

**SENGUNTHAR ENGINEERING COLLEGE**  
**(AUTONOMOUS)**  
TIRUCHENGODE – 637205, Namakkal District

**REGULATIONS 2019**  
**(CHOICE BASED CREDIT SYSTEM)**

**Common to All B.E. / B.Tech. Degree Programmes**  
**(For the students admitted to B.E./B.Tech. Programmes from the Academic year 2019-2020 onwards)**

Regulations-2019 has been prepared in accordance with the guidelines given by the University Grants Commission, All India Council for Technical Education and affiliating University in the aspect of the Choice Based Credit System (CBCS).

The “Regulations 2019” is applicable to the candidates admitted to the Bachelor of Engineering (B.E./ B.Tech.) Degree Programmes of the Institution in the academic year 2019-2020 and subsequently.

**PRELIMINARY DEFINITIONS AND NOMENCLATURE**

In these Regulations, unless the context otherwise Specifies:

“**University**” means ANNA UNIVERSITY, Chennai.

“**College**” means SENGUNTHAR ENGINEERING COLLEGE (AUTONOMOUS), TIRUCHENGODE.

“**Programme**” means UG Degree Programme that is B.E./ B.Tech. Degree Programme.

“**Branch**” means specialization or discipline of B.E./ B.Tech. Degree Programme, like Civil Engineering, Information Technology, etc.

“**Course**” means a theory or practical course that is normally studied in a semester, like Mathematics, Physics and Chemistry Laboratory, etc.,

“**Credit**” means a numerical value allocated to each course to describe the candidate’s workload required per week.

“**Grade**” means the letter grade assigned to each course based on the marks range specified.

“**Grade Point**” means a numerical value (0 to 10) allocated based on the grade assigned to each course.

**“Head of the Institution”** means the Principal of a College / Institution who is responsible for all academic activities of that College / Institution and for implementation of relevant Rules and Regulations.

**“Controller of Examinations”** means authorized person who is responsible for examinations of the College.

**“Head of the Department”** means the Head of the Department of the Programme concerned.

**“CBCS”** means Choice Based Credit System.

**“CIA”** means Continuous Internal Assessment.

**“ESE”** means End Semester Examination.

**“PC”** means Professional Core.

**“PE ”** means Professional Elective.

**“OE”** means Open Elective.

## 1. **PREAMBLE**

Sengunthar Engineering College with a spotlighted vision and mission of imparting quality technical education to go with latest technologies is accelerating several initiatives towards successful academic excellence and quality improvement.

In view of this, the Choice Based Credit System (CBCS) is being introduced from the academic year 2019 - 2020, to build up interdisciplinary and multidisciplinary curriculum with advances in student centric programmes and extensive learning prospective with enriched and flexible curriculum. Students will have the choice of preferred courses from a Group of courses within each categorization. Plentiful options are given to choose interdisciplinary courses from other programmes which will help the student to develop supplementary skills. CBCS proposes flexibility for students to choose course of their interest from a broad choice of courses offered in addition for the enhancement of their skill levels.

A Faculty advisor facilitates a student in identifying the courses based on programme requirements, course prerequisites, student’s ability and curiosity in various academic disciplines towards their academic progression.

The proposed academic structure under the Choice Based Credit System shall make all promising and possible innovations preparing the students to face the challenges in their profession.

## **2. PROCEDURE OF ADMISSIONS**

### **2.1 FIRST SEMESTER ADMISSION**

The candidates seeking admission to the first semester of the eight semester Degree of Bachelor of Engineering (B.E./B.Tech.) programme should have passed the Higher Secondary Examination (10+2) in the academic stream with Mathematics, Physics and Chemistry as three of the four subjects of study under Part-III subjects of the study conducted by the Government of Tamil Nadu or any examination of any other University or authority accepted by the Syndicate of Anna University, Chennai as equivalent thereto.

(OR)

Should have passed the Higher Secondary Examination of Vocational stream (Vocational groups in Engineering / Technology) as prescribed by the Government of Tamil Nadu.

They should also satisfy other eligibility conditions as prescribed by AICTE, the Anna University, Chennai and Directorate of Technical Education, Chennai from time to time.

### **2.2 LATERAL ENTRY ADMISSION**

The candidates who possess the Diploma in Engineering/Technology awarded by the Directorate of Technical Education, Tamilnadu or its equivalent are eligible to apply for Lateral entry admission to the third semester of B.E./ B.Tech. as per guidelines prescribed by the Directorate of Technical Education, Tamilnadu.

(OR)

The candidates who possess the Degree in Science (B.Sc.) (10+2+3 stream) with Mathematics as a subject at the B.Sc. Level are eligible to apply for Lateral entry admission to the third semester of B.E./ B.Tech. which is prescribed by the Anna University, Chennai and Directorate of Technical Education, Chennai from time to time.

Such candidates shall undergo two additional Engineering subject(s) in the III and IV semesters respectively as decided by Board of Studies and approved by Academic Council.

### 3. PROGRAMMES OFFERED

A candidate may select any one of the Programme offered by the college which is approved by AICTE, New Delhi and Affiliated to the Anna University, Chennai.

#### 3.1 DETAILS OF PROGRAMMES

Details of programmes currently being offered by the college are given below:

S.No.	Name of the Programme	Minimum No. of Credits to be Earned
1.	B.E. Civil Engineering	160
2.	B.E. Computer Science and Engineering	160
3.	B.E. Electronics and Communication Engineering	160
4.	B.E. Electrical and Electronics Engineering	160
5.	B.E. Mechanical Engineering	160

#### 3.2 PROGRAMME OF STUDIES

All the degree programmes offered by the college are based on modular structure and their academic requirements are spelt out as number of credits. Programmes are structured in such a way that a student will be able to complete the programme within the stipulated number of semesters. On the recommendations of the Head of the Department a student may be granted permission by the Chairperson, Academic Council to have a break in the programme, however the programme should be completed within the permitted number of semesters.

