# Dr. Mahalingam College of Engineering and Technology

(An Autonomous Institution)
Pollachi - 642003

UG & PG REGULATIONS – 2014 (Amendments incorporated 05th May 2017)



REGULATIONS – 2014 (UG & PG)
Amendments incorporated 5 <sup>th</sup> May 2017
Approved by Academic Council on 5 <sup>th</sup> May 2017

# **UG REGULATIONS 2014**

(Amendments incorporated 5<sup>th</sup> May 2017)

# Dr. Mahalingam College of Engineering and Technology (Autonomous) Pollachi - 03

#### **Affiliated to Anna University**

#### REGULATIONS 2014 - DEGREE OF BACHELOR OF ENGINEERING / TECHNOLOGY

The following regulations are applicable to all UG programmes offered by Dr. Mahalingam College of Engineering and Technology, Pollachi, affiliated to Anna University with effect from the academic year 2014-2015 onwards.

#### 1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In these Regulations,

- "MCET" is the abbreviation of Dr.Mahalingam College of Engineering and Technology, Pollachi.
- II) "Programme" means Degree Programme B.E./B.Tech. offered by MCET.
- III) "Branch" means specialization or discipline of B.E./B.Tech. Degree Programme, like Civil Engineering, Mechanical Engineering, Information Technology, etc.
- IV) "Course" means a theory or practical subject that is normally studied in a semester like Mathematics, Physics, Engineering Mechanics etc...
- V) "Principal" means the authority of the institution who is responsible for all the academic activities of the institution and the implementation of relevant rules of these Regulations. He is also responsible for the examinations conducted by the institution under the Autonomous Scheme.

#### 2. ADMISSION

2.1 Candidates seeking admission to the First Semester of B.E / B.Tech. Degree Programmes through counseling, held by the government of Tamil Nadu,

Should have passed the Higher Secondary Examination of (10 +2) Curriculum (Academic Stream) prescribed by the Government of Tamil Nadu with Mathematics, Physics and Chemistry as three of the four subjects of study under Part-III or any examination of any other University or authority accepted by the Anna University, Chennai as equivalent thereto.

(OR)

Should have passed the Higher Secondary Examination of Vocational stream (Vocational groups in Engineering / Technology) as prescribed by the Government of Tamil Nadu.

2.2 Candidates seeking admission to the First Semester of B.E. / B.Tech. Degree Programme through Management Quota,

Should have passed the Higher Secondary Examination of (10 +2) Curriculum (Academic Stream) prescribed by the Government of Tamil Nadu with Mathematics, Physics and Chemistry as three of the four subjects of study under Part-III or any examination of any other University or authority accepted by the Anna University, Chennai as equivalent thereto.

(OR)

Should have passed the Higher Secondary Examination of Vocational stream (Vocational groups in Engineering / Technology) as prescribed by the government of Tamil Nadu and written the common entrance test conducted by the Associations of Self financing Colleges.

#### 2.3 Lateral Entry Admission

(i) The candidates who possess Diploma in Engineering / Technology awarded by the State Board of Technical Education, Tamil Nadu or its equivalent are eligible to apply for admission to the third semester of B.E. / B.Tech. in the branch corresponding to their branch of study.

(OR)

(ii) The candidates who possess Degree in Science (B.Sc.) (10+2+3 stream) with Mathematics as a subject at the B.Sc. Level are eligible to apply for admission to the third Semester of B.E. /B.Tech. Such candidates shall undergo two additional engineering subjects in the third and fourth semester or the fourth and sixth semesters as prescribed by the respective faculty.

#### 3. PROGRAMMES OFFERED

A candidate may be offered any one of the branches of study approved by the University and offered by the college. Programmes offered by the College are mentioned below.

# **B.E. Programmes**

- 1. Automobile Engineering (AU)
- 2. Civil Engineering (CE)
- 3. Computer Science and Engineering (CS)
- 4. Electrical and Electronics Engineering (EE)
- 5. Electronics and Communication Engineering (EC)
- 6. Electronics and Instrumentation Engineering (EI)
- 7. Instrumentation and Control Engineering (IC)
- 8. Mechanical Engineering (ME)

#### **B.Tech. Programmes**

1. Information Technology (IT)

#### 4. STRUCTURE OF PROGRAMMES

- 4.1 Every Programme will have a curriculum with syllabi consisting of theory, practical and other courses (as decided by the respective Board of Studies) such as:
  - i. Core courses comprising of Science and Humanities and Basic Engineering.
  - ii. Core courses of Engineering/Technology.
  - iii. Elective courses for specialization in the related fields.
  - iv. Workshop practice, Computer practice, Engineering graphics, laboratory work, project work
  - v. Theory courses with Practical component
  - vi. Courses on Professional Skills
  - vii. Comprehension
  - viii. Internship
  - ix. One credit courses
  - x. Industrial training, seminar presentation, educational tours, camps etc.
  - xi. Sports/ NCC/NSS/NSO/YRC/RRC etc, activities for character development

- 4.2 Each course is assigned certain number of credits with one credit per lecture period per week, one credit per tutorial period per week, one credit for two periods of laboratory or practical or seminar or project work per week (two credits for three or four periods of practical) and one or two credits for four weeks of industrial training during semester vacations. However, the Board of Studies can increase and decrease the credits based on its merit.
  - However, the Board of Studies may increase or decrease the credits based on the merit of the course.
- 4.3 Each semester curriculum will normally have a blend of lecture courses not exceeding SIX and practical courses not exceeding FOUR. However the total number of courses per semester shall not exceed TEN.
- 4.4 For the award of the degree, a student has to earn a minimum number of credits as specified in the curriculum of the relevant branch.
- 4.5 Every candidate will be required to opt for six electives from the list of electives. Under Choice Based Credit System (CBCS), students can choose any course as elective in consultation with their respective HoDs during the sixth, seventh & eighth semesters. Out of six electives, two electives may be selected from other B.E. / B.Tech programmes with the approval of HoD.
- 4.6 Every Candidate should opt for minimum of four 'one credit' courses in addition to the prescribed curriculum. One credit courses shall be offered for minimum of 30 hours duration in every semester. This course will be offered fully or partly at our institution, industry, R&D labs by faculty members of MCET, experts from industry / R&D establishments. A student will also be permitted to register for the one credit courses of other departments provided the candidate has fulfilled the necessary pre-requisites of the course being offered subject to approval by both the Heads of Departments. Candidates can complete such one credit courses during the semesters 3 to 6 as and when these courses are offered by different departments. One credit courses will be indicated in the grade sheet upon successful completion. Candidates can also opt for industrial training for a duration of minimum 15 days and can earn one credit.
- 4.7 Every candidate will be required to undertake a project work, as indicated in the curriculum of the respective programme in Industry / department in consultation with the Head of the Department and the faculty guide and submit the project report there on at the end of the semester on dates announced by the college/department.
- 4.7.1 Internship programme in industries is permitted for those students who do not have any arrear/maximum of two pending arrears only. Such students can complete eighth semester on a fast track mode as decided by the department. They have to present a report at the end of their internship which will be evaluated.
- 4.8 All students shall register for all the courses (in the curriculum, one credit course(s), elective (s)) and CCD activities every semester. Registration shall be completed within seven days of commencement of the semester.
- 4.9 The medium of instruction is English for all the courses, examinations, seminar presentations and project / thesis / dissertation reports.

