

GOVERNMENT COLLEGE OF TECHNOLOGY, COIMBATORE-641 013.

REGULATIONS 2018

CHOICE BASED CREDIT SYSTEM

COMMON TO ALL POST GRADUATE PROGRAMMES

**(For the students admitted to M.E. Full - Time from the Academic year
2018-2019 onwards)**

1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In this regulation, unless the context otherwise specifies:

- I. "**Programme**" means M.E. 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 High performance Computer Architecture, Thermodynamics and combustion, Vibration Lab., etc.
- IV. "**Principal & Chairman**" means the authority of the Institution who is responsible for all academic activities for the implementation of relevant rules and regulations.
- V. "**Controller of Examinations**" means the Authority of the Institution who is responsible for all activities of the End Semester Examinations of the Institution.
- VI. "**Head of the Department**" means Head of the Post Graduate Department concerned.
- VII. "**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 approved by the Directorate of Technical Education and Anna University, Chennai as equivalent thereto.

2.2. Eligibility conditions for admission will be as prescribed by the GOVERNMENT TAMILNADU & ANNA UNIVERSITY from time to time.

3. PROGRAMMES OFFERED AND MODE OF STUDY

3.1 PROGRAMMES OFFERED

A student may be offered admission to any one of the following specialisations in M.E. Degree programme of study approved in the Institution and offered by various departments of the Institution.

S.No.	Department Name
Department of CIVIL Engineering.	
1	M.E. Structural Engineering
2	M.E. Environmental Engineering
3	M.E. Geotechnical Engineering
Department of Mechanical Engineering	
4	M.E. Engineering Design
5	M.E. Manufacturing Engineering
6	M.E. Thermal Engineering
Department of Electrical and Electronics Engineering	
7	M.E. Power Systems Engineering
8	M.E. Power Electronics and Drives
Department of Electronics and Communication Engineering	
9	M.E. Applied Electronics
10	M.E.VLSI Design
Department of Computer Science and Engineering	
11	M.E. Computer Science and Engineering

3.2 MODE OF STUDY:

3.2.1 FULL TIME:

Students admitted under 'Full-Time' should be available in the Institution during the entire duration of working hours for the curricular, co-curricular and extra-curricular activities assigned to them.

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.

4. STRUCTURE OF THE PG 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. Professional Core (PC) courses include the core courses relevant to the chosen PG specialization.
 - iii. Professional Elective (PE) courses include the elective courses relevant to the chosen specialization.
 - iv. Employability Enhancement Courses (EEC) include project work and/or internship, seminar, professional practices, case study and industrial / practical training
- Open Elective (OE) Courses under Open Elective are of importance in the context of special skill development and shall make students capable to work in industry environment. Electives from other technical and/or emerging courses are given as a separate list of Elective Courses offered by the Engineering / Science Departments and a student can choose a Course as an Open Elective from the above list of Courses.

Audit Course (AC) includes subjects for developing desired attitude among the learners on the line of initiatives such as Unnat Bharat Abhiyan, Yoga, Value Education, Disaster management, Pedagogy, Constitution of India, Personality Development through India Culture etc.

4.2 Number of Courses per Semester

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
1 tutorial period	1
1 practical period(laboratory /seminar/ Project work etc.)	0.5

4.4 Project Work

The Project work is an important component of Post-Graduate programmes. The project work for M.E. consists of Phase – I and Phase – II. The Phase – I is to be undertaken during III semester and Phase – II, which is a continuation of Phase – I is to be undertaken during IV semester.

4.4.1 The Project work for M.E (for Phase II Project work) shall be pursued for a minimum period of 16 weeks and a maximum period of 6 months during the final semester.

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 **and shall submit attendance particulars from the joint supervisor** for evaluating the progress.

4.4.4 Every candidate doing M.E. shall, based on his/her project work/thesis/dissertation, should send a paper for publication in a journal or a conference in which full papers are published after usual review. An acknowledgement for having communicated to the journal or a certificate for having presented the paper in a conference shall be attached to the report of the **Phase I /Phase II** project work/thesis/dissertation.

4.5. Industrial training / internship

4.5.1 The students may undergo industrial training for a minimum period of 2 weeks during summer / winter vacation. In this case, the training has to be undergone continuously for the entire period.

The students may undergo internship at research organization / university /reputed firms satisfying prescribed qualifications set by the department after the approval from the department, for a minimum period of 2 weeks during summer / winter vacation.

