

UNIVERSITY DEPARTMENTS

REGULATIONS 2019

CHOICE BASED CREDIT SYSTEM

COMMON TO ALL POST GRADUATE PROGRAMMES

(For the students admitted to M.E. / M.Tech. (Full-Time, Part Time), M.C.A., M.Sc. (Full Time) (2 Years) Programmes at various University Departments from the Academic year 2019-2020 onwards)

1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In this Regulation, unless the context otherwise specifies:

- I. **“Programme”** means Degree Programme. e.g. M.E., M.Tech. Degree Programme
- II. **“Specialisation”** means a discipline of the Post Graduate Degree Programme like Structural Engineering, Engineering Design, etc.
- III. **“Course”** means a Theory or Practical subject that is normally studied in a semester, like Applied Mathematics, Advanced Thermodynamics, High Voltage Lab., etc.
- IV. **“Director, Academic Courses”** means the authority of the University who is responsible for all academic activities for the implementation of relevant rules and regulations.
- V. **“Additional Controller of Examinations (UD)”** means the Authority of the University who is responsible for all activities of the End Semester Examinations of the University Departments.
- VI. **“Head of the Institution”** means the Dean of the campus.
- VII. **“Chairperson”** means Head of the Faculty.
- VIII. **“Head of the Department”** means Head of the University Department Concerned.
- IX. **“University”** means ANNA UNIVERSITY, CHENNAI.

2. ADMISSION PROCEDURE

- 2.1 Students for admission to the first semester of the Post Graduate Degree Programme shall be required to have passed an appropriate qualifying Degree Examination of Anna University or any examination of any other University or authority accepted by the Syndicate of Anna University, Chennai as equivalent thereto.
- 2.2 The Syndicate of the University may decide to restrict admission in any particular year to students having the subset of qualifications prescribed at the time of admission.
- 2.3 Notwithstanding the qualifying examination the student might have passed, he/she shall have a minimum level of proficiency in the appropriate Programme / courses as prescribed by the Syndicate of the University from time to time.
- 2.4 Eligibility conditions for admission such as the marks, class obtained, the number of attempts in the qualifying examination and physical fitness shall be as prescribed by the Syndicate of the University from time to time.
- 2.5 All Part-Time students should satisfy other conditions regarding experience, Sponsorship etc, prescribed by the Syndicate from time to time

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Anna University, Chennai-600 025

### 3. PROGRAMMES OFFERED AND MODE OF STUDY

#### 3.1 PROGRAMMES OFFERED

A student may be offered admission to any one of the following programme of study approved by the University and offered at various campuses of the University.

1. M.E. (Full Time / Part Time)
2. M. Tech. (Full Time / Part Time)
3. M.C.A ( Full Time- Daytime & Evening)
4. M.Sc. (2 Years) (Full Time)

Details of Programmes currently being offered by the University are listed Faculty-wise in **Annexure - I**

#### 3.2. MODES OF STUDY:

##### 3.2.1 Full-Time:

Students admitted under 'Full-Time' should be available in the University departments during the entire duration of working hours (From Morning to Evening on Full-Time basis) for the curricular, co-curricular and extra-curricular activities.

The Full-time students should not attend any other Full-time programme(s) / course(s) or take up any Full-Time job / Part-Time job during working hours in any Institution or company during the period of Full- Time programme. Violation of the above rules will result in cancellation of admission to the PG programme.

##### 3.2.2 Part-Time Mode:

In this mode of study, the students are required to attend classes conducted in the evenings and complete the course in three years.

3.2.3 Conversion from one mode of study to other is not permitted.

### 4. STRUCTURE OF THE PROGRAMMES

#### 4.1 Categorization of Courses

Every Post Graduate Degree Programme will have a curriculum with syllabi consisting of theory and practical courses that shall be categorized as follows:

- i. **Foundation Courses (FC)** may include Mathematics or other basic courses
- ii. **Program Core Courses (PCC)** include the core courses relevant to the chosen specialization/branch.
- iii. **Program Elective Courses (PEC)** include the elective courses relevant to the chosen specialization/ branch.
- iv. **Research Methodology and IPR Courses (RMC)** to understand the importance and the process of creation of patents through research.
- v. **Open Elective Courses (OEC)** are of importance in the context of Special Skill Development and they are courses on Business Analytics, Industrial Safety, Operation Research and Cost Management of Engineering Project.
- vi. **Employability Enhancement Courses (EEC)** include Project Work, Internship, Seminar, Professional Practices, Case Study and Industrial / Practical Training.

- vii. **Audit Courses (AC)** expose the students to Unnat Bharath Abhiyan, Constitution of India, Disaster Management, Yoga, English for Research Paper Writing, Value education, Pedagogy Studies, Stress Management, Sanskrit for Technical Knowledge and Personality Development through Life Enlightenment Skills. Registration for any of these courses is optional to students.

#### 4.2 **Courses per Semester**

The Curriculum of a semester shall normally have a blend of lecture courses and practical courses including Employability Enhancement Courses. Each course may have credits assigned as per clause 4.3.

#### 4.3 **Credit Assignment**

Each course is assigned certain number of credits based on the following:

Contact period per week	Credits
1 Lecture Period / 1 Tutorial Period	1
2 Practical Periods (Laboratory / Seminar / Project Work etc.)	1

The Contact Periods per week for Laboratory can only be in multiples of 2.

#### 4.4 **Project Work**

The Project work is an important component of Post-Graduate programmes. The Project work for M.E. / M.Tech. consists of Phase – I and Phase – II. The Phase – I is to be undertaken during III semester (M.E. / M.Tech.(FT)) or during V semester (M.E. / M.Tech.(PT)). Phase– II, which is a continuation of Phase – I is to be undertaken during IV semester (M.E. / M.Tech.(FT)) or during VI semester (M.E. / M.Tech.(PT)). For all other programmes (M.C.A./ M.Sc. (2 years)), the Project Work has to be undertaken in the final semester.

