GOVERNMENT COLLEGE OF TECHNOLOGY: COIMBATORE 641 013
(An autonomous Institution affiliated to Anna University)
REGULATIONS 2018

CHOICE BASED CREDIT SYSTEM
Common to all B.E. / B.Tech. Full-Time Programmes

(For the students admitted to B.E. / B.Tech. Programme during the Academic year 2018 - 2019 onwards)

1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In this regulation, unless the context otherwise specifies:

I. **"Programme"** means B.E. /B.Tech. Degree Programme.

II. **"Branch"** means a discipline or specialization of B.E. /B.Tech., Degree Programme like Civil Engineering, Bio Technology etc.

III. **"Course"** means a Theory or Practical subject that is normally studied in a semester like Engineering Mathematics, Engineering Mechanics etc..

IV. "**Principal & Chairman**" means the authority of the Institution who is responsible for all academic activities for the implementation of relevant rules and regulations.

V. **"Controller of Examinations"** means the Authority of the Institution who is responsible for all activities of the End Semester Examinations of all Departments and hereafter called COE.

VI. **"Head of the Department"** means Head of the Under Graduate Programme Concerned.

VII. **"University"** means ANNA UNIVERSITY, Chennai.

2. ADMISSION PROCEDURE

2.1 (a) Students for admission to the first semester of the eight semesters B.E. / B.Tech. Degree Programme shall be required to have a pass in Higher Secondary Examination (Academic 10 + 2) Curriculum or its equivalent examinations with the subjects Mathematics, Physics and Chemistry as notified by the Government of Tamilnadu.

2.1 (b) Candidates for admission to the Second year of the Four year B.E. / B.Tech. Degree programme shall be required to have passed,

i. the Diploma Examination in Engineering conducted by the State Board of Technical Education and Training, Tamilnadu.

(or)

ii. an Examination of any University or Authority, accepted by the Syndicate of the Anna University as equivalent thereto

(or)

iii. any other examination as notified by the Government of Tamilnadu.

Candidates who have passed Bachelor of Science conducted by the State Board of Collegiate Education, are eligible for admission to the Third Semester under Lateral Entry Scheme of the B.E. / B.Tech. Degree Programmes.

2.2. The eligibility criteria shall be as prescribed by Anna University, Chennai and Government of Tamilnadu from time to time.

3. BRANCHES OF STUDY

A student may be offered admission to any one of the branches of study approved by the Authorities.

Details of branches of study currently being offered by the Institution are listed below:

1. B.E. Civil Engineering
2. B.E. Mechanical Engineering
3. B.E. Electrical and Electronics Engineering
4. B.E. Electronics and Communication Engineering
5. B.E. Production Engineering
6. B.E. Electronics and Instrumentation Engineering
7. B.E. Computer Science and Engineering
8. B.Tech. Information Technology
9. B.Tech. Industrial Biotechnology

4. STRUCTURE OF THE PROGRAMMES

4.1 Categorization of Courses

Every B.E. / B. Tech. Programme will have a curriculum with syllabi consisting of theory and practical courses that shall be categorized as follows:

i. **Humanities and Social Sciences including management (HS)** Courses include Technical English, Communication skills, Humanities and Management.
(12 Credits)*

ii. **Basic Sciences (BS)** Courses include Mathematics, Physics, Chemistry, Biology, etc. **(25 Credits)***

iii. **Engineering Sciences (ES)** Courses include Engineering Practices, Engineering Graphics, Basics of Electrical/Electronics/Mechanical/Computer, etc.
(24 Credits)*

iv. **Professional Core (PC)** Courses include the core courses relevant to the chosen specialization/branch of study. **(48 Credits)***

v. **Professional Elective (PE)** Courses include the elective courses relevant to the chosen specialization/ branch of study. **(18 Credits)***

vi. **Open Elective (OE)** Electives from other technical and/or emerging courses are given as a separate list of Elective Courses offered by the Engineering / Science Departments and a student can choose a Course as Open Elective from the above list of Courses. **(18 Credits)***

vii.   **Employability Enhancement Courses (EEC)** include Project Work, Internship, Seminar, Professional Practices, Case Study and Industrial/Practical Training.

