

K.S.RANGASAMY COLLEGE OF TECHNOLOGY

(An Autonomous Institution affiliated to Anna University, Chennai and approved by AICTE, New Delhi)

TIRUCHENGODE- 637215



REGULATIONS 2022

CHOICE BASED CREDIT SYSTEM

Common to All M.E./M.Tech. Programmes

(Academic year 2022-2023 onwards)

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M.E./M.Tech. REGULATIONS 2022

These regulations are applicable to the candidates admitted to M.E./M.Tech. Programme from the academic year 2022-2023 onwards.

Degree of Master of Engineering/Technology (Four Semesters)

1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In these Regulations, unless the context otherwise requires:

- 1.1 University** means the Affiliating University, i.e. Anna University, Chennai.
- 1.2 College** means K.S.Rangasamy College of Technology, Tiruchengode, an Autonomous Institution affiliated to Anna University, Chennai and approved by AICTE, New Delhi.
- 1.3 Programme** means Degree Programme (i.e.) M.E./M.Tech. Degree Programme.
- 1.4 Branch** means specialization or discipline of M.E./M.Tech. Degree Programme, like Engineering Design, VLSI Design and Power System Engineering etc.,
- 1.5 Course** means a theory / theory cum practical / practical subject that is offered in a semester, like Computer Aided Design, Advanced Power System Analysis and VLSI Signal Processing etc..
- 1.6 Credit** means the weightage given to each course to describe the candidate's workload required per week and it is used to compute the Grade Point Average and Cumulative Grade Point Average (CGPA) of the student.
- 1.7 Grade** means the letter grade assigned to each course based on the marks range specified.
- 1.8 Grade point** means a numerical value (0 to 10) allocated based on the grade assigned to each course.
- 1.9 Head of the Institution** means the Principal of the Institution.
- 1.10 Controller of Examinations (CoE)** means the authority of the Institution who is responsible for all activities of the End Semester Examinations of the Institution.
- 1.11 Department** means the team of faculty members who are responsible for a program of study.
- 1.12 Head of Department** means the person who is heading a particular department.

2. ADMISSION PROCEDURE

2.1 The Candidates for seeking admission to the first semester of the Master of Engineering (M.E.) / Master of Technology (M.Tech.) Degree Programme shall be required to satisfy the conditions of admission there to prescribe by the Anna University, Government of Tamil Nadu, AICTE /UGC and to have passed an appropriate Under-Graduate Degree Examination of Anna University or equivalent as specified under qualification for admission as per the Tamil Nadu Common Admission (TANCA) criteria. This is applicable for students admitted both under Single Window Counseling process and through the Management Quota.

Note: TANCA releases the updated criteria during the admissions every academic year. Admission shall be offered only to the candidates who possess the qualification prescribed against each programme.

Any other relevant qualification which is not prescribed against each programme shall be considered for equivalence by the committee constituted for the purpose. Admission to such degrees shall be offered only after obtaining equivalence to such degrees.

2.2 However, the University may decide to restrict admission in any particular year to candidates having a subset of qualifications prescribed at the time of admission.

2.3 Notwithstanding the qualifying examination the candidate might have passed, he/she shall have a minimum level of proficiency in the appropriate programme / courses as prescribed by the University from time to time.

2.4 Eligibility conditions for admission such as the class obtained, the number of attempts in qualifying examination and physical fitness will be as prescribed by the University from time to time.

3. PROGRAMMES OFFERED

The following M.E/M.Tech. (2 Years) degree programmes are offered by the college, affiliated to Anna University, Chennai and All India Council for Technical Education (AICTE), New Delhi, in the following Table 1.

Table 1: Programmes Offered

Sl. No.	Branch Code	Programme	Branch
1.	PCS	M.E.	Computer Science and Engineering
2.	PVL	M.E.	VLSI Design
3.	PED	M.E.	Engineering Design
4.	PIS	M.E.	Industrial Safety Engineering
5.	PSE	M.E.	Structural Engineering
6.	PPS	M.E.	Power Systems Engineering
7.	PNT	M.Tech.	Nano Science and Technology
8.	PBT	M.Tech.	Biotechnology
9.	PDS	M.Tech.	Data Science
10.	PTT	M.Tech.	Textile Technology
11.	PFT	M.Tech.	Food Technology

4. STRUCTURE OF THE PROGRAMMES

Every M.E / M.Tech. Programme will have a curriculum and syllabi consisting of theory courses, elective courses, open elective courses, seminar, practical, Industry / Institution Internship, Industrial Training / Mini-Project, Project Work Phase - I and Project Work Phase-II as prescribed by the respective Board of Studies from time to time.

