### THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI - 625 015

(A Govt. Aided, ISO 9001:2008 certified, Autonomous Institution affiliated to Anna University)

# **RULES AND REGULATIONS**

### M.E. / M.Tech. / M.C.A. Degree Programmes

These rules and regulations are applicable to the candidates admitted from the academic year 2011-12 onwards

# **1. 0 PRELIMINARY DEFINITIONS AND NOMENCLATURE**

In these regulations, unless the context otherwise requires:

- I) **"Programme**" means Post Graduate Degree Programme that is M.E./M.Tech./ M.C.A.
- II) **Branch**" means specialization or discipline of M.E./M.Tech. Degree Programme, like Communication Systems, Power Systems Engineering, Production Engineering, Computer Science and Engineering, etc.
- III) **"Course**" means a theory or practical subject that is normally studied in a semester, like Precision Manufacturing, Power Electronics, Communication Engineering, etc.
- IV) 'University' means Anna University

### 2.0 QUALIFICATIONS FOR ADMISSION:

The candidates seeking admission to the programme shall require satisfying the eligibility norms prescribed by the Anna University and Director of Technical Education, Chennai, from time to time.

# 3.0 BRANCHES OF STUDY:

### M.E. Degree

- Structural Engineering
- Infrastructure Engineering and Management
- Industrial Engineering
- Manufacturing Engineering
- Power System Engineering
- Communication Systems
- Wireless Technologies
- Computer Science and Engineering
- Computer Science and Information Security
- Mechatronics

#### M.Tech. Degree

- Environmental Engineering
- Control and Instrumentation

### M.C.A. Degree

• Computer Applications

## 4.0 STRUCTURE OF PROGRAMMES:

- **4.1** The programmes consist of: core courses, elective courses, practical courses, seminars and project work/ thesis / dissertation. The programmes also include design projects / planning projects / seminars / practical / practical training, if they are specified in the Curriculum.
- **4.2** The curriculum and syllabi of all the programmes shall be approved by the Board of Studies and Academic Council.
- **4.3** A candidate may be permitted by the Head of the Department to choose one elective from programmes offered by other departments in the college during the period of his/her study, provided the Head of the Department offering such course also agrees and there is no overlapping in the time-table for the lecture classes.

#### 4.4 **Project Work/ Thesis/ Dissertation**

- **4.4.1** Project Work / Thesis / Dissertation shall be carried out under the supervision of a faculty in the concerned Department.
- **4.4.2** A candidate may, however, in certain cases, be permitted to work on the project in an Industrial/Research Organization, on the recommendations of Head of the Department, with the approval of the principal. In such cases, the Project work shall be jointly supervised by a supervisor of the department and an Engineer / Scientist from the Organization and the student shall be instructed to meet the supervisor periodically in any working day of every month and to attend the review committee meetings for evaluating the progress. These candidates will produce a certificate of attendance from the Industry / Research Organization where the project is done. They will also report the progress to the local Guide and the Head of the Department every month.
- **4.4.3** The report of Project work / Thesis / Dissertation and Drawings prepared according to approved guidelines and duly signed by the supervisor(s) and the Head of the Department shall be submitted to the Controller of Examination (CoE).
- **4.4.4** The report of Project work / Thesis / Dissertation shall be submitted on or before the last day mentioned in the Academic Calendar of the semester.
- **4.4.5** No further extension of time will be permitted. Due to unavoidable circumstances if any candidate is not able to submit the project report on or before the last date prescribed, he / she shall is deemed to have failed in the Project and shall re-enroll the same in the subsequent semester. They shall be granted one additional semester for submission of project report, by the

Principal based on the recommendations of the Guide and the Head of the Department concerned and on the payment of tuition fee and other special fees prescribed by the college office.