(15 Credits)*

viii.   **Mandatory courses (MC)** include Environmental Science and Engineering, Induction training, Indian Constitution, Essence of Indian traditional knowledge.

(0 Credits)*

*Minor variations are allowed as per the need of the respective discipline.

4.2   Number of courses per semester

Curriculum of a semester shall normally have a blend of Lecture Courses and Laboratory Courses. In addition, Employability Enhancement Course(s) may also be included. Each course may have credits assigned as per Clause 4.3. However, the total number of courses per semester shall not exceed 10 (including EEC).

4.3   Credit Assignment

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

Contact period per week	CREDIT(S)
1 Lecture Period	1
1 Tutorial Period	1
1 Practical Period (Laboratory / Seminar / Project Work / etc.)	0.5

4.4.   Range of Credits

A range of credits from **162 to 165** for a student to be eligible to get the Under Graduate degree in engineering.

4.5.   Industrial Training / Practical Training/ Internship/ Summer Projects / Seminars /Professional Practices /Case Study

4.5.1 The students may undergo Industrial training/ Practical Training/ Internship/ Summer Projects / Seminars /Professional Practices /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/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.

The students may undergo online Internships subjects to the approval of BOS concerned**.**

The course(s) (i.e. Industrial training /Practical Training /Internship /Summer Projects /Seminars /Professional Practices / Case Study) which is/are successfully completed by the student in a particular EVEN/ODD semester during the course of study is/are eligible for including in the grade sheet in the immediate next ODD/EVEN or next EVEN/ODD semester.

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

Duration of Industrial Training / Practical Training/ Internship/ Summer Projects / Seminars /Professional Practices /Case Study	CREDITS
1 WEEK (40 - 45 HRS)	1 CREDIT

4.5.3 Value added courses shall be offered by the department with the prior approval from BOS and Academic Council. The details of the syllabus, timetable and the faculty may be sent to the Principal and Chairman after approval from the BOS concerned. The credits earned through value added course shall be over and above the total credit requirement prescribed in the curriculum for the award of degree. Students can earn maximum of 3 credits from value added courses subject to a maximum of 1 value added course registered per semester. The permitted credit structure for the value added courses is 1/2/3. The SWAYAM / NPTEL courses can also be offered as value added courses.

The course(s) (if pursued through online mode) which is/are successfully completed by the student in a particular EVEN/ODD semester during the course of study is/are eligible for including in the grade sheet in the immediate next ODD/EVEN or next EVEN/ODD semester.

4.6 Industrial Visit

Every student is required to go for at least one Industrial Visit every year preferably from the second year of the programme. The Heads of the Departments shall ensure that necessary arrangements are made in this regard.

4.7 Online Courses offered through SWAYAM

Students may be permitted to credit online courses registered through SWAYAM (which are provided with the Certificates) instead of Professional/Open Elective Courses with the approval of Board of Studies through Department Consultative Committee. The online course of 3 credits can be considered instead of one Elective course (Professional /Open Elective). The Department Consultative Committee consists of the Head of the Department, Programme Coordinator, Senior Faculty member and the department SWAYAM coordinator selects the Courses to be permitted for credit transfer through SWAYAM prior to the commencement of the semester. The courses selected through the SWAYAM may not necessarily be the courses which are offered in the list of Professional/Open Elective courses, as part of the curriculum. The Committee ensures the physical facilities like laboratories, computer facilities, library, etc required for the courses.

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

4.7.1 – Credit Transfer of Online Courses offered through SWAYAM

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

4.8 Self Study Courses

4.8.1 Students may opt to credit utmost one self study course with the approval of Board of Studies concerned.

4.8.2 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 department may offer self study courses. The purpose of the course is to permit the student to study a course of the choice of the student. The students shall study on their own under the guidance of a faculty member. No formal lectures need to be delivered. The syllabus of the course and mode of assessments shall be approved by the Board of studies and forwarded to the Academic Council for the formal approval of the course by the academic body, preferably before the commencement of the semester. The self study course of 3 credits can be considered in place of one elective course. One faculty member approved by the Head of the department shall be responsible for the periodic monitoring and evaluation of the course.