4.5.2 If industrial training / internship (Industry for internship should be approved by the department) is not prescribed in the curriculum, the student may undergo industrial training / internship optionally and the one credit earned will be indicated in the Grade sheet. This credit shall not be considered for calculation of CGPA. The credit framework is given below:

Duration of Industrial Training / Practical Training/ Internship/ Summer Projects / Seminars /Professional Practices /Case Study	CREDITS
1 WEEK	1 CREDIT

4.6 Value added one credit courses

Value added one credit courses shall be offered by a department with the prior approval from the Board of Studies & Academic Council. The details of the syllabus, time table and faculty may be sent to the Principal & Chairman for the introduction of new one credit courses after approval from the Board of Studies concerned. The credits earned through the value added one credit courses shall be over and above the total credit requirement prescribed in the curriculum for the award of the degree. Students can take a maximum of two one credit courses. They shall be allowed to take one credit courses offered in other departments with the permission of Head of the Departments concerned. The candidates who enrolled for the value added one credit courses, have to earn minimum of 80% attendance, failing which the registration for the courses will be cancelled.

4.7 Online Courses

Students may be permitted to credit online courses registered through SWAYAM (which are provided with the Certificates) instead of Professional/Open Elective Courses with the approval of Board of Studies through Department Consultative Committee. The

online course of 3 credits can be considered instead of one Elective course (Professional /Open Elective). The Department Consultative Committee consists of the Head of the Department, Programme Coordinator, Senior Faculty member and the department SWAYAM coordinator selects the Courses to be permitted for credit transfer through SWAYAM prior to the commencement of the semester. The Committee ensures the physical facilities like laboratories, computer facilities, library, etc required for the courses.

The Committee also intimates the students about the selected courses prior to the commencement of the semester and monitors the students' registration. It is the responsibility of the Committee to identify and designate a Course Coordinator/Facilitator/Mentor to each online course offered. The Course Coordinator/Facilitator/Mentor guides the students throughout the course, facilitate/conduct the lab/practical sessions/examinations and submits the certificates & marks earned by the students to the Controller of Examinations during credit transfer request by the student.

4.7.1 - Credit Transfer of Online Courses offered through SWAYAM

The student has to register for the credit transfer of the online course during the course registration. The online course(s) which is/are successfully completed by the student in a particular EVEN/ODD semester during the course of study is/are eligible for credit transfer in the immediate next ODD/EVEN or next EVEN/ODD semester (i.e. an online course is eligible for credit transfer for two subsequent semesters). If the student is willing, he/she will be permitted to replace all the elective courses with the online courses, subject to the maximum of 20% of the total credits of the programme

4.8 Self Study Courses

4.8.1 Students may opt to credit utmost oneself study course with the approval of Board of studies concerned.

4.8.2 The department may offer self study courses. The purpose of the course is to permit the student to study a course of the choice of the student. The students shall study on their own under the guidance of a faculty member. No formal lectures need to be delivered. The syllabus of the course and mode of assessments shall be approved by the Board of studies and forwarded to the Academic Council for the formal approval of the course by the academic body, 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.

5. DURATION OF THE PROGRAMMES

5.1 The minimum and maximum period for the completion of the P.G. programme is given below:

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

5.2 Each semester shall normally consist of 90 teaching days (including examination days) Or 450 hours or 540 periods of each 50 minutes duration. 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 shall be so designed that the prescribed credits required for the award of the degree shall be within the limits specified below:

PROGRAMME	PRESCRIBED CREDIT RANGE
M.E.	66- 74

6. COURSE ENROLLMENT AND REGISTRATION

6.1 Each student, on admission shall be assigned to a Student Counsellor (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 Every student shall enroll for the course of the succeeding semester in the current semester. However, the student shall confirm the enrollment by registering for the courses within the first ten working days after publication of results of the previous semester examinations. Students who rejoined the programme after availing permitted Break of Study or Readmitted by DOTE/University need not submit new Enrollment Form, but they have to submit the course registration form within the first 10 working days after publications of results of the previous semester examinations.