The courses shall be categorized as follows:

- i. **Foundation Courses (FC)** may include the Mathematics or other basic courses.
- ii. **Professional Core Courses (PC)** include the core courses relevant to the chosen specialization / branch
- iii. **Professional Elective Courses (PE)** include the elective courses relevant to the chosen specialization / branch
- iv. **Research Methodology and IPR Course (RM)** covers topics on the process of Research and Patenting
- v. **Career Guidance Courses (CG)** include Project Work, and/ or Internship, Seminar, Professional Practices, Summer Project, Case Study and Industrial / Practical Training.
- vi. **Audit Course (AC)** include the course such as Disaster Management, etc

The electives from the curriculum are to be chosen with the approval of the Head of the Department.

4.1 Courses per Semester

Curriculum of a semester shall normally have a blend of lecture courses and practical courses including Career Guidance Courses. Each course shall have credits assigned as per Clause 4.2.

The curriculum of each semester shall normally be a blend of Theory courses not exceeding 5/6 and practical courses not exceeding 2/3. However, the total number of courses per semester shall not exceed 10/11 (approximately 24/26 credits) which includes career Guidance courses but excluding audit courses / seminars and personality development courses. Industrial Training if specified in the curriculum shall not be less than 4 weeks and should be organized by the Head of the Department / Principal.

4.2 Credit Assignment

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

Contact period per week	Credits (C)
1 Lecture (L) Period	1
2 Tutorial (T) Periods	1
2 Practical (P) Periods	1

(L) = Lectures given during class by the faculty

(T) = Tutorial, also class based with more emphasis on problem solving

(P) = Laboratory / Projects / Drawing Practices / Design Laboratory classes, EEC etc.,

4.3 Project Work

- 4.3.1 The project work for M.E. / M.Tech. Programmes consist of Project Work–I and Project Work–II. The Project Work–I is to be undertaken during Semester III and it will be evaluated through continuous assessment. There will be no end semester examination at the end of Phase-I. Project Work–II, which is a continuation of Project Work–I, (except when project work II is carried out in the industry) is to be undertaken during Semester IV. The Project Work – Phase - II will be evaluated by continuous evaluation and end semester viva-voce examination.
- 4.3.2 In case of students of M.E. / M.Tech. Programmes not completing Project Work-I of project work successfully, the students can undertake Project Work-I again in the subsequent semester. In such cases the students can enroll for Project Work-II, only after successful completion of Project Work-I.
- 4.3.3 Project work shall be carried out under the supervision of a “qualified teacher” in the Department concerned. In this context “qualified teacher” means the faculty member possessing (i) PG degree with a minimum of 3 years experience in teaching or (ii) Ph.D. degree.
- 4.3.4 A student may, however, undergo Project Work-II (M.E./M.Tech. Programme) in an industry/academic institution of repute offering PG programmes in Engineering/Technology/Research Institutions for a minimum of 16 weeks during the final semester. In such cases, the students shall undergo the Project Work-II with the approval obtained from the Head of the institution preferably one month before the start of the industrial project.
- The Project Work-II carried out in industry/academic institution of repute/research institutions need not be a continuation of Project Work-I. In such cases, the Project Work shall be jointly supervised by a supervisor of the department and an expert as a joint supervisor from the organization and the student shall be instructed to meet the supervisor periodically and to attend the review committee meetings for evaluating the progress. The review meetings, if necessary, may also be arranged in online mode with prior approval from the Head of the Institution and suitable record of the meetings shall be maintained.
- 4.3.5 All students shall submit the final project work phase - II report on or before the last working day of the semester as per the academic calendar published by the college.
- 4.3.6 If a student fails to submit the project report on or before the specified deadline, he/she shall meet the HoD and give suitable explanation. On satisfactory explanation he/she shall be allowed to submit the project report before the last working day. Otherwise he / she is deemed to have failed in the project work and shall reregister for the same in the subsequent semester.

4.3.7 Every candidate doing M.E. / M.Tech. based on his/her project work, publish the project work in a journal or a conference in which full papers are published after usual review. An acknowledgement for having communicated to the journal or conference shall be attached to the report of the project work.

4.3.8 A soft copy of the approved project report shall be kept in the library of the college and in the respective department.

4.4 Internship / Industrial Training

The students shall undergo mandatory Internship/Industrial training during the summer/winter vacation with prior approval from the Head of the Institution. In this case, the training has to be undergone by the students for at least continuous two weeks in an organization and credits shall be awarded as prescribed in the curriculum. Students are permitted to undergo internship in Industry/ University/ Research organization.