- 4.4.1 The Project work for M.C.A., M.E / M.Tech (for Phase II Project work) shall be pursued for a minimum of 16 weeks during the final semester. For M.Sc. (2 years) the Project work shall be pursued for a minimum of 16 weeks during the final semester, along with 2 or 3 elective courses as given in the curriculum.

- 4.4.2 The Project work shall be carried out under the supervision of a “qualified teacher” in the Department concerned. In this context “qualified teacher” means a faculty member possessing (i) PG degree with a minimum of 3 years of teaching experience or (ii) Ph.D. degree.

- 4.4.3 A student may, however, in certain cases, be permitted to work on projects in an Industrial / Research Organization, on the recommendations of the Head of the Department. In such cases, the Project work shall be jointly guided by a supervisor of the department and an expert as joint supervisor from the organization and the student shall be instructed to meet the supervisor periodically and to attend the review committee meetings for evaluating the progress.

#### 4.5. **Industrial Training / Internship**

- 4.5.1 The students may undergo Industrial training for a period as specified in the curriculum during the summer / winter vacation. In this case, the training has to be undergone continuously for the entire period.

The students may undergo Internship at a Research organization / University/ industry (after due approval from the Departmental Consultative Committee) for the period prescribed in the curriculum during the summer / winter vacation, in lieu of Industrial training.

- 4.5.2 If Industrial Training / Internship is not prescribed in the curriculum, the student may undergo Industrial Training / Internship optionally and the credits earned will be indicated in the Mark Sheet. If the student earns three credits in Industrial Training / Internship, the student may drop one Professional Elective. In such cases, Industrial Training / Internship need to be undergone continuously from one organization only. However, if the number of credits earned is 1 or 2, these credits shall not be considered for classification of the degree. The student is only allowed to undergo a maximum of 6 weeks Industrial Training / Internship during the entire duration of study.

DURATION OF TRAINING / INTERNSHIP	CREDITS
2 Weeks	1
4 Weeks	2
6 Weeks	3

#### 4.6 Value Added Courses

Students may optionally undergo Value Added Courses and the credits earned through the Value Added Courses shall be over and above the total credit requirement prescribed in the curriculum for the award of the degree. **One/Two credit** courses shall be offered by a Department with the prior approval from the Centre for Academic Courses. The details of the syllabus, time table and faculty shall be sent to the Centre for Academic Courses after approval from the Departmental Consultative Committee concerned. Students can take a maximum of **two 'one credit courses' or one 'Two credit course'**. They shall be allowed to take one/two credit courses offered in other Departments with the permission of the Head of the Department offering the course.

#### 4.7 Online Courses

Students may be permitted to credit online courses (which are provided with certificate) with the approval of the Departmental Consultative Committee and Centre for Academic Courses, subject to a maximum of three credits. This online course of 3 credits can be considered instead of one elective course. The student needs to obtain certification or credit to become eligible for writing the End Semester Examination to be conducted by Anna University. In case of credits earned through online mode from a University approved by appropriate authorities of Anna University, the credits may be transferred after due approval procedures from the Departmental Consultative Committee and Centre for Academic Courses.

#### 4.8 Self Study Courses

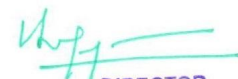
4.8.1 Students may be permitted to credit almost one Self Study course with the approval of the Departmental Consultative Committee and the Centre for Academic Courses.

4.8.2 The Department / Centre / Division may offer self study courses. The purpose of the course is to permit the student to study a course / topic of the student's choice. The students shall study on their own under the guidance of a faculty member. No formal lectures need be delivered. The syllabus of the course and mode of assessments shall be approved by the Departmental Consultative Committee and forwarded to the Centre for Academic Courses for the formal approval of the course by the academic bodies, preferably before the commencement of the semester. The self study course of 3 credits can be considered as one elective course. One Faculty member approved by the Head of the Department shall be responsible for the periodic monitoring and evaluation of the course.

#### 4.9 Medium of Instruction

The medium of instruction is English for all courses, examinations, seminar presentations and project / thesis / dissertation reports.

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## 5. DURATION OF THE PROGRAMMES

- 5.1 The minimum and maximum period for the completion of the P.G. Programmes are given below:

Programme	Min. No. of Semesters	Max. No. of Semesters
M.E./M.Tech. (Full-Time)	4	8
M.E./M.Tech. (Part Time)	6	12
M.C.A ( Full Time- Daytime & Evening)	6	12
M.Sc. (Full Time) (2 Years)	4	8

- 5.2 Each semester shall normally consist of 90 working days (including examination days). The Head of the Department shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus, covering the full content of the syllabus for the course being taught.
- 5.3 The total duration for completion of the programme reckoned from the commencement of the first semester to which the student was admitted shall not exceed the maximum duration specified in clause 5.1 irrespective of the period of break of study (vide clause 16) or prevention (vide clause 7.4) in order that the student may be eligible for the award of the degree (vide clause 14).
- 5.4 The Curriculum of P.G. Programmes has been designed to have the credits in the range specified below for the various programmes for the award of the degree.

PROGRAMME	PRESCRIBED CREDIT RANGE
M.E. / M.Tech.	70-75
M.C.A.	115 - 120
M.Sc. (2 Years)	75 – 85

## 6. COURSE ENROLLMENT AND REGISTRATION

- 6.1 Each student, on admission, shall be assigned to a Faculty Advisor (vide clause 8), who shall advise and counsel the student about the details of the academic programme and the choice of courses, considering the student's academic background and career objectives.
- 6.2 After registering for a course, a student shall attend the classes, satisfy the attendance requirements, earn Continuous Assessment marks and appear for the End Semester Examinations.
- 6.2.1 Each student on admission shall register for **all the courses prescribed in the curriculum in the student's first Semester of study.**
- 6.2.2 The enrollment for the courses from the II Semester to Final Semester will commence 5 working days prior to the commencement of the succeeding semester. If the student wishes, the student may drop or add courses (vide clause 6.4) within 5 working days after the commencement of the concerned semester and complete the registration process duly authorized by the Faculty Advisor of the Programme.
- 6.2.3 Instead of two electives in the curriculum, the student may be permitted to choose a maximum of 2 courses from other PG programmes with the approval of the Head of the Department offering such courses.
- 6.2.4 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 the student's marks in a course or the aggregate marks / CGPA.

