



St. XAVIER'S
CATHOLIC COLLEGE OF ENGINEERING
(Autonomous)

Chunkankadai, Nagercoil - 629 003
Kanyakumari District, Tamil Nadu

An Autonomous Institution Affiliated to Anna University, Chennai
Approved by AICTE, Recognized by UGC under section 2(f) & 12 (B)
UG Programmes EEE, ECE, ME, CE, CSE & IT Accredited by NBA
Accredited by NAAC with 'A' Grade
Chunkankadai, Nagercoil - 629 003.

ACADEMIC REGULATIONS 2022

Common to all B.E. / B.Tech. degree – 8 semesters / 6 semesters (LES)
Full time programmes
(w.e.f. 2022-2023 academic year onwards)

CHOICE BASED CREDIT SYSTEM (CBCS)

Degree of Bachelor of Engineering/Bachelor of Technology
AUGUST 2022

Table of Content

Sl.No	Content	Page No
1.	PRELIMINARY DEFINITIONS AND NOMENCLATURE	1
2.	ADMISSION PROCEDURE	2
3.	PROGRAMMES OFFERED	3
4.	STRUCTURE OF PROGRAMMES	3
	4.1 Categorization of Courses	3
	4.2 Personality and Character Development	5
	4.3 Number of courses per semester	6
	4.4 Credit Assignment	6
	4.5. Industrial Training / Internship	6
	4.6 Industrial Visit	7
	4.7 Value Added Courses	8
	4.8 Online Courses	8
	4.9 Audit courses	8
	4.10 Medium of Instruction	8
	4.11 Induction Programme	9
5.	DURATION OF THE PROGRAMME	9
6.	COURSE REGISTRATION	10
7.	ATTENDANCE REQUIREMENTS FOR COMPLETION OF THE SEMESTER	10
8.	MENTOR	11
9.	CLASS COMMITTEE	12
10.	COURSE COMMITTEE FOR COMMON COURSES	13
11.	SYSTEM OF EXAMINATION	14
12.	PROCEDURE FOR AWARDING MARKS FOR INTERNAL ASSESSMENT	15
	12.1 Theory Courses	15
	12.2 Laboratory Courses	16
	12.3 Theory Courses With Laboratory Components	16
	12.4 Project Work	17

Sl.No	Content	Page No
	12.5 Other Employability Enhancement Courses	18
	12.6 Assessment For Value Added Courses	19
	12.7 Assessment For Online Courses	20
	12.8. Internal marks	20
	12.9 Attendance And Assessment Record	20
	12.10 Conduct of Academic Audit	21
13.	REQUIREMENTS FOR APPEARING FOR END SEMESTER EXAMINATIONS	21
14.	PASSING REQUIREMENTS	21
15.	AWARD OF LETTER GRADES	23
16.	ELIGIBILITY FOR THE AWARD OF THE DEGREE	25
17.	PROVISION FOR AUTHORIZED BREAK OF STUDY	28
18.	DISCIPLINE	29
19.	VALUE EDUCATION	29
20.	EXTRA ACTIVITY CREDITS	29
21.	REVISION OF REGULATIONS, CURRICULUM AND SYLLABI	29

DEGREE OF BACHELOR OF ENGINEERING / BACHELOR OF TECHNOLOGY

This regulation is applicable to the students admitted to B.E/B.Tech. programmes from the academic year 2022-2023.

1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In the regulations, unless the context otherwise requires;

- I. “Programme” means B.E./B.Tech. degree programmes.
- II. “Discipline” means branch of specialization of B.E./B.Tech. degree programmes.
- III. “Course” means a theory or a practical or a laboratory integrated theory course that is normally studied in a semester.
- IV. “Chairperson, Academic Council” means the Principal of the college.
- V. “BoS” means Board of Studies.
- VI. “Head of the Institution” means the Principal of the college.
- VII. “Dean, Academics” means the authority of the college who is responsible for all the academic activities and for the implementation of relevant regulations.
- VIII. “Controller of Examinations” means the authority of the college, who is responsible for all examination related activities.
- IX. “Head of the Department” means head of the department concerned.
- X. “Chairman, BoS” means head of the department.
- XI. “Credit” means a numerical value allocated for each course to describe the students’ workload per week.
- 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) allocated based on the grade assigned to each course.
- XIV. “College / Institution” means St.Xavier’s Catholic College of Engineering, Nagercoil