#### 5. DURATION OF THE PROGRAMME

A student is expected to complete the B.E. / B.Tech. programme in EIGHT semesters (four academic years) but in any case not more than 14 Semesters (Seven Academic Years) for HSC candidates and not more than 12 semesters for Lateral Entry Diploma / B.Sc. Candidates.

- 5.2 Each semester shall normally consist of 90 working days. Every programme is required to be conducted for a minimum 450 periods of either 50 or 45 minutes each. Every teacher is expected to impart instruction as per the number of periods / hours specified in the syllabus and that the faculty member teaches the full content of the specified syllabus for the course being taught. However the teacher could indicate selective topics in the syllabi of theory courses (not exceeding 20%) or topics relevant to the current subject for self study. The self study theory topics shall not be more than 5% in a single unit.
- 5.3 The Head of the Department may direct the teachers concerned to conduct additional classes for improvement, special coaching, conduct of model test etc., over and above the specified periods.
  - The End semester Examination will ordinarily follow immediately after the last working day of the semester commencing from I semester as per the academic schedule prescribed by MCET from time to time.
- 5.4 The total period for completion of the programme reckoned from the commencement of the first year to which the candidate was admitted shall not exceed the maximum period specified in clause 5.1 irrespective of the period of break of study (vide clause 18.3) in order that he/she may be eligible for the award of the degree (vide clause 15).

# 6. REQUIREMENTS FOR COMPLETION OF THE SEMESTER

- 6.1 A candidate who has fulfilled the following conditions shall be deemed to have satisfied the requirements for the completion of a semester.
  - Ideally every student is expected to attend all classes and secure 100% attendance. Though a student can avail leave because of illness / participation in sports / any other valid reason, the student is expected to earn at least 75% of attendance for each semester.
- 6.1.1 Therefore, he / she shall secure not less than 75% of overall attendance. In addition to that he/she shall secure a minimum of 75% attendance in each course. Even if a student secure an overall attendance of 75% and course wise minimum attendance of 75% is required for him to appear in the end semester examination in each course.
- 6.1.2 If a student secures less than 75% attendance in a/few courses and hence is not eligible to appear for end semester examination in a/few course(s), he/she shall undergo makeup classes as and when offered and earn eligibility and appear in the subsequent examinations conducted during the next semester.
- 6.1.3 However, a candidate who could secure an overall attendance between 65% and 74% in that current semester due to medical reasons (hospitalization / accident / specific illness) may be permitted to appear for the current semester examinations to a maximum of two times during his/her programme subject to the condition that the candidate shall submit the medical certificate attested by the Head of the Department and the Principal. The same shall be submitted to the Controller of Examinations, MCET, for record.
- 6.2 Candidates who secure less than 65% of overall attendance shall not be permitted to write the End Semester examination at the end of the semester and are not permitted to go to next semester. They are required to repeat the incomplete semester in the next academic year, as per the norms prescribed.
- 6.3 Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD' which consists of attendance marked in each lecture or practical or project work class, the test marks and the record of class work (topics covered), separately for each course. This should be submitted to the Head of the department periodically (at least thrice in a semester) for checking the syllabus coverage and the records of test marks and attendance. The Head of the department shall sign after due verification. At the end of the semester, the record should be verified by the Principal who will keep this document in safe custody (for five years). The University or any inspection team

appointed by the University may inspect the records of attendance and assessment of both current and previous semesters.

#### 7. FACULTY ADVISOR

To help the students in their academic program on aspects of planning, progress, counseling etc., the Head of the Department will attach a certain number of students to a faculty member of the department who shall function as Faculty Advisor for those students throughout their period of study.

Such Faculty Advisor shall monitor the progress of the students in their subjects, check the attendance and counsel them periodically. If necessary, the faculty advisor may also discuss with or inform the parents about the progress of the students.

#### 8. CLASS COMMITTEE

- 8.1 Every class shall have a class committee consisting of teachers of the concerned class, student representatives and a chairperson who is not teaching the class. The overall goal of the class committee is to improve the teaching-learning process.
- 8.2 The class committee for a class under a particular branch is normally constituted by the Head of the department within the first week of each semester. However, the first semester is generally common to all branches; the class committee will be constituted by the Principal.
- 8.3 At least FOUR student representatives (usually TWO boys and TWO girls) shall be included in the class committee.
- 8.4 The Principal may participate in any class committee meeting of the institution as and when required.
- 8.5 The Chairperson is required to prepare the minutes of every meeting and submit the same to the Principal within two days of the meeting. It shall be circulated among the concerned students and teachers. 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.
- 8.6 The first meeting of the class committee shall be held within two weeks from the date of commencement of the semester, in order to inform the students about the nature and allocation of marks for internal assessments within the framework of the regulations. Two or three subsequent meetings may be held in a semester at suitable intervals.

# 9. COURSE COMMITTEE FOR COMMON COURSES

Each common theory course offered to more than one discipline or group, shall have a "Course Committee" comprising all the teachers teaching the common course with one of them nominated as Course Coordinator. The nomination of the course Coordinator shall be made by the Head of the Department / Principal. The 'Course committee' shall meet in order to arrive at a common scheme of evaluation for the test and shall ensure a uniform evaluation of the tests. Wherever feasible, the course committee may also prepare a common question paper for the internal assessment test(s).

