

# ANNA UNIVERSITY, CHENNAI - 600 025

## UNIVERSITY DEPARTMENTS

### REGULATIONS 2019

#### CHOICE BASED CREDIT SYSTEM

Common to all B.E. / B.Tech. Full-Time Programmes

(For the students admitted to B.E. / B.Tech. Programme in the University Departments  
from the Academic year 2019 - 2020 onwards)

## 1 PRELIMINARY DEFINITIONS AND NOMENCLATURE

In this Regulation, unless the context otherwise specifies:

- I. “**Programme**” means Degree Programme (i.e) B.E. / B.Tech. Degree Programme.
- II. “**Discipline**” means Branch or Specialization of B.E. / B.Tech. Degree Programme, like Civil Engineering, Bio Technology, etc.,
- III. “**Course**” means a Theory or Practical subject that is normally studied in a semester, like Mathematics, Physics, Engineering Graphics, etc.,
- IV. “**Director, Academic Courses**” means the authority of the University who is responsible for all academic activities for the implementation of relevant rules and regulations.
- V. “**Additional Controller of Examinations (UD)**” means the Authority of the University who is responsible for all activities of the End Semester Examinations of the University Departments.
- VI. “**Head of the Institution**” means the Dean of the campus.
- VII. “**Chairperson**” means Head of the Faculty.
- VIII. “**Head of the Department**” means Head of the University Department concerned.
- IX. “**University**” means ANNA UNIVERSITY, CHENNAI.

## 2 ADMISSION PROCEDURE

- 2.1 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.

**2.2** The eligibility criteria such as marks, number of attempts and physical fitness shall be as prescribed by the Government of Tamil Nadu from time to time.

**2.3 Lateral Entry Admission**

**Amendment  
of  
Clause 2.3**

(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., as per the rules fixed by Government of Tamil Nadu.

**(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. Level are eligible to apply for Lateral entry admission to the third semester of B.E. / B.Tech.

Such candidates shall undergo two additional Engineering subject(s) in the **third and fourth semesters** as prescribed by the University.

**3 PROGRAMMES OFFERED**

A student may be offered admission to any one of the programme of study approved by the University and offered at various campuses of the University. The recommended credit range for each programme is 165 – 170.

**4 STRUCTURE OF THE PROGRAMMES**

**4.1 Categorization of Courses**

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

- i. **Humanities and Social Sciences including Management Courses (HSMC)** include Technical English, Employability Skills, Engineering Ethics and Human Values, Communication skills and Management courses.
- ii. **Basic Science Courses (BSC)** include Mathematics, Physics, Chemistry, Biology, Environmental Sciences, etc.
- iii. **Engineering Science Courses (ESC)** include Engineering Practices, Engineering Graphics, Basics of Electrical / Electronics / Mechanical / Computer Engineering, Instrumentation etc.
- iv. **Professional Core Courses (PCC)** include the core courses relevant to the chosen specialization / branch.
- v. **Professional Elective Courses (PEC)** include the elective courses relevant to the chosen specialization/ branch.

- vi. **Open Elective Courses (OEC)** shall provide an opportunity to study a course from any discipline that includes the courses relevant to the chosen specialization, the courses that enhance soft and managerial skills, the courses a student can choose from the curriculum of other B.E. / B. Tech. / B. Arch. programmes and the courses offered by the Departments under the Faculty of Science and Humanities.
- vii. **Employability Enhancement Courses (EEC)** include Project Work, Internship, Career Development Skills, Creative and Innovative Project, Seminar, Professional Practices, Case Study and Industrial/Practical Training.
- viii. **Audit Courses (AC)** expose the students to Unnat Bharath Abhiyan, Constitution of India, Essence of Indian Knowledge Traditional, Yoga, English for Research Paper Writing, Value education, Pedagogy Studies, Stress Management and Personality Development through Life Enlightenment Skills. Registration for any of these courses is optional to students.
- ix. **Employability Enhancement Skill Based Courses** include Skill based experiential learning courses will be offered in two categories as purely Laboratory Based Courses and Theory Integrated Laboratory Courses.

**Insertion  
of new  
Clause 4.1.ix**

There shall be a certain minimum of Core courses and sufficient number of Elective courses that can be opted by the students. The blend of different courses shall be so designed that the student, at the end of the programme, would have been trained not only for his/her relevant professional field but also would have developed as a socially conscious human professional.

