of the college.
10. Award of marks shall be made as per the guidelines of Internship/apprentice/ on the job training

Procedure

1. A group of students or even a single student could be assigned for a particular habitation or village or municipal ward, as far as possible, in the near vicinity of their place of stay, so as to enable them to commute from their residence and return back by evening or so.
2. The Community Service Project is a twofold one:
 - a) First, the student/s could conduct a survey of the habitation, if necessary, in terms of their own domain or subject area. Or it can even be a general survey, incorporating all the different areas. A common survey format could be designed. This should not be viewed as a duplication of work by the Village or Ward volunteers, rather, it could be another primary source of data.
 - b) Secondly, the student/s could take up a social activity, concerning their domain or subject area. The different areas, could be like –
 - Agriculture
 - Health
 - Marketing and Cooperation
 - Animal Husbandry
 - Horticulture
 - Fisheries
 - Sericulture
 - Revenue and Survey
 - Natural Disaster Management
 - Irrigation
 - Law & Order
 - Excise and Prohibition
 - Mines and Geology
 - Energy
 - Internet
 - Free Electricity
 - Drinking Water

EXPECTED OUTCOMES

BENEFITS OF COMMUNITY SERVICE PROJECT TO STUDENTS

Learning Outcomes

1. Positive impact on students' academic learning
2. Improves students' ability to apply what they have learned in "the real world"
3. Positive impact on academic outcomes such as demonstrated complexity of understanding, problem analysis, problem-solving, critical thinking, and cognitive development
4. Improved ability to understand complexity and ambiguity

Personal Outcomes

1. Greater sense of personal efficacy, personal identity, spiritual growth, and moral development
2. Greater interpersonal development, particularly the ability to work well with others, and build leadership and communication skills

Social Outcomes

1. Reduced stereotypes and greater inter-cultural understanding
2. Improved social responsibility and citizenship skills
3. Greater involvement in community service after graduation

Career Development

1. Connections with professionals and community members for learning and career opportunities
2. Greater academic learning, leadership skills, and personal efficacy can lead to greater opportunity

Relationship with the Institution

1. Stronger relationships with faculty
2. Greater satisfaction with college
3. Improved graduation rates

BENEFITS OF COMMUNITY SERVICE PROJECT TO FACULTY MEMBERS

1. Satisfaction with the quality of student learning
2. New avenues for research and publication via new relationships between faculty and community
3. Providing networking opportunities with engaged faculty in other disciplines or institutions
4. A stronger commitment to one's research

BENEFITS OF COMMUNITY SERVICE PROJECT TO COLLEGES AND UNIVERSITIES

1. Improved institutional commitment
2. Improved student retention
3. Enhanced community relations

BENEFITS OF COMMUNITY SERVICE PROJECT TO COMMUNITY

1. Satisfaction with student participation
2. Valuable human resources needed to achieve community goals
3. New energy, enthusiasm and perspectives applied to community work
4. Enhanced community- institution relations.

SUGGESTIVE LIST OF PROGRAMMES UNDER COMMUNITY SERVICE PROJECT

The following the recommended list of projects for Engineering students. The lists are not exhaustive and open for additions, deletions and modifications. Colleges are expected to focus on specific local issues for this kind of projects. The students are expected to carry out these projects with involvement, commitment, responsibility and accountability. The mentors of a group of students should take the responsibility of motivating, facilitating, and guiding the students. They have to interact with local leadership and people and appraise the objectives and benefits of this kind of projects. The project reports shall be placed in the college website for reference. Systematic, Factual, methodical and honest reporting shall be ensured.

For Engineering Students

1. Water facilities and drinking water availability
2. Health and hygiene
3. Stress levels and coping mechanisms
4. Health intervention programmes
5. Horticulture
6. Herbal plants
7. Botanical survey
8. Zoological survey
9. Marine products
10. Aqua culture
11. Inland fisheries
12. Animals and species
13. Nutrition
14. Traditional health care methods
15. Food habits
16. Air pollution
17. Water pollution
18. Plantation
19. Soil protection
20. Renewable energy
21. Plant diseases
22. Yoga awareness and practice
23. Health care awareness programmes and their impact
24. Use of chemicals on fruits and vegetables
25. Organic farming
26. Crop rotation
27. Floury culture

28. Access to safe drinking water
29. Geographical survey
30. Geological survey
31. Sericulture
32. Study of species
33. Food adulteration
34. Incidence of Diabetes and other chronic diseases
35. Human genetics
36. Blood groups and blood levels
37. Internet Usage in Villages
38. Android Phone usage by different people
39. Utilization of free electricity to farmers and related issues
40. Gender ration in schooling level- observation.