Degree	Stipulated Number of Semesters	Permitted Number of Semesters
B.E/ B.Tech (Regular)	8	14
B.E/ B.Tech (Lateral)	6	12

## 4. STRUCTURE OF THE PROGRAMMES

### 4.1 CATEGORIZATION OF COURSES

Every B.E./ B.Tech. Programme shall have a curriculum with syllabi consisting of both theory and practical courses in each semester that have been approved by the respective Board of Studies and Academic Council of the College.

The courses shall be categorized as follows:

- I. **Humanities and Social Sciences (HS)** courses include English, Communication skills, Value Education, Professional Ethics and Human Values, Environmental Science, etc.
- II. **Basic Sciences (BS)** courses include Mathematics, Physics, Chemistry, Material Science, Physical Sciences etc.
- III. **Engineering Sciences (ES)** courses include, Engineering Drawing, Basics of Electrical, Electronics, Civil and Mechanical Engineering, Programming, Engineering Practices etc.
- IV. **Professional Core (PC)** courses include the core courses relevant to the chosen branch of study.
- V. **Professional Elective (PE)** courses include the elective courses relevant to the chosen branch of study.
- VI. **Open Electives (OE):** Courses include the courses relevant to the chosen Specialization / Programme which a student can choose from the Professional Elective of other B.E./B.Tech. programmes and the courses offered by the Department under the Faculty of Science and Humanities. However, the open elective courses offering are subject to availability of minimum class strength specified from time to time.
- VII. **Employability Enhancement Courses (EEC)** include Life skills, Technical skills, Project Works, Industrial / Practical Training, Internship, Seminar, Communications Skill, Case Study, Quantitative Aptitude Learning, Entrepreneurship Development Activity, etc., Credits will be awarded only for **Projects** (Mini Project, Project Phase - I and Project Phase - II) and grades will be part of either GPA (or) CGPA.

VIII. **Mandatory Courses (MC)** include Induction Program, NSS / NCC / YRC / RRC, Leadership Program, Value Added Courses and Audit courses covering subjects of developing desired attitude among the learners is on the line of initiatives such as Yoga, Value education, Disaster management, Constitution of India, Personality development through Indian culture etc. in which credits are to be acquired by every student as part of degree requirements and shall be awarded grades; but, shall not be part of either GPA (or) CGPA.

#### **4.2 PERSONALITY AND CHARACTER DEVELOPMENT**

Interested students should enroll their names in one or more personality and character development programmes (NSS / NCC / NSO / YRC / RRC) and undergo the related training specified by the relevant authority of State and Central Government.

The training shall include classes on hygiene and health awareness and also training in first-aid.

**National Service Scheme (NSS)** will have social service activities in and around the College/Institution and neighboring villages.

**National Cadet Corps (NCC)** will have about 20 parades.

**National Sports Organization (NSO)** will have sports, games, drills and physical exercises.

**Youth Red Cross /Red Ribbon Club (YRC / RRC)** will have activities related to social services in and around College/Institutions. While the training activities will normally be during weekends and the camp will normally be during vacation period.

#### **4.3 NUMBER OF COURSES PER SEMESTER:**

Number of Courses per Semester will normally have a blend of 5 to 9 courses including Theory / Lab Embedded Theory / Project Embedded Theory / Laboratory courses / Mandatory Courses / Employability Enhancement Courses. Each Course may have credits assigned as per clause 4.4.

#### 4.4 CREDIT ASSIGNMENT

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

Contact Period per Week	Credit
1 Lecture Period	1
1 Tutorial Period	1
2 Practical Periods (Laboratory / Seminar / Project Work / etc.)	1

The minimum credits to be earned by the students should be 160 for regular students and 119 for lateral entry students for the completion of B.E./B.Tech. programme.

#### 4.5 INDUSTRIAL TRAINING / INTERNSHIP

**4.5.1** The students must undergo Industrial training 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 organizations after due approval from their Head of the Department for the period prescribed in the curriculum during summer/winter vacation, in lieu of Industrial training.

**4.5.2** If Industrial Training / Internship is not prescribed in the curriculum, the student may undergo Industrial Training / Internship optionally and the credits earned will be indicated in the Mark Sheet.

A Committee will be formed by the Head of the Departments concerned to evaluate the report to be submitted by the student after the completion of the Industrial Training / Internship and will be recommended to Controller of Examinations.

Duration of Training / Internship	Credits
2 Weeks	1
4 Weeks	2
6 Weeks	3

#### **4.6 INDUSTRIAL VISIT**

Every student is required to go mandatory for at least two Industrial visits from the first year to final year of the Programme. The Heads of Departments will ensure that necessary arrangements are made in this regard.

#### **4.7 ONLINE COURSES**

**4.7.1** Students who have no standing arrears with CGPA more than 7.5 may be permitted to earn credit of maximum two online courses subject to a maximum three credits per course with the approval of the Department Consultative Committee to be formed by the Head of the institution.

**4.7.2** One online course can be considered instead of one open elective course. If a student opts more than one online course (vide clause 4.7.1) he / she can substitute more number of open electives.

<b>Duration of Online Course</b>	<b>Credits</b>
2 Weeks	1
4 Weeks	2
6 Weeks	3

#### **4.8 VALUE ADDED COURSES**

Students shall be allowed to take a value added course offered by a department with the approval from their respective Board of Studies. The credits earned through the Value Added Courses shall be over and above the total credit requirement prescribed in the curriculum for the award of the degree. One / Two credit courses shall be offered by a Department of an institution with the prior approval from the Board of Studies. Students can take a maximum of three credits either by one credit and/or two credit courses during the entire duration of the Programme. The Students are also allowed to take the value added courses offered in other departments with the permission of the Head of the Department offering the course. The credit to be earned by the student shall not be included in GPA or CGPA calculations, but the grade point will figure in the grade sheet.