6.3 No course shall be offered by a department unless a minimum of 5 students register for a course.

6.4 Students shall attend the classes, satisfy the attendance requirements, earn continuous assessment marks and appear for the end semester Examinations

6.4.1 Each student shall register for **all the courses prescribed in the Curriculum in the student's first semester of study.**

6.4.2 The enrollment for all the courses of the semester II will commence 10 working days prior to the last working day of semester I. The student shall confirm the enrollment by registering for the courses within the first ten working days after publications of results of the previous semester examinations. However, the student is allowed to register for the failed courses additionally.

6.4.3 The enrollment for the courses of the II semester to final semester will commence 10 working days prior to the last working day of the preceding semester. If the student wishes, the student may drop or add courses (vide clause 6.6) within ten working days after publications of results of the previous semester examinations and complete the registration process duly authorized by the Programme Co-ordinator and Head of the Department of the programme.

The student is allowed to register for courses for which the student has not enrolled, if these are the courses in which the student has failed.

6.4.4 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/grade points in a course or the aggregate marks / CGPA.

6.5 MINIMUM NUMBER OF CREDITS TO REGISTER FOR PROJECT WORK

The project work for M.E. consists of phase – I and phase – II. The phase – I is to be undertaken during III semester and phase – II, which is the continuation of phase – I is to be undertaken during IV semester.

Minimum credits shall be as follows:

TABLE - 1

PROGRAMME	MINIMUM NO. OF CREDITS TO BE EARNED
M.E.	20 (FOR PHASE - I)

6.5.1 If the student has not earned the requisite minimum credits, the student cannot enroll for the project work phase I. In such a case, the student can enroll for the project work in a subsequent semester, after earning the minimum credits specified.

6.6 Flexibility to Add or Drop Courses

6.6.1 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.

6.6.2 From the II to III semesters, the student has the option of registering for one additional course or dropping one existing course. Total number of credits of such courses cannot exceed 3. However, the maximum number of credits the student can register in a particular semester, cannot exceed 30 credits (excluding courses for which the student has done reappearance registration (vide clause 6.7)).

6.6.3 The student shall register for the project work phase I in the third semester and project work phase II in the fourth semester. However, if a student has not earned the minimum number of credits as specified in table 1, the student may be permitted to register for the project work Phase I and Phase II as and when the student earns the minimum number of credits.

6.7 Reappearance Registration/Re-enrollment Registration

6.7.1 If a student fails in a theory/Practical course, the student shall do reappearance registration for that course in the subsequent semester and attend end semester examination.

6.7.2 The student shall fulfil the continuous assessment criteria to re-earn the continuous assessment marks for the reappearance registration courses, if the student wishes. In such a case, latest Continuous Assessment marks will only be valid. However, the re-earning of attendance is not permitted for such courses.

6.7.3 If the theory course, in which the student has failed, is an elective, the student may register for the same or any other elective course in the subsequent semesters.

6.7.4 The student who fails in project work / seminar or any other EEC course other than Practical Courses shall register for the same in the subsequent semester, when offered next. However, if the overall average attendance of all the courses is below 70%, the student has to rejoin the programme in the next academic year after getting readmission order from DOTE/University. In this case, the student shall attend the classes afresh, satisfy the attendance requirements (vide clause 7), earn Continuous Assessment marks and appear for the End Semester Examinations. The facility of Reappearance Registration is not available for such courses.

6.7.5 If a student is prevented from writing end semester examination of a course due to lack of attendance, the student has to re-enroll and register for that course again, when offered next. The student shall attend the classes and fulfil the attendance requirements as per clause 7, earn continuous assessment marks and appear for the end semester examinations. If the course, in which the student has lack of attendance, is a Professional Elective, the student may register for the same or any other Professional Elective Course in the subsequent semesters.

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 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 80% attendance course wise taking into account the number of periods required for that course as specified in the curriculum.

7.2 (i) If a student secures not less than 70% and less than 80% attendance 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 Head of the Department concerned, the student shall apply for Condonation with a prescribed condonation fee payable per course. The condonation should be decided by a condonation recommendation committee consisting of Head of

the Department of the student, Programme coordinator of the student, Student Counsellor, Faculty incharge of the course and an Assistant Controller of Examinations. The committee scrutinizes the genuinity of the “Condonation application Form A” and conduct of the student and recommend it to the Principal and Chairman for the grant of condonation after satisfying the requirements specified in clause 7.2 (ii). In such cases, his / her conduct should have been certified to be satisfactory by the Faculty Advisor / Student Counsellor concerned and the Head of the Department.

