



**ANNAMACHARYA INSTITUTE OF TECHNOLOGY AND SCIENCES
RAJAMPET**
(An Autonomous Institution)

ACADEMIC REGULATIONS (R19), COURSE STRUCTURE AND SYLLABI
For the students admitted to
M. Tech., Regular Two Year Degree Programme from the Academic Year 2019-20

VISION AND MISSION OF THE INSTITUTION

Vision

We impart futuristic technical education and instil high patterns of discipline through our dedicated staff who set global standards, making our students technologically superior and ethically strong, who in turn shall improve the quality of life of the human race.

Mission

Our mission is to educate students from the local and rural areas and from other states so that they become enlightened individuals, improving the living standards of their families, industry and society. We provide individual attention, world-class quality of Technical education and take care of character building.

ACADEMIC RULES AND REGULATIONS OF TWO -YEAR M. TECH REGULAR DEGREE PROGRAMME

APPLICABLE FOR THE STUDENT BATCHES ADMITTED FROM THE ACADEMIC YEAR 2019-20

CONTENTS

1. Preamble
2. Application and Commencement
3. Programmes offered by the Institute
4. Eligibility for Admission
5. Medium of Instruction
6. M.Tech. Programme Structure
7. Courses and Credit Structure
 - 7.1 Types of Courses:
 - 7.1.1 Foundation Courses
 - 7.1.2 Professional Core Courses
 - 7.1.3 Professional Core Electives
 - 7.1.4 Open Electives
8. Evaluation Process
 - 8.1 Internal Evaluation
 - 8.1.1 Theory Internal Examinations
 - 8.1.2 Laboratory Internal Examinations
 - 8.1.3 Mini-project with seminar
 - 8.1.4 Internal Evaluation of Audit Courses
 - 8.2 End Evaluation
 - 8.2.1 Theory End Examinations
 - 8.2.2 Laboratory End Examinations
 - 8.2.3 Evaluation of Mandatory Learning Courses
 - 8.2.4 Supplementary Theory /Lab End Examinations
 - 8.2.5 Revaluation and Recounting
 - 8.2.6 Challenge Evaluation
9. Project Evaluation
- 10 Attendance Requirements and Detention Policy
11. Minimum Academic Requirements and Award of The Degree
12. Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA)
13. Transcripts
14. Transitory Regulations
15. Minimum Instruction Days for a Semester
16. Student Transfers
17. Announcement of Results
18. General Instructions

1. PREAMBLE

Annamacharya Institute of Technology and Sciences (Autonomous), Rajampet, relentlessly aims to achieve academic excellence by implementing new initiatives in teaching-learning and evaluation processes. Based on the directions of the University Grants Commission (UGC), New Delhi, All India Council for Technical Education (AICTE), New Delhi and Jawaharlal Nehru Technological University Anantapur (JNTUA) Anantapuramu, the institute adopted AICTE model curriculum, with minor modifications to match the needs, expectations, and skillsets of students of the region, in the post-graduate programmes offered from the academic year 2019-20.

2. APPLICATION AND COMMENCEMENT

- The regulations are quite comprehensive and include definitions of key terms, semester system, credit system, grading system and other relevant details.
- The regulations detailed herein shall apply to all the regular post-graduate programmes offered by the Institute.
- The regulations shall be applicable and come into force to the student batches admitted from the academic year 2019-20
- The Institute may revise, amend or change the regulations, scheme of examinations and syllabi, from time to time, if found necessary and on approval by the Academic Council of the Institute, keeping the recommendations of the Board of Studies in view.
- Any or all such amendments shall be effective from such date and to such batches of students including those already undergoing the programme, as may be approved through Academic Council of the Institute.
- These regulations shall be called R19 Regulations.

3. PROGRAMMES OFFERED BY THE INSTITUTE

The following M. Tech. programmes are offered as specializations by the Institute from 2019-2020.