Complimenting the community service project, the students may be involved to take up some awareness campaigns on social issues/special groups. The suggested list of programmes are:

Programmes for School Children

1. Reading Skill Programme (Reading Competition)
2. Preparation of Study Materials for the next class.
3. Personality / Leadership Development
4. Career Guidance for X class students
5. Screening Documentary and other educational films
6. Awareness Programme on Good Touch and Bad Touch (Sexual abuse)
7. Awareness Programme on Socially relevant themes.

Programmes for Women Empowerment

1. Government Guidelines and Policy Guidelines
2. Women's Rights
3. Domestic Violence
4. Prevention and Control of Cancer
5. Promotion of Social Entrepreneurship

General Camps

1. General Medical camps
2. Eye Camps
3. Dental Camps
4. Importance of protected drinking water
5. ODF awareness camp
6. Swatch Bharat
7. AIDS awareness camp
8. Anti-Plastic Awareness
9. Programmes on Environment
10. Health and Hygiene
11. Hand wash programmes
12. Commemoration and Celebration of important days

Programmes for Youth Empowerment Leadership

1. Anti-alcoholism and Drug addiction
2. Anti-tobacco
3. Awareness on Competitive Examinations
4. Personality Development

Common Programmes

1. Awareness on RTI
2. Health intervention programmes
3. Yoga
4. Tree plantation
5. Programmes in consonance with the Govt. Departments like –
 - i. Agriculture
 - ii. Health
 - iii. Marketing and Cooperation
 - iv. Animal Husbandry
 - v. Horticulture
 - vi. Fisheries
 - vii. Sericulture
 - viii. Revenue and Survey
 - ix. Natural Disaster Management
 - x. Irrigation
 - xi. Law & Order
 - xii. Excise and Prohibition
 - xiii. Mines and Geology
 - xiv. Energy

Role of Students:

1. Students may not have the expertise to conduct all the programmes on their own. The students then can play a facilitator role.
2. For conducting special camps like Health related, they will be coordinating with the Governmental agencies.
3. As and when required the College faculty themselves act as Resource Persons.
4. Students can work in close association with Non-Governmental Organizations like Lions Club, Rotary Club, etc. or with any NGO actively working in that habitation.
5. And also, with the Governmental Departments. If the programme is rolled out, the District Administration could be roped in for the successful deployment of the programme.
6. An in-house training and induction programme could be arranged for the faculty and participating students, to expose them to the methodology of Service Learning.

Timeline for the Community Service Project Activity

Duration: 8 weeks

1. Preliminary Survey (One Week)

- a) A preliminary survey including the socio-economic conditions of the allotted habitation to be conducted.
- b) A survey form based on the type of habitation to be prepared before visiting the habitation with the help of social sciences faculty. (However, a template could be designed for different habitations, rural/urban.
- c) The Governmental agencies, like revenue administration, corporation and municipal authorities and village secretariats could be aligned for the survey.

2. Community Awareness Campaigns (Two Weeks)

Based on the survey and the specific requirements of the habitation, different awareness campaigns and programmes to be conducted, spread over two weeks of time. The list of activities suggested could be taken into consideration.

3. ***Community Immersion Programme (Four Weeks)***

Along with the Community Awareness Programmes, the student batch can also work with any one of the below listed governmental agencies and work in tandem with them. This community involvement programme will involve the students in exposing themselves to the experiential learning about the community and its dynamics. Programmes could be in consonance with the Govt. Departments.

4. ***Community Exit Report (One Week)***

During the last week of the Community Service Project, a detailed report of the outcome of the 8 weeks works to be drafted and a copy shall be submitted to the local administration. This report will be a basis for the next batch of students visiting that particular habitation. The same report submitted to the teacher-mentor will be evaluated by the mentor and suitable marks are awarded for onward submission to the institution. Throughout the Community Service Project, a daily log-book need to be maintained by the students' batch, which should be countersigned by the governmental agency representative and the teacher-mentor, who is required to periodically visit the students and guide them.