# 10. SYSTEM OF EVALUATION

10.1 Continuous Comprehensive Evaluation (CCE) shall comprise of performance of students in each course and other components. Performance in each course of study shall be evaluated based on (i) continuous Internal Assessment (IA) throughout the semester and (ii) End Semester Examination (ESE).

10.2 Each course, both theory and practical (other than project work) shall be evaluated for a maximum of 100 marks.

For all theory courses, the continuous internal assessment will carry 40 marks while the end semester examination will carry 60 marks.

For all practical courses, the continuous internal assessment will carry 75 marks while the end semester examination will carry 25 marks.

- 10.2.1 Project work may be allotted to a single student or to a group of students. The project work shall be evaluated for a maximum of 300 marks. Project phase I will be evaluated for 100 marks at the end of the sixth semester and the final project will be evaluated for 200 marks at the end of the seventh semester. The total 300 marks will be reduced to 100 marks. The continuous internal assessment will carry 225 marks (75 %) while the End Semester Examination will carry 75 (25 %) marks.
- 10.3 The End Semester examination, both theory and practical, will be of 3 hours duration and will be conducted between October and December for the odd semesters and between April and June for the even semesters.
- 10.4 The project to be completed in the final semester can be done as a team work. The examination for the project work shall consist of the evaluation of the final report by an external examiner followed by a viva-voce examination. The viva-voce is conducted individually for each student by a committee consisting of the external examiner and an internal examiner.
- 10.4.1 The project report shall carry a maximum of 120 marks (same mark awarded to every student of the project group) while the viva-voce examination shall carry 180 marks (awarded to each student of the project group based on the individual performance in the viva-voce examination).
- 10.5 For the End Semester examination (both theory and practical courses including project work) the internal and external examiners shall be appointed by the Principal.

#### 11. PROCEDURE FOR AWARDING MARKS FOR INTERNAL ASSESSMENT

- 11.1 For all theory and practical courses & project work, the continuous assessment shall be awarded as per the pattern given below:
  - (a) THEORY
  - (i) Theory

End Semester Examination : 60 Marks
Internal Assessment : 40 Marks

(ii) Theory with practical component

End Semester Examination : 60 Marks Internal Assessment : 40 Marks

11.1(b) PRACTICAL

End Semester Examination : 25 Marks
Internal Assessment : 75 Marks

# 11.1(c) PROJECT WORK

#### i) Project Phase - I

End Semester Examination : 25 Marks
Internal Assessment : 75 Marks

# ii) Final Project

End Semester Examination : 50 Marks
Internal Assessment : 150 Marks

# (d) TECHNICAL SEMINAR

Internal Assessment : 100 Marks

#### Distribution of Marks for Internal assessment

Presentation : 50
Report\* : 20
Viva-voce\* : 30

### (e) ONE CREDIT COURSE

The course shall be evaluated by the Course Faculty at the end of the semester.

#### (f) INTERNSHIP

At the end of internship programme, student shall present a technical seminar. The technical seminar is assessed as per the Clause 11.1 (d)

# (g) COMPREHENSION

The course shall be evaluated by a team of Faculty appointed by the HoD.

# 12. REQUIREMENTS FOR APPEARING FOR END SEMESTER EXAMINATION

A candidate shall normally be permitted to appear for the End Semester examination of any semester commencing from I semester if he/she has satisfied the semester completion requirements (vide Clause 6) and has registered for examination in all courses of the semester.

# Registration is mandatory for semester examinations as well as arrears examinations.

A candidate already appeared for subjects or any subject in a semester and passed the examination is not entitled to reappear in the same subject or subjects of the semester for improvement of grades / marks.

#### 13. PASSING REQUIREMENTS

- 13. 1 A candidate who secures 50% or more of total marks (IA + End Semester Examination) prescribed for the courses (including Practical and Project work), and 50% or more marks in the end semester examination shall be declared to have passed the examination.
- 13.1.1 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

<sup>\*</sup> A team of 3 members constituted by the HoD, will evaluate the seminar report and conduct the viva-voce for assessment.

when examination is conducted in that course; he/she should continue to register and reappear for the examination till he / she secures a pass.

13.1.2 The internal assessment (IA) marks obtained by the candidate in the first appearance shall be retained and considered valid for THREE attempts.

However from the FOURTH attempt onwards if a candidate fails to obtain pass marks (IA + End Semester Examination) as per clause 13.1, then the passing requirement shall be as follows:

The candidate should secure 50% or more, of marks assigned for end semester Examinations irrespective of the marks obtained in the Internal Assessment.

#### 14. AWARD OF GRADES

14.1. All assessments of a course will be done on absolute marks basis. However, for the purpose of reporting the performance of a candidate, letter grades, each carrying certain number of points, will be awarded as per the range of total marks (out of 100) obtained by the candidate in each course as detailed below:

Letter Grade	Grade Points	Range of Marks ^
S	10	91-100
А	9	81-90
В	8	71-80
С	7	61-70
D	6	56-60
E	5	50-55
RA	0	<50
WD	0	-
WH	0	-

<sup>^</sup> wherever 100 marks is not the maximum, proportional scaling up/down shall be applicable.

"WH" denotes withheld as per clause 12 and hence prevention from writing semester examination

The Grade "WH" and "WD" will figure only in the Grade Sheet

"WD" denotes withdrawn from the course. (Refer Clause 17)

Any one of the following non letter grades, GOOD/AVERAGE/FAIR shall also be awarded for activities found in clause 20.

After the declaration of results, Grade Sheets will be issued to the students.

Grade Point Average (GPA) is the ratio of the sum of the product of the number of credits of courses enrolled and the points corresponding to the grades scored in those courses, taken for all courses, to the sum of the number of all the courses in the semester

# GPA = Sum of (C\*GP) / Sum of C

Cumulative Grade Point Average (CGPA) will be calculated in a similar manner, considering all the courses enrolled from first semester. "RA", "WH" and "WD" grades will be excluded for calculating GPA and CGPA.

<sup>&</sup>quot;RA" denotes reappearance is required for the examination in the course.

