

ERODE SENGUNTHAR ENGINEERING COLLEGE

(An Autonomous Institution, Affiliated to Anna University)

(Approved by AICTE, New Delhi, & Accredited by NAAC &
National Board of Accreditation (NBA), New Delhi.)

PERUNDURAI, ERODE 638 057

REGULATIONS FOR PG DEGREE PROGRAMME

(For M.E. / M.Tech. Programme)



REGULATIONS - 2019

Choice Based Credit System (CBCS)

(For the students admitted during the
Academic year 2019 – 20 and onwards)

Regulations 2019 have been prepared in accordance with the guidelines given by the University Grants Commission, All India Council for Technical Education and affiliating University with features of the Choice Based Credit System (CBCS). The "Regulations 2019" is applicable to the Students admitted to the Master of Engineering (M.E.) / Master of Technology (M.Tech.) Degree Programmes of the Institution in the academic year 2019-20 onwards.

The regulations hereunder are subjected to amendments as may be decided by the Academic Council of the Institution from time to time. Any or all such amendments will be effective from such date and to such batches of students (including those already in the middle of the programme) as may be decided by the Academic Council.

ERODE SENGUNTHAR ENGINEERING COLLEGE: ERODE 638 057

(An Autonomous Institution, Affiliated to Anna University)

REGULATIONS 2019

CHOICE BASED CREDIT SYSTEM

(For the students admitted to M.E./M.Tech Full - Time from the Academic year 2019- 20 onwards)

1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In this regulation, unless the context otherwise specifies:

- **“University”** means ANNA UNIVERSITY Chennai.
- **“College”** means Erode Sengunthar Engineering College.
- **“Programme”** means B.E. /B.Tech. Degree Programme.
- **“Branch”** means specialization or discipline of B.E./B.Tech. Degree Programme, like Civil Engineering, Information Technology, etc.
- **“Course”** means a Theory or Practical subject that is normally studied in a semester like Engineering Mathematics, Engineering Mechanics etc..
- **“Credit”** means a numerical value allocated to each course to describe the Student’s workload required per week.
- **“Grade”** means the letter grade assigned to each course based on the marks range specified
- **“Grade point”** means a numerical value (0 to 10) allocated based on the grade assigned to each course.
- **“Principal”** means the authority of the Institution who is responsible for all academic activities for the implementation of relevant rules and regulations.
- **“Controller of Examinations”** means the Authority of the Institution who is responsible for all activities of the End Semester Examinations of all Departments and hereafter called COE.
- **“Head of the Department”** means Head of the Under Graduate Programme Concerned and hereafter called HoD.

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. / M.Tech. 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. Environmental Engineering
Department of Mechanical Engineering	
2.	M.E. Manufacturing Engineering
3.	M.E. Industrial Safety
Department of Electrical and Electronics Engineering	
4.	M.E. Power Electronics and Drives
Department of Electronics and Communication Engineering	
5.	M.E. Applied Electronics
Department of Computer Science and Engineering	
6.	M.E. Computer Science and Engineering
Department of Chemical Engineering	
7.	M.Tech. Chemical 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
- v. **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 an industrial environment. Electives from other technical and/or emerging courses are given as a separate list of Elective Courses offered by the Engineering Departments and a student can choose a Course as an Open Elective from the above list of Courses.
- vi. **Audit Course (AC)** includes subjects for developing a desired attitude among the learners on the line of initiatives such as Unnat Bharat Abhiyan, Yoga, Value Education, Disaster management, Pedagogy, Constitution of India, and 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. /M.Tech 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 /M.Tech (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./M.Tech 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/ Summer Projects / Case Study

4.5.1. The students may undergo Industrial training/ Internship/ Summer Projects / Case Study for a period as specified in the curriculum 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 / Government & private Hospitals /Reputed firms satisfying prescribed qualifications set by the department (after due approval from the HoD) for the period prescribed in the curriculum during summer / winter vacation, in lieu of Industrial Training.