ANNEXURE II

MALPRACTICES RULES DISCIPLINARY ACTION FOR / IMPROPER CONDUCT IN EXAMINATIONS

	Nature of Malpractices/Improper conduct	Punishment
	<i>If the candidate:</i>	
1. (a)	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, Cell phones, pager, palm computers or any other form of material concerned with or related to the subject of the examination (theory or practical) in which he is appearing but has not made use of (material shall include any marks on the body of the candidate which can be used as an aid in the subject of the examination)	Expulsion from the examination hall and cancellation of the performance in that subject only.
(b)	Gives assistance or guidance or receives it from any other candidate orally or by any other body language methods or communicates through cell phones with any candidate or persons in or outside the exam hall in respect of any matter.	Expulsion from the examination hall and cancellation of the performance in that subject only of all the candidates involved. In case of an outsider, he will be handed over to the police and a case is registered against him.
2.	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the subject of the examination (theory or practical) in which the candidate is appearing.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that Semester/year. The Hall Ticket of the candidate is to be cancelled and sent to the institution exam cell.
3.	Impersonates any other candidate in connection with the examination.	The candidate who has impersonated shall be expelled from examination hall. The candidate is also debarred and forfeits the seat. The performance of the original candidate who has been impersonated, shall be cancelled in all the subjects of the examination (including practical's and project work) already appeared and shall not be allowed to appear for examinations of the remaining subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all Semester End Examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat. If the imposter is an outsider, he will be handed over to the police and a case is registered against him.
4.	Smuggles in the Answer book or additional sheet or takes out or arranges to send out the question paper during the examination or answer book or additional sheet, during or after the examination.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all Semester End Examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
5.	Uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting him to award pass marks.	Cancellation of the performance in that subject.
6.	Refuses to obey the orders of the Chief Superintendent/Assistant – Superintendent / any officer on duty or misbehaves or creates disturbance of any kind in and around the examination hall or organizes a walk out or instigates others to walk out, or threatens the officer-in charge or any person on duty in or outside the examination hall of any injury to his person or to any of his relations whether by words, either spoken or written or by signs or by visible representation, assaults the officer-in-charge, or any person on duty in or outside the examination hall or any of his relations, or indulges in any other act of misconduct or mischief which result in damage to or destruction of property in the examination hall or any part of the College campus or engages in any	In case of students of the college, they shall be expelled from examination halls and cancellation of their performance in that subject and all other subjects the candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year. The candidates also are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.

	other act which in the opinion of the officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.	
7.	Leaves the exam hall taking away answer script or intentionally tears the script or any part thereof inside or outside the examination hall.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all Semester End Examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
8.	Possess any lethal weapon or firearm in the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat.
9.	If student of the college, who is not a candidate for the particular examination or any person not connected with the college indulges in any malpractice or improper conduct mentioned in clause 6 to 8.	Student of the college's expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat. Person(s) who do not belong to the College will be handedover to police and, a police case will be registered against them.
10.	Comes in a drunken condition to the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year.
11.	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that subject and all other subjects the candidate has appeared including practical examinations and project work of that semester/year examinations.
12.	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the institution for further action and impose suitable punishment.	

Malpractices identified by squad or special invigilators

1. Punishments to the candidates as per the above guidelines.
2. Punishment for institutions: (if the squad reports that the college is also involved in encouraging mal practices)
 - (i) A show because notice shall be issued to the college.
 - (ii) Impose a suitable fine on the college.
- (iii) Shifting the examination center from the college to another college for a specific period of not less than one year.

ANNEXURE III

Guidelines B. Tech Minors in Engineering (Applicable from the Academic Year 2022-23 Regular and 2023-24 Lateral Students (R22))

I. INTRODUCTION

Looking to global scenario, engineering students should have knowledge of subjects from other branches and some advanced subjects of their respective branch in which they are perusing the degree. To complement the same SACET (Autonomous) has decided to take an initiative from 2022-23 in academics by introducing minor to the undergraduate students enrolled in the B. Tech. This gives a provision to the students to pursue minor other than the discipline in which student got admitted. An aspiring student can choose the courses and laboratories in any other discipline and can get a minor in the chosen specialization in addition to regular major B. Tech degree. This way undergraduates are not restricted to learn about courses only in the discipline they get admitted to, but can choose courses of their interest to later on take up a career path of their liking. The students taking up a minor course will get additional credits. A student has to acquire 20 more credits, in addition to 160 credits required, for the award of the minor. The department concerned will determine the required courses for award of minor. The subjects in minor programme would be a combination of mostly core and some electives.