- XV. “University” means Anna University, Chennai.
- XVI. “HSC” means Higher Secondary Certificate.
- XVII. “LES” means Lateral Entry Scheme.
- XVIII. “CBCS” means Choice Based Credit System.
- XIX. “PCC” means Professional Core Course.
- XX. “Professional Elective Courses (PEC)” means the courses which are applicable for the concerned programme students only.
- XXI. “Open Elective Courses (OEC)” means the courses which are open to all the UG programmes students except to the students of the department offering the course.
- XXII. “Value Added Course (VAC)” means a course that will be offered by the department to bridge the gap between the curriculum and the requirements of the industry, which could be selected by any student in the college. This is a mandatory course to be offered by each department.
- XXIII. “Mandatory Course (MC)” means compulsory common course to be studied by all the students of the programme.
- XXIV. “Extra Activity Credits (EAC)” means the course/participation/other activity credits may be earned by the students in addition to the academic credits fixed for the programme for the award of degree. This will help for the holistic development of the students.
- XXV. “Value Education” means the course that makes the students understand the importance of social values and ethics, value education is made mandatory for all students.

2. ADMISSION PROCEDURE

Candidates seeking admission to the degree of Bachelor of Engineering / Bachelor of Technology shall satisfy the eligibility rules prescribed by the affiliating university and Directorate of Technical Education, Chennai, from time to time.

3. PROGRAMMES OFFERED

The programmes currently being offered by the college, affiliated to Anna University and approved by AICTE, New Delhi are given below.

- ★ B.E. Computer Science and Engineering
- ★ B.E. Electronics and Communication Engineering
- ★ B.E. Electrical and Electronics Engineering
- ★ B.E. Civil Engineering
- ★ B.E. Mechanical Engineering
- ★ B.Tech. Information Technology
- ★ B.Tech. Artificial Intelligence and Data Science

The prescribed range of total credits for each B.E./ B.Tech. degree programme is **165-170**.

In addition to these academic credits, the students are advised to earn a minimum of 20 extra credits (15 extra credits for LES students) through various extra activities as prescribed in **ANNEXURE-I**. This will help for the holistic development of the students.

4. STRUCTURE OF PROGRAMMES

4.1 Categorization of Courses

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

- I. **Humanities, Social Sciences and Management Courses (HSMC)** include Professional English, Communication skills, Management courses etc.
- II. **Basic Sciences Courses (BSC)** include Mathematics, Physics, Chemistry, Environmental Science etc. provide a fundamental understanding of natural phenomena and the processes by which natural resources are transformed.

- III. **Engineering Sciences Courses (ESC)** include Engineering Practices, Engineering Graphics, Basics of Civil / Mechanical / Electrical / Electronics / Instrumentation, Computer Engineering, etc. Engineering science is the study of a combination of disciplines such as mathematics, physics, engineering, biology and social science, focuses on creating engineering solutions through deep & systematic understanding of engineering principles.
- IV. **Professional Core Courses (PCC)** include the core courses relevant to the chosen specialization /branch. Core courses are mandatory courses the students must study to meet the requirements of the program.
- V. **Professional Elective Courses (PEC)** include the elective courses relevant to the chosen specialization/ branch. Electives are courses that the students can choose, allowing them to study topics that they are interested in.
- VI. **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. This interdisciplinary learning of open elective courses by other department students will have learning awareness and job oriented benefits in the field of the courses.
- VII. **Employability Enhancement Courses (EEC)** include Project Work, Internship, Seminar, Professional Practices, Case Study and Industrial/Practical Training etc. crafted in order to bridge the gap between skills possessed by the students and the abilities that are looked for by the organization.
- VIII. **Audit courses (AC)** include the courses such as Constitution of India, Industrial Safety Engineering, Entrepreneurship Development etc. courses taken by a student but which does not contribute to the calculation of total credit.
- IX. **Additional Mandatory Courses (MC)** include compulsory common courses to be studied by all the students of the UG programme. It will improve the higher order thinking skills of the students and also provide value education and make our whole curriculum as value based education.

- X. **Extra Activity Credits (EAC)** A total of 20 credits (minimum) may be completed during the entire period of the programme. This will help for the holistic development of the students. (Please refer to **Annexure I** for the list of Extra Activities)

4.2 Personality and Character Development

All students shall enroll, on admission, in any one of the personality and character development programmes **NCC/NSS/NSO/YRC**, undergo training or conduct activities for about **30 hours** and attend a camp of about seven days. The training shall include classes on hygiene and health awareness and also training in first-aid. Alternately, activities of science, literature and arts also help for personality and character development. So, students shall conduct and participate actively in **Science Club/Literary Forum/Fine Arts** activities for 30 hours and participate in at least ONE event.

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

The National Service Scheme (NSS) will have social service activities in and around the college / institution.

The National Sports Organization (NSO) will have Sports, Games, Drills and Physical exercises.

