



# **FRANCIS XAVIER<sup>TM</sup>** **ENGINEERING COLLEGE** **AN AUTONOMOUS INSTITUTION**

**ACCREDITED BY NBA**

ISO 9001:2015 Certified | DST-FIST Supported Institution  
Recognized under Section 2(f) & 12(B) of the UGC Act, 1956  
Vannarpettai, Tirunelveli - 627003, Tamil Nadu

**COMMON TO ALL B.E./B.TECH. PROGRAMMES**

**(For Students admitted to the B.E./B.Tech. Programme  
under Autonomous from 2021-2022 onwards)**

## **REGULATIONS - 2021**

### **CHOICE BASED CREDIT SYSTEM**

#### **VISION**

To Provide education in Engineering with excellence and ethics and to reach the unreachable

#### **MISSION**

To create innovative and vibrant young leaders and entrepreneurs in Engineering and Technology for building India as a super knowledge power and blossom into a University of excellence recognized globally

**REGULATIONS 2021**

## CHOICE BASED CREDIT SYSTEM AND OUTCOME BASED EDUCATION

### Common to all B.E. /B.Tech. Programmes

(For the Students admitted to B.E./B.Tech. Programme from 2021-2022 onwards)

### DEGREE OF BACHELOR OF ENGINEERING/BACHELOR OF TECHNOLOGY

This Regulation is applicable to the students admitted to B.E./B.Tech. Programme from the Academic Year 2021-2022 onwards.

#### 1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In this regulation, unless the context otherwise requires:

- i. **“Degree”** means the academic award conferred upon a student on successful completion of a four-year programme deliberate to achieve the defined attributes. It is referred to as an Under-Graduate (UG) Degree that is “Bachelor of Engineering (B.E.) / Bachelor of Technology” (B.Tech.)
- ii. **“Programme”** means cohesive arrangement of courses, co-curricular and extracurricular activities to accomplish predetermined objectives leading to the awarding of a degree. It also means branch or discipline of B.E./B.Tech. Degree programmes like Civil Engineering, Mechanical Engineering, etc.
- iii. **“Discipline”** means Branch or Specialization in B.E./B.Tech. Degree Programme, viz., Civil Engineering, Information Technology etc.
- iv. **“Course”** means an arrangement of theory, tutorials and Theory cum Practical Laboratory sessions of a subject studied in a semester like Mathematics, Physics, Chemistry, Python Programming, Engineering Mechanics etc.,
- v. **“University”** means Anna University, Chennai.
- vi. **“Head of the Institution”** means the Principal of the Institution.
- vii. **“Controller of Examinations”(CoE)** means the authority of the Autonomous Institute who is responsible for all activities of the assessments and Examinations.
- viii. **“Dean Academics”** means the authority of who is responsible for all academic activities of the Departments for implementation of relevant Rules and Regulations.
- ix. **“Chairman, BoS”** means Chairman, Board of Studies of each faculty.
- x. **“Head of the Department”** means Head of the Department concerned.
- xi. **“Credit”** means a numerical value allotted for each course.
- xii. **“Grade”** means the letter grade assigned to each course based on the range of marks specified.

- xiii. **“Grade Point”** means a numerical value (0 to 10) allotted based on the grade assigned to each course.
- xiv. **“LES”** means Lateral Entry Scheme.
- xv. **“CBCS”** means Choice Based Credit System.
- xvi. **“OBE” means Outcome Based Education**
- xvii. **“L – T – P –C-H”** refers to Lecture, Tutorial, Practical, Credits and Hours respectively
- xviii. **“Curriculum”** refers to the various components / courses studied in each programme that provide appropriate outcomes (Knowledge, Skills and Attitude/ Behaviour) in the chosen branch of study.
- xix. **“HSS“Humanities and Social Sciences (HSS) including Management Courses**
- xx. **“Basic Sciences”** (BS) Courses include Mathematics, Physics, Chemistry, Biology, etc.
- xxi. **“Engineering Sciences”** (ES) Courses include Engineering Practices, Engineering Graphics, Basics of Electrical / Electronics / Mechanical / Computer Engineering, Instrumentation etc.
- xxii. **“Professional Core”** (PC) Courses include the core courses relevant to the chosen specialization / branch.
- xxiii. **“Professional Elective”** (PE) Courses include the elective courses relevant to the chosen specialization/ Programme
- xxiv. **“Open Electives”** (OE) Courses include the courses which a student can choose from the curriculum of other B.E./B. Tech. programmes. These courses may be offered by Internal/External experts.
- xxv. **“Project Work”** (PW) refers to the Capstone project done by a student or a group of students during the final year.
- xxvi. **“EEC”** means Employability Enhancement Courses includes Project Work and /or Internship, Seminar, Industrial /Practical Training, Value Added and Certificate Courses.
- xxvii. **“Value Added Courses”** (VAC) means a course that will be offered by the department, which could be selected by any student in the college
- xxviii. **“Industry Supported Course”** (ISC) means a course offered by experts from industry/ research organizations and approved by the Academic Consultative Committee.
- xxix. **“Academic Consultative Committee”** (ACC) is a panel established within the institution to provide guidance and advice on academic matters to ensure the quality and effectiveness of academic programs and curriculum. The committee consists of Principal, Dean Academics, CoE, HoD concerned.

xxx. **“Department Consultative Committee”**(DCC) serves as a consultative body that provides valuable insights, expertise, and recommendations to support the department's growth, development, and effectiveness in delivering high-quality education and research of the department. The committee typically consists of HOD & faculty members from various ranks within the department and Mentor of the students

xxxi. **“Online Course”** (OC) includes courses offered under the Global Initiative of Academic Networks (GIAN) program of MHRD, NPTEL, Swayam.