II. OBJECTIVES

The objectives of initiating the minor certification are:

- (a) To diversify the knowledge of the undergraduates.
- (b) To make the undergraduates more employable.
- (c) To have more educational and professional skills after the completion of his undergraduate courses.
- (d) To give a scope to specialize students in other streams of engineering in addition to the ones they are currently pursuing.

III. Applicability and Enrolment

- (a) To all B. Tech (Regular and Lateral Entry) students admitted in Engineering & Technology
- (b) There shall be no limit on the number of programs offered under Minor. The minor programs in emerging technologies based on expertise in the respective departments may be offered and minor can also be offered in collaboration with the relevant industries/agencies.
- (c) Total number of seats offered for a minor programme shall be a maximum of 35% of sanctioned intake of major degree programme.
- (d) If a minimum enrolments criterion is not met, then the students may be permitted to register for the equivalent MOOC courses as approved by the concerned Head of the department in consultation with BoS.
- (e) The allotment of seat into minor is based on the percentage of marks obtained in the major degree programme. Percentage of marks shall be taken up to III semester in case of regular entry students and only III semester in case of lateral entry students
- (f) In the event of any tie during the seat allotment for a minor, the concerned major degree department offering minor shall conduct a test/interview on the prerequisite subjects of minor and final decision shall be taken.
- (g) For applicability of minor, both regular B Tech and minor courses shall be successfully completed with specified SGPA/CGPA
- (h) A student shall report the principal of the college, if he/she is not interested to pursue/continue the minor programme.
- (i) Transfer of credits from a particular minor to regular B. Tech or another major degree and vice-versa shall not be permitted

IV. Entry level

- (a) The B. Tech students (both Regular and Lateral Entry) pursuing a major degree programme can register for minor at their choice in any other department offering minor from III semester onwards.
- (b) Students registering for minor shall select the subjects from other branches. For example, if a student pursuing major degree in Electrical & Electronics Engineering shall select the subjects specified for minor in Civil Engineering and he/she will get major degree of Electrical & Electronics Engineering with minor of Civil Engineering.
- (c) Student pursuing major degree in any engineering branch is eligible to register for minor in any other engineering branch. However, students pursuing major degree in a particular Engineering are not allowed to register for minor in the same engineering branch.
- (d) Only those students, who have a CGPA of 7.75 or above, without any backlog, will be permitted to register for a minor.
- (e) An SGPA or CGPA in excess of 7.75 has to be maintained in the subsequent semesters in major as well as minor without any backlogs in order to keep the minor registration active.
- (f) Should both the SGPA and CGPA fall below 7.75 at any point after registering for the minor; the minor registration will cease to be active.
- (g) A student registered for minor in a discipline must register and pass in all subjects with a minimum GPA of 7.75 that constitute requirement for award of minor.
- (h) Separate CGPA shall be shown on semester and final transcripts of regular B. Tech and minor.
- (i) Students shall not be permitted to register for minor after completion of VI semester.
- (j) Students shall be permitted to select a maximum of two subjects per semester from the list of subjects specified for minor.
- (k) The students shall complete minor without supplementary appearance within stipulated period as notified by the institution for the completion of regular major B. Tech programme.
- (l) Minor shall not be awarded at any circumstances without completing the regular major B. Tech programme in which a student got admitted
- (m) If a student is detained due to lack of attendance, he/she shall not be permitted to register the courses of minor
- (n) If a student failed in any registered course of the minor, he/she shall not be eligible to continue the B.Tech minor. However, the additional credits and grades thus far earned by the student shall be included in the grade card but shall not be considered to calculate the CGPA.
- (o) The subjects completed under minor programme shall not be considered as equivalent subjects in case the student fails to complete the major degree programme
- (p) Students completed their degree shall not be permitted to register for minor

V. Structure of Minor in B. Tech

- (a) The student shall earn at least 20 credits for award of minor from other branch/ department/ discipline registered for major degree.
- (b) Students can complete minor courses either in the college or in online from platforms like NPTEL/SWAYAM etc.
- (c) The overall attendance in each semester of regular B. Tech courses and minor courses shall be computed separately
- (d) A student shall maintain an overall attendance of 75% in all registered courses of minor to be eligible for attending semester end examinations. However, condonation for shortage of attendance between 65-75% may be given as per college norms. On the recommendations of College Academic Council, the student concerned will be permitted to take the semester end examinations, on payment of condonation fee of Rs. 500/-.
- (e) Student having less than 65% attendance in minor courses shall not be permitted for end semester examinations.