Youth Red Cross (YRC) will have activities related to social services in and around college/institution.

The training activities will normally be during weekends, the camp will normally be during vacation period.

Science club shall organize activities of popularization of science and scientific temper through activities related to astronomy, works of great scientists from India and abroad, observing National Science Day, etc.

Literary Club (Tamil Mantram / Jyothis) shall organize colorful literary events to propagate good humanist values, morals and ethics reflected in the literature.

Fine Arts Club shall encourage dance, music, painting and documentary films with social themes.

Students who enroll and take active participation in any of the above activities for 30 hours and participate at least one event/programme will be given a certificate by the Head of the Institution and the copy of the same shall be forwarded to the Controller of Examinations for the purpose of record and scrutiny.

4.3 Number of courses per semester

Each semester's curriculum shall normally have a blend of lecture courses not exceeding **7** theory courses and laboratory integrated theory courses and **4** employability enhancement courses and laboratory courses. However, the total number of courses per semester shall not exceed **10**. Each course shall 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	Credits
1 Lecture Period	1
1 Tutorial Period	1
1 Laboratory Period (also for EEC courses like Seminar / Project Work /Case study / etc.)	0.5

4.5. Industrial Training / Internship

4.5.1 The students may undergo industrial training for a period as specified in the curriculum during the 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 students may undergo internship at a research organization / university/ industry (after due approval from the Head of the Institution) for the period prescribed in the curriculum during the summer / winter vacation, in lieu of industrial training.

An attendance certificate along with the completion certificate mentioning the period of industrial training / internship and signed by the competent authority of the industry shall be

submitted to the Head of the Institution. The attendance certificate shall be sent to the Controller of Examinations by the Head of the Institution for processing results.

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 grade sheet.

If the student earns three credits in industrial training/ internship, the student may drop one professional elective. In such cases, the student has to undergo industrial training / internship continuously in one organization or with a combination of one two week and one four week in one/two organizations.

However, if the number of credits earned is 1 or 2, then these credits shall not be considered for classification of the degree. Students shall get permission from the Head of the Institution for taking industrial training/internship and the certificate of completion of industrial training / internship shall be sent to the Controller of Examinations.

Duration of Training/Internship (in Week*)	Credits
2	1
4	2
6	3

*1 Week = 40 Hours

4.6 Industrial Visit

Every student is required to visit at least **two** industries **every semester** starting from the **first** year of the programme up to seventh semester. The Heads of Departments shall ensure that necessary arrangements are made in this regard.

4.7 Value Added Courses

The students may optionally undergo Value Added Courses (VAC) over and above the topics covered in the curriculum to obtain practical and industry oriented knowledge. The credits earned through the Value Added Courses shall be over and above the total credit requirements prescribed in the curriculum for the award of the degree. **One / two credit courses** shall be offered by the Department with the prior approval from the Head of the Institution through Dean-Academics. The details of the syllabus, time table and course coordinator may be sent to the Dean-Academics at least one month before the course is offered for approval. Students can take a maximum of two one credit courses / one two credit course during the entire duration of the programme.

4.8 Online Courses

Students may be permitted to credit a **maximum of two online courses**, subject to a maximum of six credits, with the approval of the Head of the Institution through Dean-Academics, in lieu of open elective / professional elective courses. The Head of the Institution shall form a three member committee that includes HOD, a faculty member from the respective department of the student and HOD of any other branch of the institution to ensure that the student has not studied such courses and would not repeat it again as Professional Elective/Open Elective courses. Suitable online courses shall be chosen from the NPTEL/SWAYAM platform.

4.9 Audit courses

The student must study audit courses prescribed by the college and it will be mentioned in the grade sheet. However, it will not be considered for computation of CGPA.

4.10 Medium of Instruction

The medium of instruction is English language for all courses, examinations, seminar presentations and project work reports.

4.11 Induction Programme

The students, immediately after admission, should undergo a mandatory **two week** induction programme comprising of physical activity, creative arts, universal human values, proficiency modules, lectures by eminent people, visits to local areas and familiarization to department / branch and innovations.

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 six semesters (for LES students) but in any case not more than 14 semesters for HSC (or equivalent) students and not more than 12 semesters for LES students.

5.2 Each semester normally consists of 75 working days or 540 periods of 50 minutes each. The Head of the Institution 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 course instructor may conduct additional classes for improvement, special coaching, model test etc., over and above the specified periods with prior permission from the Head of the Institution. But for the purpose of calculation of attendance requirement for writing the end semester examinations (as per clause 6) by the students, the following method shall be used.