#### **FORMULAE FOR GPA & CGPA**

$$CGPA = \frac{\sum_{i=1}^{n} C_i GP_i}{\sum_{i=1}^{n} C_i}$$

Where, Ci -is the Credit assigned to the Course

GP<sub>i</sub>-is the point for each course corresponding to the grade obtained

 $\Sigma_{l}$  -is the sum for all courses successfully cleared during the particular semester in the case of GPA and during all the semesters in the case of CGPA.

n-Total number of courses for the entire programme

#### FORMULA FOR CALCULATING PERCENTAGE

CGPA X 10 = % OF MARKS

14.1.2 Whenever regular students are not there and only arrear students take up the examinations, the letter grades will be awarded on the range of marks used in the immediately preceding terminal examination.

#### 14.2 REVALUATION

A candidate can apply for revaluation of his / her end semester examination answer paper in a theory course, within 2 weeks from the declaration of results, on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of the Institution. The Controller of Examination will arrange for the revaluation and the results will be intimated to the candidate concerned through the Head of the Institution.

Revaluation is not permitted for practical courses, seminars, practical training and for project work.

#### 15. ELIGIBILITY FOR THE AWARD OF DEGREE

- 15.1 A student shall be declared eligible for the award of B.E. / B.Tech. Degree provided the student has
  - \* Successfully gained the required number of total credits as specified in the curriculum corresponding to his / her programme within the stipulated time.
  - \* No disciplinary action is pending against him / her.
  - \* Successfully completed the field visit / industrial training, if any, as prescribed in the curriculum.
  - \* Successfully completed any additional courses prescribed by the Students' Affair Committee constituted by the Principal, whenever any candidate is readmitted under regulations other than regulations 2014 (clause 18.2).
  - \* Successfully completed ONE CCD Group 2 activity.

# 16. CLASSIFICATION OF THE DEGREE AWARDED

16.1. A candidate, who qualifies for the award of the Degree, (vide clause 15) having passed the examination in all the courses in his/her first appearance within the specified minimum number of semesters securing a CGPA of not less than 8.50 shall be declared to have passed the examination in First Class with Distinction.

- 16.2 A candidate who qualifies for the award of the Degree (vide clause 15) having passed the examination in all the courses within the specified minimum number of semesters plus one year (two semesters), securing a **CGPA of not less than 6.50** shall be declared to have passed the examination in **First Class**. For this purpose the withdrawal from examination (vide clause 17) will not be construed as an appearance. Further, the authorized break of study (vide clause18) will not be counted for the purpose of classification.
- 16.3 All other candidates (not covered in clauses 16.1 and 16.2) who qualify for the award of the degree (vide Clause 15) shall be declared to have passed the examination in **Second Class**.
- 16.4 A candidate who is absent in semester examination in a course / project work after having registered for the same shall be considered to have appeared in that examination for the purpose of classification. (subject to clause 17 and 18)

### 17. PROVISION FOR WITHDRAWAL FROM END-SEMESTER EXAMINATION

- 17.1 A candidate may, for valid reasons and on prior application, be granted permission to withdraw from appearing for the examination of any one course or consecutive examinations of more than one course in a semester examination.
- 17.2 Such withdrawal shall be permitted only once during the entire period of study of the degree programme.
- 17.3 Withdrawal of application is valid only if it is made before the last working day and recommended by the Head of the Department. It should be approved by the Head of the Institution as well.
- 17.3.1. Notwithstanding the requirement of mandatory last working day notice, applications for withdrawal under extraordinary conditions will be considered based on the merit of the case.
- 17.4 Withdrawal shall not be construed as an appearance for the eligibility of a candidate to pass in First Class with Distinction. This provision is not applicable to those who seek withdrawal during VII semester.
- 17.5 Withdrawal from the End semester examination is **NOT** applicable to arrear subjects of previous semesters
- 17.6 The candidate shall reappear for the withdrawn courses during the examination conducted in the subsequent semester.

#### 18. PROVISION FOR AUTHORISED BREAK OF STUDY

As per the norms prescribed by Anna University, Chennai from time to time.

#### 19. INDUSTRIAL VISIT

Every student is required to undergo a minimum of one Industrial visit starting from the third semester of the Programme.

# 20. COMPETENCE AND CHARACTER DEVELOPMENT

Minimum ONE CCD Group 2 activity is mandatory for the student during the course of the Programme

#### 21. DISCIPLINE

Every student is required to observe discipline 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/University. The Principal shall constitute a disciplinary committee consisting of the Principal or his nominee, two Heads of Departments of

which one should be from the faculty of the student, to enquire into acts of indiscipline and notify the Management of the College about the disciplinary action recommended for approval.

If a student indulges in malpractice in any of the End Semester / internal examination he / she shall be liable for punitive action as prescribed by the college from time to time. (Annexure I).

# 22. REVISION OF REGULATION AND CURRICULUM

The College may from time to time revise, amend or change the Regulations, scheme of examinations and syllabi if found necessary.

# **PG REGULATIONS 2014**

(Amendments incorporated 5<sup>th</sup> May 2017)

# Dr. Mahalingam College of Engineering and Technology (Autonomous),

Pollachi - 03

# **Affiliated to Anna University**

#### PG REGULATIONS 2014 - POST GRADUATE PROGRAMMES

The following regulations are applicable to all PG programmes offered by Dr. Mahalingam College of Engineering and Technology, Pollachi, affiliated to Anna University with effect from the academic year 2014-2015 onwards.

### 1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In these Regulations:

- "MCET" is the abbreviation of Dr. Mahalingam College of Engineering and Technology, Pollachi
- II) "Programme" means Post graduate Degree Programme offered by MCET.
- III) "Branch" means specialization or discipline of M.E Post-Graduate Degree Programme, like Computer Science and Engineering, Applied Electronics etc.
- IV) "Course" means a theory or practical subject that is normally studied in a semester like Computer Networks, Software Engineering etc...
- V) "Principal" means the authority of the institution who is responsible for all the academic activities of the institution and the implementation of relevant rules of these Regulations. He is also responsible for the examinations conducted by the institution under the Autonomous Scheme.