- **4.4.6** Every candidate doing M.E./M.Tech./M.C.A. shall, based on his/her Project Work / Thesis / Dissertation, send a paper for publication in a refereed journal or a conference in which full papers are published after usual review. An acknowledgement for having communicated to the journal or conference shall be attached to the report of the Project Work.
- **4.5** Practical training or Industrial internship, if specified in the Curriculum shall be of not less than 4 weeks duration and should be approved by the Head of the Department / Institution.
- **4.6** A student who has passed all the courses prescribed in the curriculum for the award of the degree shall not be permitted to re-enroll to improve his/her marks in a course or the aggregate marks.
- **4.7** The Medium of instruction, examinations and project report shall be in English

# 5.0 DURATION OF THE PROGRAMMES AND SEMESTERS:

**5.1** The minimum and maximum period for completion of the Programmes are given in TABLE I.

Programme	Min. No. of Semesters	Max. No. of Semester
M.E./M.Tech	4	8
M.C.A.	6	12

**TABLE I** : Duration of Programmes

- **5.2** The duration for the programmes shall extend over a period of four consecutive semesters for the candidates admitted in M.E./ M.Tech. programmes
- **5.3** The duration of the programmes shall extend over a period of six consecutive semesters for the candidates admitted in M.C.A. programme in the first semester and four consecutive semesters for the candidates admitted in third semester (Lateral Entry Students, with effect from 2013-14).
- **5.4** Each semester normally consists of 90 working days. In any contingent situation, the number of working days per semester shall not be less than 65 days. The Principal is given the discretionary power to decide the number of working days. The Principal shall ensure that every faculty member imparts instruction as per the number of periods specified in the syllabus and that the faculty teaches the full content of the specified syllabus for the course being taught.
- **5.5** For the purpose of regulations, the academic year will be normally divided into two semesters, the odd semester normally spanning from June to November and the even semester from December to May.

**5.6** The courses in the curriculum of the Odd semesters will be conducted only in odd semesters and that of the even semesters only in even semesters.

# 6.0 REQUIREMENTS FOR COMPLETION OF A SEMESTER:

- **6.1** A candidate who has fulfilled the following conditions shall be deemed to have satisfied the requirements for completion of a semester:
  - a. he/she has earned not less than 65% of attendance (without considering any leave) in each course in that semester and not less than 80% of attendance (without considering any leave) on an average in all the courses in that semester put together, and
  - b. his/her progress has been satisfactory, and
  - c. his/her conduct has been satisfactory.
- **6.2** A candidate who could secure minimum of 65% attendance (without considering any leave) in any individual course and an average attendance above 70% and below 80% (without considering any leave) in all the courses in the current semester due to medical reasons (hospitalization / accident / specific illness) or due to participation in the College / University / State / National / International level Sports events with prior permission from the Principal / competent authority shall be given exemption from the prescribed attendance requirement and he/she shall be permitted to appear for the current semester examinations, after paying the condonation fee at the CoE office.
- **6.3** Attendance for Medical Leave & On Duty Leave (ODL) for co-curricular and extra-curricular activities all put together shall be considered up to 10% on the actual total number of working days, provided Medical Certificate or certificate of participation in co curricular / extra curricular activities from the competent authority is submitted within THREE working days from the date of rejoining the college after the particular period of leave on medical ground or extra curricular activities or both.
  - **6.3.1** The following activities shall be considered for the award of attendance (ODL):
    - Sports and Games: TIES, Inter collegiate, Inter Zonal, Inter University, State level, National level and Open Tournaments.
    - Cultural Programs
    - Seminar / Symposia: Paper presentation / Quiz
    - Leadership course organized by other organizations & Alumni Association activities
    - Training Programs
    - Association Activities
    - Personal damages incurred during the extra-curricular activities.
    - Projects in Industries/Organizations.
    - Placement activities.

The students those who are good in curriculum progress ONLY be considered for the grant of under co-curricular / extra-curricular activities by the competent authorities.

- **6.4** Percentage of attendance for the leave period (ML or ODL or Both) for the purpose of calculation of eligibility will be worked out based on the actual number of working days during the period of leave availed by the student and the actual total number of working days in that semester.
- **6.5** The ODL requisition letter shall be forwarded to the Principal through the Head of the Department of the student and the faculty in charge of the respective activities before / after completion of the every activity.
- **6.6** The ODL sanctioned letters shall be submitted to the Department office. The staff in charge of the department office will check the eligibility as per the clause 6.3, 64. & 6.5 for the award of attendance at the end of semester and the same may be submitted to the Head of the Department for approval.
- **6.7** Those students who are not deemed to have completed the semester with reference to the conditions specified above shall undergo the semester again in all the courses in the respective semester of next academic year.