4.9. Medium of Instruction

The medium of instruction is ENGLISH for all Courses, Examinations, Seminar Presentations and Project / Thesis / Dissertation Reports.

5. DURATION OF THE PROGRAMMES

5.1 (a) A student is normally expected to complete the B.E. / B.Tech. Programme in 4 years i.e. 8 Semesters but in any case not more than 8 years i.e. 16 Semesters(vide clause 14).

5.1 (b) A Lateral Entry student is normally expected to complete the B.E. / B.Tech Programme in 3 years (6 Semesters) but in any case not more than 6 years (12 Semesters). The duration of B.E. / B.Tech Programme shall be three academic years with semester pattern. The courses of study for the Lateral Entry Diploma candidates shall be both theory and practical and shall be in accordance with the prescribed syllabus of Third to Eighth semesters of the Full Time Four year B.E /B.Tech. Degree Programme of the respective branches. The courses of study for the Lateral Entry Science Graduates shall be both theory and practical and shall be in accordance with the prescribed syllabi of the Full Time Four year B.E. / B.Tech. Degree Programme of the respective branches, but the additional courses offered will be decided by the respective Chairman, Board of Studies.

5.2 Each semester shall normally consist of 90 working days (including examination days) or 450 hours or 540 periods of each 50 minutes duration. The HOD shall ensure that every teacher imparts instruction as per the number of contact 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 U.G. Programmes shall be so designed that the prescribed credits required for the award of the degree, which depends in the branch of study, shall be within the limits specified below:

PROGRAMME	PRESCRIBED CREDIT RANGE
B.E./B.TECH (Full Time-Regular)	162-165
B.E./B.TECH (Full Time-Lateral Entry)	124-127

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 all the courses (including additional courses and excluding dropping courses) in the previous Semester for the next Semester of study. 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 the publications of results of the previous semester examinations.

6.3 The student shall confirm the enrollment by registering for the courses within the first ten working days after the publications of results including revaluation results of the previous semester examinations. No course shall be offered by a department unless a minimum of 5 students register for that 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 on admission 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 the publications of results including revaluation results of the previous semester examinations. However, the student has to register for courses for which the student has not enrolled, if these are the courses in which the student has failed.

6.4.3 The enrollment for the courses of the Semesters III to VIII will commence 10 working days prior to the last working day of the preceding semester. The student shall

enroll for the courses with the guidance of the student's Student Counsellor. If the student wishes, the student may drop or add a course from V semester (vide clause 6.5) within **ten** working days after the commencement of the semester concerned and complete the registration process duly authorized by the Student Counsellor and HOD. The student has to register for courses for which the student has not enrolled, if these are the courses in which the student has failed.

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 a 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 V to VII semesters, the student has the option of registering for one additional theory course or dropping one existing theory course with the approval of Student Counsellor and HOD. Total number of credits of such Courses cannot exceed 3. However, the maximum number of credits the student can register in a particular semester cannot exceed 30 credits (Excluding the courses for which the student has done reappearance registration).

6.6   Reappearance Registration/Re-enrollment Registration

6.6.1   If a student fails in a Theory(except electives) /Practical course, the student shall do reappearance registration for that course in the subsequent semester and attend end semester examination. The student shall earn Continuous Assessment marks optionally.
6.6.2   The student shall fulfil the continuous assessment criteria to re-earn the continuous assessment marks for the reappearance registration courses, if the student wishes. In such a case, latest Continuous Assessment marks will only be valid. However, the re-earning of attendance is not permitted for such courses.
6.6.3   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 / 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 DOTE/University. The student shall attend the classes and fulfil the attendance requirements as per clause 7, earn continuous assessment marks and appear for the end semester examinations. If the course, in which the

student has lack of attendance, is a Professional Elective, the student may register for the same or any other Professional Elective Course in the subsequent semesters.