# 2. PROGRAMMES OFFERED, MODES OF STUDY AND ADMISSION REQUIREMENTS

#### 2.1 P.G. PROGRAMMES OFFERED:

A candidate may be offered any one of the branches of study approved by the University and offered by the college. Programmes offered by the College are listed below:

# M.E. Programmes

- 1. Applied Electronics (AE)
- 2. CAD/CAM (CC)
- 3. Computer Science and Engineering (CP)
- 4. Communication Systems (CS)
- 5. Structural Engineering (ST)

# M.C.A. Programme

#### 2.2 MODES OF STUDY:

- 2.2.1 Candidates admitted under 'Full-Time' should be available in the College / Institution / University during the entire duration of working hours (From Morning to Evening on Full-Time basis) for the curricular, co-curricular and extra-curricular activities assigned to them. The Full-Time candidates should not attend any other Full-Time programme(s) / course(s) or take up any Full-Time job / Part-Time job in any Institution or Company during the period of the Full-Time programme. Violation of the above rules will result in cancellation of admission to the PG programme.
- 2.2.2 Part-Time Day Time Mode:

This mode of study is applicable to those candidates admitted under sponsored category (Teacher candidates). In this mode of study, the candidates are required to attend classes along with Full-Time students for the required number of courses and complete the course in three years.

#### 2.3 ADMISSION REQUIREMENTS:

- 2.3.1 Candidates for admission to the first semester of the Master's Degree Programme shall be required to have passed an appropriate Degree Examination of Anna University or other reputed Universities as specified under qualification for admission as per the Tamil Nadu Common Admission (TANCA) criteria / GATE.
- 2.3.2 All Part-Time (Day-Time mode) candidates should satisfy other conditions regarding experience, Sponsorship etc. that may be prescribed by Anna University from time to time.

# 3. STRUCTURE OF PROGRAMMES

- 3.1 Every Programme will have a curriculum and syllabi consisting of core courses, elective courses, one credit courses and project work. The Programme may also include seminar / practical / practical training, if they are specified in the curriculum.
- 3.1.1 Every M.E. candidate should undergo 'Teaching Practice' for 15 hours under the guidance and supervision of a faculty member during the 3<sup>rd</sup> and/or 4<sup>th</sup> semester (Report from faculty and HoD).
  - ME candidates have to undergo ONE 'one credit course' and MCA candidates have to undergo TWO 'one credit courses' in addition to the prescribed curriculum. One credit courses shall be offered for 30 hours duration.
  - One credit courses will be indicated in the grade sheet upon successful completion.
- 3.2 The electives from the curriculum are to be chosen with the approval of the Head of the Department.
- 3.3 Each course is normally assigned a certain number of credits as follows:
  - 1 credit per lecture hour per week
  - 1 credit per tutorial hour per week
  - 1 credit per 2 hours of laboratory practice
- 3.4 The credit allocation for project work is 18 credits for M.E and 12 for M.C.A
- 3.5 The curriculum for all the Post-Graduate programmes shall be drawn such that the minimum total number of credits for the successful completion of the programme is as follows:

M.E 65 Credits MCA 125 Credits

- 3.6 The medium of instruction is English for all the courses, examinations, seminar presentations and project / thesis / dissertation reports.
- 3.7 All students shall register for all the courses (in the curriculum, one credit course(s) and elective(s)) every semester. Registration shall be completed within seven days of commencement of the semester.

# 4. DURATION OF THE PROGRAMME

4.1 The minimum duration required for the completion of the various Post-Graduate programmes has been given below:

Programme	Min. No. of Semesters	Max. No. of Semesters
M.E. (Full-Time)	4	8
M.E. (Part Time)	6	12
MCA	6	12

A student may complete the programme at a slower pace by taking more time, but in any case not exceeding the maximum duration.

4.2 Each semester shall normally consist of 70 working days or 350 periods of either 50 or 45 minutes each.

#### 5. ATTENDANCE REQUIREMENTS FOR COMPLETION OF THE SEMESTER

- 5.1 A candidate who has fulfilled the following conditions shall be deemed to have satisfied the requirements for the completion of a semester. Ideally every student is expected to attend all classes and earn 100% attendance. However in order to allow provision for certain unavoidable reasons such as prolonged hospitalization / accident / specific illness the student is expected to earn a minimum of 75% attendance to become eligible to write the end-semester examination.
- 5.1.1 Therefore, every student shall have not less than 75% of attendance in every course. Every student must secure not less than 75% of overall attendance in that semester taking into account the total number of periods in all courses attended by the candidate as against the total number of periods in all courses offered during that semester.
- 5.1.2 However, a candidate who secures overall attendance between 65% and 74% in that current semester due to medical reasons (prolonged hospitalization / accident / specific illness / Participation in Sports events) may be permitted to appear for the current semester examinations subject to the condition that the candidate shall submit the medical certificate / sports participation certificate to the Head of the Institution. The same shall be forwarded to the Controller of Examinations, MCET, for record purpose.
- 5.2 Candidates who secure less than 65% of overall attendance shall not be permitted to write the End Semester examination at the end of the semester and are not permitted to go to next semester. They are required to repeat the incomplete semester in the next academic year, as per the norms prescribed.

#### 6. FACULTY ADVISOR

To help students in their academic programme on aspects of planning, progress, counseling etc., the Head of the Department will attach a certain number of students to a faculty member of the department who shall function as Faculty Advisor for those students throughout their period of study. Such Faculty Advisor shall monitor the progress of the students in their subjects, check the attendance and counsel them periodically. If necessary, the faculty advisor may also discuss with or inform the parents about the progress of the students.

#### 7. CLASS COMMITTEE

- 7.1. Every class shall have a class committee consisting of teachers of the concerned class, student representatives and a chairperson who is not teaching the class. The overall goal of the class committee is to improve the teaching-learning process.
- 7.2 The class committee for a class under a particular branch is normally constituted by the Head of the department within the first week of each semester.
- 7.3 The Principal may participate in any class committee meeting of the institution as and when required.
- 7.4 The Chairperson is required to prepare the minutes of every meeting and submit the same to the Principal within two days of the meeting. It shall be circulated among the concerned students and teachers. 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.
- 7.5 The first meeting of the class committee shall be held within two weeks from the date of commencement of the semester, in order to inform the students about the nature and allocation of marks for internal assessments within the framework of the regulations. Two or three subsequent meetings may be held in a semester at suitable intervals.

