

# ADITYA ENGINEERING COLLEGE

An Autonomous Institution

## ACADEMIC REGULATIONS (AR17) FOR M. TECH PROGRAMME

Applicable for the students admitted from the academic year 2017-18 onwards

### 1. AWARD OF M. TECH DEGREE

A student will be declared eligible for the award of M.Tech Degree,

**1.1** If he pursued a course of study in not less than two and not more than four academic years.

**1.2** The student shall register for all 80 credits and secure all the 80 credits.

### 2. PROGRAMMES OF STUDY

The following specializations are offered at present for the M.Tech programme.

S. No	Department	Specialization	Code
01	Civil Engineering	Structural Engineering	87
02	Electrical and Electronics Engineering	Power Electronics and Drives	43
03	Mechanical Engineering	Thermal Engineering	21
04	Electronics and Communication Engineering	Embedded Systems	55
05		VLSI Design	72
06	Computer Science and Engineering	Computer Science & Engineering	58
07		Software Engineering	25
08	Petroleum Technology	Petroleum Engineering	08

### 3. DISTRIBUTION AND WEIGHTAGE OF MARKS

**3.1** The performance of the student in each semester shall be evaluated course - wise, with a maximum of 100 marks for both theory and practical on the basis of Sessional evaluation and End examinations, Project work evaluation for 200 marks on the basis of Sessional evaluation and End examinations, comprehensive Viva-Voce for 50 marks of Sessional evaluation and Seminar presentation for 50 marks of Sessional evaluation.

**3.2** For the theory courses, the distribution shall be 40 marks for Sessional examinations and 60 marks for End examinations. The Sessional marks shall

be awarded based on the average of the marks secured in two Sessional examinations. The first Sessional examination is conducted for first 2 ½ units and second Sessional examination for remaining 2 ½ units for each course in a semester. Each Sessional examination shall be conducted for duration of 120 minutes with 4 questions (no choice), each question is for 10 marks. End examination is conducted for duration of 180 minutes with 8 questions out of which 5 questions to be answered and each question carries 12 marks.

- 3.3** For practical courses, there shall be continuous evaluation during the semester for 40 Sessional marks and 60 End examination marks. The Sessional 40 marks shall be awarded as, day-to-day work-15 marks, Record-10 marks and laboratory Exam -15 marks. The End examination shall be conducted by the concerned teacher and external examiner appointed by the Principal from a panel of three examiners submitted by HOD.
- 3.4** For Seminar, there shall be two presentations during III and IV semester for 50 Sessional marks each. For seminar, a student under the supervision of a faculty member, shall collect the literature on a topic and critically review the literature and submit it to the department in a report form and shall make an oral presentation before the Seminar Review Committee consisting of Head of the Department, Supervisor and two other senior faculty members of the department. A student has to secure a minimum of 50% of marks to be declared successful. There shall be no End examination for seminar.
- 3.5** For Comprehensive Viva–Voce, there shall be Viva–Voce conducted by a committee consisting of Head of the Department and two senior faculty members of the departments. The comprehensive Viva–Voce is aimed to assess the students understanding in various courses he studied during the M.Tech programme. A student has to secure a minimum of 50% of marks to be declared successful. There shall be no End examination for comprehensive Viva–Voce.
- 3.6** For Project evaluation, out of 200 marks, 80 marks shall be for Sessional Evaluation and 120 marks for the End Examination (Viva–Voce). Every

student shall be required to submit a thesis or dissertation on a topic approved by the Project Review Committee (PRC).

1. A PRC shall be constituted with the Head of the Department, supervisor and two other senior faculty members.
2. A student is permitted to register for the project work after satisfying the attendance requirements of all the courses in I & II semesters.
3. A student has to submit, in consultation with his project supervisor, the title, objective and plan of action of his project work for approval. The student can initiate the Project work, at the beginning of the III semester by obtaining the approval from the PRC. The project duration is for two semesters.
4. A student is permitted to submit Project Thesis only after successful completion of theory and practical courses with the approval of PRC and not earlier than 40 weeks from the date of registration of the project work.
5. If a student wishes to change his supervisor or topic of the project, he can do so with the approval of the PRC. However, the PRC shall examine whether or not the change of topic / supervisor leads to a major change of his initial plans of project proposal. If yes, his date of registration for the project work starts from the date of change of Supervisor or topic as the case may be.
6. A student shall submit his status report at least with 4 reviews conducted by the PRC.
7. A student should publish / present his research findings of his Project work in the form of research paper to a National or International Peer Reviewed Journal / at a International Conference with due permission from the supervisor after getting Plagiarism Check.
8. The Sessional Evaluation shall be made on the basis of reviews and on the progress of the work evaluated by PRC.
9. Three copies of the Project Thesis certified by the supervisor shall be submitted to the College after getting plagiarism check.