- (a) A student detained due to lack of attendance in regular B. Tech programme shall not be permitted to continue minor programme
- (b) The teaching, examinations (internal and external) and evaluation procedure of minor courses offered in offline is similar to regular B. Tech courses
- (c) The students may choose theory or practical courses to fulfil the minimum credit requirement.
- (d) The students may be allowed to take maximum two subjects per semester pertaining to their minor
- (e) The students are permitted to opt for only a single minor course in his/her entire tenure of B.Tech (Engineering)
- (f) The students registered for B. Tech (Hons) shall not be permitted to register for minor
- (g) The student is not permitted to take the electives courses from the parent department fulfil the minimum credit requirement.

VII. Credits requirement

- (a) A Student will be eligible to get minor along with major degree engineering, if he/she completes an additional 20 credits. These may be acquired either in offline or online like NPTEL/SWAYAM
- (b) Of the 20 additional credits to be acquired, 16 credits shall be earned by undergoing specified courses of minor, with four courses, each carrying 4 credits. The remaining 4 credits must be acquired through two NPTEL, which shall be domain specific, each with 2 credits and with a minimum duration of 8/12 weeks as recommended by the Board of studies.
- (c) The colleges offering minor courses shall be ready teach the courses in offline at their college in the concerned departments. Curriculum and the syllabus of the courses shall be approved by the Board of Studies
- (d) The online NPTEL/SWAYAM subjects selected by a student shall be approved by concerned BOS. The duration of courses shall be a minimum of 14 weeks.
- (e) The teaching and evaluation procedure of minor courses offering in offline mode shall be similar to that of regular B. Tech courses
- (f) Students shall produce a certificate issued by the NPTEL/SWAYAM conducting agency as a proof of credit attainment
- (g) The assessment and certification of the NPTEL shall be as per the prescribed norms of the NPTEL.
- (h) After successful completion of all major and minor courses with specified CGPA the University will award both major and minors
- (i) If a student fails to complete a course offered in online/offline, he/she will not be permitted to continue the minor

VIII. Procedure to Applying for the Minor

- (a) The department offering the minor will announce specialization and courses before the start of the session.
- (b) The interested students shall apply through the HOD of his/her parent department.
- (c) The concerned department will announce the list of the selected students for the minor.
- (d) The whole process should be completed within one week before the start of every session.
- (e) Selected students shall be permitted to register the courses for minor.

IX. Registering for minor courses

- (a) Each department offering the minor will submit the final list of selected students to the principal.
- (b) The selected students shall submit a joining letter to the principal through the concerned HOD offering the minor. The student shall inform same to the HOD of his/her parent department.

- (c) Both parent department and department offering minor shall maintain the record of student pursuing the minor
- (d) With the approval of Principal and suggestion of advisor, students can choose courses from the approved list and shall register the courses within a week as per the conditions laid down in the structure for the minor.
- (e) Each department shall communicate the minor courses registered by the students to the time table drafting committee and accordingly time table will be drafting. Time table drafting committee shall see that no clash in time tables.
- (f) If the student wishes to withdraw/change the registration of subject/course, he/she shall inform the same to advisor, subject teacher, HODs of minor department and parent department and Principal within two weeks after registration of the course.

X. Procedure for Monitoring the Progress of the Scheme

The students enrolled in the minor courses will be monitored continuously at par with the prevailing practices and examination standards. An advisor/mentor from parent department shall be assigned to a group of students to monitor the progress.