## **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) and undergo training for about 80 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.

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

**National Service Scheme (NSS)** will have social service activities in and around the College / Institution. The activities will include practical projects on recycling and reusing biodegradable and dry waste.

**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/Institutions.

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

### 4.3 **Mandatory Two Week Induction Programme**

The students are expected to 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 & innovations immediately after admission.

### 4.4 **Number of courses per semester**

The Curriculum of a semester shall normally have a blend of 4 to 6 lecture courses including Mandatory Courses, except the pre-final and final semesters, and laboratory courses, not exceeding 2. In addition, Employability Enhancement Course(s) may also be included. Each course may have credits assigned as per clause 4.5. However, the total number of courses per semester shall not exceed 10 (including EEC & MC). Pre-final semester may have 4 to 6 lecture courses, Project 1 and laboratory courses not exceeding 2. The final semester may have a blend of 2 or 3 lecture courses and Project 2.

### 4.5 **Credit Assignment**

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

<b>Contact period per week</b>	<b>Credits</b>
1 Lecture Period / 1 Tutorial Period	1
2 Practical Periods (Laboratory / Seminar / Project Work / etc.)	1

The Contact Periods per week for laboratory can only be in multiples of 2.

### 4.6. **Industrial Training / Internship**

**4.6.1** 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 the entire period.

The students may undergo Internship at a Research organization / University / industry (after due approval from the Department Consultative Committee) for the period prescribed in the curriculum during the summer / winter vacation, in lieu of Industrial training.

**4.6.2** 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 / Internship needs to be undergone continuously from one organization only. However, if the number of credits earned is 1 or 2, these credits shall not be considered for classification of the degree. The student is allowed to undergo a maximum of 6 weeks Industrial Training / Internship during the entire duration of study.

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

#### **4.7 Industrial Visit**

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

#### **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 Centre for Academic Courses. The details of the syllabus, time table and faculty may be sent to the Centre for Academic Courses after approval from the Departmental Consultative Committee concerned. Students can take a maximum of two one credit courses or one two credit course. They shall be allowed to take one/two credit courses offered in other Departments with the permission of the Head of the Department offering the course.

**Applicable to the students joined the programme in the academic year 2019-2020 & 2020-2021.**

##### **4.8.1**

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. Courses with two/ three credits shall be offered by a Department with the prior approval from the Director, Academic Courses.

The details of the syllabus, timetable and faculty may be sent to the Centre for Academic Courses after approval from the Departmental Consultative Committee concerned. The courses approved by the University shall be available in the University website. Students shall be allowed to take these courses offered in other Departments also, but with the permission of the Head of the Department of student and Head of the Department offering the course.

**Amendment of Clause 4.8 from the Academic year 2021-2022**

#### **4.9 Online Courses**

**4.9.1** Students may be permitted to credit only one online course with the approval of the Departmental Consultative Committee and Centre for Academic Courses.

**4.9.2** Students may be permitted to credit online courses (which are provided with certificate) with the approval of the Departmental Consultative Committee and Centre for Academic Courses, subject to a maximum of three credits. The student needs to obtain certification or credit to become eligible for writing the End Semester Examination to be conducted by

**Applicable to the students joined the programme in the academic year 2019-**

Anna University. In case of credits earned through online mode from a University approved by appropriate authorities of Anna University, the credits may be transferred after due approval procedures from the Departmental Consultative Committee and Centre for Academic Courses.

2020 & 2020-2021.

4.9.3 The online course of 3 credits can be considered instead of one elective course.

**4.9 Off campus courses and Transfer of Credits (*Applicable to the students who joined the programme from the academic year 2021-2022 onwards*).**

Amendment of Clause 4.9 from the Academic year 2021-2022

Students are permitted to optionally enroll and study a maximum of three off campus courses in physical/online/hybrid mode under each UG programme with the approval of DCC and Director, Centre for Academic courses as per the Regulations. The successful completion of these courses through any of the following modes shall be considered in lieu of professional elective / open elective courses of curriculum as approved by DCC.