SNo	Name of the Program	Programme Code
1	Structural Engineering	1
2	Electrical Power Systems	2
3	Machine Design	3
4	Embedded Systems	4
5	Computer Science and Engineering	5

4. ELIGIBILITY FOR ADMISSION

The eligibility criteria for admission into engineering Post Graduate programmes offered at AITS shall be as prescribed by the Government of Andhra Pradesh. The criteria are given below:

- Admission to the above programmes shall be made subject to the eligibility and qualifications as prescribed from time to time.
- Admissions shall be made on the basis of Rank / Percentile earned by the candidate in the relevant GATE examination / merit rank obtained by the qualifying candidate in the entrance test (PGE CET) conducted by the Government of Andhra Pradesh for M.Tech. programmes or as decided by APSCHE subject to the reservations as prescribed by the university / State Government / on the basis of any other order of merit as decided by APSCHE from time to time
- Seats in each programme in the Institute are classified into two categories i.e., **Category – A** and **Category – B** as per the GOs of Andhra Pradesh.

Category – A Seats

These seats shall be filled through counselling as per the rank secured by a candidate in the Common Entrance Test (PGE CET) conducted by the Government of Andhra Pradesh and as per other admission criteria laid down in the GOs.

Category – B Seats

These seats shall be filled by the Institute as per the GOs issued by the Government of Andhra Pradesh from time to time

5. MEDIUM OF INSTRUCTION

The medium of instruction shall be **English** for all the courses including their content delivery and examinations, seminars, presentations and project evaluation as prescribed in the programme curriculum.

6. M.TECH. PROGRAMME STRUCTURE

The structure of the M.Tech. Programmes on offer at AITS are based on the **Choice Based Credit System (CBCS)** as defined by the UGC and the curriculum / course structure as suggested by the AICTE in its Model Curriculum.

Semester Scheme

- The M. Tech Programmes offered at AITS follow **semester scheme** pattern.
- The duration of a M. Tech. Programme shall be of 2 **academic** years.
- Each academic year shall have **2 semesters** i.e., odd and even semesters and shall be counted as first semester, second semester, and so on up to fourth semester.
- Each semester shall consist of **16 weeks** of academic work excluding internal examinations.
- Each semester is structured to provide credits totalling to **68 credits** for the entire M.Tech.

Programme.

- Each semester shall have **Continuous Internal Evaluation (CIE)** and **Semester End Examination (SEE)** for both Theory and Lab courses.
- A student after securing admission into a 2 year M.Tech Programme at AITS shall pursue and acquire the M.Tech. Degree in a **minimum period of two academic years i.e., 4 semesters** and a **maximum period of four academic years i.e., 8 semesters** starting from the date of commencement of 1 year 1 semester, failing which the student shall forfeit the seat in M.Tech. Programme.

7. COURSES AND CREDIT STRUCTURE

Credit: A credit is a unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (Lecture/Tutorial) or two hours of practical work/field work/project per week.

Academic Year: Two consecutive (one odd + one even) semesters constitute one academic year.

Choice Based Credit System (CBCS): CBCS provides choice for students to select from the prescribed courses.

Each course is assigned certain number of credits based on following criterion

Type of Class	Semester	
	Periods per Week	Credits
Theory (Lecture/Tutorial)	01	01
	02	02
	03	03
	04	04
Practical	02	01
	03	1.5
	04	02
Project Work Stage 1	-	10
Project Work Stage 2	-	16

Every course of the M. Tech. programme shall be offered by a specific section / department. The unique codes of the section / department offering the courses are given in the Table.

Course offering Department	Code
Basic Science Courses	C
Humanities Courses	
Management Courses	E
Civil Engineering	1
Electrical and Electronics Engineering	2
Mechanical Engineering	3
Electronics & Communication Engineering	4
Computer Science & Engineering	5

Every M. Tech. Programme of study shall be designed to have theory and laboratory courses. In addition, a student shall carry out project phase-1, project phase-2, other mandatory courses and audit courses as prescribed in the curriculum of the Programmes.