Credits shall be Internship given for students undergoing internship/doing projects in relevant industry as given below:

Duration of Training/Internship	Credits
2 Weeks*	1
4 Weeks	2
8 Weeks &above	3

***1 Week = 40 Internship Hours**

- Students undergoing 6/8 weeks of training/doing projects in industry/academic institutions of repute shall be given 3 credits.
- The evaluation shall be carried out based on the internal assessment by the industry/academic mentor (60%), report (20%) and viva–voce examination (20%). The viva–voce examination will be conducted internally by a three-member committee constituted by the HoD in consultation with the principal.
- At the end of the training students shall submit the attendance certificate from the organization where the training was undergone with brief report.

4.5 One Credit Courses

One credit course shall be offered by a Department of an institution with the prior approval from the Head of the Institution. The details of the syllabus, time table and course coordinator shall be approved in the Academic Council and before the course is offered. Students shall be allowed to take courses offered by Industry experts for 15-20 hrs of duration and the same shall be considered as one credit courses. Suitable credits shall be given after due approval of committee consisting of Head of the Department, programme coordinator, module coordinator and course coordinator in consultation with the principal. The students are also permitted to study the one credit courses offered by

other departments with the prior permission from the Head of the Institution. Credits earned by the students shall be not considered for the calculation of CGPA.

4.6 Value Added Courses

In order to promote students to gain exposure to industrial specific. The students may optionally undergo Value Added Courses (VAC) over and above the topics covered in the curriculum to obtain practical and industry specific knowledge from II to III Semester. The credits earned through the value-added courses shall be printed in grade sheet and it is not considered for CGPA calculation for the award of the degree.

4.7 Online courses

Students can register for online courses only with the permission of the Head of the Department. Online courses shall be taken under the guidance of a faculty mentor. Students shall register for online courses offered by NPTEL/SWAYAM/MOOC or any other courses offered by reputed National/International universities, under the guidance of a faculty mentor. Otherwise the credits will not be considered for grading. Credits shall be given to the students who have passed the online courses offered by NPTEL/SWAYAM or any other reputed national / foreign universities / institutions /, recognized by the regulatory bodies. Upon successful completion of 40-45 hours of full course, the equivalent one professional elective course in the curriculum shall be waived during the entire duration of the programme.

4.8 The students shall also be permitted to choose a maximum of 2 courses from other PG - programmes with the approval of the Head of the Department offering such courses.

4.9 Audit courses

The student shall undergo audit courses as prescribed by the college and it will be mentioned in the Grade Sheet. However, it will not be considered for computation of CGPA.

5. DURATION OF THE PROGRAMME

Semester

The programme will lead to the Degree of M.E / M. Tech. of the Anna University and is spread over a period of two years. The two academic years will be divided into 4 semesters with 2 semesters per year. A semester shall normally consist of 90 working days. The principal shall ensure that every faculty teaches the concepts using the appropriate modes of content delivery and make sure that the students gain knowledge and apply to solve problems.

A student is normally expected to complete the M.E. / M.Tech. Programme in 4 semesters (two academic years) but in any case, not more than 8 consecutive semesters (4 years) in case of full-time programme. These periods are being reckoned from the commencement of the semester to which the candidate was first admitted.

6. EVALUATION OF PROJECT WORK

The student shall register for Project Work-I in pre-final semester and Project Work-II in final semester. Project work may be allotted to a single student Project Work-II may/may not be a continuation of Project Work-I. If Project Work II is not a continuation of Project Work I, then the topic need not be the same.

6.1.1 The Head of the Institutions shall constitute a review committee for Project Work for each programme. The review committee consists of supervisor, an expert from the Department and a project coordinator from the Department. If the project coordinator/expert member happens to be the supervisor, then an alternate member shall be nominated. In the case of Industrial Project, the review committee shall have the supervisor, the coordinator from industry and the project coordinator from the Department. There shall be three reviews during the semesters III and IV by the review committee. The student shall make presentation on the progress made by him / her before the committee. The total marks obtained in the three reviews shall be **reduced for 40 marks** and rounded to the nearest integer (as per the table given below).

6.1.2 The project report shall be submitted as per the approved guidelines. The viva-voce examination in phase- I shall carry 100 marks (Internal Assessment).

Project Work Phase–I Evaluation (Continuous Assessment Only)

Review I (R1)			Review II (R2)		Review III (R3)			Total (R1+R2+R3)	Internal
Literature Survey	Topic Identification & Justification	Work plan	Approach	Conclusion	Demo-Existing System	Presentation	Report	Total	
10	10	10	20	20	10	10	10	100	100

Project Work–Phase-II: The objective of Project Work & Dissertation is to enable the student to extend further investigative a study on the project. Three reviews shall be conducted with subject expert and the student(s) shall make a presentation on the progress made by him/her/them during the reviews. Student(s) shall submit a project technical report comprising of title, problem statement, importance of work, methodology, experimental work and outcome of the work carried out during the 3rd review. The work carried out may be either fully theoretical/practical or involving both theoretical and practical work, under the guidance of a supervisor from the department or jointly with a supervisor drawn from other department/academic institution/R&D laboratory / Industry. This is expected to provide a good training for the students in R&D work and technical leadership.