(ii) The student applied for condonation, has to compensate the shortfall periods to 80% by attending the contact classes scheduled by the Course Incharge (One week before the commencement of subsequent semester). The results of the End Semester Examination of such courses will be published only after the shortfall period is condoned by the PRINCIPAL.

(iii) However, if the overall attendance of all the courses is below 70%, the student has to rejoin the programme in the next academic year after getting readmission order from DOTE / University. The overall attendance may be calculated by taking two sessions per day and accounting absence of one session when a student is absent for even in one period of the respective session.

7.3 A student shall normally be permitted to appear for end semester examination of the course if the student satisfies the attendance requirements (vide Clause 7.1 – 7.2) and has registered for 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 70% attendance in a course will not be permitted to write the End-Semester Examination of that course. The student has to register and repeat this course in a subsequent semester when it is offered next (vide clause 6.7.5).

7.5 A student who has already appeared for a course in a semester and passed the examination is not entitled to reappear in the same course for improvement of grades.

8. STUDENTS COUNSELLOR/FACULTY ADVISOR

To help the students in planning their courses of study and for general advice on the academic programme, the respective Head of the Department will attach a certain number of students to a teacher of the Department who shall function as Students Counsellor/Faculty Advisor for those students throughout their period of study. The

Students Counsellor/Faculty Advisor shall advise the students in registering and reappearances, registering of courses, authorize the process, monitor their attendance and progress and counsel them periodically. If necessary, the Students Counsellor/Faculty Advisor may also discuss with or inform the parents about the progress /performance of the students concerned.

The responsibilities for the Students Counsellor/Faculty Advisor shall be:

- To inform the students about the various facilities and activities available to enhance the student's curricular and co-curricular activities.
- To guide student enrollment and registration of the courses.
- To authorize the final registration of the courses at the beginning of each semester.
- To monitor the academic and general performance of the students including attendance and to counsel them accordingly.

9. CLASS COMMITTEE

Class committee for each semester of a programme comprises (i) the Course Coordinators /Course teachers (as applicable),(ii)the Students Counsellor/Faculty Advisor of the class and (iii) Programme Coordinator (iv) Head of the Department and (v) student representatives. This class committee shall meet periodically to discuss academic related matters, progress and status of the students of the semester concerned.

10. ASSESSMENT PROCEDURES FOR AWARDING MARKS

All M.E. Programmes consist of Theory Courses, Laboratory Courses and Employability Enhancement Courses. Employability Enhancement Courses include Project Work, Seminar, 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.

(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
1	Theory Courses/ Theory Courses with Laboratory Component	50 Marks	50 Marks
2	Laboratory Courses	50 Marks	50 Marks

3	Project Work: Phase I Phase II	100 Marks 200 Marks	100 Marks 200 Marks
4	Online Courses/Self StudyCourses (Optional)	50 Marks	50 Marks
5	All EEC Courses * (Except Laboratory Courses and Project Work: Phase I & Phase II)	100 Marks	-
6	Audit Course	50 Marks	50 Marks
7	Value Added One Credit Course * (Optional)	100 Marks	-

*** Value Added Courses – not included for CGPA calculation.**

Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD' for every semester which consists of attendance marked in each theory/ Laboratory/EEC class, the assessment marks and the record of classwork (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 after the approval from the Principal (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 INCLUDING AUDIT COURSE:

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

The End Semester Exams for theory courses including audit courses will be of 3 hours duration and shall normally be conducted for a maximum of 100 marks between November and January during the odd semesters and between April and June during the even semesters. End semester Examination is mandatory requirement for passing

the course and every student should appear for the examination for theory, theory course with laboratory, laboratory courses, audit course and project work.

Continuous Assessments are to be arrived on the basis of students performance in tests, assignments and tutorial **or** objective type tests. There shall be three assessments of equal weightage, conducted by the course instructor / coordinator / department. The total marks obtained in the **assessments** put together shall be reduced to 50 marks and rounded to the nearest integer. A minimum of two tests 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 not have regular classes on the scheduled day of the tests. 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 HOD, a **Reassessment** (which means that only one RETEST is allowed) may be given at the end of the semester after getting approval from the Head of the Department through the concerned course instructor.