### 6.3 MINIMUM CREDITS TO REGISTER FOR PROJECT WORK

Minimum credits for various programmes shall be as follows:

Table – 1

PROGRAMME	MINIMUM NO. OF CREDITS TO BE EARNED
M.E. / M.Tech.	24 (for Phase – I)
M.C.A.	70
M.Sc. (2 years)	40

6.3.1 If the student has not earned the requisite minimum credits, the student cannot enroll for the Project work (Phase I in the case of M. E / M. Tech.). In such a case, the student can enroll for the project work in a subsequent semester, after earning the minimum credits specified.

### 6.4 Flexibility to Add or Drop courses

6.4.1 A student has to earn the total number of credits specified in the curriculum of the respective Programme of study in order to be eligible to obtain the degree. However, if the student wishes, the student is permitted to earn more than the total number of credits prescribed in the curriculum of the student's programme within the minimum duration of the programme.

6.4.2 From the II to final semesters, the student has the option of registering for additional courses or dropping existing courses. The total number of credits that a student can add or drop is limited to 8, subject to a maximum of 2 courses.

### 6.5 Redoing a Course

Redoing a course means reregistering for a course, attending all classes, fulfilling the attendance requirements as per clause 7, earning fresh Continuous Assessment marks and appearing for End Semester Examinations. A student has to redo a course in the following conditions.

6.5.1 If a student is prevented from writing end semester examination of any core course due to lack of attendance, the student has to register for that course again when offered next and redo the course.

6.5.2 If a student is prevented from writing the end semester examination of any professional/open elective course due to lack of attendance, the student can opt to register for the same course again when offered next and redo the course, or he/she can opt to register for a different professional/open elective course when it is offered, attend classes, fulfill the attendance requirements as per clause 7, secure Continuous Assessment marks and appear for End Semester Examinations.

6.5.3 If a student fails to secure a pass in any theory or Laboratory course (including elective theory), he/she is given a maximum of three arrear attempts to complete the course as per Clause 11.2. If the student still fails to secure a pass, he/she shall register for the same when offered next and redo the course.

6.5.4 If the course in which the student fails to secure a pass even after three arrear attempts is a professional/open elective course, then the student can opt for a different professional/ open elective course, register for the same when it is offered, attend classes, fulfill the attendance requirements as per clause 7, secure Continuous Assessment marks and appear for End Semester Examinations.

6.5.5 The student who fails in any Project work / Seminar / Internship / Career Development Skills / Professional Practices / Case Study and Industrial / Practical Training shall register for the same in the subsequent semester and redo the course. In this case, the student shall attend the classes and fulfill the attendance requirements as per clause 7.

## 7. REQUIREMENTS FOR APPEARING FOR THE END SEMESTER EXAMINATION OF A COURSE

A student who has fulfilled the following conditions (vide clause 7.1 and 7.2) shall be deemed to have satisfied the attendance requirements for appearing for the end semester examination of a particular course.

- 7.1 Ideally every student is expected to attend all periods and earn 100% attendance. However, the student shall secure not less than 75% attendance, course wise, taking into account the number of periods required for that course, as specified in the curriculum.
- 7.2 If a student secures attendance between 65% and less than 75% in any course 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 Chairman, Sports Board and Head of the Department concerned, the student shall be given exemption from the prescribed attendance requirement and the student shall be permitted to appear for the end semester examination of that course. In all such cases, the students should submit the required documents on joining after the absence to the Head of the Department through the Faculty Advisor.
- 7.3 A student shall normally be permitted to appear for the end semester examination of the course if the student has satisfied the attendance requirements (vide Clause 7.1 – 7.2) and has registered for the examination in those courses of that semester by paying the prescribed fee.
- 7.4 Students who do not satisfy clause 7.1 and 7.2 and who secure **less than 65%** attendance in a course will not be permitted to write the end semester examination of that course. The student has to register and redo the course when it is offered next as per Clause 6.5. If the course in which the student has been prevented is a professional/ open elective, the student can opt to redo the same course or opt for different professional/ open elective course as per Clause 6.5.2.
- 7.5 If a student has shortage of attendance in all the registered courses, he/she would not be permitted to move to the higher semester and has to repeat the current semester in the subsequent year.
- 7.6 In the case of reappearance (Arrear) registration for a course, the attendance requirement as mentioned in Clauses 7.1 - 7.3 is not applicable. However, the student has to register for examination in that course by paying the prescribed fee.
- 7.7 A student who has already appeared for a course in a semester and passed the examination is not entitled to reappear for the same course for improvement of letter grades / marks.

## 8. FACULTY ADVISOR

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 teacher of the Department, who shall function as Faculty Advisor for those students throughout their period of study. The Faculty Advisor shall advise the students in registering and reappearance (Arrear) registering of courses, authorize the process, monitor their attendance and progress and counsel them periodically. If necessary, the Faculty Advisor may also discuss with or inform the parents about the progress / performance of the students concerned.

The responsibilities of the faculty advisor shall be:

- i. To inform the students about the various facilities and activities available to enhance the student's curricular and co-curricular activities.
- ii. To guide student enrollment and registration of the courses.

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- iii. To authorize the final registration of the courses at the beginning of each semester.
- iv. To monitor the academic and general performance of the students including attendance and to counsel them accordingly.
- v. To collect and maintain the academic and co-curricular records of the students.

## **9 COURSE COMMITTEES**

### **9.1 COMMON COURSE COMMITTEE**

A theory course handled by more than one teacher shall have a “Common Course Committee”, comprising of all teachers teaching that course. One of the teachers shall be nominated as Course Coordinator by the Faculty Chairman, duly approved by the Director, Academic Courses.

The first meeting of the Common Course Committee shall be held within fifteen days from the date of formation of the committee. The nature and weightage of the continuous assessments shall be decided in the first meeting, within the framework of the Regulations. Two or three subsequent meetings in a semester may be held at suitable intervals.