7.1 Types of Courses:

Type of courses	Course category	Code	Range of credits				
			SE	EPS	MD	ES	CSE
Compulsory courses	Professional Core	PC	12	12	12	12	12
	Project / Dissertation Work	PW	26	26	26	26	26
	Mini-Project with Seminar	PS	2	2	2	2	2
	Laboratory Courses	PL	8	8	8	8	8
Elective courses	Professional Electives	PE	15	15	15	15	15
	Open Elective	OE	3	3	3	3	3
Mandatory Learning Course		MLC	2	2	2	2	2
Audit Course	Audit Course	AU	Non-Credit				

7.1.1 Foundation Courses

Engineering Science courses, Basic Science Courses and Humanities courses are termed as Foundation Courses and are mostly offered at I and II Year.

7.1.2 Professional Core Courses

Professional Core Course is to be completed by all students of respective programme before they can move on to the next semester.

7.1.3 Professional Core Electives

University Grants Commission has come up with the Choice Based Credit System (CBCS) in which the students have a choice to choose from the prescribed courses, which are referred as Professional elective and Open Elective courses.

Students have to register for a total of 5 professional core electives courses (PE-1 to PE-5) from the list of track-wise professional elective course as prescribed in the course structure of the programme. The following points are considered for a Professional Elective Course.

- The selection of course based on the choice for students shall be on 'first come first serve' through on line and off line registration.
- The Head of the department or concerned shall decide, whether or not to offer such course keeping in view the resources available in the department offering the course.

7.1.4 Open Electives

Choice Based Credit System (CBCS) is promoted in such a way that different open elective courses should be offered by every department in engineering to other departments. This interdisciplinary of learning open elective courses by other department students will have learning awareness and job-oriented benefits. Students require the opportunity to choose any open elective course from different departments and apply their knowledge to acquire jobs in that field of course. Learning and employment benefits are not only through their own course subjects but also through open elective courses.

Every student shall earn prescribed credits by choosing one of the open elective courses from the list of Open Electives given in the Curriculum. Further students from a particular program/branch can opt for one Open Elective (OE1) offered by their concerned department. However, two Open Electives are interdisciplinary and shall be offered by other branches.

8. EVALUATION PROCESS

The performance of a student in each semester shall be evaluated course-wise with a maximum of 100 marks for both Theory and Lab Courses.

- For a Theory course, the distribution shall be 40 marks for Internal Evaluation and 60 marks for End-Examinations. The distribution is detailed in 8.1.1.
- For a Lab course, the distribution shall be 40 marks for Internal Evaluation and 60 marks End-Examinations. The distribution is detailed in 8.1.2
- For a mini-project with seminar course shall be evaluated for 100 marks, the evaluation procedure is detailed in 8.1.3
- For Audit Course, the evaluation procedure is detailed in 8.1.4
- For the project work, the evaluation procedure is detailed in 9.0

8.1 Internal Evaluation

8.1.1 Theory Internal Examinations

For a Theory Course, 40 marks are allotted for Internal Evaluation. Two mid-term examinations (Theory Internal Examinations) shall be conducted for a Theory Course during a semester and they shall be evaluated for 30 marks. Remaining 10 marks is for continuous evaluation which includes weekly/ fortnightly class tests, homework assignments, problem solving, group discussions, quiz, seminar, mini-project and other means. The method of allotting these marks will be decided by the teacher dealing that subject in

consultation with the Head of the Department. Teacher has to announce the evaluation method in the beginning of the semester. First midterm examination shall be conducted as per the syllabus of I & II units. The second midterm examination shall be conducted as per the syllabus of III, IV and V units.

Note: Final Internal marks for a total of 30 marks shall be arrived at by considering the best marks secured by the student in both the internal examinations

8.1.2 Laboratory Internal Examinations

For Lab Course, there shall be a continuous internal evaluation during the semester for 40 marks. Out of the 40 marks, day-to-day performance of the student in the laboratory shall be evaluated for 30 marks by the concerned laboratory teacher based on experimental correctness/record/viva. Two Lab Internal examinations shall be conducted for 10 marks by the concerned teacher. Performance of one best out of two tests to be considered.