4.5.2. If Industrial Training / Summer Projects / Case Study / Internship (Industry for internship should be approved by the department) is not prescribed in the curriculum, the student may undergo Industrial Training / Internship/ Summer Projects / Case Study optionally and the credits earned will be indicated in the Grade Sheet. In such cases, Industrial Training / Internship needs to be undergone continuously from one organization only at least a period of one week. However the number of credits earned shall not be considered for computation of CGPA. The student is allowed to undergo a maximum of 6 weeks Industrial Training / Internship during the entire duration of study. The students should complete 4 weeks of Industrial Training / Internship/ Summer Projects /Case Study and Inter/ Intra Institutional Training during Summer/Winter Vacation or Academic session to become eligible for the award of degree.

Duration of Industrial Training / Summer Projects / Case Study / Internship	CREDITS
2 Weeks	1
4 Weeks	2
6 Weeks	3

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 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 a minimum of 80% attendance, failing which the registration for the courses will be cancelled.

4.6. Online Courses / Self Study Courses

4.7.1. Students may be permitted to enroll for one Online Course or Self Study Course with the approval of the respective Boards of Studies.

4.7.2. 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).

4.8. Self Study Courses

4.8.1. The student can opt for Self Study Course from the list of Professional Electives provided, the student does not have any standing arrears and the CGPA should be 7.5 and above. The purpose of the course is to permit the student to study a course of the student's choice. The students shall study on their own under the guidance of a faculty member. No formal lectures need to be delivered. One Faculty member assigned by the HOD shall be responsible for the periodic monitoring and assessment of the student in that course.

4.8.2. The Self Study Course or Online Course of 3 credits can be considered instead of one Professional Elective 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./M.Tech (Full-Time)	4	8

5.2. Each semester shall normally consist of 75 working days or 450 periods including Continuous Assessment test periods. 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 **67 to 71** credits.

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 the 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 registers 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 the 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 the 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. Flexibility to Add or Drop Courses

6.5.1. 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.

6.5.2. From the Second 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 7, subject to a maximum of 2 courses.

6.5.3. 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.

6.6.Reappearance Registration/Re-enrollment Registration

6.6.1. 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.

6.6.2. The continuous assessment marks obtained by the Student in the first attempt for theory courses shall be retained and considered valid for subsequent attempts also. However, from the fourth attempt onwards the marks scored in the semester examinations alone shall be considered.

6.6.3. If the theory course, in which the student has failed, is a Professional Elective or an Open Elective, the student may register for the same or any other Professional Elective or Open Elective Course respectively in the subsequent semesters. Such changes can be done only with due approval by the Head of the Department.

6.6.4. The student who fails in Project work (Mini Project /Project phase-I/II) / Seminar other than Practical Courses shall register for the same in the subsequent Semester and reappear for the End Semester Examinations.

6.6.5. 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. However, if the overall average attendance of all the courses is below 65%, the student has to rejoin the programme in the next academic year after getting readmission order from the DOTE/University. The student shall attend the classes and fulfill 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 75% 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 65% and less than 75% attendance in any Course in the Current Semester due to medical reasons (hospitalization / accident / specific illness) , the student

shall apply for condonation with a prescribed condonation fee payable per course. The condonation should be decided by a committee consisting of the Head of the Department of the student, Programme coordinator of the student, Student Counsellor, Faculty In charge of the course and an Assistant Controller of Examinations. The committee scrutinizes the genuinity and conduct of the student and recommend it to the Principal to grant of condonation after satisfying the requirements specified in clause 7.2 (i). In such cases, his / her conduct has been certified to be satisfactory by the Faculty Advisor / Student Counsellor concerned and the Head of the Department.

7.2. (ii) A student, who could not satisfy the attendance requirements as per clause 7.1 but has secured 65% and above in a course or courses due to an authorized outside activity, may be permitted to appear for the examinations after the approval of the Principal. The relevant certificates, with the approval of the HoD and Principal, are to be submitted to the Office of the CoE.

A student shall be able to avail this Provision only twice during the entire duration of the degree programme.

7.2.1 Student's progress is satisfactory.

7.2.2 Student's conduct is satisfactory.

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 examination of the Courses in that semester by paying the prescribed fee.