#### **4.9 MEDIUM OF INSTRUCTION**

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

### **5. DURATION OF THE PROGRAMME**

**5.1** A student is ordinarily expected to complete the B.E./ B.Tech. Programme in 8 semesters (Four academic years) and 6 semesters (Three academic years) for Lateral Entry Candidates but in any case not more than 14 Semesters for HSC (or equivalent) candidates and not more than 12 semesters for Lateral Entry Candidates.

**5.2** Each semester shall normally consist of 75 working days or 525 periods of 50 minutes each. The Head of the Institution shall ensure that every faculty imparts instruction as per the number of periods specified in the syllabus and that the faculty teaches the full content of the specified 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 study (vide clause 17) or prevention (vide clause 7.5) in order that the student may be eligible for the award of the degree (vide clause 15).

### **6. COURSE ENROLLMENT AND REGISTRATION**

**6.1** Each student, on admission shall be assigned to a student, faculty advisor who shall advise and counsel the student about the academic programme and the choice of courses considering the students' academic background and career objectives.

**6.2** The number of credits registered during a semester should not be less than 10 credits and should not exceed 30 credits. (Excluding courses for which the student has done reappearance registration).

**6.3** Each student on admission shall register for all the courses prescribed in the curriculum in the student's first and second semester of study without any choice.

**6.4** The enrollment for the courses of the semesters 3 to 8 will commence 10 working days prior to the last working day of the preceding semester. The student shall enroll in the courses with the guidance of the student's faculty advisor.

**6.5** Every student shall enroll in the courses of the succeeding semester during the current semester. However, the student shall confirm the enrollment by registering for the courses within the first five working days after the commencement of the semester concerned.

**6.5.1** The student shall enroll in the courses with the guidance of the faculty advisor. If the student wishes, the student may drop or add courses (vide clause 6.7) within five working days after the commencement of the semester concerned and complete the registration process duly authorized by the faculty advisor.

**6.6** After registering for a course, the student shall attend the classes, satisfy the attendance requirements, earn continuous internal assessment marks and appear for the End Semester Examinations.

## **6.7 FLEXIBILITY TO ADD OR DROP COURSES**

**6.7.1** From the 5 to 8 semesters, the student has the option of registering for, additional courses or dropping existing courses. Total number of credits of such additional courses cannot exceed 8. However, the maximum number of credits the students can register in a particular semester cannot exceed 30 credits (Excluding the reappearance registration).

**6.7.2** A student has to earn the total number of credits specified in the curriculum of the respective programme of study in order to be eligible to obtain the degree. However, if the student wishes, he/she is permitted to earn more than the number of credits prescribed in the curriculum of the student's programme.

**6.7.3** The student shall register for the project work in the VII and VIII semester only.

## **6.8 REGISTRATION FOR REAPPEARANCE**

**6.8.1** If a student absents for examination or not scored minimum passing marks (vide clause 12) in a course (both theory and practical), it will be considered as a Reappearance (RA). The student can retain the already earned Continuous Internal Assessment marks for two subsequent appearances only and thereafter he / she will solely be assessed by the performance in the End Semester Examination only.

**6.8.2** If the theory course, in which the student will reappear, is an open elective, the student may register for the same or any other open elective course respectively in the subsequent semesters.

**6.8.3** 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.

## **7. ATTENDANCE REQUIREMENTS FOR APPEARING FOR THE END SEMESTER EXAMINATION**

A Candidate who has fulfilled the following conditions shall be deemed to have satisfied the requirements for completion of a semester.

**7.1** Ideally every student is expected to attend all classes and earn 100% attendance. However, in order to allow provision for certain unavoidable reasons such as hospitalization / accident / specific illness the student is expected to earn a minimum of 75% attendance to become eligible to appear for the End-Semester Examinations. Therefore, every student shall secure not less than 75% of overall attendance in that semester taking into account the total number of periods in all courses attended by the candidate as against the total number of periods in all courses offered during that semester.

**7.2** However, a candidate who secures overall attendance between 65% and less than 75% in that current semester due to medical reasons (hospitalization / accident / specific illness / participation in sports events - College / University / State / National / International level Sports events with prior permission from the Head of the Department and Principal) may be permitted to appear for the

current semester examinations subject to the condition that the candidate shall submit the Medical certificate / On-duty Forms duly signed by the Head of the Department / Sports participation certificate to the Head of the Institution.

**7.3** The candidates who score less than 65% and above 60% of overall attendance may apply for condonation of shortage of attendance on genuine grounds. Application for condonation of shortage of attendance along with the prescribed fee should be forwarded so as to be received in the office of the Controller of Examinations along with the final attendance statement within 7 working days, before the commencement of the semester examination. The Candidate can seek condonation of shortage of attendance only once in the entire duration of a course.

**7.4** A student shall normally be permitted to appear for End Semester Examinations if the student has satisfied the attendance requirements (vide clause 7.1, 7.2 and 7.3) and has registered for examination in the courses which he / she has opted during the beginning of that semester by paying the prescribed fee.

**7.5** However the Candidates who secure, less than 60% overall attendance and who do not satisfy the clause 7.1 & 7.2 will not be permitted to appear for the End Semester Examination of that current semester and are not permitted to go to next semester. They are required to repeat the same semester in the next academic year as per the norms prescribed by the Directorate of Technical Education, Tamilnadu and Anna University, Chennai.