8.1.3 Mini-project with Seminar

- A student shall undergo a mini-project with seminar during the I year II Semester of the M.Tech Programme
- A student under the supervision of a faculty member, shall collect literature on an allotted project topic of his/her choice, critically review the literature, carry out the mini-project and submit it to the department in a form of report as prescribed the Academic section and shall make an oral presentation before the Departmental Project Review Committee.
- Evaluation of the mini-project shall consist of Continuous Internal Evaluation (CIE) and Semester End Examination (SEE) and shall be done by a Departmental Committee (DC) consisting of the Head of the Department, faculty supervisor and a senior faculty member of the specialization / department for a total of 100 marks.
- CIE shall be carried out for 40 marks on the basis of review presentation as per the academic calendar and evaluation format provided by Academic Section.
- SEE shall be carried out at the end of semester for 60 marks on the basis of an oral presentation and submission of mini-project report after clearing the plagiarism check.
- A student has to secure a minimum of 50 % marks to be declared successful.
- Prior to the submission of mini-project report to the DC, its soft copy shall be submitted to the Research and Development Cell for PLAGIARISM check.
- The mini-project report shall be accepted for submission to the DC, if the similarity index is less than 30%. If the similarity index is more than the required percentage, the student shall be advised to modify the content accordingly and re-submit the soft copy of the report after one week.

- The maximum number of re-submissions of mini-project report after plagiarism check is limited to TWO. After this, the student shall be deemed to secure 'Fail' grade in the mini-project and shall re-register for it in the next semester.

8.1.4 Internal Evaluations of Audit Courses

- A student shall pursue Audit courses as specified in the course structure of the M.Tech. Programme.
- These courses are among the compulsory courses and do not carry any credits.
- A student has to secure 50 marks out of 100 in the Internal Examination, shall be necessary requirement for the student to qualify for the **award of Degree**.
- Result of mandatory courses shall be declared with “**Pass**” or “**Fail**” performance in the Comprehensive Marks Memo.
- No marks or letter grade shall be allotted.
- Attendance in the Audit course shall be considered while calculating aggregate attendance.

8.2 End Evaluation

8.2.1 Theory End Examinations

As specified in 8.0, Theory End Evaluation is done for 60 marks. End examination of theory subjects shall be conducted at the end of semester. There shall be Regular and Supplementary End Examinations. Theory End Examination shall be conducted for 60 marks and is of 3 hours duration. The question paper shall be of subjective type with 5 questions, one question from each unit, with internal choice. All questions carry equal marks of 12 each.

8.2.2 Laboratory End Examinations

As specified in 8.0, Lab End Evaluation is done for 60 marks, in the form a Lab End Examination that shall be conducted for 3 hours in respective Laboratory. Each lab course will have its own evaluation procedure and weightage.

8.2.3 Evaluation of Mandatory Learning Courses

Mandatory Learning Course (Research Methodology and IPR) is offered with 2 credits. For a Theory course, the distribution shall be 40 marks for Internal Evaluation and 60 marks for End-Examinations. For internal evaluation and external evaluation refer 8.1.1 and 8.2.1 respectively.

8.2.4 Supplementary Theory/Laboratory End Examinations

- Supplementary examination shall be conducted along with regular semester end examinations.
- During Semester End Examinations of even semester, supplementary examinations of odd semester shall be conducted and during semester end examinations of odd semester,

supplementary examinations of even semester shall be conducted.

- The same schedule is applicable to Supplementary Lab End Examinations. Supplementary examination shall be conducted along with the next batch of students or separately.
- In case of seminars and comprehensive viva-voce examinations, supplementary seminar / comprehensive viva-voce will be conducted along with the next batch of students. If the next batch of students is not available, a separate supplementary examination will be conducted.

8.2.5 Revaluation and Recounting

Students may visit Examination Section Webpage for Norms and Procedures for Revaluation and Recounting of Answer Scripts.