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

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

7.1 Ideally every student is expected to attend all periods and earn 100% attendance. However, the student shall secure not less than 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) or due to participation in the College / University / State / National / International Level Sports events with prior permission from the Head of the Department concerned, the student shall apply for condonation with a prescribed condonation fee payable per course. The condonation should be decided by a condonation recommendation committee consisting of Head of the Department of the student, Programme coordinator of the student, Student Counsellor, Faculty incharge of the course and an Assistant Controller of Examinations. The committee scrutinizes the genunity of the "Condonation application Form A" and "Conduct" of the student and recommend it to the Principal and Chairman for the grant of condonation after satisfying the requirements specified in clause 7.2 (ii). In such cases, his / her conduct has been certified to be satisfactory by the Faculty Advisor / Student Counsellor concerned and the Head of the Department.

(ii) The student applied for condonation, has to compensate the shortfall periods to 75% by attending the contact classes scheduled by the Course Incharge (generally, one week before the commencement of subsequent semester). The results of the End Semester Examination of such courses will be published only after the shortfall period is condoned by the PRINCIPAL.

7.3 A student shall normally be permitted to appear for 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 attendance of all the courses is below 65%, the student will not be permitted to write the end semester examination in any course (excluding the course for which the student has done Re-appearance Registration) and has to rejoin the programme in the next academic year after getting readmission order from DOTE /

University. The overall attendance may be calculated by taking two sessions per day and accounting absence of one session when a student is absent for even in one period of the respective session.

7.6 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. STUDENT COUNSELLOR/FACULTY ADVISOR

To help the students in planning their courses of study and for general advice on the Academic Programme, the HOD of the students will attach a certain number of students to a teacher of the Department who shall function as Student Counsellor/Faculty Advisor for those students throughout their Period of Study. The Student Counsellor/Faculty Advisor shall advise the students in registering and reappearance registering of Courses, authorize the process, monitor their attendance and progress and counsel them periodically. If necessary, the Student Counsellor/Faculty Advisor may also discuss with or inform the parents about the progress / performance of the students concerned.

The responsibilities for the Student Counsellor/Faculty Advisor shall be:
a. To inform the students about the various facilities and activities available to enhance the student's curricular and Co-curricular activities.
b. To guide student enrollment and registration of the Courses.
c. To authorize the final registration of the Courses at the beginning of each semester.
d. To monitor the academic and general performance of the students including attendance and to counsel them accordingly.

9. CLASS COMMITTEE

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

10. ASSESSMENT PROCEDURES FOR AWARDING MARKS

All B.E. / B.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 Course with Laboratory Component and Project Work.

Performance in each course of study shall be evaluated based on (i) Continuous assessments throughout the semester and (ii) End Semester Examination at the end of the semester.

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

S.No	Category of course	Continuous Assessment	End-Semester Examinations
i.	Theory Courses/ Theory Courses with Laboratory Component	50 Marks	50 Marks
ii.	Laboratory Courses	50 Marks	50 Marks
iii.	Project Work	50 Marks	50 Marks
iv.	Online Courses (Optional)/Self Study Courses	50 Marks	50 Marks
v.	All EEC Courses (Except Laboratory Courses and Project Work)	100 Marks	-
vi.	Mandatory Courses (Except Induction Program#)	50 Marks	50 Marks
vii.	Value Added Course * (Optional)	100 Marks	_

* Value Added Courses – not included for CGPA calculation.

 # No assessment for Induction program

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 HOD periodically (at least three times in a semester) for checking the syllabus coverage and the records of assessment marks and attendance. The HOD will affix his/her signature and date after due verification. At the end of the semester, the record should be verified by the HOD who shall keep this document after the approval from the Principal in safe custody for five years. The records of attendance and assessment of both current and previous semesters should be available for inspection whenever required.