- ★ Percentage of overall attendance = $\left(\frac{\text{Total no. of periods attended in all the courses per semester}}{\text{(No. of periods / week as prescribed in the curriculum) x 15 taken together for all courses of the semester}} \right) \times 100$

The end semester examination will normally follow immediately after the last working day of the semester as per the academic schedule prescribed from time to time.

5.4 The total period for completion of the programme reckoned from the commencement of the first semester to which the student was admitted shall not exceed the maximum period specified in clause 5.1 irrespective of the period of break of study (vide clause 17) in order that he/she may be eligible for the award of the degree (vide clause 16).

6. COURSE REGISTRATION

6.1 The Head of the Department is responsible for registering the courses that each student is proposing to undergo in the ensuing semester. Each student has to register for all courses to be undergone in the curriculum of a particular semester.

The registration details of the student shall be approved by the Head of the Institution and sent to the Controller of Examinations. This registration is for undergoing the course as well as for writing the end semester examinations.

7. ATTENDANCE REQUIREMENTS FOR COMPLETION OF THE SEMESTER

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

Ideally every student is expected to attend all classes of all the courses and secure 100% attendance. However, in order to make provision for certain unavoidable reasons such as medical / participation in sports, the student is expected to attend at least 75% of the overall classes.

Therefore, he/she shall secure not less than 75% (after rounding off to the nearest integer) of overall attendance as calculated as per clause 5.3.

7.2 However, a student who secures overall attendance between 65% and 74% in the current semester due to medical reasons (prolonged hospitalization / accident / specific illness) / participation in sports events may be permitted to appear for the current semester examinations, subject to the condition that the student shall submit the medical certificate or sports participation certificate attested by the Head of the Institution. The same shall be sent to the Controller of Examinations for record purposes.

7.3 Students who secure less than 65% overall attendance shall not be permitted to write the examination at the end of the semester and not permitted to move to the next semester. They are required to repeat the incomplete semester in the next academic year, as per the norms prescribed.

8. MENTOR

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

The responsibilities for the mentor are to:

- ★ regularly meet the students under their care, develop a quality professional rapport, get to know their strengths and weaknesses with regard to their studies and personality, understand their family and cultural backgrounds and to assist them for their optimal development.
- ★ take keen interest to meet the students under their care to understand whether they are comfortable with the teaching in the beginning of the semester, encourage them before the examinations, assess their achievements after the internal exams and plan strategies for improvement, etc.
- ★ identify the problems as regards to the students' learning and their personality development; and counsel them and suggest strategies appropriately so that they can get over the problems easily.
- ★ have to refer students for professional counseling and healthcare when they deem it necessary and bring to the notice of the Head of the Institution if they come across serious issues that need special attention.
- ★ be faithful to the best practices of mentorship, keep up the ethical and professional standards of a mentor like keeping confidentiality, respecting privacy, practice of getting consent, decent professional relationship, unprejudiced approach, non-manipulation of the relationship and privileged information they come across for their advantage.
- ★ collect leave letters and monitor attendance in the class.

- ★ monitor the progress of the students by making note of the marks scored in the internal tests and end semester exams and help the HoD to communicate the marks to the parents of the students.
- ★ submit or upload regular reports in the college automation about their service in the proper format given without divulging any privileged information.
- ★ maintain the students' records with necessary provisions for confidentiality.
- ★ attend the students' welfare activities like awards, medals, scholarships, industrial visits and educational tours.

9. CLASS COMMITTEE

9.1. Every class shall have a class committee consisting of course instructors of the class concerned, student representatives and a **chairperson**, who is not teaching the class who will act as the channel of communication between the HOD and the students of the respective class.

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 therein particularly (clause 5 and 7).
- ★ 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.
- ★ 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 slow-learners, if any, and requesting the teachers concerned to provide some additional help or guidance or coaching to such students.

9.2 The class committee for a class under a particular branch is normally constituted by the Head of the Department.

9.3 The class committee shall be constituted within the first week of each semester.

9.4 At least 4 student representatives (usually 2 boys and 2 girls) shall be included in the class committee, from all the elective courses.

9.5 The chairperson of the class committee may invite the mentors and the Head of the Department to the class committee meeting.

9.6 The Head of the Institution may participate in any class committee meeting of the institution.

9.7 The chairperson is required to prepare the minutes of every meeting, submit the same to the Head of the Institution within two days of the meeting and arrange to circulate it among the students and teachers concerned. If there are some points in the minutes requiring action by the management, the same shall be brought to the notice of the Management by the Head of the Institution.

9.8 The first meeting of the class committee shall be held within one week from the date of commencement of the semester, in order to inform the students about the nature and weightage of assessments within the framework of the regulations.