XI. Allocation of seats for minor

- (a) The institution will notify the number of the seats for minor in the concerned department well in advance before the start of the semester
- (b) Total number of seats offered for a minor programme shall be a maximum of 35% of sanctioned intake of major degree programme.
- (c) The list of the elective for minor will be offered from the list of running majors in the concerned subjects. Each department of concerned institute will notify the seats for the minor well before the start of each session as per the following Table

S. No	Name of the course	Sanction seats of major degree programme	Seats offered for minor	Courses offered	Credits for each course

XII. Course Fees for registration of subjects in Minor degree

There is no fee for registration of subjects for minor degree programme offered in offline at the respective colleges.

XIII. Examinations

- (a) The examination for the minor courses offered in offline shall be conducted along with regular B. Tech programme.
- (b) The examinations (internal and external) and evaluation procedure of minor courses offered in offline is similar to regular B. Tech courses.
- (c) A separate transcript shall be issued for the minor subjects passed in each semester
- (d) There is no supplementary examination for the failed subjects in a minor programme.

XIV. Examination Fees

Examination Fees will be as per the college norms.

Guidelines B. Tech Honors in Engineering
(Applicable from the Academic Year 2022-23 Regular and 2023-24 Lateral Students
(R22))

I. INTRODUCTION

The goal of introducing B.Tech (Hons) is to facilitate the students to choose additionally the specialized courses of their choice and build their competence in a specialized area in the UG level. The programme is a best choice for academically excellent students having good academic record and interest towards higher studies and research. All the students pursuing regular B.Tech with prerequisite CGPA are eligible to the register Honors degree course. A student has to acquire 20 more credits, in addition to 160 credits required, for the award of the B.Tech Honors degree. The additional courses shall be advanced subjects in the concerned department/discipline. The department concerned will determine required courses for award of Honor degree. The subjects in the Honor degree would be a combination of core (theory and lab) and some electives.

II. OBJECTIVES

The objectives of initiating the B. Tech (Honors) degree certification are:

- a) To encourage the undergraduates towards higher studies and research
- b) To prepare the students to specialize in core Engineering streams
- c) To attain the high-level competence in the specialized area of Under Graduate programme
- d) To learn the best educational and professional skills in the specialized area after the completion of his undergraduate courses.
- e) To provide the opportunity to learn the post graduate level courses in the specified undergraduate programme

III. Applicability and Enrolment

- (k) To all B. Tech (Regular and Lateral Entry) students admitted in Engineering & Technology
- (l) The department offering Honors shall have at least one M. Tech in concerned stream, for B.Tech (Honors) registration.
- (m) Total number of seats offered for a minor programme shall be a maximum of 35% of sanctioned intake of major degree programme.
- (n) The allotment of seat into Honors degree is based on the percentage of marks obtained in the major degree programme. Percentage of marks shall be taken up to III semester in case of regular entry students and only III semester in case of lateral entry students
- (o) In the event of any tie during the seat allotment for a Honors degree, the concerned major degree department offering minor shall conduct a test/interview on the prerequisite subjects of Honors degree and final decision shall be taken.
- (p) For applicability of Honors degree, both regular B Tech and Honors degree courses shall be successfully completed with specified SGPA/GCPA
- (q) A student shall report the concerned Principal of the college, if he/she is not interested to pursue/continue the Honors degree programme.
- (r) Transfer of credits from a particular minor to regular B. Tech or another major degree and vice-versa shall not be permitted
- (s) Institutions having at least two NBA accredited B.Tech/M.Tech programs can offer B.Tech(Honors). The Program should have valid NBA accreditation at the time of registration of the student for B.Tech (Honors).

IV. Entry level

- (a) The B. Tech students (both Regular and Lateral Entry) pursuing a major degree programme can register for Honors degree at their choice in any same department offering major degree from III semester onwards
- (b) Students registering for Honors degree shall select the subjects from same branches/department based on the recommendations of BOS committee. For example, if a student pursuing major degree in Electrical & Electronics Engineering shall select subjects in Electrical & Electronics Engineering only and he/she will get major and Honors degree in Electrical & Electronics Engineering
- (c) Only those students, who have a CGPA of 8.0 or above, without any backlog, will be permitted to