The project reviews (R1+R2+R3) shall carry a maximum of 40 marks. The project report shall be submitted as per the approved guidelines given by the college, the viva-

voce examination shall carry 60 marks. Marks are awarded to each student of the project group based on the individual performance in the viva-voce examination.

Review I (R1)	Review II (R2)	Review III (R3)			Internal	End Semester Examination	
Progress	Approach & Results	Final Presentation	Report	Publications	(R1+R2+R3)	Presentation, Report Demo	Viva-Voce
10	15	05	05	05	40	25	35

Review I	Review II	Review III	End Semester Examinations				
			Project Report		Viva-Voce Examination		
10	15	15	Internal	External	Internal	External	Supervisor
			10	15	10	15	10

- 6.1.3** The last date for submission of the project report is on the last working day of the semester. If a student fails to submit the project report on or before the specified deadline or the student has submitted the project report but did not appear for the viva-voce examination, it will be considered as fail in the Project Work and the student shall re-register for the same in the subsequent semester.
- 6.1.4** If a student fails to obtain 50% of the internal marks in the Project Work - I and Project Work -II, he or she will not be permitted to submit the project report and has to register for the same in the subsequent semester.
- 6.1.5** A copy of the approved project report after the successful completion of the viva-voce examinations shall be kept in the library of the Institution.

7. CLASS ADVISOR

To help students in planning their courses of study and for general advice on the academic programme, the Head of the Department will attach the students to a faculty member of the Department who shall function as class advisor for those students.

Such class advisor shall advise the students and monitor the courses undergone by the students, check the attendance and progress of the students attached to him/her and counsel them periodically. If necessary, the class advisor may also discuss with or inform to the parents about the progress of the students through the Head of the Department concerned.

8. CLASS COMMITTEE

- 8.1 Every class shall have a class committee consisting of student representatives, designated faculty members and a chairperson who is not teaching the class. It is like the 'Quality Circle' (more commonly used in industries) with the overall goal of improving the teaching-learning process. The functions of the class committee include,
- Solving problems experienced by students in the class room and in the laboratories.
 - Clarifying the regulations of the degree programme and the details of rules there in.

- Informing the student representatives, the academic schedule including the dates of assessments and the syllabus coverage for each assessment.
 - Informing the student representatives, the details of regulations regarding weightage used for each assessment. In the case of practical courses (laboratory/ drawing/ project work / seminar etc.) the breakup of marks for each experiment/Mini projects / exercise / module of work, should be clearly discussed in the class committee meeting and informed to the students.
 - Analyzing the performance of the students of the class after each test and finding the ways and means to improve learning and performance.
 - Identifying the weak students, if any, and requesting the teachers concerned to provide additional help or guidance or coaching to such weak students.
- 8.2 The class committee for a class under a particular branch is normally constituted by the faculty members nominated by the head of the department.
- 8.3 The class committee shall be constituted in the first week of every semester.
- 8.4 At least 2 student representatives (usually 1 boy and 1 girl) shall be included in the class committee.
- 8.5 The chairperson of the class committee may invite the faculty advisor(s) and the Head of the Department to the meeting of the class committee.
- 8.6 The Principal may participate in the class committee.
- 8.7 The chairperson (HoD/Senior Faculty) is required to prepare the minutes of every meeting, submit the same to the principal within two days of the meeting and arrange to circulate among the concerned students and teachers. If there are some points in the minutes requiring action by the management, the same shall be brought to the notice of the management by the Head of the Institution.
- 8.8 The first meeting of the class committee shall be held within one week from the date of commencement of the semester, in order to inform the students about the nature and weightage of assessments within the framework of the Regulations. Two or three subsequent meetings may be held in a semester at suitable intervals. During these meetings the student members can express their opinions and suggestions of the other students of the class to improve the effectiveness of the teaching-learning process.

9. COURSE COMMITTEE FOR COMMON COURSES

Each common theory course offered to more than one section or more than one discipline or group, shall have a "Course Committee" comprising all the teachers teaching the common course with one of them nominated as course coordinator/ module coordinator. The nomination of the course coordinator shall be made by the Head of the Department/Principal depending upon whether all the teachers teaching the common course belong to a single department or to several departments. The 'Course Committee' shall meet of ten and ensure uniform evaluation of the tests and arrive at a common scheme of evaluation for the tests. Where it is feasible, the course committee may also prepare a common question paper for the test(s).