In addition the “Common Course Committee” shall meet to ensure uniform evaluation of continuous assessments after arriving at a common scheme of evaluation for the assessments (vide clause 10).

Wherever feasible, the common course committee shall prepare a common question paper for the continuous assessment tests also. The question paper for the end semester examination is common and shall be set by the Course Coordinator, in consultation with all the teachers.

### **9.2 MULTIPLE COURSES COMMITTEE**

“Multiple Courses Committee” comprises of all teachers handling courses of a particular semester, including common course teachers and two student representatives from the course concerned. One of the above teachers, nominated by the Head of the Department shall coordinate the activities of this committee. The functions of this committee are as follows:

The first meeting of the Multiple Courses Committee shall be held within fifteen days from the date of formation of the committee. The nature and weightage of the continuous assessments shall be decided in the first meeting, within the framework of the Regulations. Two or three subsequent meetings in a semester may be held at suitable intervals. During these meetings, the student members shall meaningfully interact and express their opinions and suggestions of all the students to improve the effectiveness of the teaching-learning process. It is the responsibility of the student representatives to convey the proceedings of these meetings to all the students.

### **9.3 OVERALL MONITORING COMMITTEE**

In addition, there shall be an overall monitoring committee for each semester of a programme, which comprises of (i) the Head of the department (convener), (ii) the Faculty Advisors of the programme and (iii) Multiple Course Coordinator. This overall monitoring committee shall meet periodically to discuss academic related matters, progress and status of the students of the semester concerned.

- 9.3.1 The overall monitoring committee can also invite some of the students of the semester concerned for any of the committee meetings if necessary.

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## 10 ASSESSMENT PROCEDURES FOR AWARDING MARKS

All PG (M.E. / M.Tech. (Full-Time, Part Time), M.C.A., M.Sc. (Full Time) Programmes consist of Theory Courses, Laboratory Courses and Employability Enhancement Courses. Employability Enhancement Courses include Project Work, Seminar, Professional Practices, Case Study and Industrial / Practical Training. Appearance in End Semester Examination is mandatory for all courses including Theory, Laboratory, Theory Courses with Laboratory Component and Project work.

Performance in each course of study shall be evaluated based on (i) Continuous assessments throughout the semester and (ii) End Semester Examination at the end of the semester. The evaluation shall be based on Outcome Based Education (OBE). For Theory Courses and Theory Courses with Laboratory Component, out of 100 marks, the maximum marks for Continuous Assessment is fixed as 50 and the End Semester Examination carries 50 marks. For Laboratory Courses out of 100 marks, the maximum marks for Continuous Assessment is fixed as 75 and the End Semester Examination carries 25 marks. The continuous assessment is 60 marks for the Project Work, and project report evaluation and viva-voce examination carries 40 marks. All other courses included under Employability Enhancement Courses are evaluated by Continuous Assessments only. There is no evaluation for Audit Courses. However, minimum attendance requirement as per clause 7 shall be satisfied.

(i.e.) Each course shall be evaluated for a maximum of 100 marks as shown below:

S.No	Category of course	Continuous Assessments	End-Semester Examinations
i.	Theory Courses/ Theory Courses with Laboratory Component	50 Marks	50 Marks
ii.	Laboratory Courses	75 Marks	25 Marks
iii.	Project Work	60 Marks	40 Marks
iv.	All other EEC Courses	100 Marks	-

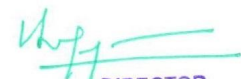
Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD' for every semester, which consists of attendance marked in each theory / Laboratory/EEC/AC class, the assessment marks and the record of class work (topics covered), separately for each course handled by the teacher. This should be submitted to the Head of the Department periodically (at least three times in a semester) for checking the syllabus coverage and the records of assessment marks and attendance. The Head of the Department will affix his/her signature and date after due verification. At the end of the semester, the record should be verified by the Head of the Department who shall keep this document in safe custody (for four years). The records of attendance and assessment of both current and previous semesters should be available for inspection.

### 10.1 ASSESSMENT FOR THEORY COURSES

For Theory Courses out of 100 marks, the maximum marks for Continuous Assessment is fixed as 50 and the End Semester Examination carries 50 marks.

The University examinations (End Semester Exams) for theory courses will be of 3 hours duration and shall normally be conducted between October and December during the odd semesters and between April and June during the even semesters. End semester Examination is a mandatory requirement for passing the course and every student should appear for the examination for theory, theory course with laboratory, laboratory courses and project work.

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Continuous Assessment comprises of two assessments of equal weightage, conducted by the course instructor / coordinator / department. The total marks obtained in the **2 assessments** put together shall be reduced to 50 marks and rounded to the nearest integer. One assessment would be conducted in a day, in the case of tests, and they would be of one and a half hours durations each. Students will have regular classes during the assessment period. In case a student misses the assessment 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 Chairman, Sports Board, only one **Reassessment** may be given at the end of the semester after getting approval from the Head of the Department through the concerned course instructor.

## 10.2 ASSESSMENT FOR LABORATORY COURSES

For Laboratory Courses out of 100 marks, the maximum marks for Continuous Assessment is fixed as 75 and the End Semester Examination carries 25 marks.

Every laboratory exercise / experiment shall be evaluated based on the student's performance during the laboratory class and the student's records maintained. There shall be at least one assessment test. The criteria for arriving at the Continuous Assessment marks of 75 shall be decided at the respective course committee meetings.

The University examinations for Laboratory courses will be of 3 hours duration and shall normally be conducted between October and December during the odd semesters and between April and June during the even semesters.

## 10.3 ASSESSMENT FOR THEORY COURSES WITH LABORATORY COMPONENT

The maximum marks for Continuous Assessment shall be 50 in case of theory courses with Laboratory component. For a theory course with Laboratory component, there shall be three assessments: the first two assessments (each with a maximum of 100 marks) will be from theory portions and the third assessment (maximum marks 100) will be for laboratory component. The sum of marks of all three assessments shall be reduced to 50 marks and rounded to the nearest integer.