4.9.1 Students are permitted to optionally enroll and study these courses through SWAYAM / NPTEL platforms and credit transfer is to be done based on the marks and certificate provided by the NPTEL. The number of credits and transfer of credits are based on the procedure explained in Table 3 and the Mapping of the marks with the grades is explained in Table 4. The mapping of marks with grades is applicable, only if the student passes the course as per the guidelines of NPTEL.

**Table 3: Duration of the course and Number of credits**

Sl. No.	No. of Weeks	No. of Credits
1	4	1
2	8	2
3	12	3
4	16	4

**Table 4: Mapping of Marks scored in NPTEL course and Credits earned**

Letter Grade	Marks
O	90-100
A+	80-89
A	70-79
B+	60-69
B	50-59
C	40-49

Students are permitted to optionally enroll and study the courses in physical / hybrid / online modes offered by reputed Central / State funded Universities / Institutions which are in the top 20 positions in the latest NIRF ranking and are also conducting examination towards award of marks and grades. (NIRF Ranking of any of the last three years with respect to the year in which course is to be registered; NIRF ranking is based on respective stream for professional elective courses and based on any stream for open elective courses).

Students are also permitted to enroll and undergo such courses in Online mode at Universities abroad in top 500 in QS ranking in the last three years.

Students are also permitted to study courses of a particular semester in a University / Institution abroad based on MoU. A learning agreement shall be evolved to map all the courses offered in the programme and the courses offered in University abroad as per the procedure outlined by the Centre for Academic Courses. The credits earned by the students in the University abroad shall be transferred as per the learning agreement.

In the case of 4.9.2, the students can enroll for the courses with the approval of DCC only if the course is offered directly by Institution/University and not with the edutech platforms.

The marks/credits earned by the student shall be transferred based on the decision of a committee constituted by Director, Centre for Academic courses and approved by the University.

**4.9.3** Students are also permitted to enroll and study the courses in physical/hybrid mode (not less than 50% in physical mode) that are offered by (i) National/State funded research institutions/laboratories and (ii) (a) reputed companies (manufacturing or software) related to the programme, and (b) reputed companies involved in transfer of knowledge provided the knowledge transferring company is a spinoff from an Engineering/Technology practicing Industry and sharing the work experience of the respective industry. The companies mentioned in 4.9.3 (ii) (a) and the company with which the knowledge transfer company associated in the case of 4.9.3 (ii) (b) should have average annual turnover of more than 200 crores over a period of 5 years. However, the academic content and delivery shall be in consonance with the University academic standards and norms.

The minimum qualification of the course instructor from the company as mentioned in 4.9.3. (ii) shall be B.E./B.Tech with 10 years of research / industrial experience. Such courses shall be offered through MOU / MOA between Anna University and such institutions/organizations/ companies. The design of the courses with regard to the syllabus content, duration of each course and number of credits offered for each course shall be discussed and recommended by DCC and approved by Director, Centre for Academic Courses as per the Regulations.

For the offer of each course under 4.9.3, a course coordinator shall be nominated from the Department who shall also attend such course and shall coordinate the question paper setting and answer script evaluation with the course instructor from research institution / laboratories /industry / company for the continuous assessment and end semester examination conducted by the University. The passing requirements are as per regulations.

#### **4.10 Medium of Instruction**

The medium of instruction is English for all courses, (except Tamil Medium batches of B.E. Civil Engineering and Mechanical Engineering programmes), examinations, seminar presentations and project reports.

The medium of instruction is Tamil for Tamil Medium batches of B.E. Civil Engineering and B.E. Mechanical Engineering.

#### **4.11 B.E. / B. Tech. (Hons) and B.E. / B. Tech. minor with specialisation in another discipline.**

Amendment  
of  
Clause 4.11  
from the  
Academic  
year  
2021-2022

##### **(i) B.E / B.Tech. (Hons.)**

- a. The students should have taken additional courses from a specified group of Professional Electives (vertical) or from any of the verticals of the same programme and earned a minimum of 18 credits.
- b. Should have passed all the courses prescribed in the curriculum and additional courses in the first attempt.
- c. Should have earned a minimum of 7.50 CGPA taking into account of all the courses prescribed in the curriculum and additional courses.