# 7.0 FACULTY ADVISOR (TUTOR)

To help the students in planning their courses of study and for general advice on the academic programme, the Head of the Department of the students will attach a certain number of students to a faculty of the Department who shall function as Tutor for those students throughout their period of study. Such Tutor shall advise the students and monitor the courses undergone by the students, check the attendance and progress of the students attached to him/her and counsels them periodically. If necessary, the faculty adviser may also discuss with or inform the parents about the progress of the students through the Head of the Department concerned.

# 8.0 CLASS COMMITTEE

- **8.1.** Every class shall have a class committee consisting of faculty members handling courses of the concerned class, student representatives cross section of students (Academically good, average, Poor) and a chairperson who is a faculty not handling the course for the class. The overall goal is to improve the teaching-learning process. The functions of the class committee include:
  - Solving problems experienced by students in the classroom and in the laboratories.
  - Clarifying the regulations of the degree programme and the details of rules therein.
  - Informing the student representatives the academic schedule including the dates of assessments (Tests & Assignments) and the syllabus coverage for each assessment.
  - Analyzing the performance of the students of the class after each test and finding the ways and means of solving problems, if any
  - Identifying the weak students, if any, and requesting the faculty concerned to provide some additional help or guidance or coaching to such weak students.
- 8.2 The class committee for a class is constituted by the Head of the department.

- **8.3** The class committee shall be constituted on the first day of commencement of any semester.
- 8.4 At least 4 student representatives shall be included in the class committee.
- **8.5** The chairperson of the class committee may invite the Tutor(s) and the Head of the department to the meeting of the class committee.
- **8.6** The Principal may participate in any class committee of the institution.
- **8.7** The chairperson is required to prepare the minutes of every meeting, submit the same to Head of the Department within two working days of the meeting and arrange to circulate among the concerned students and faculty members. If there are some points in the minutes requiring action by the management, the same shall be brought to the notice of the management by the Principal.
- **8.8** The class committee shall meet three times a semester:
  - The first meeting within a week from the date of commencement of the semester.
  - The second meeting a week after the first test results.
  - The third meeting a week before the last lecture day of the semester.
- **8.9** During these meetings the student members representing the entire class, shall meaningfully interact and express the opinions and suggestions of the other students of the class to improve the effectiveness of the teaching-learning process.

### 9.0 SYSTEM OF EXAMINATION:

- **9.1** Performance in each course of study shall be evaluated based on (i) continuous assessment throughout the semester and (ii) a terminal examination at the end of the semester.
- **9.2** All theory, practical, seminar and other than Project Work / Thesis / Dissertation, shall be evaluated for a maximum of 100 marks. The Project Work / Thesis / Dissertation shall be evaluated for a maximum of 300 marks. The maximum marks assigned to different courses shall be as given in Table II.

Courses	Continuous	Terminal Exam.		Total
	Assessment	Conducted	Converted	
		for	to	
Theory	50	100	50	100
Practical	50	100	50	100
Seminar	50	100	50	100
Project Work / Thesis / Dissertation	150	300	150	300