**7.6** The Head of the Institution may conduct additional classes for improvement, special coaching, conduct of model test, etc., over and above the specified periods. But for the purpose of calculation of attendance required for appearing in the End Semester Examinations, following method shall be used.

$$\text{Percentage of Attendance} = \frac{A}{B} \times 100$$

A -- Total No. of periods attended in all the courses per semester

B -- Total No. of periods taken together for all courses of the semester

The End Semester Examination will ordinarily follow immediately after the last working day of the semester as per the academic schedule prescribed from time to time.

## **8. FACULTY ADVISOR**

To help the students in plan their courses of study and for general advice on the academic programme, the Head of the Department of the students will attach a certain number of students to a faculty of the department who shall function as faculty advisor for those students throughout their period of study. The faculty advisor shall advise the students, monitor their attendance, progress and counsel them periodically. If necessary, the faculty advisor may also discuss with or inform the parents about the progress / performance of the students concerned.

The responsibilities for the faculty advisor shall be:

- Develop a strong working relationship with students to ensure academic success.
- To inform the students about the various facilities and activities available to enhance the student's curricular and co-curricular activities.
- To monitor the academic and general performance of the students including attendance and to counsel them accordingly.
- To monitor and provide the academic guidance rules and regulations for EEC courses.

## **9. CURRICULUM DEVELOPMENT CELL**

Curriculum Development Cells are constituted for planning and updating of syllabus to be presented to the Board of Studies. Similarly, the Common Curriculum Development Cell is constituted for finalizing the subjects for both common and departmental core. Curriculum Development Cell is a standing internal committee with all the internal members of the Board of Studies and Academic Council and any other faculty co-opted / nominated by the Head of the Department.

## **10. COURSE COMMITTEES**

### **10.1 COMMON COURSE COMMITTEE**

A theory course handled by more than one faculty shall have a "Common Course Committee" comprising of all faculty teaching that course and some students who have appeared in that course. There shall be two student representatives from each batch of that course. One of the faculties shall be nominated as Course Coordinator by the Principal.

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

The "Common Course Committee" (without the student representatives) shall meet to ensure uniform evaluation of continuous assessments after arriving at a common scheme of evaluation for the assessments (vide clause 11). In addition, the Common Course Committee should decide the mark distribution for Laboratory courses.

Wherever feasible, the common course committee (without the student representatives) shall prepare a common question paper for the continuous assessment tests also. The question paper for the End Semester Examination is common and shall be set by the Course Coordinator in consultation with the entire faculty.

### **10.2 CLASS COMMITTEE**

A Class Committee consists of all faculties handling courses of the concerned class, student representatives-cross section of students (academically good, average, and poor) and a chairperson who is a faculty not handling any

course of the class. The overall goal of the Class Committee is to improve the teaching-learning process.

The functions of the Class Committee include:

- Addressing the problems experienced by students in the classroom and in the laboratories.
- Clarifying the regulations of the degree programme and the details of rules therein.
- Informing the student representatives about the academic schedule including the date of assessments (Tests & Co-curricular Components) and the syllabus coverage for each assessment.
- Analyzing the performance of the students of the class after each test and finding the ways and means of solving problems, if any
- Identifying the weak students, if any, and requesting the faculty concerned to provide some additional help or guidance or coaching to such weak students.

**10.2.1** The class committee for a class under a particular programme is normally constituted by the Head of the Department. However, if the students of different programmes are mixed in a class (like the first semester which is generally common to all programmes), the class committee is to be constituted by the Head of the Department concerned.

**10.2.2** The class committee shall be constituted in the first week of commencement of any semester.

**10.2.3** At least 6 student representatives (usually 3 boys and 3 girls) shall be included in the class committee.

**10.2.4** The chairperson of the class committee may invite the Tutor(s) and the Head of the Department to the meeting of the class committee.

**10.2.5** The Principal may participate in any class committee meeting.

**10.2.6** The chairperson is required to prepare the minutes of every meeting, submit the same to the Head of the Department within two working days after the meeting and arrange to circulate among the concerned students and

faculty. If there are some points in the minutes requiring action by them management, the same shall be brought to the notice of the management by the head of the institution.

**10.2.7** The class committee shall meet at least six times in a semester

- The first meeting of the class committee shall be held within seven working days from the date of commencement of the semester.
- The nature and weightage of the continuous assessments shall be discussed in the first meeting within the framework of the Regulations.
- The class committee meeting shall be held a week before and after the Continuous Internal Assessments. During these meetings the student members shall actively interact and express their opinions and suggestions of all the students to improve the effectiveness of the teaching-learning process. It is the responsibility of the student representatives to convey the proceeding so of these meetings to the entire batch.

**10.2.8** During these meetings, the student members representing the entire class, shall actively interact and express the opinions and suggestions of other students of the class to improve the effectiveness of the teaching-learning process.

### **10.3 OVERALL MONITORING COMMITTEE**

**10.3.1** In addition, there shall be an overall monitoring committee for each semester of a programme which comprises of (i) The Course Coordinators/Course faculty (as applicable) (ii) The Faculty-in charge / Advisor for the particular year of the programme and (iii) Head of the Department. This overall monitoring committee shall meet periodically to discuss academic related matters, progress and status of the students of the semester concerned.

**10.3.2** The overall monitoring committee can invite the Faculty Advisors or students for any of the committee meetings if necessary.



## 11. ASSESSMENT PROCEDURES FOR AWARDING MARKS

All B.E./B.Tech Programmes consist of Theory Courses, Lab Embedded Theory Courses, Laboratory Courses, Employability Enhancement Courses and Mandatory Courses. End Semester Examinations as specified in the curriculum are mandatory for all courses including Theory Courses, Lab Embedded Theory Courses, Laboratory Courses and Project Work Phase I and II. Performance in each course of study shall be evaluated based on

- (i) Continuous Internal Assessments throughout the semester and
- (ii) End Semester Examination at the end of the semester.