#### 8. PROJECT WORK

- 8.1 Project work will be carried out in the III and IV semesters for M.E. For the MCA programme a Mini-project will be carried out in the IV Semester and final project in the VI semester.
- 8.2 Project work shall be carried out on individual basis under the supervision of a faculty member as assigned by the department. Maximum number of candidates / guide will depend on the class strength.
- 8.3 The project work for M.E. / M.Tech. consists of Phase I and Phase II. Phase I is to be under taken during III semester and Phase II is to be undertaken during IV semester. In case of candidates not completing Phase I of project work successfully, the candidates can enroll for Phase II only after redoing Phase I successfully.
- 8.4 For M.E Projects it is mandatory that an acknowledgement from the Supervisor for having communicated to the journal and/or the student should present at least a paper in a reputed conference. The proof shall be attached to the report of the project work.
- 8.5 The deadline for submission of final Project Report is maximum of TWO weeks from the last working day of the semester in which project is done. However, the Phase-I of the Project work in the case of M.E. shall be submitted within a maximum period of SEVEN calendar days from the last working day of the semester as per the academic calendar published by the college.
- 8.6 A candidate may, in certain cases, be permitted to work on projects in an Industrial/Research Organization, on the recommendations of the Head of his/her Department. In such cases, the Project work shall be jointly supervised by a qualified teacher from the department and an expert from the research organization / industry as joint supervisor. The student shall be instructed to meet the supervisor periodically and to attend the review committee meetings for evaluating the progress.

#### 9. ASSESSMENT PROCEDURE

- 9.1 Performance in each course of study shall be evaluated based on (i) continuous Internal Assessment (IA) throughout the semester and (ii) End Semester Examination (ESE).
- 9.2 The mark Allocation for PG Programmes is as follows:

#### **ME Programmes**

S.No	Course	Internal/ Continuous	External marks
		Assessment marks	
1	Theory Course	40	60
2	Lab Course	75	25
3	Project Phase I	150	50
4	Project Phase II	300	100

**MCA Programme** 

	<u> </u>		
S.No	Course	Internal/ Continuous	External marks
		Assessment marks	
1	Theory Course	40	60
2	Lab Course	75	25
3	Mini Project	75	25
4	Project work	300	100

#### 9.3 EXTERNAL ASSESSMENT

- 9.3.1 The End Semester examination, both theory and practical, will be of 3 hours duration and will normally be conducted between October and December for the odd semesters and between April and June for the even semesters.
- 9.3.2 For the End Semester examination (both theory and practical courses including project work) the internal and external examiners shall be appointed by the Principal.
- 9.3.3 For one credit course only continuous assessment will be followed and no End Semester Examination will be conducted. The Evaluation shall be carried out by the Course Faculty.
- 9.3.4 The End Semester examination of Theory courses will be conducted for 100 marks and scaled to 60 marks.
- 9.3.5 The End Semester examination of practical courses will be conducted for 100 marks and scaled to 25 marks. The evaluation pattern will be as follows:

Preparation : 20
Observation & Calculation : 40
Results & Inference : 20
Viva-Voce : 20

- 9.3.6 The examination for the project work shall consist of the evaluation of the final report by an external examiner followed by a viva-voce examination. The viva-voce is conducted individually for each student by a committee consisting of the external examiner and an internal examiner.
- 9.3.7 The External Evaluation Criteria for the M.E Phase I Project and MCA Mini Project will be as follows:

Evaluation	M.E. Phase I	MCA
Criteria	Max. Marks (150)	Max. Marks (75)
Project Report	75	40
Presentation	30	15
Viva	45	20

The maximum marks of 150 shall be reduced to 50 for ME programmes and the maximum marks of 75 shall be reduced to 25 for MCA programmes.

9.3.8 The External Evaluation criteria for the Project work (Phase II in the case of M.E) will be as follows:

Project Report 150 marks
Presentation 75 marks
Viva 75 marks

#### 9.4 INTERNAL ASSESSMENT

9.4.1 In each theory course the assessment pattern will be as follows:

S.No	Assessment Criteria	Duration	Marks	Weightage
1	Mid Semester Test	3 Hrs	10 marks	25 %
2	Model Exam	3 Hrs	20 marks	50 %
3	Seminar / Assignment / Tutorial (or) Practicals (in case of Theory Courses with Practicals)	-	10 marks	25 %

The 3 hrs test/exam will be conducted for 100 marks and will follow the End Semester Exam pattern prescribed in 9.3.4

A minimum of two and maximum of four Seminars/Assignments/Tutorials will be assigned per subject per student. The group size for Seminar/Assignment/Tutorial will be maximum 3 for MCA. Each student in the group will be evaluated individually.

9.4.2 In each practical course the assessment pattern will be as follows:

S.No	Assessment	Duration	Marks	Weightage
	Criteria			
1	Test 1 (Cycle –I	3 Hrs	20 marks	26.7%
	experiments)			
2	Test 2 (Cycle -II	3 Hrs	20 marks	26.7%
	experiments)			
3	Record and Viva	-	35 marks	46.7%

Both the tests will be conducted for 100 marks and will follow the same pattern as mentioned in 9.3.5.

9.4.3 The internal evaluation for project work will be as follows:

The Mini-Project of MCA and M.E Phase I will be evaluated by conducting 3 reviews. The Project work of MCA and M.E Phase II will be evaluated by conducting 4 reviews.

#### 10. REQUIREMENTS FOR APPEARING FOR END SEMESTER EXAMINATION

A candidate shall normally be permitted to appear for the End Semester examination of any semester commencing from I semester if he/she has satisfied the semester completion requirements (vide Clause 6) and has registered for examination in all courses of the semester.

Registration is mandatory for semester examinations as well as arrears examinations and also he/she should appear in at least one theory/practical examination, failing which the candidate will not be permitted to move to the higher semester.

A candidate already appeared for subjects or any subject in a semester and passed the examination is not entitled to reappear in the same subject or subjects of the semester for improvement of grades / marks.