### TABLE II: Marks (Maximum) to courses

- **9.3** The terminal examination of theory and practical courses shall be 3 hours duration and ordinarily be conducted between November and December during the odd semesters and between April and May during the even semesters. All practical examinations shall be conducted and evaluated internally by the institution itself.
- **9.4 Seminar:** A team comprising of Head of the Department concerned, a common internal examiner nominated by the Head of the Department concerned and an external examiner will award marks in the terminal examinations based on their presentations. The external examiner shall be appointed by the Controller of Examinations of the college from the panel of the examiners suggested by the Head of the Department. The Head of the Department, in his/her absence / non-available periods, may nominate a faculty to act on behalf of him/her.
- **9.5 Project Work / Thesis / Dissertation**: A team comprising of Guide, Head of the Department concerned and external examiner will award marks for the Project Report and Viva Voce examination (Terminal Examination). The external examiner shall be appointed by the Controller of Examinations of the college from the panel of the examiners suggested by the Head of the Department. The Head of the Department, in his/her absence / non-available periods, may nominate a faculty to act on behalf of him/her.
- **9.6** Students are prohibited from entering into the examination Hall / Laboratories any book or portion of book, manuscript, or paper of any description or communicating with or copying from each other or communicating with any persons outside the examination Hall / Laboratories. Programmable calculators. cell phone shall not be permitted inside the examination hall / Laboratories. However, any required codebooks and data sheets / books if necessary may be permitted inside the examination hall / laboratories with approval of the Chief Superintendent / Examiners. The students are warned that any form of malpractice will be dealt severely. The punishment may even be canceling all the examinations and disciplinary action will be taken by the college authorities after conducting enquiry.
- **9.7** Identity card and Hall ticket of the college must be produced at the time of terminal examination. Any student fails to produce Identity card and Hall ticket shall be levied a spot fine by the Chief superintendent/ Examiners.
- **9.8** For all the practical courses and project work, students shall obtain bonafide certificate for the Record /Project work completed from the faculty-in-charge /Guide and head of the department at the end of the semester. Students who have not obtained the bonafide certificate are not permitted to appear for the terminal examination.
- **9.9** The internal and external examiners for practical courses shall be appointed by the head of the department /controller of examination.

### **10.0 PROCEDURE FOR AWARDING MARKS FOR CONTINUOUS ASSESSMENT**

#### **10.1** Theory courses:

- 1. The award of marks for continuous assessment shall be based on three tests and three Assignments/tutorials/seminars/mini projects.
- 2. The apportioning of marks shall be as follows:
  - i) 40 marks for tests
  - ii) 10 marks for assignments/tutorials/seminars/mini projects
- 3. Three Tests will be conducted as per the schedule given in the academic calendar. Each test carries maximum of 50 marks. Among the three tests, the best two test marks will be considered for the award of continuous assessment of 40 marks for test.
- 4. Both Test and Assignments/tutorials/seminars/mini projects marks are put together (Max. 50) and rounded to nearest integer if necessary.

#### **10.2 Practical courses:**

Minimum one test should be conducted at the end of the semester. The<br/>continuous assessment mark will be awarded as follows::20Test mark:20Average mark awarded for Viva – voce, Conduct of<br/>experiments, Observation & Results in regular class work:20Average of the marks awarded for Record in regular class work:20

All the marks put together (Max. 50) and rounded to nearest integer if necessary.

#### 10.3 Seminar / Project work / Thesis/ Dissertation:

The Head of the Department shall constitute a review committee. There shall be three assessments (each 100 Marks) during the semester by the review committee. The student shall make presentation on the progress made by him / her before the committee. The total marks obtained in the three assessments shall be converted to 50 marks for seminar and 150 marks for Project/Thesis/Dissertation.

**10.4** Every faculty is required to maintain an Attendance and Continuous Assessment Record which consisting of attendance marked for each lecture or practical or project work classes, the tests & assignment marks and record of class works (topics covered) separately for each course. This should be submitted to the Head of the department concerned at the end of every month for checking the syllabus coverage and the records of test marks and attendance. The Head of the department will put his signature and date after due verification. At the end of the semester, the register should be verified by the Head of the Department and keep this document in his safe custody for five years. The register will have to be produced for scrutiny by the Principal or any inspecting authority whenever called for. The faculty handling courses for a particular programme from other department (Eg. English, Mathematics, Science, etc.,) shall submit the register to the Head of the Department of the programme concerned.

# 11.0 REQUIREMENTS FOR APPEARING FOR THE TERMINAL EXAMINATION:

A candidate shall be permitted to appear for the terminal examinations only if,

- a) he/she satisfies the requirements prescribed in clause 6.0 and
- b) he/she has paid the examination fees and registered for the examinations for all the courses of current semester and all the arrear courses, if any.