To arrive at the Continuous Assessment Marks, the following guidelines are to be followed:

Sl.No.	Category Details	CA Marks	Weightage
i.	Test (3 No.) {each test is to be conducted for 50 Marks}	30 Marks	60%
ii.	Assignment (3 No.)	15 Marks	30%
iii.	Tutorial/Objective type tests (3 No.)	5 Marks	10%
	TOTAL	50 Marks	100%

If a student fails in a theory course, the student shall do reappearance registration for that course in the subsequent semester (vide clause 6.7.1). The student can optionally earn Continuous Assessment marks and attend end semester examination, and in such a case latest sessional marks will only be valid (vide clause 6.7.2).

10.2 ASSESSMENT FOR LABORATORY COURSES:

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

Every laboratory exercise / experiment shall be evaluated based on the student 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 50 shall be decided at the respective class committee meetings. The End Semester examinations for Laboratory courses will be of 3 hours duration and shall normally be conducted for a maximum of 100 marks 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 Internal Assessment shall be 50 in the case of theory courses with laboratory component. For a theory course with Laboratory component, there shall be three assessments of which, the first two assessments (each with a maximum of 50 marks) will be from theory portions and the third assessment (maximum marks 100) will be from laboratory component. The sum of marks of all the three assessments shall be reduced to 50 marks and rounded to the nearest integer.

10.4 ASSESSMENT FOR PROJECT WORK:

Absolute grading is adopted for the evaluation of Project Work for Phase I and Phase II and shall be done independently in the respective semesters and marks shall be allotted as per the weightage given in Clause 10.4.1.

10.4.1 The Project work (Phase I/Phase II) shall be evaluated for a maximum of 200/400 marks of which 100/200 marks will be through Continuous Assessment. There shall be three reviews for each phase (Phase I/Phase II) to be conducted separately with Continuous Assessment of 100/200 marks and External 100/200 marks. The marks are to be distributed as detailed below.

Project Work	Continuous Assessment (100/200 Marks)			End Semester Examination (100/200 Marks)		
	Review I	Review II	Review III	Thesis Evaluation (External)	Viva - Voce	
					Supervisor	External
Phase - I	30	30	40	20	40	40
Phase - II	60	60	80	40	80	80

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.

10.4.3 The Project Report shall be prepared according to approved guidelines as given by the Institution and duly signed by the Supervisor, Programme Co-ordinator and the Head of the Department.

10.4.4 The evaluation of the Project work Phase - I and Phase - II will be based on the project report submitted in each of the Phase - I and Phase - II semesters and a Viva-Voce Examination by a team consisting of the supervisor and External Examiner. The external examiner shall be appointed by the Office of the Controller of Examinations from the panel of examiners recommended by the HOD for Phase - I and Phase - II project evaluation

10.4.5 If the student fails to obtain 50% of the continuous assessment marks in the phase-I and Phase-II project work, 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 Project Report/ Thesis/ Dissertation report/ Drawings prepared according to approved guidelines and duly signed by the supervisor(s), the Programme Coordinator and the Head of the Department shall be submitted at the end of the III and IV semester. The last date for the submission of Thesis (Project - II) will be six months (maximum period) from the reopening date of IV semester. However, in exceptional cases, based on the recommendations of the Professor-incharge of the Programme, the Chairman, Academic Council can permit an extension of time not exceeding 31 days.

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 (next) semester. This applies to both phase-I and phase-II project work.

In case of students not completing phase - I of the project work successfully, the students can undertake phase - I again in the subsequent (next) 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 Department library.

10.5 ASSESSMENT FOR SEMINAR /MINI PROJECT/ PROFESSIONAL PRACTICES / CASE STUDY:

The seminar /Professional Practices/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 Consultative Committee and for each seminar, marks can be equally apportioned. The three member committee consisting of Programme Coordinator, the Student Counsellor concerned and a Senior Faculty Member appointed by 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 If the student opts to attend industrial / practical training / internship / summer project which is not included in the curriculum, the total duration attending the above shall not exceed the maximum duration of 4 weeks.

10.6.2 The industrial / practical training / internship / summer project shall carry 100 marks and shall be evaluated through continuous assessment only. 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 Consultative Committee consisting of Programme Coordinator, the Student Counsellor concerned and Senior Faculty constituted by the Head of the Department. Certificates (issued by the organization) submitted by the student shall be attached to the mark list and sent to Controller of Examinations by the head of the department. If the Industrial / Practical Training / Internship / Summer Project is not a part of the curriculum then it will appear in the list of Value Added Courses in the Grade sheet with the credits (additional/extra credits) obtained otherwise the credits earned will be considered for the calculation of CGPA.