## 2. **ADMISSION PROCEDURE**

### a. **First Year – Regular Admission**

The minimum eligibility for admission to **I Year** B.E./B.Tech. Degree Programmes (Regular) shall be based on the following two essential criteria:

- i. Students for admission to the first semester of the eight semester 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 Mathematics, Physics and Chemistry or any other examinations of any other University or authority accepted by the University/Directorate of Technical Education as equivalent thereto.

**(OR)**

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

### b. **Lateral Entry Admission**

- i. The candidates who possess the Diploma in Engineering / Technology awarded by the State Board of Technical Education, Tamil Nadu or its equivalent are eligible to apply for Lateral Entry Admission to the third semester of B.E/ B.Tech. in the branch corresponding to the branch of study or in the eligible branch of study.

**(OR)**

- ii. The candidates who possess the Degree in Science (B.Sc.) (10+2+3 stream) with Mathematics as a subject at the B.Sc. Levels are eligible to apply for Lateral entry admission to the third semester of B.E/B.Tech. Such candidates shall **undergo additional Engineering subject(s)** in the **third and fourth semesters** as prescribed by the College.

### c. **Minimum Eligibility**

The eligibility criteria such as marks, number of attempts and physical fitness shall be as prescribed by the University/ DOTE from time to time.

## 3. **PROGRAMMES OFFERED**

<b>B.E. Degree Programmes</b>	<b>B.Tech. Degree Programme</b>
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<ul style="list-style-type: none"> <li>● Civil Engineering</li> <li>● Computer Science and Engineering</li> <li>● Electronics and Communication Engineering</li> <li>● Electrical and Electronics Engineering</li> <li>● Mechanical Engineering</li> </ul>	<ul style="list-style-type: none"> <li>● Artificial Intelligence and Data science</li> <li>● Computer Science and Business Systems</li> <li>● Information Technology</li> </ul>
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A student may be offered admission to any one of the programmes of study approved by the University. The credit range for each programme is 165 – 168.

#### 4. STRUCTURE OF THE PROGRAMMES

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

4.1.1. **Humanities and Social Sciences including Management Courses (HSMC)** include Technical English, Employability Skills, Engineering Ethics and Human Values,Communication skills and Management courses.

4.1.2. **Basic Science Courses (BSC)** include Mathematics, Physics, Chemistry

4.1.3. **Engineering Science Courses (ESC)** include Engineering Practices, Engineering Graphics, Basics of Civil/Electrical / Electronics / Mechanical / Computer Engineering, etc.,

4.1.4. **Professional Core Courses (PCC)** include the core courses relevant to the chosen specialization/branch.

4.1.5. **Open Elective Courses (OEC)** include the courses offered by a branch to other branches, from the list specified in the respective curriculum of the B.E. / B. Tech Programmes

4.1.6. **Employability Enhancement Courses (EEC)** include Project Work, Internship,Career Development Skills, Creative and Innovative Project, Seminar, Professional Practices, Case Study and Industrial/Practical Training.

4.1.7. **Mandatory Non CGPA Courses (MC)** include Indian Constitution & cultural Heritage ,Environmental Science and Engineering

#### 4.2. Mandatory Three Week Foundation Programme

The students are expected to undergo a mandatory three week foundation programme consisting of skill courses,physical activity, creative arts, universal human values, proficiency modules,lectures by eminent people, visits to local areas and familiarization to department/branch & innovations immediately after admission.

#### 4.3. Number of courses per semester

Curriculum of semester shall normally have a blend of theory / theory cum practical and practical courses/ Employability Enhancement Courses in which a semester shall have a maximum **count of 12 courses**.

#### 4.4. Credit Assignment

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

<b>Contact period per week</b> (of 50 minutes duration per period)	<b>CREDITS</b>
1 Lecture Period	1
1 Tutorial Period	1
2 Practical Periods	1
2 Project Work	1
4 Week NPTEL /SWAYAM courses	1
2 week Internship	1

#### 4.5. Industrial Training / Internship

**4.5.1.** The students may **undergo Industrial Training**/Internship for a period as specified in the curriculum during summer / winter vacation. In this case, the training has to be undergone continuously for a period of at least two weeks in an organization. The credit will be awarded to the student after the submission of **Internship / Industrial Training report** to the Internship coordinator. The report will be evaluated by a team of faculty members nominated by the Head of the Department for awarding the grade. Based on the recommendation by the team, the student will be awarded marks and the same will be sent to the Controller of Examinations after the approval by the Head of the Department.

**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. If the student earns three credits in Industrial Training / Internship, the student may drop one Professional Elective. In such cases, Industrial Training / Internships need to be undergone continuously from one organization only. Also Students shall get permission from the Head of the Institution for taking Industrial Training/Internship and the Certificate of completion Industrial Training / Internship report shall be evaluated and forwarded to the CoE. If the number of credits earned is 1 or 2, these credits shall not be considered for dropping a Professional Elective Course.

<b>Duration of Industrial Training / Internship</b>	<b>Credits</b>
2 Weeks	1
4 Weeks	2
6 Weeks	3

#### **4.6. Industrial Visit**

Every student is required to go for at least one Industrial Visit every semester starting from the second year of the Programme. Industrial visits may be scheduled anywhere in between the progress of the academic semester. The Heads of Departments shall ensure that necessary arrangements are made in this regard.

#### **4.7. Industry Supported Course(ISC)**

Industry Supported courses means a course offered by experts from industry/ research organizations and approved by the Academic Consultative Committee. Students can opt for **3 credits courses** offered by the department from time to time. Students can register for such courses **from the 5<sup>th</sup> semester**. **A student is also permitted to register for these courses offered by other departments**, provided the student has fulfilled the necessary prerequisites of the course being offered and subject to the **approval of both the Heads of Departments**. These courses are evaluated by the respective course coordinator of the programme. A Professional Elective / Open Elective of three credits can **be replaced by ONE 3 credits industry supported course opted by the student**.