10.1 ASSESSMENT FOR THEORY COURSES INCLUDING MANDATORY COURSES:

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

The End Semester Examination for theory courses including mandatory courses will be of 3 hours duration and shall normally be conducted for a maximum of 100 marks between November/December during the Odd Semesters and between April/May during the Even Semesters. End semester examination is mandatory requirement for passing the Course and every student should appear for the end semester examination for theory including mandatory courses, laboratory courses and project work.

Continuous Assessment is to be arrived on the basis of performance of the students in tests, assignments and tutorial or objective type tests. Three assessments

of equal weightage, conducted by the Course Instructor/ Coordinator / Department. The total marks obtained in the assessments put together shall be reduced to 50 marks and rounded off to the nearest integer. A minimum of two tests would be conducted in a day (in the case of tests and they would be of one and a half hours duration each) students will not have regular classes on the scheduled day of these tests. In case a student misses the assessment due to medical reasons (hospitalization / accident / specific illness) or due to participation in the College / University / State / National / International level Sports events with prior permission from the HOD, a Reassessment 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 the Continuous Assessment Mark, the following guidelines should be followed.

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

If a student has failed (vide Clause 11.1) in a theory course including Mandatory Course, revised Continuous Assessment marks can optionally be earned (vide 6.6.1). In such case, the student has to appear for the assessments and earn continuous assessment marks again.

ASSESSMENT FOR THEORY COURSES WITH LABORATORY COMPONENT:

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

10.2 ASSESSMENT FOR LABORATORY COURSES:

For Laboratory including virtual laboratory Courses, out of 100 marks, the maximum marks for Continuous Assessment is fixed as 50 and the End Semester Examination carries 50 marks. Every laboratory exercise / experiment shall be evaluated based on the student performance during the laboratory class and the student's records shall be maintained. There shall be at least one assessment test. The criteria for arriving at the Continuous Assessment marks of 50 shall be decided by the respective Class Committee.

The End Semester examinations for laboratory courses will be of 3 hours duration and shall normally be conducted for a maximum of 100 marks between October and December during the odd semesters and between April and June during the Even Semesters.

10.3 ASSESSMENT FOR PROJECT WORK:

The Project work shall be carried out under the supervision of a "qualified teacher" in the department concerned. 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. Absolute grading is adopted for the evaluation of Project Work.

For Project Work, out of 100 marks, the maximum marks for Continuous Assessment is fixed as 50 and the End Semester Examination (Project Report evaluation and Viva-Voce examination) carries 50 marks. Project work may be assigned to a single student or to a group of students not exceeding 4 per group.

There shall be two assessments (each 100 marks) during the semester by a Project Review Committee. The student shall make presentation on the progress made before the Committee. The HOD shall constitute a "Project Review Committee" for each Programme. There shall be a minimum of three members in the Review Committee. The Project Guide will be one of the members of the Review Committee. The total marks obtained in the two reviews shall be 50 marks.

The student(s) is expected to submit the Project Report on or before the notified date.   The End Semester Examination for Project Work shall consist of evaluation of the final Project Report submitted by the student or students of the Project group and viva-voce examination by an external examiner and an Internal Examiner.

The Continuous Assessment and End Semester Examinations marks for Project Work and the Viva-Voce Examination will be distributed as indicated below.

Continuous Assessment 50 Marks				End Semester Examination 50 Marks			
Review I (25 Marks)		Review II (25 Marks)		Report Evaluation (20 Marks)	Viva – Voce (30 Marks)		
Review Committee (excluding guide)	Guide	Review Committee (excluding guide)	Guide	External Examiner	Guide	External Examiner	Internal Examiner
15	10	15	10	20	10	10	10

10.3.1 If the Project Report is not submitted on or before the specified date, the student is deemed to have failed in the Project Work. The failed student(s) shall register for the same in the subsequent semester and repeat the Project Work.