If any candidate failed to register and pay the examination fees within due date, they shall be permitted:

- to continue their studies in the next higher semester, provided that the candidate should satisfy the requirements as stipulated in clause 6.0 of this regulations and
- to write the current semester courses and arrear courses if any, in the next supplementary examination as arrear courses on registration and payment of fees. It will be counted as an attempt for the candidate concerned.

# 12.0 ELIGIBILTY FOR PASS IN EACH COURSE:

- **12.1** Theory / Practical courses: A candidate who secures not less than 50 marks out of 100 marks in terminal examination and not less than 50 marks in aggregate of the continuous assessment mark and the terminal examination put together shall be declared to have passed in that course.
- **12.2 Seminar**: A candidate who secures not less than 50 marks out of 100 marks in the Viva-Voce examination and not less than 50 marks in aggregate of the continuous assessment mark and the terminal examination put together shall be declared to have passed in Seminar.
- **12.3 Project / Thesis / Dissertation**: A candidate who secures not less than 75 marks out of 150 marks in the Viva-Voce examination and not less than 150 marks in aggregate of the continuous assessment mark and the terminal examination put together shall be declared to have passed in the Project / Thesis / Dissertation.
- 12.4 If a candidate fails to secure a pass in a particular course, it is mandatory that he/she shall register and reappear for the examination in that course during the next semester when examination is conducted in that course; he/she should continue to register and reappear for the examination till he / she secures a pass. However, the internal assessment marks obtained by the candidate in the first attempt shall be retained and considered valid for all subsequent attempts, during his/her course of study.
- **12.5** A candidate can apply for revaluation of his/her semester examination answer paper in a theory course, within 3 working days from the declaration of results, on payment of a prescribed fee through proper application to the Controller of Examinations. The Controller of Examination will arrange for the revaluation and the results will be published before the commencement of supplementary examinations. Revaluation is not permitted for practical courses and for project work.

#### 12.6 Award of Grades:

Range of Total Marks (TM) (Continuous assessment +Terminal Examination)	Letter Grade	Grade Point (GP)	
$90 \le TM \le 100$	S	10	
$80 \le TM < 90$	A	9	
$70 \le TM < 80$	В	8	
$60 \le TM < 70$	С	7	
$50 \le TM < 60$	D	6	
$0 \le TM < 50$	RA (Re-Appear)	0	
Non-completion of a semester(Repeat course)	I	0	
Withdrawal from terminal examination	W	0	
Absent	AA	0	

 $GPA = \frac{Sum of (Credits \times GP)}{Sum of Credits}$ 

Cumulative GPA (CGPA) will be calculated in a similar manner, considering all the subjects registered from the first semester.

**12.7** If any candidate having arrears and completed the programme, for the subsequent attempts in arrear courses as a private candidate in the examinations the Continuous Assessment Marks earned by the candidate shall be nullified and only the marks earned in the Terminal Examinations alone shall be considered for passing the subject as prescribed in the Scheme of Examinations (Min. 50% of the Terminal Examination Marks) of the curriculum.

# 13.0 ISSUE OF GRADE CARD:

A grade card for each semester will be issued, containing the following information through the Head of the Department after the publication of the results.

- 1. The credits registered and earned.
- 2. Grade obtained in each course.
- 3. Grade Point Average (GPA) of the semester and Cumulative Grade Point Average (CGPA) earned up to the semester.
- 4. Month and year of appearance.
- 5. Course code and Title.

### 14.0 ELIGIBILTY FOR THE AWARD OF DEGREE:

14.1 A candidate shall be eligible for the award of degree only if he / she enrolls for all the courses and earns the minimum number of credits prescribed in the curriculum of the respective programme. A candidate who has acquired the minimum number of total credits prescribed in the curriculum for the award of degree will not be permitted to enroll for more subjects to improve his / her GPA.

- **14.2** A candidate seeking M.E. /M.Tech./ M.C.A shall be required to have pursued the prescribed courses of study and evaluation in the college for the specified duration and passed all the examinations prescribed there for.
- **14.3** No disciplinary action pending against the student.