For theory courses out of 100 marks, the maximum marks for continuous internal assessment is fixed as 40 marks and the End Semester Examination carries 60 marks. For laboratory courses out of 100 marks, the maximum marks for Continuous Internal Assessment is fixed as 40 marks and the End Semester Examination carries 60 marks. For project work Continuous Internal Assessment carries 40 marks and End Semester Examination carries 60 marks (Project work, Project report evaluation and Viva voce). All other courses under the Employability Enhancement and Mandatory courses have been assessed in Continuous Internal Assessment only. Each course shall be evaluated for a maximum of 100 marks as shown below:

S. No.	Category of course	Continuous Internal Assessments	End-Semester Examinations
1.	Theory Courses	40 Marks	60 Marks
2.	Laboratory Courses	40 Marks	60 Marks
3.	Lab Embedded Theory Courses	40 Marks	60 Marks
3.	Employment Enhancement Courses Project Phase - II	40 Marks	60 Marks
4.	Employment Enhancement Courses Other than Project Phase - II	100 Marks	-
5.	Mandatory Courses	100 Marks	-

Every faculty is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD' for every semester, which consists of attendance marked in each theory / Laboratory / Lab Embedded Theory / EEC / MC class the assessment marks and the record of class work (topics covered), separately for each course handled by the faculty. This should be submitted to the Head of the Department periodically (at least three times in a semester) for checking the syllabus coverage and the records of assessment marks and attendance.

The Head of the Department will fix his / her signature with a date after due verification. At the end of the semester, the record should be verified by the Head of the Department who shall keep this document in safe custody (for five years). The records of attendance and assessment of both current and previous semesters should be available for inspection.

### **11.1 ASSESSMENT FOR THEORY COURSES**

For theory courses specified in curriculum out of 100 marks, the maximum marks for Continuous Internal Assessment (CIA) is fixed as 40 marks and the End Semester Examination (ESE) carries 60 marks.

The End Semester Examinations for theory and laboratory courses will be of 3 hours duration (Forenoon: 10.00 a.m. – 1.00 p.m., Afternoon: 2.00 p.m. – 5.00 p.m.) and shall normally be conducted between October and December during the odd semesters and between April and June during the even semesters.

The End Semester Examination is mandatory requirement for passing the course and every student should appear for the examination for theory, laboratory courses and project work.

Internal Assessment tests are conducted by the Internal Exam Cell of the college. Continuous Internal Assessment comprises three tests and their weightages are given below.

<b>Continuous Internal Assessments (CIA)</b>	<b>Portion of the Syllabus</b>	<b>Duration of CIA</b>	<b>Max. Exam Marks</b>	<b>CIA Mark Allocation</b>
Co-curricular Component*	-	-	-	10
Internal Assessment 1	1½ units	1½ hours	50 marks	10
Internal Assessment 2	1½ units	1½ hours	50 marks	10
Internal Assessment 3	2 units	3 hours	50 marks	10
Total				40

**\*Co-curricular Component:**

The marks will be awarded based supporting documents to be evaluated by Department Consultative Committee.

**List of Co-Curricular Components:**

1. Online Learning (NPTEL / Tube study) of the subjects offered in the semester concerned
2. Quiz
3. Webinar
4. Demonstration through simple / micro projects of the subjects offered in the semester concerned
5. Industrial Component
6. Assignment / Report

Students who are physically present in a class only should be marked present, students aren't present in the class for whatsoever reason should not be marked present.

In case a student has not appeared for 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 Head of the Department / Principal, a reassessment may be given at the end of the semester after getting approval from the Head of the Department through the faculty advisor concerned.

## 11.2 ASSESSMENT FOR LABORATORY COURSES

In Laboratory Course, out of 100 marks, the maximum marks for Continuous Internal Assessment (CIA) is fixed as 40 marks and the End Semester Examination (ESE) carries 60 marks. Every laboratory exercise / experiment shall be evaluated based on the student performance during the laboratory class and the student's laboratory records are maintained. There shall be at least one assessment test. The criteria for arriving at the observation mark (20 marks) shall be decided in the respective course committee meeting. Mark of each laboratory class should be rounded to the nearest higher integer for assessment of internal marks. The End Semester Practical Examination for laboratory courses will be of 3 hours duration and shall normally be conducted between October and December during the odd semesters and between April and June during the even semesters.

The student who haven't score minimum passing marks prescribed (vide clause 12) in the laboratory course shall reappear for the same in the subsequent end semester exams.

Category	CIA Marks
Observation Mark	20
Record Mark	10
Model Exam	10
Total Marks	40

## 11.3 ASSESSMENT FOR LAB EMBEDDED THEORY COURSES

The assessment of the embedded theory shall be as that of theory (vide clause 11.1) and the assessment of the embedded lab shall be as that of the lab (vide clause 11.2) and the cumulative mark will be calculated based on the theory and laboratory components giving 60 percentage weightage for theory and 40 percentage weightage for laboratory. The End Semester Examinations for the theory and laboratory components will be of three hours duration each.

## 11.4 ASSESSMENT FOR NON-CREDITED COURSES

The Non-Credited courses shall carry 100 marks and shall be evaluated only through Continuous Internal Assessments. The evaluation procedure and criteria for allocation of credit may be decided by the Course Co-ordinator with the approval of the Head of the Department.

## 11.5 ASSESSMENT FOR PROJECT WORK:

### 11.5.1 For Mini Project and Project Work (Phase - I)

The Assessment for Mini Project and Project Work (Phase - I) shall carry 100 marks and shall be evaluated only through Continuous Internal Assessments. The evaluation procedure and criteria for allocation of credit may be decided by the certifying authority / Course coordinator with the approval of the Head of the Department.