10. The external examiner shall be appointed by the Principal from the panel of three examiners, who are eminent in that particular field given by the Head of the Department. The project thesis is sent to the same examiner for the adjudication.
11. If the report of the examiner is favourable, Viva–Voce examination shall be conducted by PRC and the examiner who adjudicated the Thesis.
  - (a) Student has to secure 40% of marks in the Viva–Voce examination and a minimum aggregate of 50% of total marks in Viva–Voce examination and Sessional evaluation taken together.
  - (b) If the report of the Viva–Voce is fail, the student shall retake the Viva–Voce examination only after three months. If he fails to get a satisfactory report at the second Viva–Voce examination, the student has to re-register for the project and complete the project within the stipulated time after taking the approval from the Principal.
12. If the report of the examiner is unfavorable, the student shall revise and resubmit the Thesis, in the time frame as decided by the PRC. If the report of the examiner is unfavorable again, the thesis shall be summarily rejected. The student has to re-register for the project and complete the project within the stipulated time after taking the approval from the Principal.

**3.7** A student shall be deemed to have secured the minimum academic requirement in a course, if he secures a minimum of 40% of marks in the End Examination and a minimum aggregate of 50% of the total marks in the End Examination and Sessional examinations taken together.

#### **4. RE-REGISTRATION FOR IMPROVEMENT OF SESSIONAL MARKS:**

Following are the conditions to avail the benefit of improvement of Sessional marks.

**4.1** A student shall be given one chance to re-register for each course provided the Sessional marks secured by a student are less than 50% and has failed in the End examination.

- 4.2 In such a case, the student can re-register for the course(s) and the attendance shall be calculated separately.
- 4.3 If the student gets required minimum attendance then he shall be eligible for writing the End examination in that course(s).
- 4.4 In case that student secures less than the required attendance in any re-registered course(s), he shall not be permitted to write the End examination in the course. He shall again re-register the course when next offered.
- 4.5 In the event of the student taking re-registration, his Sessional marks and End examination marks obtained in the previous attempt stand cancelled in that course(s).
- 4.6 For re-registration, the student has to get approval from the Principal and has to pay the requisite fee which is of one third of the semester tuition fee before the start of the semester in which re-registration is required.
- 4.7 At a given time a student is permitted to re – register for maximum of two courses in addition to the regular semester.

## **5. ATTENDANCE**

- 5.1 A student shall be eligible to write End examinations if he acquires a minimum of 75% of attendance in aggregate of all the courses.
- 5.2 Condonation of shortage of attendance in aggregate up to 10% (65% and above and below 75%) on a medical grounds in a semester may be granted by the College Academic Committee and a student can be condoned for a maximum of three times only.
- 5.3 Shortage of Attendance below 65% in aggregate shall not be condoned.
- 5.4 Students, whose shortage of attendance is not condoned in any semester, are not eligible to write their End examination of that semester.
- 5.5 A fee of 500/- shall be payable towards condonation of shortage of attendance.
- 5.6 A student shall not be promoted to the next semester unless he satisfies the attendance requirement of the present semester, as applicable. They may seek readmission into that semester when next offered.

**5.7** If any student fulfills the attendance requirement in the present semester, he shall not be eligible for readmission into the same semester.

## 6. AWARD OF DEGREE AND CLASS

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

Class Awarded	CGPA to be secured	From the CGPA Secured from 80 Credits
First Class with Distinction	$\geq 7.75$ (with no course failures)	
First Class	$\geq 6.75$ with course failures	
Second Class	$\geq 5.75$ to $< 6.75$	

### 6.1 Cumulative Grade Point Average (CGPA)

The following procedure is to be adopted to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

Range of Marks (%)	Letter Grade	Level	Grade Point
$\geq 90$	O	Outstanding	10
$\geq 80$ to $< 90$	A+	Excellent	9
$\geq 70$ to $< 80$	A	Very Good	8
$\geq 60$ to $< 70$	B+	Good	7
$\geq 50$ to $< 60$	B	Fair	6
$< 50$	F	Fail	0
		Absent	0

#### 1. Computation of SGPA

The **SGPA** is the 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 number of credits of all the courses undergone by a student, i.e.

$$SGPA(S_i) = \frac{\sum (C_i \cdot G_i)}{\sum (C_i)}$$

Where  $C_i$  is the number of credits of the  $i^{\text{th}}$  course and  $G_i$  is the grade point scored by the student in the  $i^{\text{th}}$  course.

## 2. Computation of CGPA

- (i) The **CGPA** is also calculated in the same manner taking into account all the courses undergone by a student over all the semester of a programme, i.e.

$$CGPA = \frac{\sum(C_i \cdot S_i)}{\sum(C_i)}$$

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

- (ii) The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.
- (iii) Equivalent Percentage =  $(CGPA - 0.75) \times 10$

## 7. MINIMUM INSTRUCTION DAYS

The minimum instruction days for each semester shall be 90 working days.

## 8. WITHHOLDING OF RESULTS

If the student not paid any dues to the college or involved in indiscipline activities, his result will be withheld.

## 9. TRANSITORY REGULATIONS

- 9.1** Discontinued or detained students are eligible for readmission as and when next offered.
- 9.2** The readmitted students will be governed by the regulations under which the student has been admitted.

## 10. GENERAL

- 10.1** Wherever the words “he”, “him”, “his”, occur in the regulations, they include “she”, “her”, “hers”.
- 10.2** The academic regulation should be read as a whole for the purpose of any interpretation.
- 10.3** In the case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Academic council is final.

**10.4** The college 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 college.

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