- The students who wishes to apply for Revaluation/Recounting of his/her answer-books(s) must submit his/her application on the prescribed form together with the requisite fee to the Controller of Examinations before expiry of 15 days excluding the date of the declaration of his/her examination result. Application not received in the prescribed form or by the due date or without the requisite fee shall be rejected.
- After Recounting / Revaluation, records are updated with changes if any and the student will be issued a revised memorandum of marks. If there are no changes, the student shall be intimated the same through a notice.
- No Revaluation / Recounting for Laboratory Examination.
- The students are informed to be more careful in furnishing the information while applying for Recounting / Revaluation. The applications with insufficient information will be summarily rejected and the student has to forfeit the amount paid in this connection.

8.2.6 Challenge Evaluation

- Applications are invited from the students, who wish to apply for Challenge Valuation in the subjects of the M.Tech Regular and Supplementary examinations
- The student will apply for Challenge valuation in a specified application and should be routed through the HOD concerned.
- The students who have applied for the revaluation for a paper(s) of an examination are only eligible for the Challenge Valuation of that paper(s) of that examination.
- A Fee of Rs. 10000/- (Ten Thousand Rupees Only) for each paper is to be paid within the last date for challenge valuation.

- A Xerox copy of the answer script will be provided to the student on receipt of the payment of fee and date and time of the valuation will be informed to the student, so that valuation will be done in the presence of the teacher attended in support of the student nominated by the HOD concerned.
- The HOD concerned will nominate a teacher of the concerned subject to observe the valuation in support of the student. This will be done on the request of the student.
- If the marks obtained in the challenge valuation are more than or equal to 15% of the maximum marks with respect to the original marks obtained in the first valuation, then the marks obtained in the Challenge valuation will be awarded to the student and the institute will pay back Rs 9,000 (Nine thousands rupees only) to the student. If the student status changes from fail to pass, an amount of Rs. 5000 will be refunded to the student. Otherwise there will not be any change in the result of the student and original marks will be retained and the student will forfeit the fee paid.
- No Challenge valuation for Laboratory Examination

9.0 PROJECT EVALUATION

Every student shall be required to submit thesis/dissertation after taking up a topic approved by the Departmental Committee

- The Departmental Committee (DC) consisting of HOD, Project supervisor and two internal senior experts shall monitor the progress of the project work. A project Review committee (PRC) shall be constituted with Principal as a Chair person, Heads of the Departments of the M.Tech programs and two other senior faculty members, as members of PRC. PRC will come into action when DC is not able to resolve the issues.
- Registration of project work: A student is permitted to register for the project work after satisfying the attendance requirements of all the courses (theory, practical and seminars)
- After satisfying above point, a student has to submit in consultation with his supervisor, the title, objective plan of action of his project work to the DC for approval. Only after obtaining the approval of DC, the student can initiate the project work
- The work on the project shall be initiated in the penultimate semester and continued in the final semester. The duration of the project is for two semesters. The student can submit project thesis with the approval of DC after 36 weeks from the date of registration at the earliest but not later than one calendar year from the date of registration for the project work. Extension of time within the total permissible limit for completing the programme is to be obtained from the Head of the Institute
- The internal evaluation shall be made by the DC to grade, on the basis of two seminars presented by the student on the topic of his project.

- The student must submit the status of thesis/dissertation only after passing all the prescribed subjects such as theory, practical's, seminar and project internal evaluation
- A Student has to prepare four copies of the thesis/dissertation certified in the prescribed format by the supervisor and HOD. Out of which three copies shall be submitted in the examination section.
- Viva Voce examination shall be conducted by a board consisting of the supervisor, Head of the department and the External examiner. The Board shall jointly report student work as:

A- Outstanding

B- Very Good

C- Good

D- Satisfactory

E- Not Satisfactory

Head of the Department shall coordinate and make arrangements for the conduct of viva-voce.

- If the report of the viva-voce is failure, the student will retake the viva-voce examination after three months. If he/she fails to get a satisfactory report at the second viva-voce examination, he/she will not be eligible for the award of the degree.