#### **4.8. Value Added Courses**

Students may optionally undergo Value Added Courses and 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 with the prior approval from the BOS. In such Cases the details of the syllabus, time table and faculty in charge details may be sent to the Dean Academics and CoE after approval from the Departmental Consultative Committee and HoD concerned. Students can take a maximum of 4 one credit courses or 2 two credit courses in the entire programme of study offered by the concerned department or by other departments.

#### **4.9. Mandatory NON CGPA Courses**

In addition to the credits specified in the curriculum of the respective programme, the students must clear the Mandatory courses with eligible grades prescribed in the programme to attain the Degree.

#### **4.10. Students admitted from 2023-24 academic year can undergo two ONE Credit Tamil courses namely, Heritage of Tamil & Tamils and Technology Courses (தமிழரும் தொழில்நுட்பமும்) in the First And Second semester respectively. However students**

**admitted in previous year need not to take this course instead they need to complete the Indian Constitution and Cultural Heritage course offered as Mandatory NON CGPA Course. [Amendment as per 8th AC at 23.3.2023]**

**4.11. Online courses(OC)**

Students may be permitted to opt online courses from 4<sup>th</sup> semester onwards. A Professional Elective / Open Elective of three credits can **be replaced by 12 Week NPTEL/SWAYAM Courses opted by the student**. The credits earned through online courses, transferred instead of Professional Elective /Open Elective Courses after due approval procedures from the Departmental Consultative Committee. The DCC from the Department of the student to ensure that the student has not studied such courses and would not repeat it again as Professional Core/Professional Elective/Open Elective courses. Suitable online courses shall be chosen from the SWAYAM platform.

**Grading for NPTEL / SWAYAM Online Courses**

Score	Grade
90 - 100	O
80 - 89.9	A+
70-79.9	A
60-69.9	B+
50-59.9	B
40-49.9	C

**4.12. Start-up**

A student is allowed to set up his/her start up from 5<sup>th</sup> semester onwards either inside or outside of the college. If willing, student entrepreneurs may replace either Professional Skills courses or Industrial Training courses offered. However it should be clearly indicated during the course registration for the particular semester. Startups may be interdisciplinary or multidisciplinary. The progress of the startup shall be evaluated by a panel of members constituted by the Principal through periodic reviews. The head of the department concerned shall assign a faculty member as a mentor for each start up initiated.

**4.13. Skill Based Value Added Courses [Amendment as per 8th AC at 23.3.2023]**

Students can undergo ONE/TWO Credit Skill based Value Added Courses from 3<sup>rd</sup> semester onwards. This course can be offered as Practical Course. Evaluation pattern shall be followed as same as that of a Laboratory Course with a team of assessors to assess the Laboratory Exercise and the course must end with a Test Project. If a student earns more than 3 credits through Value Added Courses, he/she shall drop one Professional Elective/Open Elective in the 7<sup>th</sup> semester. If the student does not opt for replacement of PE or OE, the completion of Value Added Course will be added in the Grade Sheet.



#### 4.14. Minor/Specialization Degree

Students have the option to pursue a B.E./B.Tech. (Hons) specialization within the same discipline. Similarly they may choose to pursue a B.E./B.Tech. Honors or a B.E./B.Tech. minor in another specialization

##### 4.14.1. B.E./B.Tech. Honours (specialization in the same discipline):

- The B.E./B.Tech. Honours program with specialization in the same discipline is provided by the department.
- A student who has 7.5 CGPA and above and no history of arrears can opt for Minor/Specialization Degree.
- To be awarded with B.E./B.Tech. Honours (specialization in the same discipline) Degree, a student must earn 18 credits in addition to the credits specified by the department for B.E./B.Tech Degree.
- From the 4th semester onwards, students have the opportunity to register for a B.E./B.Tech. Honours course with specialization in the same discipline.
- The department to which the student belongs offers this course within their curriculum.
- In order to be eligible for the B.E./B.Tech. Honours course with specialization in the same discipline, it is mandatory for the student to pass all courses offered by the department, along with the specialization courses, in their first attempt.

##### 4.14.2. B.E / B.Tech. Honours

- A student is also permitted to opt Minor courses offered by other Departments. A student who has 7.5 CGPA and above and no history of arrears can opt for **B.E / B.Tech. Honours**.
- In order to receive the B.E./B.Tech. Honours Degree, students are required to earn a minimum of 18 additional credits from multiple minor programs, in addition to the credits specified by the department for the B.E./B.Tech. Degree.
- From the 4th semester onwards, students have the opportunity to register for a B.E./B.Tech. Honours course.
- In order to be eligible for the B.E./B.Tech. Honours course, it is mandatory for the student to pass all courses offered by the department, along with the minor courses, in their first attempt.

##### 4.14.3. B.E./B.Tech. (minor in other specialisation)

- A student is also permitted to opt Minor courses offered by other Departments.
- A student who has 7.5 CGPA and above and no history of arrears can opt for **B.E / B.Tech.(minor in other specialisation)**.
- To be eligible for the B.E./B.Tech. (minor in other specialisation) Degree, students are required to earn a minimum of 18 credits from a specific minor program, along with fulfilling the credit requirements set by their department for the B.E./B.Tech. Degree

- From the 4th semester onwards, students have the opportunity to register for a B.E./B.Tech. (minor in other specialisation). course.
- In order to be eligible for the B.E./B.Tech. (minor in other specialisation) course, it is mandatory for the student to pass all courses offered by the department, along with the minor courses, in their first attempt.

**4.14.4.** The courses specified under Minor / Specialization degree may include theory, theory cum practical, practical, and project work under the particular specialization. The registration, assessment & evaluation pattern and classification of grades of these courses shall be the same as that of the courses in the regular curriculum of the programme of the candidate.