Two or three subsequent meetings may be held in a semester with suitable intervals.

The class committee chairperson shall display the cumulative attendance particulars of each student on the notice board at the end of every such meeting to enable the students to know their attendance details to satisfy clause 7 of this regulation.

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

10. COURSE COMMITTEE FOR COMMON COURSES

Any common theory course offered to more than one discipline or group, shall have a “Course Committee” comprising all the teachers teaching the common course with one of them nominated as the course coordinator.

The nomination of the course coordinator shall be made by the Head of the Department / Head of the Institution after confirming whether all the teachers teaching the common course belong to a single department or to several departments.

The 'Course Committee' shall meet and decide a common scheme of evaluation for the test, thereby ensuring a uniform evaluation of the tests. Wherever feasible, the Course Committee may also prepare a common question paper for the internal assessment test(s).

11.SYSTEM OF EXAMINATION

11.1 Performance in each course of study shall be evaluated based on (i) continuous internal assessment throughout the semester and (ii) end semester examination.

11.2 Each course, both theory and practical (including project work & viva voce examinations) shall be evaluated for a maximum of 100 marks.

11.2.1 For all theory courses, the continuous internal assessment will carry 40 marks while the end semester examination will carry 60 marks.

11.2.2 For all theory courses with laboratory components, the continuous internal assessment will carry 50 marks while the end semester examination will carry 50 marks.

11.2.3 For all laboratory courses, the continuous internal assessment will carry 60 marks while the end semester examination will carry 40 marks.

11.2.4 The continuous internal assessment for the project work will carry 40 marks while the end semester examination will carry 60 marks.

11.3 Industrial training and seminar shall carry 100 marks and shall be evaluated through internal assessment only.

11.4 The end semester examination (theory and practical) of 3 hours duration shall ordinarily be conducted between October and December during the odd semesters and between April and June during the even semesters.

11.5 The end semester examination for project work shall be conducted with the evaluation of the final report submitted by the student or students of the project group (of not exceeding 4 students) by an external examiner and an internal examiner, followed by a viva-voce examination conducted separately for each student by a committee consisting of the external examiner, the supervisor of the project group and an internal examiner.

11.6 For the end semester examination of practical courses including project work, the internal and external examiners shall be appointed by the Controller of Examinations.

12.PROCEDURE FOR AWARDING MARKS FOR INTERNAL ASSESSMENT

For all theory courses, laboratory courses, theory courses with laboratory components and project work the continuous assessment shall be carried out according to the procedure given below.

12.1 Theory Courses

Two assessments each carrying 100 marks shall be conducted during the semester. The total marks obtained in all assessments put together out of 200, shall be proportionately reduced for 40 marks and rounded to the nearest integer (This also implies equal weightage to both the assessments).

Assessment I (100 Marks)		Assessment II (100 Marks)		Total Internal Assessment
Individual Assignment / Case Study / Seminar / Course specific Mini Project	Written Test	Individual Assignment / Case Study / Seminar / Mini Project	Written Test	
40	60	40	60	200*

* The weighted average shall be converted into 40 marks for internal Assessment.

Two internal assessments will be conducted as the part of continuous assessment. Each internal assessment is to be conducted for 100 marks and will have to be distributed in two parts viz., individual assignment/case study/seminar/course specific mini project and test with each

having a weightage of 40% and 60% respectively. The tests shall be in written mode. The total internal assessment marks of 200 shall be converted into a maximum of 40 marks and rounded to the nearest integer.

12.2 Laboratory Courses

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

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

* Internal assessment marks shall be converted into 60 marks.

12.3 Theory Courses With Laboratory Components

Weightage of internal assessment and end semester examination marks will be 50% each. The distribution of marks for the theory and laboratory components in the internal assessments and end semester examination for different types of courses are provided in the table.

L	T	P	C	Internal		End Semester Examination
				Assessment 1	Assessment 2	
1	0	4	3	Laboratory (25%)	Theory (25%)	Laboratory only (50%)
1	0	2	2	Laboratory (25%)	Theory (25%)	Laboratory only (50%)
2	0	2	3	Theory (25%)	Laboratory (25%)	Theory (25%) Laboratory (25%)

3	0	2	4	Theory (25%)	Laboratory (25%)	Theory (35%) Laboratory (15%)
2	0	4	4	Theory (25%)	Laboratory (25%)	Theory (15%) Laboratory (35%)

The procedure for the conduct of internal assessments for theory and laboratory components shall be as per the clause 12.1 and 12.2 respectively. The weighted average shall be converted into 50 marks for internal Assessment.\

12.4 Project Work

The student shall register for mini project work in pre-final semester and internship / project work in final semester. project work may be allotted to a single student or to a group of students not exceeding 4 per group.