10. REQUIREMENTS OF ATTENDANCE AND PROGRESS

10.1 A candidate will be deemed to have completed the requirements of study of any semester and qualify to write the end semester examinations only if

10.1.1 He/she has earned not less than 75% of attendance on an average in all the courses in that semester put together. However, a candidate who has secured attendance between 65% and 74% in the current semester due to medical reasons (hospitalization /accident/specific illness) or due to participation in College/University State/National /International level sports events/Industrial training/Internship with prior permission from the Principal shall be given exemption from the prescribed attendance requirements and he/she shall be permitted to appear for the current semester examinations.

10.1.2 His/her progress has been satisfactory and

10.1.3 His/her character and conduct have been satisfactory.

10.2 Candidates who do not qualify to appear for end semester examinations of any semester for want of attendance and/or progress and/or character and conduct have to register for and repeat the semester at the next available opportunity subject to the approval of Directorate of Technical Education, Tamil Nadu and Anna University Chennai

10.3 The students who secures below 65% overall attendance will not be permitted to write the end-semester examination of that semester and are not permitted to move to next higher semester. They are required to repeat the incomplete semester in the next academic year.

10.3 There admitted candidates have to follow the curriculum and syllabus as existing at the time of re-admission. The re-admission committee will decide the courses that he/she has to undergo in the new curriculum considering the equivalent courses that he/she has gone through in the old curriculum, so as to bridge the curriculum in-force and the old curriculum. The courses recommended by the committee shall be taken under a faculty mentor and appear for the examination as specified by the college.

11. PROCEDURE FOR AWARDING MARKS FOR INTERNAL ASSESSMENT

For all theory, laboratory courses, theory courses with laboratory component and project work the continuous assessment shall be awarded as per the procedure given below:

All M.E./M.Tech programmes consist of Theory Courses, Laboratory Courses, Theory with Laboratory Component Courses. Career Guidance Courses include Project Work, Seminar, Industrial/Practical Training. Appearance in the End Semester Examination is mandatory for all courses including Theory, Laboratory, Theory with Laboratory Component and Project Work. All other Career Guidance Courses, Mandatory Courses are evaluated by continuous assessment only.

11.1 Theory courses

Two Continuous Assessment tests shall be conducted during the semester by the concerned department. If a candidate has not appeared in any of the two tests for valid reason after getting prior permission from the class advisor/HoD/Principal, he/she is eligible to write missed tests. An improvement test is conducted for the students those who are interested in improving the internal marks in the respective course(s). The scheme of assessment is represented in the table 1

11.2 Theory courses with Laboratory Component

If there is a theory course with laboratory component there shall be two tests– each 40 marks will be from theory portions and each 60marks from laboratory will be from laboratory component. The total marks are the sum of the marks obtained for theoretical and practical parts. The total marks shall be reduced to 50 Marks as internal marks.

Scheme of Assessment, Table 1

Category of Courses	Continuous Assessment	Assignment/ Tutorial/ Practical Examination and Contest	Two /Three Quizzes & Activity (Computer based)	Internal		End Semester Exam.
Theory	30 marks	4 marks	6 marks	40 marks		60 marks
Theory with Laboratory	20 (Theory)	2 marks	3 marks	25 marks	50 marks	50 marks
	23 (Lab Assessment)	2 marks (Designation/ Hackathon, etc)	-	25 marks		
Laboratory	-	60 marks	-	60 marks		40 marks
Procedure for Continuous Assessment of theory course						
Item				Internal		End Semester Exam.
Periodical tests (2 Tests–2 hours each and 1 model exam) (Each Test–10 marks)				40 marks		60 marks
Procedure for Continuous Assessment of theory with laboratory courses						
Periodical tests (2 Tests from theory portion -2 hours each, 2 Lab Exam -2 hours each)				50 Marks		50 Marks

Assignments/Tutorials		
Theory Courses	2 Assignments	2x50 Marks = 100 Marks. This will be reduced to 2 Marks each. Each assignment shall cover the requisite course outcomes, to check the understanding of the concepts and their applications.
Analytical Courses	No. of tutorials as per the time table	The average of marks obtained in all the tutorials shall be reduced to 8 marks.

11.3 Laboratory Courses

The maximum marks for Internal Assessment shall be 60 marks in case of practical courses. Every practical exercise / experiment shall be evaluated based on conduct of experiment / exercise and records to be maintained. There shall be at least two tests. The criteria for arriving at the Internal Assessment marks of 60 is as follows: 75 marks shall be awarded for successful completion of all the prescribed experiments done in the Laboratory and 25 marks for the model test. The total mark shall be converted into a maximum of 60 marks and rounded to the nearest integer.