## 10.4 ASSESSMENT FOR PROJECT WORK

The evaluation of Project Work for Phase I and Phase II in the case M.E. / M.Tech shall be done independently in the respective semesters and marks shall be allotted as per the weightages given in Clause 10.4.1.

- 10.4.1 The Project work shall be evaluated for a maximum of 100 marks of which 60 marks will be through internal assessment. There should be three reviews for each phase in the case of M.E. / M.Tech. (Phase I and Phase II) to be conducted separately with Internals 60 marks and External 40 marks. The committee for the conduct of reviews shall be constituted by the Head of the Department. Similarly, there should be three reviews for the final year Project work of M.C.A. / M.Sc. (2 years) to be conducted separately with Internals 60 marks and External 40 marks. The marks are to be distributed as detailed below.

Project work	Internal (60 Marks)			External (40 Marks)		
	Review I	Review II	Review III	Project Evaluation (External)	Viva – Voce (20 Marks)	
					External	Internal
Phase – I & Phase - II	10	20	30	20	10	10

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- 10.4.2 There shall be three assessments (each 100 marks) during the semester by a review committee. The student shall make presentation on the progress made before the committee. The Head of the Department shall constitute the review committee consisting of supervisor, project coordinator and another faculty member from the Department for each branch of study. The total marks obtained in the three assessments shall be reduced to 60 marks and rounded to the nearest integer.
- 10.4.3 The Project Report prepared according to approved guidelines as given by the Director, Academic Courses and duly signed by the supervisor(s), Project Co-ordinator and the Head of the Department and shall be submitted to the Head of the Department.
- 10.4.4 The evaluation of the Project work Phase - I and Phase - II (M.E. / M.Tech.) shall be based on the project report submitted in each of the Phase – I and Phase - II semesters respectively and a Viva-Voce Examination by a team consisting of the supervisor, internal examiner (other than the supervisor) and External Examiner. The Project Co-ordinator shall act as Internal Examiner. The External examiner shall be appointed by the Chairman of the respective Faculty from the panel of examiners submitted by the HOD for Phase – I and Phase – II project evaluation in the case of M.E. / M. Tech. and for the Final Project work of M.C.A.
- 10.4.5 If the student fails to obtain 50% of the internal assessment marks in the Phase–I and Phase–II in the case of M.E. / M.Tech or the Final Project work of M.C.A., he / she will not be permitted to submit the report for that particular semester and has to re-enroll for the same in the subsequent semester.
- 10.4.6 The deadline for submission of final Project Report is 60 calendar days from the last working day of the semester in which project / thesis / dissertation is done. However, the Phase-I of the Project report in the case M.E. / M.Tech. shall be submitted within a maximum period of 30 calendar days from the last working day of the semester as per the academic calendar published by the University or the Re-opening of next semester whichever is earlier.
- 10.4.7 If a student fails to submit the project report on or before the specified deadline, student is deemed to have failed in the Project Work and shall re-enroll for the same in a subsequent semester. This applies to both Phase–I and Phase–II in the case of M.E. / M.Tech. and the Final Project work of M.C.A.

In case of students of M.E. / M.Tech. not completing Phase - I of Project work successfully, the students can undertake Phase - I again in the subsequent semester. In such cases, the students can enroll for Phase-II, only after successful completion of Phase I.

- 10.4.8 A copy of the approved project report after the successful completion of viva-voce examinations shall be kept in the library of the college / institution.

#### **10.5 ASSESSMENT FOR SEMINAR / PROFESSIONAL PRACTICES / CASE STUDY:**

The seminar / Case study shall carry 100 marks and shall be evaluated through continuous assessment only. Every student is expected to present a minimum of 2 seminars per semester before the evaluation committee and for each seminar, marks can be equally apportioned. The three member committee consisting of one co-ordinator and two members appointed by the Head of the Department will evaluate the seminar and at the end of the semester the marks can be consolidated and taken as the final mark. The evaluation shall be based on the seminar paper / report (40%), presentation (40%) and response to the questions asked during presentation (20%).

#### **10.6 ASSESSMENT FOR INDUSTRIAL / PRACTICAL TRAINING / INTERNSHIP / SUMMER PROJECT**

- 10.6.1 Practical training / Industrial Attachment / Summer Project if specified in the Curriculum shall not exceed the maximum duration of 4 weeks and should be organized by the Head of the Department for every student.

- 10.6.2 The Industrial / Practical Training shall carry 100 marks and shall be evaluated through continuous assessment only as per Table 2. At the end of Industrial / Practical training / internship / Summer Project, the student shall submit a brief report on the training undergone and a certificate from the organization concerned. The evaluation will be made based on this report and a Viva-Voce Examination, conducted internally by a three member Departmental Committee consisting of one co-ordinator and two members constituted by the Head of the Department. Certificates (issued by the Organization) submitted by the student shall be attached to the mark list (with grade) and sent to Additional Controller of Examinations by the Head of the Department.
- 10.6.3 The Industrial / Practical Training **which is not part of the curriculum (Clause 4.5.2)**, shall carry 100 marks and shall be evaluated **through internal assessment only** as per Table 2. At the end of Industrial / Practical training / internship / Summer Project, the student shall submit a certified report (evaluated out of 100 marks by a mentor/guide) from the organization where the student has undergone training. The Viva-Voce Examination will be conducted by a three member committee constituted by the Head of the Department. The committee comprises of one expert from an industry/organisation and two members (co-ordinator and member) from the Department. Certificates (issued by the Organization) submitted by the student shall be attached to the mark list (with grade) and sent to Additional Controller of Examinations by the Head of the Department.

Table 2

INTERNSHIP / INDUSTRIAL TRAINING		
EVALUATION		
REPORT	PRESENTATION	VIVA VOCE
40	30	30

#### 10.7 ASSESSMENT FOR VALUE ADDED COURSES

The one credit course shall carry 100 marks and shall be evaluated through **continuous assessments only**. Two Assessments shall be conducted during the semester by the Department concerned. The total marks obtained in the tests shall be reduced to 100 marks and rounded to the nearest integer. The Head of the Department may identify a faculty member as coordinator for the course. A committee consisting of the Head of the Department, staff handling the course (if available), coordinator and a senior Faculty member nominated by the Head of the Department shall monitor the evaluation process. The grades shall be assigned to the students by the above committee based on their relative performance.