10. ATTENDANCE REQUIREMENTS AND DETENTION POLICY

- A student shall maintain a minimum required attendance of 75% in AGGREGATE.
- Shortage of attendance up to 10% i.e., attendance between 65% to 75% in aggregate, may be condoned by the Institute Academic Committee based on the rules prescribed by the Academic Council of the Institute from time to time.
- A stipulated fee shall be payable towards condonation of shortage of attendance.
- Shortage of attendance below 65 % shall in no case be condoned. A stipulated fee shall be payable towards condonation of shortage of attendance to the Institute as per following slab system
 - 1stSlab:** Less than 75% attendance but equal to or greater than 70% a normal condonation fee can be collected from the student.
 - 2ndSlab:** Less than 70% but equal to or greater than 65%, double the condonation fee can be collected from the student.
- Students whose shortage of attendance is not condoned OR who have not paid the stipulated fee OR who have not cleared any other due to the Institute in any semester are not eligible to write the Semester End Examination (SEE).
- Students, who do not meet the minimum required attendance of 65% in a semester, shall be detained in that semester and their registration for that semester shall stand cancelled. They shall not be promoted to the next semester.

- Students detained in a semester shall seek re-admission into that semester as and when offered.
 - Academic regulations applicable to the semester in which re-admission is sought shall be applicable to the re-admitted student.
 - In case, there are any professional electives and /or open electives, the same may also be re-registered, if offered. However, if those electives are not offered in the later semesters, then alternate electives may be chosen from the same set of elective courses offered under that category.
- Any student against whom any disciplinary action is pending shall not be permitted to attend semester end examination (SEE) in that semester.

11. Minimum Academic Requirements and Award of the Degree

The following Academic Requirements have to be satisfied in addition to the attendance requirements mentioned in section 10.

11.1 A student shall be deemed to have satisfied the minimum academic requirements and earn the credits for each theory or practical and Audit courses and Research methodology and Intellectual Property Rights course, if he secures

- A minimum of 40 % marks for each theory course in the Semester End Examination (SEE), and
- A minimum of 50 % marks for each theory course considering both CIE and SEE taken together.

11.2 A student shall be deemed to have satisfied the minimum academic requirements and earn the credits allotted to mini-project courses, if he secures

- A minimum of 50 % marks for mini-project with seminar in the Continuous Internal Evaluation (CIE)

11.3 A student shall be treated as failed, if he

- Does not submit a report of mini-project with seminar and report of project phase courses OR
- Does not make a presentation of the same before the evaluation committee as per the schedule, or
- Secures less than 50 % marks in evaluation.

11.4 If a student fails to secure a pass grade in a particular course, it is mandatory that he shall register and re-appear for the examination in that course during the next semester when SEE is conducted in that course. It is mandatory that he should continue to register and re-appear for the examination till he secures a pass grade.

11.5 A student detained in a SEMESTER due to shortage of attendance, may be re-admitted when the same semester in the next academic year for fulfillment of academic requirements.

11.6 Academic regulations applicable to the semester in which re-admission is sought shall be applicable to the re-admitted student.

- 11.7** A student shall be given one chance to re-register, after completion of the course work, for each course, provided the internal marks (CIE) secured by a student are less than 50% and he has failed in the SEE. In such a case, a student may re-register for the course(s) with prior permission and secure the minimum required attendance. Attendance in the re-registered course(s) shall be calculated separately to become eligible to write the semester end examination (SEE) in the re-registered course(s).
- 11.8** Re-registration is allowed only in those cases where the student doesn't have any course(s) yet to pass other than the re-registration course(s) where the CIE marks are less than 50%. However, in the case of re-registration of course(s) by a student, academic regulations applicable at the time of student admission in the programme shall be applicable.
- 11.9** In the event of re-registration, the internal evaluation marks as well as the End Semester Examinations marks secured in the previous attempt (s) for those subjects stand cancelled.
- 11.10** For each subject re-registered, the student has to pay a fee equivalent to one third of the semester tuition fee
- 11.11** A student shall register and put up minimum academic requirement of all 68 credits and earn all 68 credits for the award of M. Tech degree
- 11.12** Students who fail to earn 68 credits as indicated in the course structure within four academic years from the year of their admission shall forfeit their seat in M. Tech. course and their admission shall stand cancelled.