10.4 ASSESSMENT FOR INDUSTRIAL TRAINING /PRACTICAL TRAINING /INTERNSHIP/ SUMMER PROJECTS / SEMINARS /PROFESSIONAL PRACTICES /CASE STUDY

The Industrial training /Practical Training /Internship /Summer Projects /Seminars /Professional Practices /Case Study shall carry 100 marks and shall be evaluated through Continuous Assessment only. At the end of Industrial training /Practical Training /Internship /Summer Projects /Seminars /Professional Practices /Case Study, the student shall submit a detailed report on the training undergone and a certificate from the organization concerned. The evaluation will be made based on this report and a Viva-Voce Examination, conducted internally by a three member Departmental Consultative Committee consisting of Programme Coordinator, Student Counselor concerned and Senior Faculty constituted by the HOD. Certificates (issued by the Organization) submitted by the student shall be attached to the mark list and sent to COE by the HOD with due recommendations. If the Industrial training /Practical Training /Internship /Summer Projects /Seminars /Professional Practices /Case Study is not a part of the curriculum then it will appear in the list of Value Added Courses in the Grade sheet with the credits (additional/extra credits) obtained otherwise the credits earned will be considered for the calculation of CGPA.

10.5 ASSESSMENT FOR VALUE ADDED COURSES (1/2/3 Credits) OTHER THAN INDUSTRIAL TRAINING /PRACTICAL TRAINING /INTERNSHIP/ SUMMER PROJECTS / SEMINARS /PROFESSIONAL PRACTICES /CASE STUDY

The Value Added Courses 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 to100 marks and rounded off to the nearest integer. The HOD may identify a faculty member as Coordinator for the Course. The Departmental Consultative committee consisting of the HOD, staff handling the course, Programme Coordinator and a Senior Faculty member nominated by the HOD shall monitor the evaluation process. The grade shall be assigned to the students by the Performance Analysis Committee based on their relative performance (vide clause 12)

If the SWAYAM / NPTEL course is offered as a value added course subject to the approval of BOS concerned, the course shall carry 100 marks and the marks awarded by the SWAYAM / NPTEL shall be directly considered for grading of the course and absolute grading will be followed. No grades shall be awarded for the attendance in the grade sheet and attendance requirement as mentioned in Clause 7.1 - 7.3 of 2018 Regulations is not applicable.

The B.E. /B.Tech. candidates who enrolled for valued added courses (1/2/3 credits), have to earn minimum of 75% attendance, failing which the registration for courses will be cancelled.

10.6   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. 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 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).

10.7   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).

10.8 ASSESSMENT FOR SWAYAM COURSES

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

11.   PASSING REQUIREMENTS

11.1   The passing requirement for a student in a course is determined based on the marks obtained both in continuous assessment and end semester examinations. A

student who earns a minimum of 6 grade points in a course, subject to securing minimum of 50% marks in the end semester examinations, wherever applicable, shall be declared to have successfully passed the course.

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

11.3 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/online course in the subsequent semesters. The student shall attend the classes, fulfil the attendance requirements and earn Continuous Assessment marks as per clause 7, if he/she opted for any other elective course (vide clause 6.6.3).

11.4 If a student fails to secure a pass in a laboratory course, the student shall do reappearance registration for that course in the subsequent semester, with an option of re-earning the continuous assessment marks or retaining the original continuous assessment marks and attend the end semester examination (vide clause 6.6.1 and 6.6.2).

11.5 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).

11.6 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.

11.7. Valued Answer Script review by the students

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

11.8. Revaluation

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

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

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

The results will be intimated to the student concerned through the head of the department within 5 working days from the last date of application of revaluation. Revaluation is not permitted for laboratory course and project work.

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

12   AWARD OF LETTER GRADES

12.1. RELATIVE GRADING SYSTEM

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

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

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

Where M_j -   Total mark of the jth student in the course
          N   -   Number of students who appeared for the examination in that
                    particular course.

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

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

Note: "RA" denotes Reappearance in a course

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

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

- No 'O' Grade shall be allowed if scored maximum mark is less than 80.
- If the maximum marks awarded in a course is greater than or equal to 95% and if the number of candidates getting 'O' Grade is less than 7% of the total number of passed candidates, then some candidates with A+ grade may be awarded 'O' Grade. In such a case some candidates with 'A' Grade may be awarded A+ and some with B+ Grade may be awarded 'A' in order to ensure that minimum 24% of passed candidates are awarded A+ and 38% are awarded 'A' Grade.
- If the total number of candidates passed is less than 10, grades shall be awarded as per the following Absolute Grading System otherwise Relative Grading System may be followed.