12.4.1 Project work shall be carried out under the supervision of a faculty member in the department concerned.

12.4.2 The project work/ internship carried out in industry/academic/research institutions shall be jointly supervised by a supervisor of the department and an expert as a joint supervisor from the organization. The student shall be instructed to meet the supervisor periodically and to attend the review meetings for monitoring and evaluating the progress. The review meetings, if necessary, may also be arranged in online mode with prior approval from the Head of the Institution and a suitable record of the meetings shall be maintained.

12.4.3 The Head of the Institution shall constitute a review committee for project work/ internship 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 projects, the review committee shall have the supervisor, the coordinator from the industry and the project coordinator from the department.

There shall be three reviews during the semesters VII and VIII by the review committee. The student shall make a presentation on the progress made by him / her before the committee. The

total marks obtained in the three reviews shall be reduced for 40 marks and rounded to the nearest integer (as per the scheme given in 12.4.4).

12.4.4 The project / internship report shall carry a maximum of 20 marks. The project report shall be submitted as per the guidelines as given by the Dean- Academics. Same marks shall be awarded to every student within the project group for the project report. The viva-voce examination shall carry 40 marks. Marks are awarded to each student of the project group based on the individual performance in the viva- voce examination.

Review I	Review II	Review III	End Semester Examinations				
			Project Report		Viva-Voce Examination		
10	15	15	Internal	External	Internal	External	Supervisor
			10	10	10	20	10

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

12.5 Other Employability Enhancement Courses

(a) The Seminar / case study / course specific mini project is to be considered as purely INTERNAL (with 100% internal marks only).

Every student is expected to present a minimum of 2 seminars per semester before the evaluation committee and marks can be equally apportioned.

The three member committee appointed by the Head of the Institution, consisting of the course coordinator and two experts from the department will evaluate the seminar. At the end of the semester, the marks shall be consolidated for final. The evaluation shall be based on the seminar paper (40%), presentation (40%) and response to the questions asked during presentation (20%).

(b) The industrial training or internship shall carry 100 marks and shall be evaluated through internal assessment only.

At the end of industrial training / Internship, the student shall submit an attendance certificate from the organization where he / she has undergone training and a brief report.

The evaluation will be made based on this report and a viva-voce examination, conducted internally by a three member departmental committee constituted by the Head of the Institution consisting of the course coordinator and two experts from the department.

The certificates (issued by the organization) submitted by the students shall be attached to the mark list sent by the Head of the Institution to the Controller of Examinations.

(c) For all the courses under employability enhancement courses category, except the project work/ internship, the evaluation shall be done with 100% internal marks and as per the procedure described in clause 12.5 (a) / (b).

12.6 Assessment For Value Added Courses

One / two credit courses shall carry 100 marks and the performances of the students shall be evaluated at the end of the course. Two assessments as per the clause 12.1 or 12.2 shall be conducted by the department concerned. The total marks obtained in the assessments shall be reduced to 100 marks and rounded to the nearest integer.

A committee consisting of the Head of the Department, the staff-member handling the course and a senior faculty member nominated by the Head of the Institution shall do the evaluation process.

The list of students along with the marks and the grades earned shall be forwarded to the Controller of Examinations for appropriate action at least one month before the commencement of end semester examinations.

The grades earned by the students for value added courses will be recorded in the Grade Sheet, however the same shall not be considered for the computation of CGPA.

12.7 Assessment For Online Courses

Students may be permitted to have two online certificate courses subject to a maximum of six credits. The online course of 3 credits can be considered instead of one elective course. These online courses shall be chosen from the NPTEL/SWAYAM platform, provided the offering organization conducts regular examinations and provides marks.

The credits earned shall be transferred and the marks earned shall be converted into grades and transferred, provided the student has passed in the examination as per the norms of the offering organization.

The details regarding online courses taken up by the student and marks/credits earned and the approval for the course from the Head of the Institution shall be sent to the Controller of Examinations, in the subsequent semester(s) along with the details of the elective(s) to be dropped.

12.8. Internal marks

Internal marks approved by the Head of the Institution shall be displayed by the respective HODs within 5 days from the last working day.

12.9 Attendance And Assessment Record

Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD', which consists of attendance marked in each lecture/ practical/project work class, the test marks and the record of class work (topic covered), separately for each course. 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 test marks and attendance. The Head of the

Department will verify and sign the records. At the end of the semester, the record should be verified by the Head of the Institution who will keep this document in safe custody (for five years).