**4.14.5.** If a student chooses not to pursue the **B.E./B.Tech. Honours (specialization in the same discipline)** program after completing a certain number of additional courses, those completed additional courses can be used for exemption of Professional Elective and Open elective courses. If the student has studied more number of such courses than the number of Professional Elective courses required as per the curriculum, those courses shall be printed in the mark sheet, however, they will not be considered for calculation of CGPA.

**4.14.6.** If a student chooses not to pursue the **B.E./B.Tech. Honours/ minor in other specialization** program after completing a certain number of additional courses, those completed additional courses can be used for exemption of Professional Elective and Open elective courses. If the student has studied more number of such courses than the number of Professional Elective courses required as per the curriculum, those courses shall be printed in the mark sheet, however, they will not be considered for calculation of CGPA.

#### **4.15. Medium of Instruction**

The medium of instruction is English for all courses, examinations, Seminar presentations and Project Work reports except the Tamil courses offered in First Year.

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

**5.1.** A student is ordinarily expected to complete the B.E. / B.Tech. Programme in 8 semesters (for HSC students) and 06 semesters (for Lateral Entry students) but in any case not more than 14 Semesters for HSC (or equivalent) students and not more than 12 semesters for Lateral Entry students

**5.2.** Each semester shall normally consist of **90 working days (including examination days) with periods of 50 minutes each.** The Dean Academics and the Head of the Department shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus and that the teacher teaches the full content of the specified syllabus for the course being taught.

**5.3.** The Head of the Department may schedule additional classes for improvement, special

coaching, for slow learners over and above the specified periods. But for the purpose of calculation of attendance requirement for writing the end semester examinations, the following method shall be used.

$$\text{Percentage of attendance} = \frac{\text{Total No. of Period Attended in all the courses per semester}}{\text{No of Periods per week as prescribed by the Curriculum X15}}$$

5.4. The total duration of the programme from the commencement of the first semester to which the student was admitted, shall not exceed the maximum duration specified irrespective of the period of break of study or prevention in order that the student may be eligible for the award of the degree.

## 6. COURSE ENROLLMENT AND REGISTRATION

6.1. Each student on regular admission shall register for the courses prescribed in the curriculum every Semester as per CBCS.

6.2. After registering for a course, a student shall attend the classes, satisfy the attendance requirements, earn continuous assessment marks and appear for the end semester examinations.

### 6.3. Flexibility to Add or Drop courses

From fourth semester onwards, a student has the option of registering for additional courses or dropping existing courses in the Schedule of Courses of the programme. Total number of credits of such courses cannot exceed 6. However, **the maximum number of credits the student can register in a particular semester cannot exceed 30**, excluding the courses for which the student has done **reappearance registration**. The credits for industry supported courses/Minor/Specialization courses are also included in calculating the number of credits per semester.

6.4. The registration for the courses, from II semester to VIII semester, will commence five days prior to the commencement of the succeeding semester. The students shall register for the courses with the guidance of the student's Faculty Mentor. If the student wishes, the student may drop courses (vide clause 6.3) within five working days after the commencement of the concerned semester and complete the registration process.

6.5. **Courses such as professional elective/open elective shall be offered with the guidance of a faculty without any restriction on minimum students opting for a course. (amendment as per 7th AC Meeting 10.9.2023)**

6.6. If a student has any arrears, he/she shall do reappearance registration whenever the course opted next. Students in VIII semester have any arrear in eighth semester may appear for supplementary examination conducted only once, one month after the declaration of the results of the eighth semester.

### 6.7. Redoing a Course

Redoing a course means reregistering for a course, attending all classes, fulfilling the attendance requirements as per clause 7, earning fresh Continuous Assessment marks and appearing for End Semester Examinations. A student has to redo a course in the following conditions

- 6.7.1. If a student fails to secure a pass in any course in the current semester examination, he/she is allowed to write an arrear examination in the next consecutive semester and their internal marks shall be carried over for calculating end semester results.
- 6.7.2. If a student is prevented from writing the end semester examination of any professional/open elective course due to lack of attendance, the student has to register for all the courses in the semester again, when offered next, attend the classes and fulfill the attendance requirements as per clause 7 or student can opt to register for a different professional/open elective course when it is offered, attend classes, fulfill the attendance requirements as per clause 7, secure Continuous Assessment marks and appear for End Semester Examinations
- 6.7.3. The student who fails in any Project work (Project 1 / Project 2) in the current semester can write an arrear examination in the next consecutive semester and their internal marks shall be carried over for calculating end semester results.
- 6.7.4. The student who fails in Seminar / Internship / Mandatory Course / Practical can write as an arrear examination in the next consecutive semester and their internal marks shall be carried over for calculating end semester results.

### 6.8. Malpractice

Students taking exams shall be prohibited from entering into the Examination Halls/Laboratories with any book or portion of book, manuscript, or any unauthorized written/printed/electronic content, communicating with or copying from each other or communicating with anyone outside the Examination Hall/Laboratories. Electronic gadgets, Programmable calculator and mobile phone shall not be permitted inside the Examination hall/Laboratories. However, any required code-books and data sheets/books as specified in the question paper will be supplied inside the Examination hall/laboratories by the office of the Controller of Examinations. The students are warned that any form of malpractice will be dealt with severely. The punishment may include debarring/canceling the particular examinations registered by the student in that semester.

No.	Nature of Malpractice	Punishment
1	The candidate possessing any incriminating material (whether used or not). For example:-Written or printed materials, bits of papers containing written information, writings on scale, calculator, handkerchief, dress, part of the body, hall ticket, etc.	Invalidating the examinations of all the theory and practical subjects of the current semester registered by the candidate.