10.7 ASSESSMENT FOR VALUE ADDED COURSE (ONE CREDIT) OTHER THAN INDUSTRIAL / PRACTICAL TRAINING / INTERNSHIP / SUMMER PROJECT

The Value Added courses (other than Industrial / Practical Training / Internship / Summer Project) 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. The Consultative committee consisting of the staff handling the course Programme 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 Performance Analysis Committee based on their relative performance (vide clause 12).

10.8 ASSESSMENT FOR SWAYAM COURSES

The students may be permitted to credit online courses which are offered through SWAYAM platform with the approval of Board of Studies concerned (vide Clause 4.7). The course shall carry 100 marks and the marks awarded by the SWAYAM shall be directly considered for grading of the course. The Performance Analysis Committee shall assign the academic grades to the students based on their performance (vide clause 12 Regulations 2018). No grades shall be awarded for the attendance in the grade sheet for the online course (The attendance requirement as mentioned in Clauses 7.1-7.3 of Regulations 2018 is not applicable for the online course).

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 (as decided by the departmental consultative committee) and end semester examination. The evaluation methodology shall be the same as that of a theory course (vide clause 10.1). The Performance Analysis Committee shall assign the grade to the students based on their relative performance (vide clause 12).

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. A student who earns a minimum of 6 grade points in a course, subject to securing

minimum of 50% marks in the end semester examinations, wherever applicable, shall be declared to have successfully passed the course.

11.1.1 If a student fails to secure a pass in a theory course (except electives), the student shall do reappearance registration for that course in the subsequent semester, with an option of re-earning the continuous assessment marks or retaining the original continuous assessment marks and attend the end semester examination.

11.1.2 If the course, in which the student has failed, is an elective, the student may be permitted to register for the same or any other elective course in the subsequent semesters. The student shall attend the classes, fulfil the attendance requirements and earn Continuous Assessment marks as per clause 7, if he/she opted for any other elective course (vide clause 6.7.3).

11.1.3 If a student fails to secure a pass in a laboratory course, the student shall do reappearance registration for that course in the subsequent semester; with an option of re-earning the continuous assessment marks or retaining the original continuous assessment marks and attend the end semester examination (vide clause 6.7.1 and 6.7.2).

11.1.4 If a student fails to secure a pass in project work, the student shall register for the course in the subsequent semester/when offered next and repeat the course (vide clause 6.7.4).

11.2 The passing requirement for the courses which are assessed only through continuous assessment (EEC except Laboratory and project work), shall be determined based on the marks obtained in continuous assessment.

11.3.1. Valued answer script review by the students

All the students are allowed to review their valued answer scripts with the faculty incharge of the course on the specified date (usually the reopening day). Any discrepancy in the valuation can immediately be brought to the notice of the Controller of Examinations.

11.3.2. Revaluation

A student can apply for revaluation of the student's semester examination answer script in a theory course within 2 days from the date of review of valued answer scripts by the students on payment of a prescribed fee along with prescribed application to the COE through the head of the department. The COE will arrange for the

reevaluation and the following procedure is followed in awarding Grade Points after reevaluation:

(i) If there is a change from fail to pass for a Candidate in a Course, Grade Point is awarded based on Absolute Grading.

(ii) If a passed candidate in a course obtains more marks after reevaluation, Absolute Grading is used only when the candidate gets Higher Grade, otherwise no change in the Grade awarded before the reevaluation.

The results will be intimated to the student concerned through the Head of the Department within 5 working days from the last date of application of reevaluation. Reevaluation is not permitted for laboratory course and project work.

11.3.3 Challenging the Reevaluation

Challenging the reevaluation is permitted for those students who have applied for photocopy of answer script. The copy of the answer script is to be valued by a competent authority and the valued script should be submitted to COE's office along with prescribed fee for challenging the reevaluation within 2 days after the declaration of Re-Evaluation results.

12 AWARD OF LETTER GRADES

12.1. RELATIVE GRADING SYSTEM

In this system, grades are awarded to the students based on their performance relative to others in all the courses having continuous assessment (CA) and/or End-Semester Examination components.