#### 10.8 ASSESSMENT FOR ONLINE COURSE

Students may be permitted to credit online courses (which are provided with certificate) with the approval of Departmental Consultative Committee and Centre for Academic Courses subject to a maximum of three credits. This online course of 3 credits can be considered instead of one elective course. The student needs to obtain certification or credit to become eligible for writing the End Semester Examination to be conducted by Anna University. The Head of the Department may identify a faculty member as coordinator for the course, who is responsible for evaluation process. The course shall be evaluated through the End Semester Examination only. The evaluation methodology shall be the same as that of a theory course (vide clause 10.1).

In case of credits earned through online mode from a University approved by appropriate authorities of Anna University, the credits may be transferred and grades shall be assigned by a committee consisting of Chairperson of the Faculty concerned, Head of the Department and Senior faculty member nominated by the Chairman.

## 10.9 ASSESSMENT FOR SELF STUDY COURSE

The Faculty member approved by the Head of the Department shall be responsible for periodic monitoring and evaluation of the course. The course shall be evaluated through Continuous Assessment and End Semester Examination. The evaluation methodology shall be the same as that of a theory course (vide clause 10.1).

## 11 PASSING REQUIREMENTS

11.1 The Passing requirement for a student in a course is determined based on the marks obtained both in Continuous Assessment and End Semester Examinations. If the student gets <50% of total marks then, the student will be awarded only RA (Reappearance) grade. All other grades will be decided by the faculty concerned. While fixing the grades, the mean mark shall be at the middle of the 'A' grade range. A student who earns a minimum of 6 grade points in a course is declared to have successfully passed the course.

11.2 If a student fails to secure a pass in theory courses and laboratory courses in the current semester examination, he/she is allowed to write arrear examinations for the next three consecutive semesters and their internal marks shall be carried over for the above mentioned period of three consecutive semesters.

In case, if he/she has not successfully completed all the courses of semester I at the end of semester IV, he/she shall redo the semester I courses along with regular students. For the subsequent semesters of II, III and IV, the same procedure shall be followed, subject to the maximum permissible period for this programme.

For MCA programme, to register for courses in V and VI semesters, the student should have successfully completed all the courses of I and II semesters respectively. In case, if he/she has not successfully completed all the courses of semester III at the end of semester VI, he/she shall redo the semester III courses along with regular students. For the subsequent semesters of IV, V and VI, the same procedure shall be followed, subject to the maximum permissible period for this programme.

11.3 If a candidate fails in the end semester examinations of Phase I, he/she has to resubmit the Project Report within 30 days from the date of declaration of the results. If he / she fails in the end semester examination of Phase II of M.E. / M.Tech. or the Final Project work of M.C.A / M.Sc (2 years), he/she shall resubmit the Project Report within 60 days from the date of declaration of the results. The resubmission of the project report and the subsequent viva-voce examination will be considered as reappearance with payment of exam fee. In case if a student fails to resubmit the project report within the stipulated period and fails in the subsequent viva-voce examination, the student shall register for the course again, in the subsequent semester.

11.4 The passing requirement for the courses which are assessed only through continuous assessment (EEC courses except project work), shall be fixed as minimum 50% and rest of the grades are decided by the faculty concerned.

### 11.5 Supplementary Examinations

If a student fails to secure a pass in theory course(s) of IV semester examination for **M.Sc.(2 years)** programmes, he/she is eligible to appear for a one time Supplementary Examination which shall be conducted at the end of IV semester, for the subjects of IV semester alone within 30 days from the date of declaration of the results.

### 11.6 End semester valuation clarification day

For a theory course where there is an end semester examination, a valuation clarification day shall be conducted within 10 - 15 days from the date of the last examination. The date of the clarification day for each course shall be announced by the Head of the Department concerned. On this day, the students can view their end semester answer papers in the

presence of the course instructor and get any clarifications / corrections done. In cases of dispute, where the student is not satisfied with the clarifications / corrections, the matter can be referred to a committee, consisting of the Head of the Department of the courses concerned / HOD nominee, concerned course instructor and a subject expert. In case a student does not attend the valuation clarification day on the specified date, no further clarifications will be entertained. The results will be published after the end semester valuation clarification day.

## 12 AWARD OF LETTER GRADES

- 12.1. The performance of a student will be reported using letter grades, each carrying certain points as detailed below:

Letter Grade	Grade Points
O (Outstanding)	10
A + (Excellent)	9
A (Very Good)	8
B + (Good)	7
B (Average)	6
RA (Reappearance Registration)	0
SA (Shortage of Attendance)	0
W (Withdrawal)	0

'RA' denotes Reappearance. Registration is required for that particular course.

'SA' denotes shortage of attendance (as per Clause 7) and hence prevented from writing end semester examination.

'W' indicates withdrawal from the course.

- 12.2 The grades O, A+, A, B+, B obtained for the one credit course shall figure in the Mark sheet under the title '**Value Added Courses**'. The other grades RA, SA **will not figure in the mark sheet**.

## 13. GPA AND CGPA CALCULATION

- 13.1 The Course Teacher shall handover the foil sheet, grade sheet and attendance sheet to the HOD concerned for onward transmission to the ACOE, UD for processing of results. After results are declared, Grade Sheets will be issued to each student which will contain the following details:

- the list of courses registered during the semester and the grades scored.
- the Grade Point Average (GPA) for the semester and
- the Cumulative Grade Point Average (CGPA) of all courses registered from first semester onwards.

During each semester, the list of courses registered and the grades scored in each course are used to compute the Grade Point Average (GPA). GPA is the ratio of the sum of the products of the number of credits of courses registered and the grade points corresponding to the grades scored in those courses, taken for all the courses, to the sum of the number of credits of all the courses in the semester.