2	The candidate possessing cell phones(s)/ programmable calculator(s)/ Smart Watch/ any other electronic storage devices(s) gadgets and containing incriminating materials(whether used or not)	
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**7. ATTENDANCE REQUIREMENTS FOR COMPLETION OF THE SEMESTER**

- 7.1. Ideally every student is expected to attend all periods and earn 100% attendance. However, the student must secure less than 75% attendance put together in all courses in a semester prescribed in the curriculum.
- 7.2. If a student secures attendance between 65% and less than 75% 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/Competition, with prior permission from the Head of the Institution and Head of the Department concerned, the student shall be given exemption from the prescribed attendance requirement and the student shall be permitted to appear for the end semester examination of that course. In all such cases, the students should submit the required documents on joining after the absence to the Head of the Department through the faculty Mentor.
- 7.3. A student shall normally be permitted to appear for the end semester examination of the course if the student has satisfied the attendance requirements (vide Clause 7.1 – 7.2) and has registered for the examination in those courses of that semester by paying the prescribed fee.
- 7.4. **Attendance Lacking**
  - 7.4.1. If a student has shortage of attendance(clause 7.1-7.2) in all the registered courses, he/she would not be permitted to move to the higher semester and has to repeat the current semester in the subsequent year
  - 7.4.2. In the case of reappearance (Arrear) registration for a course, the attendance requirement as mentioned in Clauses 7.1 - 7.3 is not applicable. However, the student has to register for the examination in that course by paying the prescribed registration fee.
- 7.5. A student who has already appeared for a course in a semester and passed the examination is not entitled to re-appear the same course for improvement of Grade / Marks.

**8. FACULTY MENTOR**

To help the students in planning their courses of study and for general advice on the academic programme, a certain number of students will attach to a teacher of the Department, who shall function as Faculty Mentor for those students throughout their period of study. The Faculty Mentor shall advise the students in registering and reappearing (Arrear) registering of courses, authorize the process, monitor their attendance and progress and counsel them periodically. If necessary, the Faculty Mentor may also discuss with or inform the parents about the progress / performance of the students concerned.

The responsibilities of the faculty advisor shall be:

- To inform the students about the various facilities and activities available to enhance the

student's curricular and co-curricular activities.

- To guide student enrollment and registration of the courses.
- To authorize the final registration of the courses at the beginning of each semester. To monitor the academic and general performance of the students including attendance and to counsel them accordingly.
- To collect and maintain the academic and co-curricular records of the students.

#### **9. COURSE INSTRUCTOR**

The faculty handling the course is called the Course Instructor. He/She is responsible for planning the modalities associated with the conduct of the course. The number and types of other assessments to be carried out to evaluate the continuous assessment marks need to be decided by all the course instructors handling the course along with the course coordinator. In the case of a single teacher handling the course, he/she is the course coordinator.

#### **10. CLASS COMMITTEE**

Every class shall have a class committee consisting of teachers of the class concerned, student representatives and a chairperson, who is not teaching the class. The goal of the Class Committee is improving the teaching-learning process. The functions of the class committee include:

- Solving problems experienced by students in the classroom and in the laboratories.
- Clarifying the regulations of the degree programme and the details of rules there in the regulation.
- Informing the student representatives, the academic schedule including the dates of assessments and the syllabus coverage for each assessment.
- Informing the student representatives the details of Regulations regarding weightage used for each assessment. In the case of practical courses (laboratory / drawing /project work / seminar etc.) the breakup of marks for each experiment / exercise /module of work, should be clearly discussed in the class committee meeting and informed to the students.
- Identifying the slow-learners, if any, and requesting the teachers concerned to provide some additional help or guidance or coaching to such students

#### **11. COMMON COURSE COMMITTEE**

**11.1.** A theory course handled by more than one teacher shall have a "Common Course Committee" composed of all Course Instructors teaching that course. One of the Course Instructors shall be nominated as the Course Coordinator by the Chairman of the concerned Faculty, duly approved by the Dean, Academics.

**11.2.** The first meeting of the Common Course Committee shall be held at least 10 days before the commencement of the semester. The entire week by week course plan is to be charted out by the common course committee and submitted to the monitoring committee before the commencement of classes. The nature and weightage of the continuous assessments and a common scheme of evaluation for the assessments shall be decided within the framework of the Regulations. All the instructors handling the course need to interact at-least once in two weeks, at designated times as indicated in the time table and decide on the action plan for the next two

weeks. Wherever feasible, the common course committee shall prepare a common question paper for the continuous assessment tests also.

## 12. DEPARTMENT CONSULTATIVE COMMITTEE (DCC)

In addition, there shall be a Department Consultative committee for each programme, which comprises (i) the Head of the Department (convener), (ii) the two or three senior faculty members of the programme. Department Consultative Committee plays a crucial role in several areas, including:

**Program Development:** The committee may provide input on the design, development, and modification of academic programs and courses within the department. They may offer suggestions regarding curriculum content, learning outcomes, and program objectives.

**Departmental Policies:** The committee may discuss and provide recommendations on departmental policies, regulations, and procedures.