12. SEMESTER GRADE POINT AVERAGE (SGPA) AND CUMULATIVE GRADE POINT AVERAGE (CGPA)

The performances of students in each of the courses in the Programme are expressed in terms of letter grades based on an absolute grading system. We use 10-point grading system with letter grades. They are given in the following table.

Marks Obtained	Letter Grade	Description	Grade Points (GP)
≥90	S	Superior	10
≥80 and ≤89.99	E	Excellent	9
≥70 and ≤79.99	A	Very Good	8
≥60 and ≤69.99	B	Good	7
≥50 and ≤59.99	C	Pass	6
< 50	F	Fail	--
Absent in the exam(s)	AB	Absent	--

A student is eligible for the award of the M.Tech. Degree with the class as mentioned in the following table

CGPA	Class
≥7.5	First class with Distinction
≥6.5 and <7.5	First Class
≥5.5 and <6.5	Second Class
≥5.0 and <5.5	Pass

For mandatory courses, student shall be awarded “pass” or “fail “without any credit. This shall not be counted for the computation of SGPA/CGPA

12.1 Computation of SGPA

The performance of each student at the end of each semester shall be indicated in terms of SGPA. The SGPA shall be calculated as follows:

$$SGPA = \frac{\text{Total earned weighted grade points in a semester}}{\text{Total credits in a semester}}$$

$$SGPA = \frac{\sum_{i=1}^p C_i \cdot G_i}{\sum_{i=1}^p C_i}$$

Where

C_i = Number of credits allotted to a particular course ‘i’

G_i = Grade point corresponding to the letter grade awarded to the course i

$i = 1, 2, \dots, p$ represent the number of courses in a particular semester.

Note: SGPA is calculated and awarded to those students who pass all the courses in a semester.

12.2 Computation of CGPA

The performance of a student shall be obtained by calculating Cumulative Grade Point Average (CGPA), which is weighted average of the grade points obtained on all courses during the course of study

$$CGPA = \frac{\text{Total earned weighted grade points for the entire programme}}{\text{Total credits for the entire program}}$$

$$CGPA = \frac{\sum_{j=1}^m C_j \cdot G_j}{\sum_{j=1}^m C_j}$$

Where

C_j = Number of credits allotted to a particular semester ‘j’

G_j = Grade point corresponding to the letter grade awarded to the semester j

$j = 1, 2, \dots, m$ represent the number of semester of the entire programme.

12.3 Grade Card

The grade card issued shall contain the following

- The credits for each course offered in that semester
- The letter grade and grade point awarded in each course
- The SGPA and CGPA
- Total number of credits earned by the student up to the end of that semester

Example: - Computation /calculation of SGPA

Course name	Credits (C)	Letter grade	Grade point (GP)	Credit point (CP=C*GP)
Course 1	4	A	9	4x9=36
Course 2	3	S	10	3*10=30
Course 3	2.5	S	10	2.5*10=25
Course 4	1.5	C	6	1.5*6=9
Course 5	1	D	5	1*5=5
Total	12			105

Therefore, SGPA = $\frac{105}{12}$ 8.75

Example Illustration of CGPA

Semester 1	Semester 2	Semester 3	Semester 4	Semester 5
Credit: 20	Credit : 20	Credit : 22	Credit: 23	Credit : 22
SGPA : 8.75	SGPA : 8.25	SGPA : 7.89	SGPA : 8.21	SGPA : 7.86

Thus, CGPA = $\frac{20*8.75+20*8.25+22*7.89+23*8.21+22*7.86}{107} = 8.34$

Similarly, compute CGPA obtained at the end of 4th semester shall be the final CGPA secured by the student for the entire programme.

12.4 Conversion of SGPA into percentage

In case of a specific query by students/employers regarding Semester Grade Point Average (SGPA)/ Cumulative Grade Point Average (CGPA) into percentage, the following formulae will be adopted for notional conversion of CGPA into percentage.

$$\text{Percentage} = 9.5 * \text{CGPA}$$

13. TRANSCRIPTS

After successful completion of the entire programme of study, a transcript containing performance of all academic years will be issued as a final record. Duplicate transcripts will also be issued, if required, after payment of requisite fee. Partial transcript will also be issued up to any point of study to a student on request.