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$$\text{GPA} = \frac{\sum_{i=1}^n c_i GP_i}{\sum_{i=1}^n c_i}$$

Where  $C_i$  - is the Credits assigned to the course

$GP_i$  - is the grade point corresponding to the letter grade obtained for each course  
 $n$  - is number of all Courses successfully cleared during the particular semester  
in the case of GPA and during all the semesters in the case of CGPA.

CGPA will be calculated in a similar manner, considering all the courses enrolled from first semester. "RA" and "SA" grades will be excluded for calculating GPA and CGPA.

- 13.2 The credits earned through one / two credit courses shall not be considered for calculating GPA and CGPA.
- 13.3 If a student studies more number of electives than required as per the student's programme curriculum, the courses with higher grades alone will be considered for calculation of CGPA.

#### 14 ELIGIBILITY FOR THE AWARD OF DEGREE

14.1. A student shall be declared to be eligible for the award of the PG Degree (M.E./ M.Tech., M.C.A., M.Sc.) provided the student has

- i. Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time.

**a. M.E./ M.Tech. and M.Sc. (2 years) (Full Time)**

Successfully completed the course requirements, appeared for the End-Semester examinations and passed all the subjects prescribed in all the 4 semesters within a maximum period of 4 years reckoned from the commencement of the first semester to which the candidate was admitted.

**b. M.E./ M.Tech.(Part Time) and M.C.A.(Full Time)**

Successfully completed the course requirements, appeared for the End-Semester examinations and passed all the subjects prescribed in all the 6 semesters within a maximum period of 6 years reckoned from the commencement of the first semester to which the candidate was admitted.

- ii. Successfully passed any additional courses prescribed by the Director, Academic Courses.
- iii. No disciplinary action pending against the student.
- iv. The award of Degree must have been approved by the Syndicate of the University.

#### 14.2 CLASSIFICATION OF THE DEGREE AWARDED

##### 14.2.1 FIRST CLASS WITH DISTINCTION:

A student who satisfies the following conditions shall be declared to have passed the examination in First class with Distinction:

**M.E. / M.Tech. and M.Sc. (2 years)(Full Time)**

- Should have passed the examination in all the courses of all the four semesters in the student's First Appearance within **three** years, which includes authorised break of study of one year. Withdrawal from examination (vide Clause 15) will not be considered as an appearance.

- Should have secured a CGPA of not less than **8.50**.
- Should NOT have been prevented from writing end Semester examination due to lack of attendance in any of the courses.

**M.E. / M.Tech.(Part Time) and M.C.A (Full Time)**

- Should have passed the examination in all the courses of all the six semesters in the student's First Appearance within **four** years, which includes authorised break of study of one year. Withdrawal from examination (vide Clause 15) will not be considered as an appearance.
- Should have secured a CGPA of not less than **8.50**.
- Should NOT have been prevented from writing end Semester examination due to lack of attendance in any of the courses.

**14.2.2 FIRST CLASS:**

A student who satisfies the following conditions shall be declared to have passed the examination in **First class**:

**M.E. / M.Tech. and M.Sc. (2 years) (Full Time)**

- Should have passed the examination in all the courses of all four semesters **within three years** , which includes one year of authorized break of study (if availed) or prevention from writing the End Semester Examination due to lack of attendance (if applicable).
- Should have secured a CGPA of not less than **7.00**.

**M.E. / M.Tech. (Part Time) and M.C.A (Full Time)**

- Should have passed the examination in all the courses of all six semesters **within four years** , which includes one year of authorized break of study (if availed) or prevention from writing the End Semester Examination due to lack of attendance (if applicable).
- Should have secured a CGPA of not less than **7.00**.

**14.2.3 SECOND CLASS:**

All other students (not covered in clauses 14.2.1 and 14.2.2) who qualify for the award of the degree (vide Clause 14.1) shall be declared to have passed the examination in **Second Class**.

14.2.4 A student who is absent in End Semester Examination in a course / project work after having registered for the same shall be considered to have appeared in that examination (except approved withdrawal from end semester examinations as per clause 15) for the purpose of classification.

**15 PROVISION FOR WITHDRAWAL FROM EXAMINATION:**

15.1 A student may, for valid reasons, (medically unfit / unexpected family situations / sports approved by Chairman, sports board and HOD) be granted permission to withdraw from appearing for the end semester examination in any course or courses in **ANY ONE** of the semester examinations during the entire duration of the degree programme. The application shall be sent to Director, Academic Courses through HOD with required documents.

15.2 Withdrawal application shall be valid only if the student is otherwise eligible to write the examination (Clause 7) and if it is made within TEN working days before the commencement of the end semester examination in that course or courses ~~and also~~ recommended by the Head of the Department.



- 15.3 Notwithstanding the requirement of mandatory TEN working days notice, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.
- 15.4 If a student withdraws a course or courses from writing end semester examinations, he/she shall register the same in the subsequent semester and write the end semester examination(s).
- 15.5 Withdrawal shall not be considered as an appearance for deciding the eligibility of a student for First Class with Distinction.
- 15.6 Withdrawal is permitted for the end semester examinations in the final semester only if the period of study the student concerned does not exceed 3 years for **M.E. / M.Tech., M.Sc. (2 years) (Full Time)** and does not exceed 4 years for **M.E. / M.Tech. and M.C.A.** as per clause 14.2.1.