ABSOLUTE GRADING SYSTEM

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

Performance Analysis Committee consist of the Head of the Department, Programme Co-ordinator, Course Co-ordinator/Course Teacher, Student Counsellor will by collective wisdom, normalize the marks secured by the students so as to ensure that

the clustering, grading decisions have been made in a reasonable manner for all the courses.

12.2 The grades O, A+, A, B+, B obtained for the One Credit Course shall figure in the Mark sheet under the title **'Value Added Courses'**. The other grades RA, SA will not figure in the Mark Sheet.

12.3. Award of letter grades system for attendance

Letter Grades are awarded for the attendance earned by the student for the individual courses as per the following table.

Attendance Grade:

Range of attendance %	95 and above	85 - 94	75-84	75
Letter Grade	VG	G	S	M
	Very Good	**Good**	**Satisfactory**	**Moderately Satisfactory (Condoned Category)**

13. GPA AND CGPA CALCULATION

13.1 The Principal & Chairman of the Academic Council shall call for a Result Passing Board Members meeting after the end-semester examinations, to pass and publish the results. After results are declared, grade sheets will be issued to each student which 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.

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

Where,

c_i - is the Credits assigned to the Course

GP_i - is the grade point corresponding to the letter grade obtained for each Course

n   - is number of all Courses successfully cleared during the particular Semester in the case of GPA and during all the Semesters in the case of CGPA.

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

13.2 The credits earned through Value Added 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

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

(i) Successfully gained the required number of total credits as specified in the Curriculum corresponding to the programme of study within the stipulated time. Total minimum credits needed for each branch of study is given below.

DETAILS OF TOTAL MINIMUM CREDITS

SL. NO.	BRANCH	TOTAL MINIMUM CREDITS NEEDED FOR SUCCESSFUL COMPLETION
1	B.E. CIVIL ENGINEERING	164
2	B.E. MECHANICAL ENGINEERING	163
3	B.E. ELECTRICAL AND ELECTRONICS ENGINEERING	163
4	B.E. ELECTRONICS AND COMMUNICATION ENGINEERING	162
5	B.E. PRODUCTION ENGINEERING	165
6	B.E. ELECTRONICS AND INSTRUMENTATION ENGINEERING	162
7	B.E. COMPUTER SCIENCE AND ENGINEERING	165
8	B.Tech. INFORMATION TECHNOLOGY	162
9	B.Tech. INDUSTRIAL BIOTECHNOLOGY	165

(ii) Successfully completed the Course requirements, appeared for the End-Semester Examinations and passed all the courses prescribed in all the 8 Semesters within a maximum period of 7 years and 8 years for the students who availed authorized break of study of 1 year reckoned from the commencement of the first Semester to which the candidate was admitted.

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

(iv) No disciplinary action pending against the student

(v) Award of Degree must have been approved by the Anna University.

14.2 CLASSIFICATION OF THE DEGREE AWARDED
14.2.1 FIRST CLASS WITH DISTINCTION

A candidate who qualifies for the degree (vide clause 14.1), having passed the examination in all courses of the entire Programme in first attempt within the specified minimum number of semesters, securing a CGPA of not less than 8.00 and should not have been prevented from writing end semester examination due to lack of attendance in any of the courses shall be declared to have passed the examination for the degree in **FIRST CLASS WITH DISTINCTION**. For this purpose the withdrawal from examination (vide clause 15) will not be construed as an appearance. Further, the authorized break of study will not be counted for the purpose of classification.

14.2.2 FIRST CLASS

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

14.2.3 SECOND CLASS

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

14.2.4. A student who is absent in End Semester Examination in a Course / Project work after having registered for the same shall be considered to have appeared in that Examination (except approved withdrawal from End Semester Examinations as per Clause 15) for the purpose of Classification.