Internal Assessment (100 Marks) *	
Evaluation of Laboratory Observation, Record	Model Test
75	25

* Internal assessment marks shall be converted into 60 marks

12. Other Career Guidance Courses

- a) The Seminar / Case Study / Mini Project course is to be considered as purely INTERNAL (with 100% internal marks only). Every student is expected to present a minimum of 2 seminars per semester before the evaluation committee and for each seminar, marks can be equally apportioned. The three-member committee appointed by the Head of the Institution, consisting of the course coordinator and two experts from the Department, will evaluate the seminar and at the end of the semester, the marks shall be consolidated and taken as the final mark.
- b) The Industrial/Practical Training, Summer Project, Internship, shall carry 100 marks and shall be evaluated through internal assessment only. At the end of Industrial / Practical Training / Internship / Summer Project, the student shall submit an attendance certificate from the organization where he / she has undergone training with a brief report. The evaluation will be made based on this report and a viva-voce Examination, conducted internally by a three members Departmental Committee constituted by the Head of the Institution consisting of the course coordinator and two experts from the Department. The certificates (issued by the organization) submitted

by the students shall be attached to the mark list sent by the Head of the Department to the Controller of Examinations.

- c) For all the courses under Career Guidance Courses Category, except the Project Work, the evaluation shall be done with 100% internal marks and as per the procedure described in clause 12.6 (a) / (b).

12.1 ASSESSMENT FOR VALUE ADDED COURSES AND OTHER COURSES

The one / two credit course shall carry 100 marks and shall be evaluated through **continuous assessments only**. Two Assessments as per pattern given below and it shall be conducted by the Department concerned. The total marks obtained in the assessments shall be reduced to 100 marks and rounded to the nearest integer. A committee consisting of the Head of the Department, staff handling the course and a senior faculty member nominated by the Head of the Institution shall do the evaluation process. The list of students along with the marks and the grades earned shall be forwarded to the Controller of Examinations for appropriate action at least one month before the commencement of End Semester Examinations. The grades earned by the students for Value Added Courses will be recorded in the Grade Sheet, however the same shall not be considered for the computation of CGPA.

Value Added Courses/Certificate courses

Items	Marks
Test I	50
Test II	50
Total Marks	100

Grades (Excellent (80 to 100) / Good (60 to 79) / Satisfactory (50 to 59))

One credit course (Continuous Assessment only)

Items	Marks
Test I	50
Quiz/ Assignment	50
Total Marks	100

Industrial Training/ Internship (Continuous Assessment Only)

Items	Marks
Assessment by Industry	30
Viva-voce	20
Presentation	30
Case Study / Report	20
Total Marks	100

Soft Skills Training (Continuous Assessment only)

Items	Marks
Written test	50
Oral Communication	30
Technical Paper Presentation\Interview	20
Total Marks	100

12.2 ASSESSMENT FOR ONLINE COURSES

Students may be permitted to credit online courses (which are provided with certificate), subject to a maximum of three credits. The online course of 3 credits can be considered in lieu of one professional elective course. These online courses shall be chosen from the SWAYAM platform, provided the offering organization conducts regular examination and provides marks. The credits earned shall be transferred and the marks earned shall be converted into grades and transferred, provided the student has passed in the examination as per the norms of the offering organization. Upon successful completion of the course and passing in the exam conducted by NPTEL/any other universities/agencies approved by the regulatory bodies, suitable credits shall be given after due approval from the committee consisting of Head of the Department, programme coordinator, module coordinator / class advisor and course coordinator in consultation with the principal.

13. REQUIREMENTS FOR APPEARING FOR END SEMESTER EXAMINATIONS

A student shall normally be permitted to appear for the End Semester Examinations for all the courses registered in the current semester (vide clause 10) if he/she has satisfied the semester completion requirements.

Further, Examination registration by a student is mandatory for all the courses in the current semester and all arrear(s) course(s) for the End Semester Examinations failing which, the student will not be permitted to move to the higher semester.

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

14. PASSING REQUIREMENTS

14.1 A student who secures not less than 50% of total marks prescribed for the course [Internal Assessment + End semester Examinations] with a minimum of 45% of the marks prescribed for the end-semester Examination, shall be declared to have passed the course and acquired the relevant number of credits. This is applicable for both theory and laboratory courses (including project work).

14.2 If a student fails to secure a pass in a theory course / laboratory course (except electives), the student shall register and appear only for the end semester examination in the subsequent semester. In such case, the internal assessment marks obtained by the student in the first appearance shall be retained and considered valid for all subsequent attempts till the student secures a pass. However, from the third attempt onwards if a student fails to obtain pass marks (IA + End Semester Examination) as per clause 14.1, then the student shall be declared to have passed the examination if he/she secures a minimum of 50% marks prescribed for the End semester examinations alone.