- register for a Honors degree
- (d) An SGPA or CGPA in excess of 8.0 has to be maintained in the subsequent semesters in major as well as Honors degree without any backlogs in order to keep the Honors degree registration active.
 - (e) Should both the SGPA and CGPA fall below 8.0 at any point after registering for the Honors; the Honors degree registration will cease to be active.
 - (f) A student registered for Honors degree in a discipline must register and pass in all subjects with a minimum GPA of 8.0 that constitute requirement for award of Honors degree.
 - (g) Separate SGPA/CGPA shall be shown on semester and final transcripts of regular B. Tech and minor.
 - (h) Students shall not be permitted to register for Honors degree after completion of VI semester.
 - (i) Students shall be permitted to select a maximum of two subjects per semester from the list of subjects specified for Honors degree.
 - (j) The students shall complete Honors degree without supplementary appearance within stipulated period as notified by the institution for the completion of regular major B. Tech programme.
 - (k) Honors degree shall not be awarded at any circumstances without completing the regular major B. Tech programme in which a student got admitted
 - (l) If a student is detained due to lack of attendance, he/she shall not be permitted to register the courses for Honors degree
 - (m) If a student failed in any registered course of the Honors, he/she shall not be eligible to continue the B. Tech Honors. However, the additional credits and grades thus far earned by the student shall be included in the grade card but shall not be considered to calculate the CGPA.
 - (n) The subjects completed under Honors degree programme shall not be considered as equivalent subjects in case the student fails to complete the major degree programme
 - (o) Students completed their degree shall not be permitted to register for Honors degree

V. Structure of Minor in B. Tech

- (a) The student shall earn at least 20 credits for award of Honors degree from same branch/department/discipline registered for major degree.
- (b) Students can complete Honors degree courses either in the college or online from platforms like NPTEL/SWAYAM etc.
- (c) Of the 20 additional Credits to be acquired, 16 credits shall be earned by undergoing specified courses list in the departments, with four courses, each carrying 4 credits. The remaining 4 credits must be acquired through two NPTEL, which shall be domain specific, each with 2 credits and with a minimum duration of 8/12weeks as recommended by the Board of studies.
- (d) The overall attendance in each semester of regular B. Tech courses and Honors degree courses shall be computed separately
- (e) A student shall maintain an overall attendance of 75% in all registered courses of Honors to be eligible for attending semester end examinations. However, condonation for shortage of attendance between 65-75% may be given as per college norms. On the recommendations of College Academic Council, the student concerned will be permitted to take the semester end examinations, on payment of condonation fee of Rs. 500/-.
- (f) Student having less than 65% attendance in Honors courses shall not be permitted for semester end examinations.
- (g) A student detained due to lack of attendance in regular B. Tech programme shall not be permitted to continue Honors programme
- (h) The teaching, examinations (internal and external) and evaluation procedure of Honors degree courses offered in offline is similar to regular B. Tech courses
- (i) Students may choose theory or practical courses to fulfil the minimum credit requirement.
- (j) Students shall be allowed to take maximum two subjects per semester pertaining to their Honors degree
- (k) The students registered for minor shall not be permitted to register for B. Tech (Honors)

VI. Credits requirement

- (a) A Student will be eligible to get B. Tech (Honors), if he/she completes an additional 20 credits. These may be acquired either in offline or online like NPTEL/SWAYAM

- (b) The colleges offering Honors degree courses shall be ready to teach the courses in offline mode at their college in the concerned departments. Curriculum and the syllabus of the courses shall be approved by the Board of Studies
- (c) The online NPTEL/SWAYAM subjects selected by a student shall be approved by concerned BOS. The duration of courses shall be a minimum of 14 weeks.
- (d) The assessment and certification of the NPTEL shall be as per the prescribed norms of the NPTEL.
- (e) Students shall produce a certificate issued by the NPTEL/SWAYAM conducting agency as a proof of credit attainment.
- (f) The teaching and evaluation procedure of Honors courses offering in offline mode shall be similar to that of regular B. Tech courses
- (g) After successful completion of all major and Honors degree courses with specified CGPA the University will award B. Tech (Honors)
- (h) If a student fails to complete a course offered in online/offline, he/she will not be permitted to continue the Honors degree

VII. Procedure to Applying for Honors degree

- (a) The department offering the Honors will announce courses required before the start of the session.
- (b) The interested students shall apply for the Honors course to the HOD of the concerned department
- (c) The concerned department will announce the list of the selected students for the minor.
- (d) The whole process should be completed within one week before the start of every session.
- (e) Selected students shall be permitted to register the courses for Honors degree.