15. PROVISION FOR WITHDRAWAL FROM EXAMINATION

15.1 A student may, for valid reasons, (medically unfit / unexpected family situations / Sports approved by the Chairman) be granted permission to withdraw from appearing for the End Semester Examination in any Course or Courses in **ANY ONE** of the Semester examinations during the entire duration of the Degree Programme. The application shall be sent to the Principal and Chairman through HOD with required documents for approval.

15.2 Withdrawal application shall be valid only if the student *who has no history of arrears 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 HOD.

15.3 Not withstanding 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 5 years as per Clause 14.

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 Principal & Chairman.

16.3 The students permitted to rejoin the Programme after break of study / readmission due to lack of attendance, shall be governed by the curriculum and Regulations in force at the time of rejoining. The students rejoining in new regulations shall apply in the prescribed format through HOD at the beginning of the readmitted semester itself for prescribing additional/equivalent courses, if any, from any semester of the regulations in-force, so as to bridge the curriculum in-force and the old curriculum.

16.4 The total period for completion of the programme reckoned from, the commencement of the first Semester to which the student was admitted shall not exceed the maximum period specified in Clause 5.1 irrespective of the period of break of study in order that the student may be eligible for the award of the Degree (vide Clause 14).

16.5 In case there is any period of break of study more than the permitted duration of break of study, the student shall be permitted to continue the Programme only if the approval is obtained from the Director 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 *Four or Five* consecutive academic years applicable for the students joined after permitted Break of Study from the date of admission to the Programme can be given his/her position in the class as rank. The Rank is determined from IIIrd semester to VIIIth semester end semester examination CGPA. **Students transferred from other institutions to GCT in**

IIIʳᵈ Semester and Lateral entry students are eligible for rank. Students transferred from other institutions beyond IIIʳᵈ Semester to GCT *and **students with history of arrears during the entire programme*** are not eligible for rank.

18. PROCEDURE FOR USING SCRIBE

If a candidate is physically handicapped (in case of accidents / ill health) at the time of examination, he / she may be permitted to use a scribe to write the examination. In such 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 third semester of the Programme. Every teacher shall take the students atleast for one industrial visit in a semester.

20. ADDITIONAL ACTIVITY POINT PROGRAM

The student should earn 100 activity points before he/ she appears for his/ her final examinations. The points earned by the students, will be reflected on the student's transcript. However, there will be neither grades/ marks for these points nor will there be any effect on GPA/CGPA etc. The student may undergo additional activity point programme any time during the semester or during weekends or holidays.

Every regular student is required to earn 100 Activity Points in addition to the required academic grades, for getting 4 Years degree programme. Students entering 4 years Degree programme through lateral entry are required to earn 75 Activity Points, in addition to the academic grades, for getting 4 years' degree program. Every student is required to prepare a file containing documentary proofs of activities, done by him/ her.

For regular students (including transferred candidates), Additional Activity Points shall be awarded in multiples of 20 (i.e 20/40/60/80/100) and for lateral entry students Additional Activity Points shall be awarded as 20/40/60/75.

S.NO	Duration	Maximum Activity Points
1	2 Weeks(80 to 90 Hours)	20 Points

All students shall enroll, and earn additional activity points through any one of the following programmes:
- National Cadet Corps (NCC)
- National Service Scheme (NSS)
- National Sports Organization (NSO)
- Youth Red Cross (YRC)

- Unnat Bharat Abhiyan (UBA)
- Association Activities
- Science Club
- Tamil Mandram
- Green Club
- Sports
- Literacy and Debating Society
- Other contributions towards the club(s) approved by the institution

21. DISCIPLINE

21.1 Every student is required to observe disciplined and decorous behavior both inside and outside the college and not to indulge in any activity which will tend to bring down the prestige of the Institution. The Head of the Institution shall constitute a Disciplinary Committee to enquire into acts of indiscipline and notify 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 for taking final decision.

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

22. 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.