Mini Project	CIA Mark	ESE Mark
Model / Coding Development*	20	-
Review	10	-
Report	10	-
Viva – Voce	40	60
Total	100	

Project Work (Phase – I)	CIA Mark			ESE Mark
	Review Committee	Guide	Project Co- ordinator	Viva - Voce
Review – I (6 Marks)	3	3	-	60 Marks
Review – II (6 Marks)	3	3	-	
Review – III (8 Marks)	4	4	-	
Report Evaluation (20 Marks )	-	12	8	
Total	40 Marks			
	100 Marks			

### 11.5.2 For Project Work (Phase - II)

For project work (Phase - II) in the total of 100 marks, the maximum marks for Continuous Internal Assessment carries 40 marks and the End Semester Examination (project report evaluation and viva-voce examination) carries 60 marks. Project work may be assigned to a single student or to a group of students not exceeding 4 per group.

The student(s) is expected to submit the project report on or before the last working day of the semester. 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 by an external examiner followed by a viva – voce examination conducted separately for each student by a committee consisting of the external examiner and an internal examiner. The continuous internal assessment marks for Project Work (Phase - II) will be distributed as indicated below.

#### Project Work (Phase - II)

Project Work (Phase - II)	Review Committee	Guide	Project Co-ordinator	ESE Mark (Viva Voce)
Review –I (8 Marks)	4	4	-	60 Marks
Review –II (8 Marks)	4	4	-	
Review –III (8 Marks)	4	4	-	
Report Evaluation (12marks )	-	5	7	
Publication / Participation in Project contest (4 Marks)	4			
Total	40 Marks			
	100 Marks			

The Mark distribution for End Semester (Viva-voce) Examination is decided by the respective internal and external examiners.

If the project report is not submitted on or before the specified deadline, an extension of the time up to a maximum limit of 10 days may be given for the submission of project work by paying additional fee to conduct separate viva voce examination with due approval obtained from the Head of the Department. If the project report is not submitted even beyond the extended time, then the student(s) is deemed to have the grade “RA” (Reappearance) in the Project Work and that student(s) with grade “RA” shall reappear for the same in the subsequent semester.

### **11.6 ASSESSMENT FOR ONLINE COURSES**

Students may be permitted to earn credit from online courses (which are to be provided with a certificate) with the approval of the Department Consultative Committee and Head of the Institution subject to a maximum of three credits per course. The Department Consultative Committee will take a decision on the evaluation methodology for the online course. The Committee can decide on how to evaluate the online courses and the same may be conveyed to the Head of the institution at the beginning of the semester when the course is offered. The Head of the Department will be responsible for the evaluation process. A committee consisting of the Head of the Department, coordinator and a senior Faculty member nominated by the Head of the Department shall assess the students based on their performance in the end semester examination conducted by the college in that course when assessment is not done by the certificate provider.

### **11.7 ASSESSMENT FOR OTHER EMPLOYABILITY ENHANCEMENT COURSES**

11.7.1 The Seminar / Case Study is to be considered as purely internal (with 100% Continuous Internal Assessment marks only). Every student is expected to present a minimum of 2 seminars per semester before the evaluation committee / Department consultative committee and for each seminar, marks can be equally distributed. The three-member committee appointed by the Head of the Institution will evaluate the seminar and at the end of the semester the marks

can be consolidated and taken as the final mark. The evaluation shall be based on the content of the seminar paper (40%), presentation (40%) and response to the questions asked during the presentation (20%).

11.7.2 The Industrial / Practical Training shall carry 100 marks. At the end of Industrial / Practical Training / Internship / Summer Project, the student shall submit a report on the training undergone and a certificate from the organization. The evaluation will be made based on this report and a Viva-Voce Examination, conducted internally by a three-member Department Committee constituted by the Head of the Department. Certificates (issued by the Organization) submitted by the student shall be attached to the mark list and sent to the Controller of Examinations duly attested by the Head of the institution through the Head of the Department.

### **11.8 ASSESSMENT FOR MANDATORY COURSES**

Mandatory Courses are non-credit based courses that are required to be completed to fulfill the degree requirements. The Faculty coordinator appointed by the Head of the Department shall be responsible for periodic monitoring and evaluation of the course. The course shall be evaluated through Continuous Internal Assessments (as decided by the Departmental Consultative Committee).

### **11.9 ASSESSMENT FOR VALUE ADDED COURSES**

The one credit course shall carry 100 marks and shall be evaluated only through Continuous Internal Assessments. The evaluation procedure and criteria for allocation of credit may be decided by the certifying authority / Course coordinator with the approval of the Head of the Department. The Head of the Department may identify a faculty member as a coordinator for the course. A committee consists of the Head of the Department, faculty handling the course and course coordinator. The grades shall be assigned to the students by the above committee based on their relative performance. In addition to the one credit course offered by the department, the following common courses are also considered.