**Approval Process:** This committee shall meet periodically to discuss academic related matters, approval process of Internship, Online Courses, Credit Transfer, progress and status of the students of the semester concerned

## 13. ASSESSMENT PROCEDURES FOR AWARDING MARKS

All B.E./B.Tech. programmes consist of Theory Courses, Theory cum Practical, Practical Courses and Employability Enhancement Courses. Employability Enhancement Courses include Project Work, Seminar, Professional Practices, Case Study and Industrial/Practical Training. Appearance in End Semester Examination is mandatory for all courses including theory, laboratory 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. The evaluation shall be based on Outcome Based Education (OBE). All course shall be evaluated for a maximum of 100 marks as shown below:

S.No	Category of Course	Internal Marks (CAM)	End Semester Examination Marks(ESM)
1	Theory Courses	40 Marks	60 Marks
2	Laboratory Courses	60 Marks	40 Marks
3	Theory Cum Practical Courses	50 Marks	50 Marks
4	Project Work	60 Marks	40 Marks
5	All other EEC Courses	100 Marks	Nil

<b>6</b>	Mandatory Courses (Non Credit )	100 Marks	Nil
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### 13.1. Assessment for Theory Courses

The mark distribution is dependent on the credit weightages of various components of the courses. Continuous Assessment comprises two assessments of equal weightage. The total marks obtained in the 2 assessments put together shall be reduced to 40 marks and rounded to the nearest integer. In case a student misses the assessment due to medical reasons (hospitalization / accident / specific illness) or due to participation in the College / University / State / National / International level Sports events with prior permission from Head of the Institution, only one Reassessment may be given after getting approval from the Head of the Department by the concerned course instructor.

The End Semester Examination (Theory / Theory cum Practical Or Practical) of 3 hours duration shall ordinarily be conducted between November and January during the odd semesters and between April and June during the even semesters.

Category : Theory Courses (40:60)								
Credits					Internal Marks			End Semester Exams
L	T	P	C	Hours	CAT 1	CAT 2	Formative Assessment	
3	1	0	4	60	10	10	20	60
3	0	0	3	45	10	10	20	60
2	0	0	2	30	10	10	20	60
1	0	0	1	15	50	50	NA	

### 13.2. Assessment for Theory cum Practical Courses

The maximum marks for Internal Assessment shall be 50 in case of theory courses with Laboratory components. (i.e.) Each course shall be evaluated for a maximum of 100 marks as shown below:

Category : Theory Cum Practical Courses (50:50)									
Credits					Internal Marks				End Semester Exam Marks
L	T	P	C	Hours	CAT 1	CAT 2	Lab Experiments	Model lab with Project	



3	0	2	4	75	10	10	20	10	50
2	0	2	3	60	10	10	20	10	50
1	1	3	4	60	10	10	20	10	50

### 13.3. Assessment for Practical Courses

The maximum marks for Internal Assessment shall be 60 marks in case of practical courses. Every practical exercise / experiment shall be evaluated based on conduct of experiment / exercise and records to be maintained.

Category : Practical Courses (60:40)							
Credits					Internal Marks		End Semester Components
L	T	P	C	Hours	Lab Experiments	Model lab with Project	
0	0	4	2	60	40	20	40
0	0	2	1	30	60	40	NA

### 13.4. Project Work

The student shall register for Project Work-I in pre-final semester and Project Work-II in final semester. Project work may be allotted to a single student or to a group of students not exceeding 4 per group. Project Work-II may/may not be a continuation of Project Work-I. If Project Work II is not a continuation of Project Work I, then the topic and constitution of the project team members need not be the same.

**13.4.1.** Project Work shall be carried out under the supervision of a “Project Guide” in the Department concerned

**13.4.2.** The Project Work-II carried out in industry/academic/research institutions need not be a continuation of Project Work-I. In such cases, the Project Work-II shall be jointly supervised by a supervisor of the department and an expert as a joint supervisor from the organization and the student shall be instructed to meet the supervisor periodically and to attend the review committee meetings for evaluating the progress. The review meetings, if necessary, may also be arranged in online mode with prior approval from the Head of the Department and a suitable record of the meetings shall be maintained.

**13.4.3.** The Controller of Examination (CoE) shall constitute a review committee for Project Work for each programme. The review committee consists of a supervisor, an expert from the Department and a project coordinator from the Department. If the project

coordinator/expert member happens to be the supervisor, then an alternate member shall be nominated. In the case of Industrial Project, the review committee shall have the supervisor, the coordinator from industry and the project coordinator from the Department.

- 13.4.4.** The project report shall carry a maximum of 10 marks. The project report shall be submitted as per the approved guidelines as given by CoE of the Institution. Same marks shall be awarded to every student within the project group for the project report. The viva-voce examination shall carry 30 marks. Marks are awarded to each student of the project group is based on the individual performance in the viva- voce examination

Internal Assessment (60 Marks)			End Semester Examinations (40 Marks)			
Review I	Review II	Review III	Project Report	Viva-Voce Examination		
			External Examiner	Internal Examiner	External Examiner	Project Guide
20	20	20	10	10	10	10

- 13.4.5.** The last date for submission of the project report is on the last working day of the semester. If a student fails to submit the project report on or before the specified deadline or the student has submitted the project report but did not appear for the viva-voce examination, it will be considered as a failure in the Project Work and the student shall re-register for the same in the subsequent semester.

**13.5. Assessment for Seminar/Creative and Innovative Projects**

The Seminar/Creative and Innovative Project shall carry 100 marks and shall be evaluated through continuous assessment only. Every student is expected to present a minimum of 2 presentations / demonstrations per semester before the evaluation committee and for each presentation/demonstration, marks can be equally apportioned. The three member committee consisting of one co-ordinator and two members appointed by the Head of the Department will evaluate the seminar and at the end of the semester, the marks can be consolidated and taken as the final mark. The evaluation shall be based on the seminar paper/ report (40%), presentation / demonstration (40%) and response to the questions asked during presentation / demonstration (20%).

**13.6. Assessment for Placement Training/Mandatory Courses/Value added Courses**

The **Placement Training/Mandatory Courses/Value added Courses** carry 100 marks and shall be evaluated through continuous assessment only. Assessments shall be conducted during the semester by the Department concerned. The total marks obtained in the tests shall be reduced to 100 marks and rounded to the nearest integer. The Head of the Department may identify a faculty member as coordinator for the course.