14. TRANSITORY REGULATIONS

Discontinued, detained, or failed candidates are eligible for readmission as and when the semester is offered after fulfilment of academic regulations. Candidates who have been detained for want of attendance or not fulfilled academic requirements or who have failed after having undergone the course in earlier regulations or have discontinued and wish to continue the course are eligible for admission into the unfinished semester from the date of commencement of class work with the same or equivalent subjects as and when subjects are offered, subject to Section 11 and they will follow the academic regulations into which they are readmitted. Students who are permitted to avail gap year shall be eligible for re-joining into the succeeding year of their M.Tech from the date of commencement of class work, subject to Section 11 and they will follow the academic regulations into which they are readmitted.

15. MINIMUM INSTRUCTION DAYS FOR A SEMESTER

The minimum instruction days for each semester shall be 16 weeks.

16. STUDENT TRANSFERS

Student transfers shall be as per the guidelines issued by the Government of Andhra Pradesh and the affiliating University from time to time.

17. ANNOUNCEMENT OF RESULTS

- Results review committee comprising of University nominee, Principal, Dean Academics, Chairman of various boards of studies, Controller of Examinations and Deputy Controller of Examinations will monitor the results and gives the permission for announcement of results.
- After review meeting results are loaded in to Institution website from which students can access their results by entering Hall Ticket number. And also results in form of hard copy are available with respective Heads of the departments.

18. GENERAL INSTRUCTIONS:

- The academic regulations should be read as a whole for purpose of any interpretation.
- Malpractices rules-nature and punishments are appended.
- Where the words "he", "him", "his", occur in the regulations, they also include "she", "her", "hers", respectively.
- In the case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Principal / Governing body is final.
- Any legal issues are to be resolved in Rajampet Jurisdiction.
- The Institute may change or amend the academic regulations or syllabi at any time and the changes or amendments shall be made applicable to all the students on rolls with effect from the dates notified by the Institute.

APPENDIX I: Rules for Disciplinary Action for Malpractices / Improper Conduct in Examinations**Malpractices identified by squad or special invigilators or invigilators**

Punishments shall be given to the students as per the above guidelines. The case is to be referred to the malpractice committee.

Malpractice committee

1. The Principal, Chairman
2. Dean, Academics, Member
3. Invigilator, Member
4. Subject expert, Member
5. Concerned Head of the Department, Member
6. Controller of Examinations, Member Secretary

Note:

Whenever the performance of a student is cancelled in any subject/subjects due to Malpractice, he has to register for End Examinations in that subject/subjects consequently and has to fill all the norms required for the award of Degree.

	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 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 University.
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 for four consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of 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 four consecutive semesters from class work and

ANNAMACHARYA INSTITUTE OF TECHNOLOGY AND SCIENCES RAJAMPET

		all University examinations, if his involvement is established. Otherwise, the candidate is debarred for two consecutive semesters from class work and all University 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 University 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 only.
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 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.	In case of student 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. If the candidate physically assaults the invigilator/officer-in-charge of the Examinations, then the candidate is also debarred and forfeits his/her seat. In case of outsiders, they will be handed over to the police and a police case is registered against them.
7.	Leaves the exam hall taking away answer script or intentionally tears of 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 University 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	Expulsion from the examination hall and cancellation of the

ANNAMACHARYA INSTITUTE OF TECHNOLOGY AND SCIENCES RAJAMPET

	examination hall.	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 students 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 class 6 to 8.	Student of the colleges 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 does not belong to the College will be handed over 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 only or in that subject and all other subjects the candidate has appeared including practical examinations and project work of that semester / year examinations, depending on the recommendation of the committee.
12.	If any malpractice is detected which is not covered in the above clauses 1 to 12 shall be reported to the University for further action to award suitable punishment.	