### a. English Proficiency Certification

1.	Pre – requisites / Eligibility conditions	As prescribed by the certifying authority
2.	Detail of course content / Syllabus	
3.	Duration of the course	
4.	Assessment Procedure	
5.	Criteria for allocation of credit	A certificate for attending BEC Course / Minimum score in TOFEL IBT / GRE / IELTS
6.	In case of Grade RA (Reappearance)	Repeat the course

### b. Soft Skills

1.	Pre – requisites / Eligibility conditions	As prescribed by Placement cell
2.	Detail of course content / Syllabus	
3.	Duration of the course	
4.	Assessment Procedure	As per the procedure described by the Head of the Dept.
5.	Criteria for allocation of credit	Successful completion of soft skill Training Certificate with minimum 20 contact hours.
6.	In case of Grade RA ( Reappearance)	-----

### c. Foreign/ Vernacular Languages

1.	Pre – requisites / Eligibility conditions	As prescribed by the course conducting Universities / Schools
2.	Detail of course content / Syllabus	
3.	Duration of the course	
4.	Assessment Procedure	
5.	Criteria for allocation of credit	Pass certificate issued by the competing authority
6.	In case of Grade RA (Reappearance)	Repeat the course

#### d. Aptitude Proficiency Certification

1.	Pre – requisites / Eligibility conditions	As prescribed by the course coordinator
2.	Detail of course content / Syllabus	
3.	Duration of the course	40 periods with minimum 70% of attendance
4.	Assessment Procedure	As prescribed by the course coordinator
5.	Criteria for allocation of credit	Pass in End Examination / Minimum score in GMAT/ CAT/ NAC / MAT
6.	In case of Grade RA (Reappearance)	Repeat the course

#### e. Globally Accepted Certification Course

1.	Pre – requisites / Eligibility conditions	Prior permission from the HOD is a must
2.	Detail of course content / Syllabus	
3.	Duration of the course	As prescribed by the certifying authority
4.	Assessment Procedure	
5.	Criteria for allocation of credit	Proof for the successful completion of the course provided by the globally accepted certifying agencies like HPATA / Microsoft / National Instruments (Lab View)/ Oracle / IBM / CISCO Networking Academy / ADOBE / REDHAT / Sun Micro systems / JAVA / Software related to Mechanical and Civil Engineering
6.	In case of Grade RA (Reappearance)	-----

#### f. One/Two Credit Course

1.	Pre – requisites / Eligibility conditions	Student has to fulfill the necessary Pre-requisites of the course being offered by the department
2.	Detail of course content / Syllabus	
3.	Duration of the course	As prescribed by the course coordinator on approval with HOD of the respective department
4.	Assessment Procedure	
5.	Criteria for allocation of credit	Certificate issued by the HOD for the successful completion of the course with 80% attendance
6.	In case of Grade RA (Reappearance)	-----

## 12. PASSING REQUIREMENTS

**12.1** The passing requirement for a student in a course that the student should have obtained 50% marks in the End Semester Examinations and should also fulfill 50% of the total combining both the Continuous Internal Assessment and End Semester Examination.

**12.2** For non-credit courses there is no minimum mark for pass.

**12.3** If a student reappears for an Open Elective, the student may be permitted to register for the same course as arrear or opt for new registration to any other Open Elective course respectively in the subsequent semesters. Registering for a new course will require fulfillment of attendance (vide clause 7).

**12.4** The passing requirement for the courses which are assessed only through continuous assessment (EEC courses except Mini Project, Project Work (Phase – I), Project Work (Phase – II), shall be determined based on the marks obtained in Continuous Internal Assessments.

### 12.5 REVALUATION

A candidate can apply for photocopy of his / her semester examination answer paper in a theory course, within seven days from the declaration of results, on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of the institution. The answer script is to be valued and justified by a faculty member, who handled the subject and

recommend for reevaluation with the breakup of marks for each question. Based on the recommendation, the candidate can register for the reevaluation through proper application to the Controller of Examinations. The Controller of Examinations will arrange for the reevaluation and the results will be intimated to the candidate concerned through the Head of the institution. Reevaluation is not permitted for practical courses and for project work. A candidate can apply for reevaluation of answer scripts for not exceeding 5 subjects at a time.

### 13. AWARD OF LETTER GRADES

**13.1** For awarding the grades Affiliating University guidelines is followed, It will be changed from time to time based on the guidelines of above affiliating authorities.

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

Letter Grade		Grade Points	Marks Range
O	Outstanding	10	91 - 100
A+	Excellent	9	81 - 90
A	Very Good	8	71 - 80
B+	Good	7	61 - 70
B	Average	6	50 - 60
RA	Reappearance	0	<50
AB	Absent	0	
W	Withdrawal	0	

A student is deemed to have passed and acquired the corresponding credits in a particular course of he / she obtains any one of the following grades: "O", "A+", "A", "B+", "B". "RA" denotes reappearance required for the examination in the course "AB" denotes absent for the particular course "W" denotes withdrawal from the exam for the particular course (The grades RA and W will figure both in the mark sheet as well as in result sheet).

**13.3** 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 and W will figure in mark sheet.

**13.4** For the extracurricular activities which are in the category of Mandatory Courses such as National Service Scheme (NSS) / Youth Red Cross (YRC) / Red Ribbon Club (RRC), a satisfactory / not satisfactory grading will appear in the mark sheet. Every student shall put in a minimum of 75% attendance in the training and attend the camp compulsorily. The training and camp shall be completed during the first year of the programme. However, for valid reasons, the Head of the Institution may permit a student to complete this requirement during the second year.

#### 14. GPA AND CGPA CALCULATION

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

$$\text{GPA} = \frac{\sum(\text{Credits Acquired} \times \text{Grade Points})}{\sum(\text{Credits Acquired})}$$

$$\text{CGPA} = \frac{\sum_{i=1}^n C_i GP_i}{\sum_{i=1}^n C_i}$$

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

$GP_i$  - is the grade point corresponding to the grade obtained for each course.

$n$  - is number of a Courses successfully cleared during the particular semester in the case of GPA and during a the semesters in the case of CGPA.

**14.1** CGPA will be calculated in a similar manner considering a course enrolled from first semester "RA" and "W" grades will be excluded in calculating GPA and CGPA.

**14.2** The credits earned through one credit course shall not be considered for calculating GPA and CGPA. However, completion of three one credit courses can be considered as one elective course during 7<sup>th</sup> and 8<sup>th</sup> semesters can be considered for GPA and CGPA calculation.