## 16 BREAK OF STUDY FROM A PROGRAMME

- 16.1 A student is permitted to go on break of study for a fixed period of one year as a single break in the entire course of study.
- 16.2 The student applies for break of study, the student shall apply to the Director, Academic Courses in advance, in any case, not later than the last date of the first assessment period. The application (downloaded from website) duly filled by the student shall be submitted through the Head of the Department.
- 16.3 The students permitted to rejoin the programme after break of study / prevention due to lack of attendance, shall be governed by the Curriculum and Regulations in force at the time of rejoining. The students rejoining in new Regulations shall apply to the Director, Academic Courses in the prescribed format through Head of the Department at the beginning of the readmitted semester itself for prescribing additional/equivalent courses, if any, from any semester of the regulations in-force, so as to bridge the curriculum in-force and the old curriculum.
- 16.4 The total period for completion of the programme reckoned from, the commencement of the first semester to which the student was admitted shall not exceed the maximum period specified in clause 5.1 irrespective of the period of break of study in order that the student may be eligible for the award of the degree (vide clause 14).
- 16.5 In case there is any period of break of study more than the permitted duration of break of study, the student shall be permitted to continue the programme only if the approval is obtained from the Director, Academic Courses through the concerned Head of the Department before the end of the semester in which the student has taken break of study.
- 16.6 If a student has not reported to the department for a period of two consecutive semesters without any intimation, the name of the student shall be deleted permanently from the college enrollment. Such students are not entitled to seek readmission under any circumstances.

## 17 DISCIPLINE

- 17.1 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 University / Department. The Head of the Institution shall constitute a disciplinary committee consisting of Head of the Institution, Head of the departments to which the student concerned belongs, and the Head of another department to enquire into acts of indiscipline and notify the University about the disciplinary action recommended for approval. In case of any serious disciplinary action which leads to suspension or dismissal, then a committee shall be constituted by the Registrar of the University for taking final decision.
- 17.2 If a student indulges in malpractice in any of the examinations, the student shall be liable for punitive action as prescribed by the University from time to time.

## 18 REVISION OF REGULATIONS, CURRICULUM AND SYLLABI

The University may from time to time revise, amend or change the Regulations, Curriculum, Syllabus and Scheme of examinations through the Academic Council with the approval of the Syndicate.

### ANNEXURE – I

A student may be offered one of the following PG programmes of study approved by the University. A student of a programme should earn the credits specified against it to enable the student to be eligible to be awarded the degree.

SL. No.	NAME OF THE PROGRAMME	CREDITS TO BE EARNED
<b>FACULTY OF CIVIL ENGINEERING</b>		
1.	M.E. Structural Engineering	70
2.	M.E. Construction Engineering and Management	70
3.	M.E. Irrigation Water Management	72
4.	M.E. Hydrology and Water Resources Engineering	73
5.	M.E. Environmental Engineering	71
6.	M.E. Transportation Engineering	72
7.	M.E. Soil Mechanics and Foundation Engineering	71
8.	M.E. Environmental Management	70
9.	M.E. Remote Sensing & Geomatics	74
<b>FACULTY OF MECHANICAL ENGINEERING</b>		
10.	M.E. Internal Combustion Engineering	71
11.	M.E. Energy Engineering	72
12.	M.E. Computer Integrated Manufacturing	75
13.	M.E. Thermal Engineering (with specialization in Refrigeration and Air Conditioning)	72
14.	M.E. Engineering Design	74
15.	M.E. Aeronautical Engineering	74
16.	M.E. Automobile Engineering	74
17.	M.E. Industrial Engineering	70
18.	M.E. Manufacturing Engineering	70
19.	M.E. Mechatronics	75
20.	M.E. Manufacturing Systems and Management	72
21.	M.E. Product Design and Development	71
22.	M.E. Quality Engineering and Management	72
23.	M.E. Computer Aided Design	75
24.	M.E. Printing and Packaging Technology	72
25.	M.E. Aerospace Technology	74
26.	M.E. Solar Energy	72
27.	M.E. Manufacturing Engineering (with specialization in Green Manufacturing Engineering)	74
<b>FACULTY OF ELECTRICAL ENGINEERING</b>		
28.	M.E. Power Systems Engineering	70
29.	M.E. Power Electronics and Drives	70
30.	M.E. Embedded System Technologies	70
31.	M.E. High Voltage Engineering	70
32.	M.E. Control and Instrumentation Engineering	70
33.	M.E. Instrumentation Engineering	72
34.	M.E. Power Engineering and Management	70

<b>FACULTY OF INFORMATION AND COMMUNICATION ENGINEERING</b>		
35.	M.E. Computer Science and Engineering	70
36.	M.E. Software Engineering	71
37.	M.E. Communication Systems	70
38.	M.E.VLSI Design	70
39.	M.E. Medical Electronics	72
40.	M.Tech. Information Technology (Specialization in Multimedia) Technology	70
41.	M.E. Biomedical Engineering	72
42.	M.E. Communication and Networking	73
43.	M.E. Avionics	73
44.	M.E. Applied Electronics	70
45.	M.Tech. Information Technology	70
46.	M.Tech. Laser and Electro Optical Engineering	71
47.	M.E. Computer Science and Engineering (Specialization in Operations Research)	71
48.	M.E. Computer Science and Engineering (Specialization in Big Data Analysis)	71
49.	M. E. Wireless Technologies	73
50.	M. E. VLSI Design & Embedded Systems	73
51.	M.C.A.	115
<b>FACULTY OF TECHNOLOGY</b>		
52.	M.Tech. Chemical Engineering	70
53.	M.Tech. Textile Technology	72
54.	M.Tech. Ceramic Technology	71
55.	M.Tech. Petroleum Refining and Petrochemicals	71
56.	M.Tech. Polymer Science and Engineering	74
57.	M.Tech. Environmental Science and Technology	70
58.	M.Tech. Biotechnology	72
59.	M.Tech. Biopharmaceutical Technology	72
60.	M.Tech. Rubber Technology	72
61.	M.Tech. Leather Technology	70
62.	M. Tech. Footwear Engineering and Management	70
63.	M.Tech. Nanoscience and Technology	71
64.	M.Tech. Food Technology	72
65.	M.Tech. Industrial Safety and Hazards Management	72
66.	M.Tech. Computational Biology	70
<b>FACULTY OF SCIENCE AND HUMANITIES</b>		
67.	M.Sc. Mathematics (2 years)	84
68.	M.Sc. Materials Science (2 years)	81
69.	M.Sc. Medical Physics (2 years)	85
70.	M.Sc. Applied Chemistry (2 years)	82
71.	M.Sc. Applied Geology (2 years)	85
72.	M.Sc. Electronics Media (2 years)	84

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