For each course, the total mark M (ie., the sum of Continuous Assessment marks (CA) and/or End-Semester Examination (EE)) is computed for every candidate. The statistical parameters Mean (μ) and Standard Deviation (σ) of the distribution of the marks are arrived as given below:

$$\mu = \frac{1}{N} \sum_{j=1}^N M_j \quad \sigma = \sqrt{\frac{\sum_{j=1}^N (M_j - \mu)^2}{N}}$$

Where M_j - Total mark of the j^{th} student in the course

N - Number of students who appeared for the examination in that particular course.

The students who secure the total mark M as detailed below are first declared as fail (RA) in a course

M < minimum of ($\mu - 1.5\sigma$, 50) Or	RA
End -Semester Examination (EE) less than 50% of maximum of EE marks for the course Or	
M less than 50% in total marks for theory and laboratory courses with 100% CA component	

Note: "RA" denotes Reappearance in a course

After omitting the marks (M) of all failed candidates, revised μ and σ are computed for the marks secured by the remaining candidates (ie., passed candidates), letter grades and grade point to each student are awarded based on the revised μ and σ as detailed below:

Total mark, M secured by the student (CA+EE)	Grade	Relative Grade Point
$M \geq [(\mu + 1.5\sigma)]$	O (Outstanding)	10
$(\mu + 0.52\sigma) \leq M < (\mu + 1.5\sigma)$	A+ (Excellent)	9
$(\mu - 0.45\sigma) \leq M < (\mu + 0.52\sigma)$	A (Very Good)	8
$(\mu - 1.35\sigma) \leq M < (\mu - 0.45\sigma)$	B+ (Good)	7
$M < (\mu - 1.35\sigma)$	B(Above Average)	6
	SA (Shortage of Attendance)	0
	W (Withdrawal)	0

- No 'O' Grade shall be allowed if scored maximum mark is less than 80.
- If the maximum marks awarded in a course is greater than or equal to 95% and if the number of candidates getting 'O' Grade is less than 7% of the total number of candidates, then some candidates with A+ grade may be awarded 'O' Grade. In such a case some candidates with 'A' Grade may be awarded A+ and some with

B+ Grade may be awarded 'A' in order to ensure that minimum 24% of candidates are awarded A+ and 38% are awarded 'A' Grade.

- If the total number of candidates passed is less than 10, grades shall be awarded as per the following Absolute Grading System otherwise Relative Grading System may be followed.

ABSOLUTE GRADING SYSTEM

Letter Grade	Grade Points	Range of Marks (M)
O (Outstanding)	10	90-100
A+ (Excellent)	9	80-89
A (Very Good)	8	70-79
B+ (Good)	7	60-69
B (Above average)	6	50-59
RA (Reappearance Registration)	0	----
SA (Shortage of Attendance)	0	----
W (Withdrawal)	0	----

PERFORMANCE ANALYSIS COMMITTEE

Head of the Department, Programme Co-ordinator, Course Teacher, Student Counsellor will by collective wisdom, normalize the marks secured by the students so as to ensure that the clustering and grading decisions are made in a reasonable manner for all the courses.

12.2. The grades O, A+, A, B+, B obtained for the value added one credit courses and Employment Enhancement Courses (except laboratory and project work) shall figure in the mark sheet under the title 'value added courses'. The other grades RA, SA **will not figure in the Mark sheet.**

12.3. Award of letter grades system for attendance

In this system letter grades are awarded for the attendance earned by the student for the individual courses as per the following table.

Attendance Grade:

Range of attendance %	95 and above	85-94	80-84	80
Letter Grade	VG	G	S	M
	Very Good	Good	Satisfactory	Moderately Satisfactory (Condoned Category)



13. GPA AND CGPA CALCULATION

13.1 The Principal & Chairman of the Academic Council shall call for a Result Passing Board Members meeting after the end-semester examinations, to pass and publish the results. After results are declared, grade sheets will be issued to each student which 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 (excluding Value Added Courses) 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(excluding Value Added Courses), to the sum of the number of credits of all the courses in the semester .

$$GPA = \frac{\sum_{i=1}^n C_i GP_i}{\sum_{i=1}^n C_i} ; \quad CGPA = \frac{\sum_{i=1}^n C_i GP_i}{\sum_{i=1}^n C_i},$$

where C_i - is the number of 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 Value Added Courses shall not be considered for calculating GPA and CGPA.