##### **(ii) B.E./B.Tech. Minor with specialisation in another discipline**

The student should have earned additionally a minimum of 18 credits in any one of the verticals offered from other Engineering Disciplines / Science and Humanities / Management

1. For these 18 credits students can optionally enroll and study a maximum of 6 credits in online mode from SWAYAM-NPTEL platform (in addition to the three online courses permitted for courses of curriculum), as approved by DCC and Centre for Academic Courses.
2. B.E / B.Tech. (Hons.) and B.E./B.Tech. minor with specialisation in another discipline will be optional for students and the students shall be permitted to select any one of them only.
3. For the categories 4.11 (i), the students, including Lateral Entry shall be permitted to register for the courses from Semester V onwards provided the students have earned a



minimum CGPA of 7.50 until Semester III and have cleared all the courses in the first attempt.

4. For the category 4.11 (ii), the students, including Lateral Entry, will be permitted to register the courses from Semester V onwards provided the marks earned by the students until Semester III is CGPA 7.50 and above.
5. B.E./B.Tech. (Hons.) or B.E./ B.Tech. Minor shall be offered by the Department irrespective of the number of students enrolled.
6. If a student decides not to opt for Honours, after completing certain number of additional courses, such additional courses studied shall be considered instead of the Professional Elective courses which are part of the curriculum.

If the student has studied more number of such courses than the number of Professional Elective courses required as per the curriculum, the courses with higher grades shall be considered for the calculation of CGPA. Remaining courses shall be printed in the grade sheet however, they will not be considered for calculation of CGPA and the same shall be indicated in a foot note appropriately.

If the student has failed in the additional courses or faced shortage of attendance, they will not be printed in the grade sheet and will not be considered for CGPA calculation and classification of degree.

7. If a student decides not to opt for Minor, after completing certain number of courses, the additional courses studied shall be considered instead of Open Elective courses which are part of the curriculum.

If the student has studied more number of such courses than the number of open electives required as per the curriculum, the courses with higher grades shall be considered for calculation of CGPA. Remaining courses shall be printed in the grade sheet, however, they will not be considered for calculation of CGPA and the same shall be indicated in a foot note appropriately.

If the student has failed in the additional courses or faced shortage of attendance, they will not be printed in the grade sheet and will not be considered for CGPA calculation and classification of degree. The student has to enroll for these additional courses separately and pay a tuition fee for studying these six additional courses and pay additional exam fee.

**For the students who have joined the programme in the year 2020 are also permitted to Register for B.E./B.Tech. Hons. and minor with the condition that the student should have earned 7.50 CGPA till V semester. For Hons. the student should have passed all the courses in the first attempt. The student should complete the additional 18 credits within 4 ½ years.**

#### 4.12 Student Exchange Program

Insertion  
of new  
Clause 4.12

Transfer of credits under Student Exchange program in Universities abroad shall be as per learning agreement.

1. Under Double Masters Degree Programme

On successful completion of six years of study (two years at Anna University + two years of study at foreign University + two years of Master's Degree at Anna University), UG and PG degrees shall be awarded by Anna University and a PG degree will be awarded by foreign University.

2. Integrated Masters degree as follows:

- a. First 3 or 3 ½ years of UG degree at Anna University.
- b. Last one year or last semester at a foreign University.
- c. 5<sup>th</sup> year at a foreign university leading to PG degree.
- d. At the end of the study, the students shall be awarded UG degree by Anna University after transfer of credits and PG degree will be awarded by foreign University.

4.13 Skill based experiential learning courses will be offered in two categories as purely Laboratory Based Courses and Theory Integrated Laboratory Courses with the following credits. One such course will be offered in every semester from V to VII.

Insertion  
of new  
Clause 4.13

Category	L	T	P	C
Laboratory Courses	0	0	4	2
	0	0	2	1
Theory integrated Laboratory Course	1	0	2	2

A student may accumulate up to 6 credits through such courses, and such credits will be considered in lieu of the Professional Elective and/or Open Elective courses.

These courses may be offered with the support of the identified firms/companies and with one course coordinator per course and a mentor from the firm.

In the case of students studying semester VII in the Academic year 2022-2023 shall enroll for the Skill based experiential learning courses as value added courses.

**Evaluation Procedure:**

The evaluation of the above mentioned courses are fully internal and shall be jointly done by the course coordinator from the institution and the mentor from the firm.