14.3 If the course, in which the student has failed, is a Professional Elective or an Open Elective course, the student may be permitted to complete the same course. In such

case, the internal assessment marks obtained by the student in the first appearance shall be retained and considered valid for all subsequent attempts till the candidate secures a pass. However, from the third attempt onwards if a candidate fails to obtain pass marks (IA + End Semester Examination) as per clause 14.1, then the candidate shall be declared to have passed the examination if he/she secures a minimum of 50% marks prescribed for the End Semester Examinations alone.

If any other Professional Elective is opted by the student, the previous registration is cancelled and henceforth it is to be considered as a new Professional Elective course. The student has to register and attend the classes, earn the continuous assessment marks, fulfil the attendance requirements as per clause 10 and appear for the end semester examination.

- 14.4** If a student is absent during the viva - voce examination, it would be considered as fail. If a student fails to secure a pass in Project Work-I, the student shall register for the course again in the subsequent semester and can-do Project Work-I and II together.
- 14.5** The passing requirement for the courses which are assessed only through purely internal assessments (CG courses except Project Work and laboratory), is 50% of the internal assessment (continuous assessment) marks only.
- 14.6** A student can apply for revaluation of the student's semester examination answer paper in a theory course, as per the guidelines of the COE on payment of a prescribed fee along with prescribed application to the COE through the Head of the Institution. The COE will arrange for the revaluation and the results will be intimated to the student concerned through the Head of the Institution. Revaluation is not permitted for laboratory course and CG courses.

15. AWARD OF LETTER GRADES

The award of letter grades will be decided using relative grading principle. The relative grading is applicable to only those students who have passed the examination as per the passing requirements. For a given course, if the students strength is greater than 30, the relative grading shall be adopted. However, if the student's strength is less than or equal to 30 then the fixed grading shall be followed with the grade range as specified below.

O	A+	A	B+	B	C	U
91 - 100	81 - 90	71 - 80	61 - 70	56 - 60	50 - 55	< 50

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

A student is deemed to have passed and acquired the corresponding credits in a particular course if he/she obtains any one of the following grades: “O”, “A+”, “A”, “B+”, “B”, “C”.

Letter Grade	Grade Points
O (Outstanding)	10
A+ (Excellent)	9
A (Very Good)	8
B+ (Good)	7
B (Average)	6
C (Satisfactory)	5
U (Re-Appearance)	0
W D (Withdrawal)	-

‘SA’ denotes shortage of attendance (as per clause 7.1) and hence prevented from writing the end semester examinations. ‘SA’ will appear only in the result sheet.

“U” denotes that the student has failed to pass in that course. “WD” denotes **withdrawal** from the exam for the particular course. The grades U and WD will figure both in the Grade Sheet as well as in the Result Sheet. In both cases, the student has to appear for the End Semester Examinations as per the Regulations.

If the grade “U” is given to Theory Courses/ Laboratory Courses it is not required to satisfy the attendance requirements (vide clause 10), but has to appear for the end semester examination and fulfil the norms specified in clause 14 to earn a pass in the respective courses.

If the grade U is given to CG course (except Project Work), which are evaluated only through internal assessment, the student shall register for the course again in the subsequent semester, fulfil the norms as specified in clause 14 to earn pass in the course. However, attendance requirement need not be satisfied.

After the completion of the programme, the Cumulative Grade Point Average (CGPA) from first semester to final semester is calculated using the formula,

$$CGPA = \frac{\sum g_i * C_i}{\sum C_i}$$

Where, g_i : Grade point secured corresponding to the course
 C_i : Credits allotted to the course

15.2 On successful completion of audit courses, the title of the mandatory course will be mentioned in the Grade Sheet.

16. ELIGIBILITY FOR THE AWARD OF THE DEGREE

16.1 A student shall be declared to be eligible for the award of the M.E./B.Tech. Degree provided the student has

- Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time.
- Successfully completed the course requirements, appeared for the End Semester
- Successfully passed any additional courses prescribed by the readmission committee whenever the student is readmitted from the earlier Regulations.
- No disciplinary action pending against the student.

16.2 CLASSIFICATION OF THE DEGREE AWARDED

16.2.1 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 **three** years which includes authorized break of study of one year. Withdrawal from the examination 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.

16.2.2 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 four semesters within three years which includes authorized break of study.
- One-year authorized break of study (if availed of) or prevention from writing the End Semester examination due to lack of attendance (if applicable) is included.
- Should have secured a CGPA of not less than **6.50**.

16.2.3 SECOND CLASS:

All other students (not covered in clauses 16.2.1 and 16.2.2) who qualify for the award of the degree (vide Clause 16.1) shall be declared to have passed the examination in **Second Class**.

16.3 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 for the purpose of classification.

16.4 Photocopy / Revaluation

A student can apply for photocopy of his/her semester examination answer paper in a theory course, as per the guidelines of the COE, on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of the Department. The answer script is to be valued and justified by a faculty member, who

has handled the subject and recommend for revaluation with the breakup of marks for each question. Based on the recommendation, the student can register 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 concerned through the Head of the Institutions. Revaluation is not permitted for practical courses and CG courses.