13.3 If a student studies more number of electives than the 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 ME degree 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. Total minimum credits needed for each branch of study is as given below:

DETAILS OF TOTAL MINIMUM CREDITS

SL.NO	BRANCH	TOTAL MINIMUM CREDITS NEEDED FOR SUCCESSFUL COMPLETION
1	M.E. STRUCTURAL ENGINEERING	70
2	M.E. ENVIRONMENTAL ENGINEERING	70
3	M.E. GEOTECHNICAL ENGINEERING	68.5
4	M.E. ENGINEERING DESIGN	70
5	M.E. MANUFACTURING ENGINEERING	70
6	M.E. THERMAL ENGINEERING	70
7	M.E. POWER SYSTEMS ENGINEERING	74
8	M.E. POWER ELECTRONICS AND DRIVES	71
9	M.E. APPLIED ELECTRONICS	66
10	M.E. VLSI DESIGN	66
11	M.E. COMPUTER SCIENCE ENGINEERING	72

(ii) Successfully completed the course requirements, appeared for the end-semester examinations and passed all the courses prescribed in all the semesters within the prescribed maximum period reckoned from the commencement of the first semester to which the candidate was admitted.

(iii) Successfully passed any additional courses prescribed by the Board of studies whenever readmitted under regulations other than Regulations 2018 (vide clause 16.3)

(iv) No disciplinary action pending against the student.

(v) The award of degree must have been approved by the syndicate of Anna university

14.2 CLASSIFICATION OF THE DEGREE AWARDED

14.2.1 FIRST CLASS WITH DISTINCTION

A candidate who qualifies for the degree (vide Clause 14.1), having passed the examination in all courses of the entire Programme in first attempt within the specified minimum number of semesters, securing a CGPA of not less than 8.50 and should not

have been prevented from writing end semester examination due to lack of attendance in any of the courses shall be declared to have passed the examination for the degree in **First Class with Distinction**. For this purpose, the withdrawal from examination (vide clause 15) will not be construed as an appearance. Further, the authorized break of study (vide clause 16) will not be counted for the purpose of classification.

14.2.2 FIRST CLASS

A candidate who qualifies for the award of the degree (vide clause 14.1), having passed the examinations in all the courses of the Programme within the specified minimum number of semesters plus one year, securing a CGPA of not less than 7.00 shall be declared to have passed the examination for the degree in **FIRST CLASS**. The authorized break of study (vide clause 16) will not be counted for the purpose of classification.

14.2.3 SECOND CLASS

All other candidates (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 the chairman) 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 Principal &Chairman through HOD with required documents.

15.2 Withdrawal application shall be valid only if the student **who has no history of arrear and** 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 Withdrawal shall not be considered as an appearance for deciding the eligibility of a student for first class with distinction.

15.5 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 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 single break of one year only.

16.2 The student can apply for break of study in advance, in any case, not later than the last date of the first assessment period. The application duly filled by the student shall be submitted through the Head of the Department for the approval of the Chairman.

16.3 The students permitted to rejoin the programme after break of study/readmission, shall be governed by the Curriculum and Regulations in-force at the time of rejoining. The students rejoining in new Regulations shall apply in the prescribed format through Head of the Department at the beginning of the readmitted semester itself or 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 of Technical Education / University through the HOD concerned and the Principal 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.

17. RANK OF A STUDENT

A Candidate who qualifies for the Degree by passing the examination in all courses of the entire Programme in first attempt within a period of two or three consecutive academic years applicable for the students joined after permitted Break of Study can be given his/her position in the class as rank. The Rank is determined from I Semester to IV Semester end semester examination CGPA. Students transferred from other institutions to GCT are not eligible for rank.

18. PROCEDURE FOR USING SCRIBE

If a candidate is physically handicapped (in case of accidents / ill health) at the time of examination, he / she may be permitted to use a scribe to write the examination. In such a case 30 minutes extra time will be permitted. The Scribe shall be a non-engineering student / graduate.

19. INDUSTRIAL VISIT

Every student is required to undergo one Industrial visit, starting from the first semester of the Programme. Every teacher shall take the students at least for one industrial visit in a semester.

20. DISCIPLINE

20.1 Every student is required to observe disciplined and decorous behaviour both inside and outside the college and not to indulge in any activity which will tend to bring down the prestige of the institution. 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 institution 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 principal & chairman for taking final decision.

20.2 If a student indulges in malpractice in any of the examinations, the student shall be liable for punitive action as prescribed by the Anna University from time to time.

21. REVISION OF REGULATIONS, CURRICULUM AND SYLLABI

The Institution 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.