- (a) If the course involves certification from an identified firm/company, then 20% of the total marks will be included in the internal assessment marks, 30% will be included from the marks provided by the firm and 50% shall be evaluated by the respective Course Coordinators of the college by conducting appropriate theory and / or laboratory tests.

- (b) If there is no certification from the firm/company, then 50% will be included from the marks provided by the firm and 50% shall be evaluated by the respective Course Coordinators of the college by conducting appropriate theory and / or laboratory tests.

**Procedure to drop Professional Elective / Open Elective course(s) and computation of Grade point**

A student may accumulate up to 6 credits through such courses, and such credits will be considered in lieu of the Professional Elective and/or Open Elective courses.

In this regard, a student is permitted to drop either 1 or 2 Professional Elective / Open Elective course(s) as per the procedure given below.

**Table: Procedure to drop Professional Elective / Open Elective course(s)**

No. of courses	Total No. of credits earned	Courses to be printed in the grade sheet	No. of Professional elective/ open elective can be dropped	No. of credits considered for GPA/CGPA calculation
1	2	1	-	-
2	4	2	1	3
3	6	3	2	6

- The credits earned by the student of the successfully completed Skill Based Courses shall be recorded in the grade sheet.
- If a student has not successfully completed the skill based courses during the semesters V, VI and VII, then the same shall not be recorded in the grade sheet.
- If a student earns 2 credits in Semester V and then enrolls for another 2 credits in Semester VI, then he / she is permitted to drop one Professional elective/ open elective course in Semester VI. Further, if the student earns 4 credits upto Semester VI and enrolls for another 2 credits in Semester VII, then he/she is permitted to drop an additional professional elective/open elective course in the VII semester.

If the student has enrolled for skill based courses but has not successfully earned 4 or 6 credits and also dropped 1 or 2 PE/OE courses in anticipation of pass, then he/she has to enrol the PE/OE (as the case may be) to meet the total credit requirements to earn the degree.

**Method for computation of Grade point of dropped PE / OE courses**

The method of Computation of Grade point for the dropped PE/OE courses is given below:

1. If a student has successfully completed two Skill Based Courses, then the computation of Grade point for one PE/OE course dropped in lieu of those two skill based courses is as follows.

Grade point = (2 credits \* higher grade point obtained + 1 credit \* lower grade point obtained) / 3 credits.

For example, for two courses of two credit each, if the grades obtained are,

Course 1– C grade – 5 points

Course 2– O grade – 10 points

Then, the grade point of the dropped course for the calculation of CGPA is obtained as:  $(1 \times 5 + 2 \times 10) / 3 = 8.33$ .

One PE/OE course shall be dropped for 3 credits with grade point computed as above.

2. If a student has successfully completed three Skill Based Courses, then the computation of Grade point for dropping two PE/OE in lieu of those three skill based courses is as follows.

For three courses of two credit each

Computation of Grade point of each of the two dropped PE/OE courses for the calculation of CGPA = Average grade point of three skill based courses.

Two PE/OE courses of 3 credits each shall be dropped, with grade point computed as above.

## **5 DURATION OF THE PROGRAMME**

- 5.1 A student is normally expected to complete the B.E. / B.Tech. programme in 4 years (8 Semesters), but in any case, not more than 7 years (14 Semesters).
- 5.2 Each semester shall normally consist of 90 working days (including examination days). The Head of the Department shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus, covering the full content of the syllabus for the course being taught.
- 5.3 The total duration for completion of the programme reckoned from the commencement of the first semester to which the student was admitted shall not exceed the maximum duration specified in clause 5.1, irrespective of the period of break of study (vide clause 16), or prevention (vide clause 7.4), in order that the student may be eligible for the award of the degree (vide clause 14).

## **6 COURSE ENROLLMENT AND REGISTRATION**

- 6.1 Each student, on admission, shall be assigned to a Faculty Advisor (vide clause 8), who shall advise and counsel the student about the details of the academic programme and

the choice of courses, considering the student's academic background and career objectives.

**6.2** 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.

**6.2.1** Each student on admission shall register for **all the courses prescribed in the curriculum in the student's first Semester of study.**

**6.2.2** The enrollment for all the courses from the Semesters II to VIII will commence 5 working days prior to the commencement of the succeeding semester. The student shall enroll for the courses with the guidance of the student's Faculty Advisor. If the student wishes, the student may drop or add courses (vide clause 6.3) within 5 working days after the commencement of the concerned semester and complete the registration process duly authorized by the Faculty Advisor.