**14.3** If a student studies more number of electives (PEC / OEC) than required as per the students' programme curriculum the courses with higher grades alone will be considered for calculation of CGPA.

**14.4** The grades O, A+, A, B+, B obtained for the one / two credit course shall figure in the Mark sheet under the title "Value Added Courses". The Courses for which the grade RA will not figure in the mark sheet.

## **15. ELGIBILITY FOR THE AWARD OF DEGREE**

**15.1** 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 students programme within the stipulated time.
- ii. Successfully completed the course requirements appeared for the End Semester examinations and passed in the subjects prescribed in the Eight / Six semesters within a maximum period of 7 years and 6 years in the case of Lateral Entry reckoned from the commencement of the first semester (third in the case of Lateral Entry) to which the candidate was admitted.
- iii. Successfully passed any additional courses prescribed by the admission committee whenever readmitted under regulations R-2019 (vide clause 17.2)
- iv. No disciplinary action pending against the student.
- v. The award of Degree must have been approved by the University.

## 15.2 CLASSIFICATION OF THE DEGREE AWARDED

### 15.2.1 First Class with Distinction

- A candidate who satisfies the following conditions shall be declared to have passed the examination in First class with Distinction.
- Should have passed the End Semester Examination in all the courses of Eight semesters (Six semesters in the case of lateral entry) in his/her first appearance within 4 years (three years in the case of lateral entry) Withdrawal from examination (vide clause 16) will not be considered as an appearance One year authorized break of study (if availed) is permitted in addition to 4 years (3 years in the case of lateral entry) for the award of First class with Distinction.
- **Should have Secured a CGPA of not less than 8.50.**

### 15.2.2 First Class

- A candidate who satisfies the following conditions shall be declared to have passed the examination in First class.
- Should have passed the End Semester Examination in all the courses of all the Eight semesters (Six semesters in the case of lateral entry) within 5 years (4 years in the case of lateral entry). One year authorized break of study (if availed) or prevention from writing the End Semester examination due to lack of attendance (if applicable) is included in the duration of 5 years (4 years in the case of lateral entry) for the award of First class.
- **Should have Secured a CGPA of not less than 7.00.**

### 15.2.3 Second Class

All other students (not covered in clause 15.2.1 and 15.2.2) who qualify for the award of the degree (vide Clause 15.1) shall be declared to have passed the examination in Second Class.

**15.3** A student who is absent in the End Semester Examination in a course / project work after registering for the same shall be considered to have appeared in that examination (except approved withdrawal from end semester examinations as per clause 16) for the purpose of classification.

**16. PROVISION FOR WITHDRAWAL FROM EXAMINATION**

A candidate, may for valid reasons with prior application, be granted permission to :

**16.1** Withdraw from appearing for the examination of any one course or consecutive Examinations of more than one course in a semester examination.

**16.2** Such withdrawal shall be permitted only once during the entire period of study of the degree programme.

**16.3** Withdrawal of application is valid only if it is made within 10 days prior to the Commencement of the examination in that course or courses and recommended by the Head of the institution and approved by the Controller of Examinations.

**16.4** Even though the requirement of mandatory is 10 days notice, applications for Withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.

**16.5** Withdrawal shall not be construed as an appearance for the eligibility of a candidate for First Class with Distinction.

**16.6** Withdrawal from the End Semester Examination is NOT applicable to arrear subjects of previous semesters.

**16.7** The candidate shall reappear for the withdrawn courses during the examination conducted in the immediate semester.

**16.8** Withdrawal shall not be permitted in the final semester examinations.

**16.9** Withdrawal shall not be permitted for all papers in a semester. He / She has to appear at least for one paper in a semester. Otherwise he / she shall be considered as break of study.

**17 PROVISION FOR AUTHORISED BREAK OF STUDY**

**17.1** 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 candidate may apply for additional break of study



not exceeding another one year by the paying prescribed fee for break of study. If a candidate intends to temporarily discontinue the programme in the middle of the semester for valid reasons, and to rejoin the programme in a subsequent year, permission may be granted based on the merits of the case provided he / she applies to the DOTE, Anna University, 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 rejoining the programme. However, if the candidate has not completed the first semester of the programme, Break of Study will be considered only on valid medical reasons.

**17.2** The candidates permitted to rejoin the programme after break of study / prevention due to lack of attendance, shall be governed by the Curriculum and Regulations in force at the time of rejoining. Students rejoining in new Regulations should appear in additional courses if any, as prescribed by the admission committee from any semester of the regulations in-force, so as to bridge the curriculum in-force and the old curriculum.

**17.3** One year authorized break of study will not be counted towards the duration specified for passing all the courses for the purpose of classification (vide clause 17.1 and 17.2).

**17.4** 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 5.1 irrespective of the period of break of study in order that he/she may be eligible for the award of the degree.

**17.5** If any student is detained for want of requisite attendance, progress and good conduct, the period spent in that semester shall not be considered as permitted 'Break of Study' and Clause 17.3 is not applicable for this case.

**17.6** All the norms may liable to change upon the terms of affiliated university.

## **18. DISCIPLINE**

**18.1** Every student is required to observe discipline 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 Dean (Student Affairs), Head of the Departments to which the student concerned belongs, and the Head of another Department to inquire into acts of indiscipline and to recommend the Principal for taking the final decision.

**18.2** If a student indulges in malpractice in any of the examinations, the student shall be liable for punitive action as prescribed in the regulations from time to time.

**19. REVISION OF REGULATIONS, CURRICULUM AND SYLLABI**

The College may from time to time revise, amend, or change the Regulations, Curriculum Syllabus and Scheme of examinations through the Board of Studies and academic council with the approval of the Governing Body of the College.

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