A student can apply for revaluation of answer scripts for not exceeding 5 subjects at a time.

16.5 Review

Students not satisfied with revaluation can apply for review of his/ her examination answer paper in a theory course, within the prescribed date on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of the Department. Students applying for Revaluation only are eligible to apply for review.

17. PROVISION FOR WITHDRAWAL FROM END-SEMESTER EXAMINATION

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

17.2 Withdrawal application is valid if the student is otherwise eligible to write the examination (Clause 10) and if it is made within TEN days after the date of the examination(s) in that course or courses and recommended by the Head of the Institution and approved by the Controller of Examinations. For a student to withdraw from a course / course, he/she should have registered for the course, fulfilled the attendance requirements (vide clause 10) and earned continuous assessment marks.

17.2.1 Notwithstanding the requirement of mandatory 10 days, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.

17.3 In case of withdrawal from a course / course, the courses will figure both in the Grade Sheet as well as in the Result Sheet. However, withdrawal shall not be considered as an appearance for the eligibility of a student for First Class with Distinction.

17.4 If a student withdraws from writing End Semester Examinations for a course or courses, he/she shall register for the same in the subsequent semester and write the end semester examination(s).

17.5 If a student applies for withdrawal from Project Work, he/she will be permitted for the withdrawal only after the submission of project report before the deadline. However, the student may appear for the viva voce examination within 30/60 days after the declaration of results for Project Work I and II respectively and the same shall not be considered as reappearance.

17.6 Withdrawal is permitted for the end semester examinations in the final semester, as per clause 17.1.

18. PROVISION FOR AUTHORISED BREAK OF STUDY

18.1 A student is permitted to go on authorized break of study for a maximum period of one year as a single spell.

18.2 Break of Study shall be granted only once for valid reasons for a maximum of one year during the entire period of study of the degree programme. However, in extraordinary situation the student may apply for additional break of study not exceeding another one year. If a student intends to temporarily discontinue the programme in the middle of the semester for valid reasons, and to re-join the programme in a subsequent year, permission may be granted based on the merits of the case provided he / she applies to the Director, Student Affairs in advance, but not later than the last date for registering for the end semester examination of the semester in question, through the Head of the Institution stating the reasons therefore and the probable date of re-joining the programme.

18.3 The student permitted to re-join the programme after break of study / prevention due to lack of attendance, shall be governed by the Curriculum and Regulations in force at the time of re-joining. The students re-joining in new regulations shall register for additional courses, if any, under change of Regulations. These courses may be from any of the semesters of the curriculum in force, so as to bridge the curriculum in force and the old curriculum. In such cases, the total number of credits to be earned by the student may be more than or equal to the total number of credits prescribed in the curriculum in force.

18.4 The authorized break of study is included in the duration specified for passing all the courses for the purpose of classification (vide Clause 16.2).

18.5 The total period for completion of the Programme reckoned from, the commencement of the first semester to which the candidate was admitted shall not exceed the maximum period specified in clause 5 irrespective of the period of break of study in order that he/she may be eligible for the award of the degree.

18.6 If any student is prevented for want of required attendance, the period of prevention shall not be considered as authorized 'Break of Study' (Clause 18.1).

18.7 If a student in Full Time mode wants to take up a job / start-up / entrepreneurship during the period of study, he/she shall apply for authorized break of study for one year. The student shall join the job / start-up / entrepreneurship only after getting approval of the same by the Director, Centre for Academic Courses with due proof to that effect.

18.8 No fee is applicable to students during the Break of Study period.

19. ISSUE OF GRADE SHEET & DEGREE CERTIFICATE

After the publication of the results by the college in each semester, the college will issue the Grade Statements. After successful completion of the programme, the college will recommend the candidate to the University, which in turn shall issue the provisional certificate and award the degree.

20. DISCIPLINE

20.1 Every student is required to observe discipline and decorous behavior both inside and outside the college and not to indulge in any activity which will tend to bring down the prestige of the College. The Head of the Institution shall constitute a disciplinary committee consisting of the Head of the Institution, Two Heads of Department of which one should be from the faculty of the student, to enquire into acts of indiscipline and notify the University about the disciplinary action recommended for approval. In case of any serious disciplinary action which leads to suspension or dismissal, then a committee shall be constituted including one representative from Anna University, Chennai. In this regard, the member will be nominated by the University on getting information from the Head of the Institution.

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

21. REVISION OF REGULATIONS, CURRICULUM AND SYLLABI

The College may from time-to-time revise, amend or changes in the Regulations, scheme of Examinations and syllabi if found necessary, through the approval of respective BoS and Academic Council of the College.