#### 11. PASSING REQUIREMENTS

- 11.1 A candidate who secures 50% or more of total marks (Internal Assessment + End Semester Examination) prescribed for the courses (including Practical and Project work), and 50% or more marks in the end semester examination shall be declared to have passed the examination.
- 11.1.1 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.
- 11.1.2 The Internal Assessment marks obtained by the candidate in the first appearance shall be retained and considered valid for THREE attempts.

However from the FOURTH attempt onwards if a candidate fails to obtain pass marks (Internal Assessment + End Semester Examination) as per clause 11.1, then the passing requirement shall be as follows:

The candidate should secure 50% or more of marks assigned for end semester Examinations irrespective of the marks obtained in the Internal Assessment.

#### 12. AWARD OF LETTER GRADES

12.1. All assessments of a course will be done on absolute marks basis. However, for the purpose of reporting the performance of a candidate, letter grades, each carrying

certain number of points, will be awarded as per the range of total marks (out of 100) obtained by the candidate in each course as detailed below:

Letter Grade	Grade Points	Range of Marks^
S	10	91-100
А	9	81-90
В	8	71-80
С	7	61-70
D	6	56-60
E	5	50-55
RA	0	<50
WD	0	-
WH	0	-

<sup>^</sup> wherever 100 marks is not the maximum, proportional scaling up/down shall be applicable.

The Grade "WH" and "WD" will figure only in the Grade Sheet

"WD" denotes withdrawn from the course.

After the declaration of results, Grade Sheets will be issued to the students.

Grade Point Average (GPA) is the ratio of the sum of the product of the number of credits of courses (C) enrolled and the points corresponding to the grades scored in those courses (GP), taken for all courses, to the sum of the number of all the courses in the semester

# GPA = Sum of (C\*GP) / Sum of C

Cumulative Grade Point Average (CGPA) will be calculated in a similar manner, considering all the courses enrolled from first semester. "RA", "WH" and "WD" grades will be excluded for calculating GPA and CGPA.

#### **FORMULAE FOR GPA & CGPA**

$$CGPA = \frac{\sum_{i=1}^{n} C_i GP_i}{\sum_{i=1}^{n} C_i}$$

Where, C<sub>i</sub> - is the Credit assigned to the Course

GP<sub>i</sub> - is the point for each course corresponding to the grade obtained

Σ<sub>I</sub> - is the sum for all courses successfully cleared during the semesters in the case of CGPA.

n - Total number of courses for the entire programme

#### FORMULA FOR CALCULATING PERCENTAGE

CGPA X 10 = % OF MARKS

<sup>&</sup>quot;RA" denotes reappearance is required for the examination in the course.

<sup>&</sup>quot;WH" denotes withheld

12.1.2 Whenever regular students are not there and only arrear students take up the examinations, the letter grades will be awarded on the range of marks used in the immediately preceding terminal examination.

#### 12.2 REVALUATION

A candidate can apply for revaluation of his / her end semester examination answer paper in a theory course, within 2 weeks from the declaration of results, on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of the Department. The Controller of Examination will arrange for the revaluation and the results will be intimated to the candidate concerned through the Principal. Revaluation is applicable for theory courses only.

#### 13. ELIGIBILITY FOR THE AWARD OF DEGREE

- 13.1 A student shall be declared eligible for the award of Degree provided the student has
  - Successfully gained the required number of total credits as specified in the curriculum corresponding to his / her programme within the stipulated time.
  - No disciplinary action is pending against him / her.
  - Successfully completed any additional courses prescribed by the Students' Affair Committee constituted by the Principal, whenever any candidate is readmitted under regulations other than Regulations 2014 (clause 16.2).

#### 14. CLASSIFICATION OF THE DEGREE AWARDED

- 14.1. A candidate, who qualifies for the award of the Degree, (vide clause 13) having passed the examination in all the courses in his/her first appearance within the specified minimum number of semesters, securing a **CGPA** of **8.50** and above shall be declared to have passed the examination in **First Class with Distinction**. For this purpose withdrawal from examination (vide clause 15) will not be considered as an appearance.
- 14.2 A candidate who qualifies for the award of the Degree (vide clause 13) having passed the examination in all the courses within the specified minimum number of semesters plus one year, securing a **CGPA of 6.5 and above but below 8.5** shall be declared to have passed the examination in **First Class**.
- 14.3 For the award of First Class with Distinction and First Class, candidates permitted to undertake the Authorized Break of Study (vide clause 16) will be granted an additional period of 1 year (Authorized Break period) besides the minimum period specified in 14.1 and 14.2.
- 14.4 All other candidates (not covered in clauses 14.1 to 14.3) who qualify for the award of the degree (vide Clause 13) shall be declared to have passed the examination in **Second Class**.
- 14.5 A candidate who is absent in semester examination in a course / project work after having enrolled for the same shall be considered to have appeared in that examination for the purpose of classification. (Subject to clauses 15 and 16)

#### 15. PROVISION FOR WITHDRAWAL FROM END-SEMESTER EXAMINATION

15.1 A candidate may, for valid reasons and on prior application, be granted permission to withdraw from appearing for the examination of any one course or consecutive examinations of more than one course in a semester examination.

- 15.2 Such withdrawal shall be permitted only once during the entire period of study of the degree programme.
- 15.3 Withdrawal application shall be valid only if the candidate is otherwise eligible to write the examination. Withdrawal of application is valid only if it is made before the last working day and recommended by the Head of the Department. It should be approved by the Head of the Institution as well.
- 15.3.1 Notwithstanding the requirement of mandatory last working day notice, applications for withdrawal under extraordinary conditions will be considered based on the merit of the case.
- 15.4 Withdrawal shall not be considered as an appearance for the eligibility of a candidate to pass in First Class with Distinction.
- 15.5 The provision for Withdrawal from the End semester examination is applicable to only the current semester subjects and not for arrear subjects of previous semesters.
- 15.6 The candidate shall reappear for the withdrawn courses during the examination conducted in the subsequent semester.

#### 16. PROVISION FOR AUTHORISED BREAK OF STUDY

As per the norms prescribed by Anna University, Chennai from time to time.

#### 17. 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/University. The Principal shall constitute a disciplinary committee consisting of the Principal or his nominee, two Heads of Departments of which one should be from the faculty of the student, to enquire into acts of indiscipline and notify the Management of the College about the disciplinary action recommended for approval.