Category : Mandatory Non CGPA courses							
Credits					Internal		End Semester Exam
L	T	P	C	Hours	CAT 1	CAT 2	
2	0	0	0	30	50	50	NA

Category : Value added Courses & Skill based Value Added Course							
Credits					Internal		End Semester Components
L	T	P	C	Hours	Lab	Model	
2	0	4	2	60	60	40	NA

### 13.7. Assessment for Internship/Industrial Training Courses

The Internship/Industrial Training shall carry 100 marks and shall be evaluated through continuous assessment only as per Table. At the end of the Industrial Training / internship the student shall submit a certificate from the organization where the student has undergone training and a brief report about the training. The evaluation will be made based on this report, presentation and a Viva-Voce Examination conducted internally by a three member Departmental Committee consisting of one co-ordinator and two members constituted by the Head of the Department. Certificates (issued by the Organization) submitted by the student shall be attached to the mark list and sent to the Controller of Examinations by the Head of the Department.

INTERNSHIP / INDUSTRIAL TRAINING		
Report	Presentation	Viva Voce
30	40	30

## 14. PASSING REQUIREMENTS

- 14.1.** A student who secures not less than 50% of total marks prescribed for the course [Continuous Assessment + End semester Examinations] with a minimum of 45% of the marks prescribed for the end-semester Examination, shall be declared to have passed the course and acquired the

relevant number of credits. This is applicable for both theory ,theory cum practical,and laboratory courses (including project work).

- 14.2. If a student fails to secure a pass in a theory,theory cum practical course / laboratory course(Except Elective) ,the student shall register and appear only for the end semester examination in the subsequent semester. In such cases, the internal assessment marks obtained by the student in the first appearance shall be retained and considered valid for all subsequent attempts till the student secures a pass.
- 14.3. If the course, in which the student has failed, is a Professional Elective or an Open Elective course, the student may be permitted to complete the same course. In such cases, the internal assessment marks obtained by the student in the first appearance shall be retained and considered valid for all subsequent attempts till the candidate secures a pass.
- 14.4. If a student is absent during the viva - voce examination, it would be considered a fail. If a student fails to secure a pass in Project Work-I, the student shall register for the course again in the subsequent semester and can do Project Work-I and II together
- 14.5. The passing requirement for the courses which are assessed only through purely internal assessments (EEC courses except Project Work and laboratory), is 50% of the internal assessment (continuous assessment) marks only.
- 14.6. A student can apply for revaluation of the student's semester examination answer paper in a theory course, as per the guidelines of the COE on payment of a prescribed fee along with prescribed application to the COE .The COE will arrange for the revaluation and the results will be intimated to the students. Revaluation is not permitted for laboratory course and EEC courses

## **15. RELATIVE GRADING POLICY**

Relative grading is a method of evaluation that compares a student's performance to that of their peers in the same class or group. This method assigns grades based on the distribution of scores, with some students receiving high grades, some receiving low grades, and most receiving grades somewhere in between.

The relative grading system is based on the assumption that the distribution of grades should follow a normal curve, with a few high achievers at the top, a few low achievers at the bottom, and the majority of students in the middle. The grades are then assigned based on the position of each student in this distribution

## **16. AWARD OF LETTER GRADES**

- 16.1. The award of letter grades will be decided using relative grading principle.

The performance of a student will be reported using letter grades, each carrying certain points as detailed below: A student is deemed to have passed and acquired the corresponding credits in a particular course if he/she obtains any one of the following grades: "O", "A+", "A", "B+", "B", "C". 'RA' indicates that Reappearance is mandatory for that course concerned. 'SA' denotes shortage of attendance and hence prevents students from writing the End Semester Examination. P and F are grades for mandatory, but non-credit courses. 'SA' will appear only in the result sheet.

### Letter Grade and its range

Letter Grade	Grade Points
O (Outstanding)	10
A+ (Excellent)	9
A (Very Good)	8
B+ (Good)	7
B (Average)	6
C (Satisfactory)	5
RA (Re-appearance)	0
SA (Shortage of Attendance)	0

**16.2.** The grades O, A+, A, B+, B, C obtained for the one/two credit course (not the part of curriculum) shall figure in the Grade Sheet under the title 'Value Added Courses/Internship/Industrial training'. The courses for which the grades obtained are RA, SA will not figure in the Grade Sheet

### 17. GRADE SHEET

After the results are declared, grade sheets will be issued to each student, which will contain the following details:

- The College Name and Affiliating University.
- The list of courses registered during the semester and the grades scored.
- The Semester Grade Point Average (SGPA) for the semester.
- The Cumulative Grade Point Average (CGPA) of all courses enrolled from first semester onwards.

GPA for a semester is the ratio of the sum of the products of the number of credits acquired for courses and the corresponding points to the sum of the number of credits acquired for the courses in the semester. CGPA will be calculated in a similar manner, considering all the courses registered from the first semester. RA grades will be excluded for calculating GPA and CGPA. The overall performance of a student at any stage of the Degree programme is evaluated by the Cumulative Grade Point Average (CGPA) up to that point of time

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

Where  $C_i$  is the number of Credits assigned to the course

$GP_i$  is the point corresponding to the 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.

## **18. ELIGIBILITY FOR THE AWARD OF THE DEGREE**

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

- Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time.
- Successfully completed the course requirements and has passed all the prescribed examinations in all the eight semesters (six semesters for lateral- entry) within a maximum period of 7 years (6 years for lateral-entry) reckoned from the commencement of the first semester to which the candidate was admitted.
- Successfully passed any additional courses prescribed by the Department concerned whenever readmitted under regulations 2021.
- No disciplinary action pending against him/her.