VIII. Joining in minor courses in B. Tech

- (a) Each department offering the Honors degree shall submit the final list of selected students to the principal.
- (b) The selected students shall submit a joining letter to the principal through the concerned HOD.
- (c) The department offering Honors shall maintain the record of student pursuing the Honors degree
- (d) With the approval of Principal and suggestion of advisor/mentor, students can choose courses from the approved list and shall register the courses within a week as per the conditions laid down in the structure for the Honor degree.
- (e) Each department shall communicate the Honors courses registered by the students to the time table drafting committee and accordingly time table will be drafted. Time table drafting committee shall see that no clash in time tables.
- (f) If the student wishes to withdraw/change the registration of subject/course, he/she shall inform the same to advisor/mentor, subject teacher, HODs of minor department and parent department and Principal within two weeks after registration of the course.

IX. Procedure for Monitoring the Progress of the Scheme

The students enrolled in the Honor courses will be monitored continuously at par with the prevailing practices and examination standards. An advisor/mentor from parent department shall be assigned to a group of students to monitor the progress.

X. Allocation of seats for Honors degree

- (a) The institute will notify the number of the seats for Honors degree in each department well in advance before the start of the semester
- (b) Total number of seats offered for Honors degree shall be a maximum of 35% of sanctioned intake of major degree programme.
- (c) Each department of concerned institute will notify the seats for the minor well before the start of each session as per the following Table

S. No	Name of the course	Sanction seats of major degree programme	Seats offered for minor	Courses offered	Credits for each course

XI. Course Fees for registration of subjects in Major degree

There is no fee for registration of subjects for major degree programme offered in offline at the respective colleges.

XII. Examinations

- (a) The examination for the Honors degree courses offered in offline shall be conducted along with regular B. Tech programme.
- (b) The examinations (internal and external) and evaluation procedure of Honors degree courses offered in offline is similar to regular B. Tech courses.
- (c) A separate transcript shall be issued for the minor subjects passed in each semester
- (d) There is no supplementary examination for the failed subjects in Honors degree programme.

XIII. Examination Fees

Examination Fees will be as per the college norms.

JNTUK Code: F0

NAAC 'A' Grade – 1st Cycle
NAAC 'A' Grade – 2nd Cycle
Valid upto Dec. 2027



Counseling Code : ANSN

Recognized Under Section
2(f) & 12(B) of Ugc Act, 1956

St.ANN'S COLLEGE OF ENGINEERING & TECHNOLOGY
AUTONOMOUS

(Approved by AICTE, New Delhi & Permanently Affiliated to JNTUK, Kakinada)

ACCREDITED BY NBA & INSTITUTION OF ENGINEERS (INDIA)

Ragging

Prohibition of ragging in educational institutions Act 26 of 1997

Salient Features

- Ragging within or outside any educational institution is prohibited.
- Ragging means doing an act which causes or is likely to cause Insult or Annoyance of Fear or Apprehension or Threat or Intimidation or outrage of modesty or Injury to a student.

	Imprisonment upto		Fine Upto
Teasing, Embarrassing and Humiliation	 6 Months	+	Rs. 1,000/-
Assaulting or Using Criminal force or Criminal intimidation	 1 Year	+	Rs. 2,000/-
Wrongfully restraining or confining or causing	 2 Years	+	Rs. 5,000/-
Causing grievous hurt, kidnapping or Abducts or rape or committing unnatural offence	 5 Years	+	Rs. 10,000/-
Causing death or abetting suicide	 10 Months	+	Rs. 50,000/-

In Case of Emergency CALL TOLL FREE NO. : 1800 - 425 - 1288

LET US MAKE SACET A RAGGING FREE COLLEGE

JNTUK Code: F0

NAAC 'A' Grade – 1st Cycle
NAAC 'A' Grade – 2nd Cycle
Valid upto Dec. 2027



Counseling Code : ANSN

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Ragging

ABSOLUTELY NO TO RAGGING

1. Ragging is prohibited as per Act 26 of A.P. Legislative Assembly, 1997.
2. Ragging entails heavy fines and/or imprisonment.
3. Ragging invokes suspension and dismissal from the College.
4. Outsiders are prohibited from entering the College and Hostel without permission.
5. Girl students must be in their hostel rooms by 7.00 p.m.
6. All the students must carry their Identity Cards and show them when demanded
7. The Principal and the Wardens may visit the Hostels and inspect the rooms any time.



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