# 15. 0 CLASSIFICATION OF THE DEGREE AWARDED:

#### 15.1. First class with Distinction:

A candidate who qualifies for the award of degree (vide clause 13.0) having passed the examination in all the courses within the prescribed semesters (four semesters for M.E./M.Tech. programmes, and Six semesters for MCA programme) consecutively without break of study, in his / her first appearance and securing a CGPA of not less than 8.00 shall declared to have passed in First class with distinction. For this purpose, the authorized break of study (vide clause 16.0) and withdrawal from the examination (vide clause 17.0) will not be counted as an attempt.

#### 15.2. First Class:

A candidate who qualifies for the award of degree (vide clause 14.0) having passed the examination in all the subjects within the prescribed number of semesters (four semesters for M.E./M.Tech. programmes, and Six semesters for MCA programme) consecutively form his / her commencement of study and securing a CGPA of not less than 6.50 shall declared to have passed in First class. For this purpose the authorized break of study (vide clause 16.0) and withdrawal from the examination (vide clause 17.0) will not be counted as an attempt.

#### 15.3. Second Class:

All other candidate who qualifies for the award of degree having passed the examination in all the courses and fulfilling the requirements given in clause 14.0 above, shall be declared to have passed in Second Class.

**15.4** A candidate who is absent for semester examination in a course / Seminar / Project/Thesis/Dissertation after having registered for the same shall be considered to have appeared for that examination for the purpose of classification.

### 16.0 TEMPORARY BREAK OF STUDY FROM A PROGRAMME

i) A candidate is not normally permitted to temporarily break the study. However, if a candidate intends to temporarily discontinue the programme in the middle for valid reasons (such as accident or hospitalization due to prolonged ill health) and to rejoin the programme, he/she shall apply in advance to The Principal, through the Head of the Department stating the reasons there for, in any case, not later than the last date for registering for the semester examinations of the semester in question.

- ii) The candidate permitted to rejoin the programme after the break shall be governed by the rules and regulations in force at the time of rejoining.
- iii) The duration specified for passing all the courses for the purpose of classification vide Clause 15.0 shall be increased by the period of such break of study permitted.
- iv) The total period for completion of the programme reckoned from, the commencement of the first semester to which the candidate was admitted shall not exceed the maximum period specified in clause 5.1 (See TABLE I) irrespective of the period of break of study in order that he/she may be eligible for the award of the degree (vide clause 14.0).
- v) If any student is detained for want of requisite attendance, progress and good conduct, the period spent in that semester shall not be considered as permitted 'Break of Study' and Clause 16.0(iii) is not applicable for this case.

#### **17.0 WITHDRAWAL FROM THE EXAMINATIONS:**

- **17.1** A candidate will be permitted to withdraw in any one of the semesters except first semester examination during the entire duration of the degree programmes for valid and genuine reasons by making an application in the office of the Controller of Examinations along with the Hall ticket or attendance certificate from the Head of the Department for withdrawal at least one day in advance of the last examination in that semester.
- **17.2** When he / she appears subsequently, he / she has to appear for all the subjects of that semester. Subsequent appearance will not be counted as separate attempt.
- **17.3** Those candidates who withdraw are eligible for the award of First Class and First Class with Distinction as per the requirement in this regard. However he / she will not be ranked.
- **17.4** Withdrawal is permitted only once in the whole programme.

#### 18.0 DISCIPLINE:

Every student is required to observe disciplined and decorous behavior both inside and outside the college and not to indulge in any activity which will tend to bring down the prestige of the college.

### **19.0 REVISION OF REGULATIONS AND CURRICULUM:**

The standing committee/Academic Council of the college reserves the right to revise or change or amend the regulations, the scheme of examinations, the curriculum and syllabi from time to time if found necessary.

### 20.0 SPECIAL CASES:

In the event of any clarification in the interpretation of the above rules and regulations, they shall be referred to the Standing Committee. The Standing Committee will offer suitable interpretations/ clarifications /amendments required for special case and the interpretations/ clarifications /amendments will be placed in the next meeting of the Academic Council. The decision of the Academic Council will be final.