## **18.2. CLASSIFICATION OF THE DEGREE AWARDED**

### **18.2.1. First class with distinction(FWD)**

Student who satisfies the following conditions shall be declared to have passed the examination in **First class with Distinction** :

- Should have passed the examination in all the courses of all the eight semesters (6 semesters in the case of Lateral Entry) in the student's First Appearance within five years (Four years in the case of Lateral Entry).Withdrawal from examination will not be considered as an appearance.
- Should have secured a CGPA of not less than 8.50
- One-year authorized break of study (if availed of) is included in the five years (four years in the case of lateral entry) for award of First class with Distinction.
- Should NOT have been prevented from writing the end semester examination due to lack of attendance in any semester.

### **18.2.2. First class (FC)**

A student who satisfies the following conditions shall be declared to have passed the examination in First class:

- Should have passed the examination in all the courses of all eight semesters (6 semesters in the case of Lateral Entry) within five years. (Four years in the case of Lateral Entry).
- One year authorized break of study (if availed of) or prevention from writing the End Semester examination due to lack of attendance (if applicable) is included in the duration

of five years (four years in the case of lateral entry) for award of First class.

- Should have secured a CGPA of not less than 6.50.

### **18.2.3. Second Class (SC)**

All other students (not covered in clauses 18.2.1 and 18.2.2) who qualify for the award of the degree (vide Clause 18.1) shall be declared to have passed the examination in Second Class.

- 18.3.** A student who is absent in the end semester examination in a course / project work after having registered for the same shall be considered to have appeared in that examination for the purpose of classification. (subject to clause 20).

## **19. PHOTOCOPY / REVALUATION**

A student can apply for revaluation of the student's semester examination answer paper in a theory course, theory cum practical course, within 2 weeks from the declaration of results, on payment of a prescribed fee along with prescribed application to the COE through the Head of the Institution. The COE will arrange for the revaluation and the results will be intimated to the student concerned through the Head of the Institution. Revaluation is not permitted for laboratory course and project work. A candidate can apply for revaluation of answer scripts for not exceeding 5 subjects at a time

The procedure for revaluation:

- Phase I: Wrapping of evaluated answer scripts by the students.
- Phase II: Applying for photocopy of the answer script - The answer script is to be valued and justified by a faculty member, who handles the subject and recommends revaluation with breakup of marks for each question.
- Phase III: Applying for revaluation – Based on the recommendation, the candidate can register for the revaluation through proper application to the Controller of Examinations.

The Controller of Examinations will arrange for the revaluation and the results will be intimated to the candidate concerned through the Head of the Institutions.

## **20. AWARD OF DEGREE**

The Academic Council of the institution will approve the award of Degree to all eligible students. The degree will be issued by Anna University, Chennai and the consolidated Grade Sheet will be issued by the institution. The consolidated grade sheet will specify any specializations and distinctions that the student has earned during the course of the study.

## **21. RANK OF A STUDENT**

A candidate who qualifies for the degree by passing the examination in all courses of the entire Programme in the 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 3<sup>rd</sup> semester to 08<sup>th</sup> semester end semester examination CGPA. Students transferred from other institutions to FXEC in 03<sup>rd</sup> Semester and Lateral entry students are eligible for rank. Students transferred from other institutions

beyond 03rd Semester to FXEC and students with history of arrears during the entire programme are not eligible for rank

**22. PROVISION FOR WITHDRAWAL FROM END-SEMESTER EXAMINATION**

person representing Tamil Nadu / India with prior permission for participation from Principal / CoE / Dean Academics), be granted permission to withdraw (after registering for the examinations) from appearing for any course or courses in the End Semester Examination of a particular semester. The student may withdraw by following the due process of the COE's office before the commencement of examination. This facility can be availed only once during the entire duration of the degree programme .In this case, the student shall use the continuous assessment test marks earned during the course of study.

**23. PROVISION FOR AUTHORIZED BREAK OF STUDY**

- 23.1. A student is permitted to go on break of study for a maximum period of one year as a single spell.
- 23.2. Break of Study shall be granted only once for valid reasons for a maximum of one year during the entire period of study of the degree programme. However, in extraordinary situations the candidate may apply for additional break of study not exceeding another year by paying a 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 through Dean Academics in advance, but not later than the last date for registering for the end semester examination of the semester in question, to the Head of the Institution stating the reasons therefore and the probable date of rejoining the programme.
- 23.3. 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. The students rejoining in new regulations shall apply through Dean Academics in the prescribed format to the Head of the Institution at the beginning of the readmitted semester itself for prescribing additional courses, if any, from any semester of the regulations in-force, so as to bridge the curriculum in-force and the old curriculum.
- 23.4. The authorized break of study would not be counted towards the duration specified for passing all the courses for the purpose of classification.
- 23.5. The total period for completion of the Programme reckoned from, the commencement of the first semester to which the candidate was admitted shall not exceed the maximum period specified in clause 5.1 irrespective of the period of break of study in order that he/she may be eligible for the award of the degree.
- 23.6. If any student is prevented for want of required attendance, the period of prevention shall not be considered as authorized 'Break of Study'.

**24. SUPPLEMENTARY SUPPORT**

A supplementary support is an extended privilege to take up the failed course (Subject have failed in only one course/Project) of the 8th Semester after the that may be approved for a student. Supplementary exams are scheduled one month after the formal exam period, and may not be available



for all subjects, or for all examination types.

25. **DISCIPLINE**

Every student is required to maintain discipline and decorum both inside and outside the institution campus. They shall follow all the rules and regulations and should not indulge in any activity which can tarnish the reputation of the University or Institution. The Principal shall refer any act of indiscipline by students to the Discipline and Welfare Committee and other appropriate committees for action.

26. **REVISION OF REGULATIONS AND CURRICULUM**

The Institution may from time to time revise, amend or change the Regulations, scheme of Examinations and syllabi, if found necessary. The Academic Council assisted by the Board of Studies and the Standing Committee will make such revisions /changes.