7.4. Students who do not satisfy Clause 7.1 and 7.2 and who secures 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 repeat this course in a subsequent semester when it is offered next (vide Clause 6.6.5).

7.5. However, if the overall average attendance of all the courses is below 65%, the student has to rejoin the programme in the next academic year after getting readmission order from the DOTE/University.

7.6. 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 letter grades / marks.

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

The advisor shall advise the students in registering and reappearance registering for 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. 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. Wherever feasible, the common course committee shall prepare a common question paper for the continuous assessment tests also.

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

10. ASSESSMENT PROCEDURES FOR AWARDING MARKS

All M.E./M.Tech 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	40 Marks	60 Marks
2	Laboratory Courses	60 Marks	40 Marks

3	Project Work: Phase I / II	60 Marks	40 Marks
4	Online Courses/Self Study Courses (Optional)	100 Marks	-
5	All EEC Courses * (Except Laboratory Courses and Project Work: Phase I & Phase II)	100 Marks	-
6	Audit Course	40 Marks	60 Marks
7	Value Added One Credit Course (Optional)	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 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 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 40 and the End Semester Examination carries 60 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.

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 attendance. 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 40 marks and rounded to the nearest integer.

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
i.	Test (3 No.) {each test is to be conducted for 50 Marks}	30 Marks
ii.	Assignment (2 No.)	5 Marks
iii.	Attendance Percentage (75 to 79 : 1 Mark , 80 to 84 : 2 Marks ,85 to 89 : 3 Marks , 90 to 94 : 4 Marks ,95 to 100 : 5 Marks)	5 Marks
	TOTAL	40 Marks

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 60 and the End Semester Examination carries 40 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 End Semester examinations for Laboratory courses will be of 3 hours

duration and shall normally be conducted for a maximum of 100 marks. The criteria for arriving at the Continuous Assessment marks of 60 is as below.

Distribution of marks for Continuous Assessment	Marks
Observation	20
Record	15
Viva - Voce	10
Model Exam	10
Attendance	5
Total Assessment	60

10.3.ASSESSMENT FOR THEORY COURSES WITH LABORATORY COMPONENT:

The maximum marks for Internal Assessment for theory courses with Laboratory component is also 40 marks. . To arrive the Continuous Assessment Mark, the following guidelines are to be followed.

Assessment for Theory (T)	Assessment for Laboratory (L)	Assignment (1 No.)	Attendance	End Semester
20 Marks (T) (Two assessments)	10 Marks (L) (One assessment)	5 Marks	5 Marks	60 (T)

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 100 marks of which 60 marks will be through Continuous Assessment. There shall be three reviews for each phase to be conducted separately with Continuous Assessment of 60marks and External 40 marks. The marks are to be distributed as detailed below.

Project Work Phase I / II (Continuous Assessment marks)

Review I (20 Marks)		Review II (20 Marks)		Review III (20 Marks)		
Review Committee	Guide	Review Committee	Guide	Review Committee	Guide	Publications
15	5	15	5	10	5	5

The Mark distribution for End Semester Examination (Viva-Voce) will be distributed as indicated below.

End Semester Examination (40 Marks)			
Guide	Internal Examiner	External Examiner	
		Project Report	Viva – Voce
10 Marks	10 Marks	10 Marks	10 Marks

10.4.2. There shall be three assessments 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-in-charge 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-voice Examinations shall be kept in the Department library.

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

The seminar /Professional Practices/Mini Project/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 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. 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 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 the Controller of Examinations by the head of the department. The training will appear in the list of Value Added Courses in the Grade Sheet with Credits (Additional/Extra Credits) obtained.

10.7. ASSESSMENT FOR VALUE ADDED COURSE (ONE CREDIT)

The Value Added 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. 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 ONLINE COURSE

Students may be permitted to credit online courses (which are provided with certificate) with the approval of Board of Studies subject to a maximum of three credits. This online course of 3 credits can be considered instead of one elective course. The Departmental Consultative Committee consists of the Head of the Department, Programme Coordinator and Senior Faculty Member will take a decision on the evaluation methodology for the online course. The committee can decide whether to evaluate the online courses through continuous assessment and end semester examination or through end semester examination only and the same may be conveyed to the Controller of Examinations at the beginning of the semester when the course is offered. The

student needs to obtain certification or credit to become eligible for writing the end Semester examination to be conducted by the Office of the Controller of Examinations. The Head of the Department may identify a faculty member as a coordinator for the course, who is responsible for evaluation of Continuous Assessment. The Performance Analysis Committee shall assign the grades to the students based on their relative performance (vide clause 12).