12.10 Conduct of Academic Audit

In order to ensure the better quality of teaching and learning process, academic audit is to be done for every course taught during the semester. For the internal assessments conducted for each course as per details provided in Clause 12, the academic records shall be maintained in the form of documentation (Softcopy) for the individual assignments / case study report / report of mini project submitted by each student and assessment test question paper and answer script. Report of industrial training / internship shall also be maintained, if applicable. For laboratory courses students' record shall be maintained. Further, the attendance of all students shall be maintained as a record.

The Dean - Academics shall arrange to conduct the academic audit for every course in a semester by forming the respective committees with an external expert as one of the members drawn from a technical institution of repute near the institute.

13. REQUIREMENTS FOR APPEARING FOR END SEMESTER EXAMINATIONS

A student shall normally be permitted to appear for the end semester examinations for all the courses registered in the current semester (vide clause 6) if he/she has satisfied the semester completion requirements (as per clause 7). Further, examination registration by a student is mandatory for all the courses in the current semester and all arrear(s) course(s) for the end semester examinations failing which, the student will not be permitted to move to the higher semester. A student who has already appeared for any course in a semester and passed the examination is not entitled to reappear in the same subject for improvement of grades.

14. PASSING REQUIREMENTS

14.1 A student who secures not less than 50% of total marks prescribed for the course [internal assessment + end semester examinations] with a minimum of 45% of the marks prescribed for the end-semester examination, shall be declared to have passed the course and acquired the

relevant number of credits. This is applicable for theory, theory with laboratory components and laboratory courses (including project work).

14.2 If a student fails to secure a pass in a theory course / theory course with laboratory components/ laboratory course (except electives), 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. However, from the third attempt onwards if a student fails to obtain pass marks (IA + end semester examination) as per clause 14.1, then the student shall be declared to have passed the examination if he/she secures a minimum of 50% marks prescribed for the end semester examinations alone.

14.3 If the course, in which the student has failed, is a professional elective or an open elective course, the student may be permitted to complete the same course in the subsequent semesters. In such case, the internal assessment marks obtained by the student in the first appearance shall be retained and considered valid for all subsequent attempts till the candidate secures a pass. However, from the third attempt onwards if a candidate fails to obtain pass marks (IA + end semester examination) as per clause 14.1, then the candidate shall be declared to have passed the examination if he/she secures a minimum of 50% marks prescribed for the end semester examinations alone.

If any other professional elective or open elective course is opted by the student, the previous registration is canceled and henceforth it is to be considered as a new professional elective or open elective course. The student has to register and attend the classes, earn the continuous assessment marks, fulfill the attendance requirements as per clause 7 and appear for the end semester examination.

14.4 If a student is absent during the viva - voce examination, it would be considered as 'fail'. If a student fails to secure a pass in project work/ internship, the student shall register for the course again in the subsequent semester.

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 Controller of Examinations on payment of a prescribed fee along with prescribed application to the Controller of Examinations through the Head of the Institution. The Controller of Examinations 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 courses and EEC courses.

15. AWARD OF LETTER GRADES

15.1 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:

Letter Grade	Grade Points	Range of Marks
O (Outstanding)	10	91-100
A + (Excellent)	9	81-90
A (Very Good)	8	71-80
B + (Good)	7	61-70
B (Average)	6	56-60
C (Satisfactory)	5	50-55
U (Re-appearance)	0	<50
SA (Shortage of Attendance)	-	-

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".

'SA' denotes shortage of attendance (as per clause 7.3) and hence prevents students from writing the end semester examinations. 'SA' will appear only in the result sheet.

"U" denotes that the student has failed in that course. The grade U will figure both in the grade sheet as well as in the result sheet. In both cases, the student has to appear for the end semester examinations as per the regulations.

If the grade U is given to theory courses/ laboratory courses, it is not required to satisfy the attendance requirements (vide clause 7), but the candidate has to appear for the end semester examination and fulfill the norms specified in clause 14 to earn a pass in the respective courses.

If the grade U is given to EEC courses (except project work), which are evaluated only through internal assessment, the student shall register for the course again in the subsequent semester and fulfill the norms as specified in clause 14 to earn a pass in the course. However, attendance requirements need not be satisfied.

15.2 For the co-curricular activities such as NCC / NSS / NSO / YRC / Science club / Literary Club / Fine Arts Club, a 'completed' remark will appear in the Grade Sheet on successful completion of the same. Every student shall put in a minimum of 75% attendance in the training and attend the camp or events of the clubs compulsorily. The training and camp or club events 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 in the subsequent years. Successful completion of any one of the above co-curricular activities is compulsory for the award of degree.