If a student indulges in malpractice in any of the End Semester / internal examination he / she shall be liable for punitive action as prescribed by the college/university from time to time. (Refer Annexure I & II)

#### 18. REVISION OF REGULATION AND CURRICULUM

The College may from time to time revise, amend or change the Regulations, scheme of examinations and syllabi if found necessary.

# ANNEXURE I POLICY ON MALPRACTICES

# **GENERAL**

- 1. It shall be the endeavour of all concerned to prevent, control and take remedial action to bring about the occurrences of malpractices to "Zero" in Examinations (both Internal and External), Assignments and also in all Academic class work.
- 2. Therefore, a comprehensive approach to the malady of malpractices has to be adopted to create a mindset of integrity and honesty, and at the same time take sufficiently stern action to make it clear that such attempts are fraught with comparably very high risk.
- 3. In keeping with this stance, the following measures are to be taken by all concerned from class room level to the Examination Halls:

### A. PREVENTION (This is the best method of tackling this malady)

- a) Class room level: All faculty members are to involve themselves in a psychological growth of students by personal example and self-respect and strive towards
  - (i) developing a sense of honour in the minds of students so that they look down upon earning undeserved marks
  - (ii) imbibing a sense of self-respect and internal dignity that prevents him/her from succumbing to the temptation of easy marks by cheating
  - (iii) generating an awareness of the risks to their character and career if convicted, while also explaining the process and Strict rules and regulations adopted by the Educational system to prevent Malpractices
  - (iv) taking stern view of copied assignments and attempts at malpractices in internal examinations also which merit equal seriousness as external examinations.
  - (v) setting in place sufficiently strong deterrent rules and regulations like intimation to parents and warning to students in the presence of parents etc. even in case of efforts at "-- 'practices in Internal tests or repeated acts despite warnings in case of nments also.
- b) Examination Halls: Detailed instructions on Invigilation, question paper setting and evaluation and such other instructions will be issued for Invigilation, vigilance, which are to be brought to the notice of all students prior to the examinations.

#### **B. PENAL ACTION FOR MALPRACTICES**

All instances of malpractices will be forwarded to the Principal/ Chief Superintendents. The offences will be investigated by a Standing Enquiry Committee constituted by Principal, The committee is to summon and give the student an opportunity to present / plead his/her case. The Committee may also summon anybody else, if it so deems necessary for the conduct of Enquiry, in the interest of proper investigation and dispensation of the case. The Committee will have tenure for the complete Academic year.

The Committee is to be guided by the following:

- a) The seriousness of the malpractice, in terms of deviousness, and culpability/ criminality of motive
- b) The seriousness in terms of effort and degree of deviousness and culpability / criminality of effort
- Any FIR/ Police case that has been registered in the first instance by the Principal/ Chief Superintendent
- d) Any other special consideration either mitigating or to the contrary.

# C. PENALTY FOR OFFENSES

The penalties awarded will depend on the seriousness of the Offence. A list of Offences and penalties are placed at **Annexure II.** 

The Enquiry Report with findings and recommendations of the Committee are to be forwarded to the Controller who will undertake necessary follow up action. Based on the recommendations of the Controller of Examinations is empowered to award penalties for Offences classified as belonging to categories 1 to 6 of the Offence table. The cases falling in categories from S.No. 7 onwards are to be put up to the Principal for consideration and award of suitable penalty.

# **ANNEXURE II**

# Warning to the students

The students are warned to desist from doing any kind of malpractice during examinations. If anyone indulges in malpractice, the student is likely to be debarred from Examination or even expelled from the Degree Programme. The nature of malpractice and the minimum punishment are indicated in the table. In extreme cases, action may include debarring of officials of examinations.

S.No	Nature of Malpractice	Punishment
1.	Appeal for a favourable consideration or mercy in the answer book.	
2.	Writings of Reg. No./ Name in places other than specified in the Answer book by the Candidate.	
3.	Any special marking in the answer script by the candidate.	Cancellation of Examinations of that particular paper.
4.	Verbal or oral communications to neighbouring candidate.	
5.	Irrelevant writings in the answer book.	
6.	Possession of cell phones, programmable calculator.	
7.	Involved in Malpractice for the second or subsequent times of serial No.1 to 6.	
8.	Possession of any incriminating materials inside the examination hall (whether used or not). For example:- Written or printed materials, bits, writings on scale, calculator, Handkerchief, Dress, Part of the body, Hall ticket etc.,	Malpractice in current semester courses     a. If it is in theory course –         Cancellation of all current semester theory courses.
9.	Copying from neighbour.	b. If it is in practical course –
10.	Exchange of Question papers and other material with some answers.	Cancellation of all current semester practical courses
11.	Vulgar Writings in the answer book.	
12.	Possession of answer book of another Candidate.	Malpractice in Arrear courses  Out it is in the arra course.
13.	Giving answer book to another candidate.	a. If it is in theory course – Cancellation of all arrear
14.	Appeal in the examination answer book coupled with a promise of any form of consideration.	theory courses.  b. If it is in practical course – Cancellation of all arrear
15.	Misbehavior in the examination hall (unruly conduct in the examination hall threatening the Hall superintendent/Chief Superintendent and other examination officials).	practical courses
16.	Involved in Malpractice for the second time of serial No.8 to15.	Cancellation of all theory & Practical examinations (all papers current and arrear)

17.	Involved in Malpractice for the third or subsequent times of serial No.8 to15.	Cancellation of all theory examinations (all papers current and arrear) and further debarred from continuing his/her studies for one year (i.e.) two subsequent semesters. However the student is permitted to appear for the examinations in all the arrear subject's up to the last semester during the debarred period.
18. Cases of Impersonation.	Handling over the impersonator to the police with a complaint to take appropriate action against the person involved in the impersonation by the Chief Superintendent.  Cancellation of all examinations (all papers-current and arrear) appeared for the Bonafide student for whom the impersonation was done and further the Bonafide student will be debarred from continuing his/her studies and writing all examinations for 2 years.	
		If a student of this College is found to impersonate a 'Bonafide Student', the impersonating student also will be debarred from continuing his/her studies and writing all examination for 2 years

For any other type of malpractice reported, the enquiry committee may recommend appropriate remedial action.