In case of credits earned through online mode from a university approved by appropriate authorities of the Institution, the credits may be transferred without End Semester Examinations and / or Continuous Assessment and grades shall be approved by the Performance Analysis Committee (vide clause 12).

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 candidate who secures not less than 50% of total marks prescribed for the course [Internal Assessment + End semester Examinations] with a minimum of 50% of the marks prescribed for the end-semester examinations, wherever applicable, shall be declared to have successfully passed the course. This is applicable for both theory and practical courses (including project work).

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. The continuous assessment marks obtained by the Student in the first attempt for theory courses shall be retained and considered valid for subsequent attempts also. However, from the fourth attempt onwards the marks scored in the semester examinations alone shall be considered.

11.1.2. If the course, in which the student has failed, is an elective/ online course, the student

may be permitted to register for the same or any other elective course/online course in the subsequent semesters. The student shall attend the classes, fulfill the attendance requirements and earn Continuous Assessment marks as per clause 7, if he/she opted for any other elective course (vide clause 6.6.3). However, the change of elective courses is permitted only once.

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. The continuous assessment marks obtained by the Student in the first attempt for practical courses is valid for next two attempts only.

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 6.6.4).

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 the continuous assessment.

11.2. Revaluation

A Student may apply for a photocopy of the answer script of a theory examination, within a time announced from the declaration of results, on payment of a prescribed fee by submitting an application to the Controller of Examinations through the Head of the Department. The photo copy of the answer script may be valued by a faculty member who has handled the course and recommended for revaluation.

Based on the recommendation, the Student can apply for the revaluation through proper application to the Controller of Examinations. The Controller of Examinations will arrange for the revaluation and the results will be intimated to the Student through the HOD. Revaluation is permitted only for theory courses.

11.2.1. Challenging the Revaluation

Challenging the revaluation 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 the COE's office along with the prescribed fee for challenging the revaluation within 2 days after declaration of the Re-valuation results.

12. AWARD OF LETTER GRADES

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

Letter Grade	Grade Points	Marks Range (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	< 50
SA (Shortage of Attendance)	0	-
W (Withdrawal)	0	-

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 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 (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.

$$GPA/CGPA = \frac{\sum_1^n C_i * GP_i}{\sum_1^n C_i}$$

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 Value Added One Credit Courses shall not be considered for calculating GPA and CGPA.

13.3. If a student studies more number of Electives (PE/OE) than required as per the programme of study, the Courses with higher grades alone will be considered for calculation of CGPA.

14 ELIGIBILITY FOR THE AWARD OF DEGREE

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:

SL.NO	BRANCH	TOTAL MINIMUM CREDITS NEEDED FOR SUCCESSFUL COMPLETION
1	M.E. ENVIRONMENTAL ENGINEERING	69
2	M.E.MANUFACTURING ENGINEERING	71
3	M.E.INDUSTRIAL SAFETY ENGINEERING	72
4	M.E. POWER ELECTRONICS AND DRIVES	67
5	M.E. APPLIED ELECTRONICS	69
6	M.E. COMPUTER SCIENCE ENGINEERING	70
7	M.Tech.CHEMICAL ENGINEERING	70

(ii) Successfully completed the course requirements, appeared in 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 2019 (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 student who satisfies the following conditions shall be declared to have passed the examination in first class with distinction:

- Should have passed the examination in all the courses of all the four semesters in the student's first appearance within **two** years ,(three years for the students who availed 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:

Should have passed the examination in all the courses of all the semesters within two years (three years for the students who availed authorised break of study of one year) 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 the 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. The 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 concerned HOD / 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.

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 discipline 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 the 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 the final decision.

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.