15.3 The grades O, A+, A, B+, B obtained for the one/two credit course (not the part of curriculum) shall be shown in the grade sheet under the title 'value added courses/internship/industrial training'. The courses for which the grades obtained are RA and SA will not figure in the grade sheet.

15.4 For the students who complete the audit course satisfying attendance requirement, the title of the audit course will be mentioned in the grade sheet. If the attendance requirement is not satisfied, it will not be shown in the grade sheet.

15.5 GRADE SHEET

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

- ★ The college and the affiliating university in which the student has studied
- ★ The list of courses registered during the semester and the grades scored

- ★ The Grade Point Average (GPA) for the semester and
- ★ The Cumulative Grade Point Average (CGPA) of all courses 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.

$$\text{GPA / CGPA} = \frac{\sum_{i=1}^N C_i \text{ GP}_i}{\sum_{i=1}^N C_i}$$

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 the 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.

16. ELIGIBILITY FOR THE AWARD OF THE DEGREE

16.1 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 student's programme within the stipulated time.
- II. successfully completed the course requirements, appeared for the end - semester examinations and passed all the courses within the period as prescribed in clause 5.

- III. successfully passed any additional courses prescribed by Dean-Academics whenever the student is re-admitted under regulations R-2022 from the earlier regulations.
- IV. successfully completed the NCC / NSS / NSO / YRC / science club / literature club / fine arts club requirements.
- V. no disciplinary action pending against the student.
- VI. successfully passed all the prescribed mandatory non-credit courses.
- VII. the award of degree must have been approved by the syndicate of the university.

16.2 CLASSIFICATION OF THE DEGREE AWARDED

16.2.1 First Class With Distinction

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

- Should have passed the examination in all the courses of all the 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 end semester examination due to lack of attendance in any semester.

16.2.2 First Class

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

- Should have passed the examination in all the courses of all 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.

16.2.3 Second Class

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

16.3 A student who is absent in 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 17).

16.4 Photocopy / Revaluation

A student can apply for a photocopy of his/her semester examination answer paper in a theory course and theory course with laboratory components, as per the guidelines of the Controller of Examinations, 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 has handled the subject and he/she shall recommend for revaluation with the breakup of marks for each question. Based on the recommendation, the student can register for the revaluation through proper application to the Controller of Examinations. The Controller of Examinations will arrange for the revaluation and the results will be intimated to the student concerned through the Head of the Institution. Revaluation is not permitted for practical courses and EEC courses.

16.5 Review

Students not satisfied with revaluation can apply for review of his/ her examination answer paper in a theory course and theory course with laboratory components, within the prescribed date on

payment of a prescribed fee through proper application to the Controller of Examinations through the Head of the Institution.

Students applying for revaluation only are eligible to apply for Review.

17.PROVISION FOR AUTHORIZED BREAK OF STUDY

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

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

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

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

17.5 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.

17.6 If any student is prevented for want of required attendance, the period of prevention shall not be considered as authorized 'break of study' (Clause 17.1).

17.7 If a student wants to take up a job / start-up / entrepreneurship during the period of study, he/she shall apply for an authorized break of study for one year. The student shall join the job / start-up / entrepreneurship only after getting approval of the same by the Dean, Academics with due proof to that effect.

17.8 No fee is applicable to students during the break of study period.

18. DISCIPLINE

18.1 Every student is required to observe disciplined and decorous behavior both inside and outside the college and not to indulge in any activity which will tend to bring down the prestige of the College.

The Head of the Institution shall constitute a disciplinary committee consisting of the dean-students affairs, two heads of departments of which one should be from the faculty of the student, to enquire into acts of indiscipline and notify the same to The Head of the Institution about the disciplinary action recommended for approval.

18.2 If a student indulges in malpractice in any of the end semester / internal examinations, he / she shall be liable for punitive action as prescribed by the college from time to time.

19. VALUE EDUCATION

In order to make the students understand the importance of social values and ethics, value education is made mandatory for all students. The students have to attend VALUE EDUCATION classes at our college conducted by faculty members.

20. EXTRA ACTIVITY CREDITS

It is suggested for all the UG students to earn a minimum of 20 extra activity credits in addition to regular academic credits prescribed in the curriculum for the holistic development.

The list of programmes, courses and other activities coming under EAC are given in the programme curriculum. The students are free to choose any activity/course under EAC of their option and shall complete the same within the stipulated period.

The students should have earned a total of 20 credits (15 credits for LES students) under EAC for the award of the degree. Faculty Mentor shall see that each student under them complete a minimum of 5 credits in each year so that they can earn a total of 20 credits (15 credits for LES students) at the end of the programme in a comfortable way.

21. 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 BOS with the approval of the academic council.