### **6.3 Flexibility to Add or Drop courses**

**6.3.1** A student has to earn the total number of credits specified in the curriculum of the respective programme of study in order to be eligible to obtain the degree. From the III to VIII semesters, the student has the option of registering for additional courses or dropping existing courses in a semester. The total number of credits that a student can add or drop in a semester is limited to 8, subject to a maximum of 2 courses. Maximum number of credits enrolled in a semester (including Shortage of Attendance (SA), Honours and Minor) shall not exceed 36. The online courses registered shall be over and above this 36 credits.

**Amendment  
of  
Clause 6.3.1**

**6.3.2** **Omitted**

**6.3.3** The student shall register Project-1 in Semester VII and Project-2 in Semester VIII.

### **6.4 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.

**6.4.1** If a student is prevented from writing end semester examination of any core course due to lack of attendance, the student has to register for that course again when offered next and redo the course.

**6.4.2** If a student is prevented from writing the end semester examination of any professional/open elective course due to lack of attendance, the student can opt to register for the same course again when offered next and redo the course, or he/she 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.

**6.4.3 Omitted**

**6.4.4** If the course, in which the student fails to secure a pass is a professional/open elective course, then the student can opt for a different professional/ open elective course, register for the same when it is offered, attend classes, fulfill the attendance requirements as per clause 7, secure Continuous Assessment marks and appear for End Semester Examinations.

**Amendment  
of  
Clause 6.4.4**

**6.4.5** The student who fails in any Project work (Project 1 / Project 2) shall register for the course again, when offered next, and redo the course. In this case, the student shall attend the classes and fulfill the attendance requirements as per clause 7.

**6.4.6** The student who fails in Seminar / Internship / Case Study and Industrial / Practical Training and Creative and Innovative project shall register for the same in the subsequent semester and redo the course. In this case, the student shall attend the classes and fulfill the attendance requirements as per clause 7.

**6.5 Choice of Professional Elective Courses (*Applicable to the students who have joined the programme from the academic year 2021-2022 onwards*).**

**Insertion  
of new  
Clause 6.5**

The professional Elective Courses are listed in the Curriculum in Table format as verticals (Specialisation groups). A student can choose all the Professional Elective Courses either from one of the verticals or a combination of courses from all verticals in a semester. However, students irrespective of enrolling for additional courses for B.E. / B. Tech. (Hons.) are not permitted to choose more than one course from a row. Students are permitted to enroll more than one elective course from the same vertical in a semester. In the subsequent semesters students are permitted to enroll one more course in a row, provided he/she has cleared the earlier course of the same row. For a professional elective course and open elective course, minimum number of students enrolment permitted shall be 10. However, the minimum number is not applicable for students enrolling B.E. / B. Tech. (Hons.) and B.E. / B. Tech. Minor. For each professional elective course at least two choices shall be offered.

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

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

**7.1** Ideally every student is expected to attend all periods and earn 100% attendance. However, the student shall secure not less than 75% attendance, course wise, taking into account the number of periods required for that course, as specified in the curriculum.

- 7.2** 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, with prior permission from the Chairman, Sports Board 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 Advisor.
- 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** Students who do not satisfy clause 7.1 and 7.2 and who secure **less than 65%** attendance in a course will not be permitted to write the end semester examination of that course. The student has to register and redo the course when it is offered next as per Clause 6.4. If the course in which the student has been prevented is a professional/ open elective, the student can opt to redo the same course or opt for different professional/ open elective course as per Clause 6.4.2.
- 7.5** If a student has shortage of attendance 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.
- 7.6** 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 fee.
- 7.7** A student who has already appeared for a course in a semester and passed the examination is not entitled to reappear for the same course for improvement of letter grades / marks.

## **8 FACULTY ADVISOR**

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

The responsibilities 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 COMMITTEES**

### **9.1 COMMON COURSE COMMITTEE**

A theory course handled by more than one teacher shall have a "Common Course Committee", comprising of all teachers teaching that course. One of the teachers shall be nominated as Course Coordinator by the Faculty Chairman, duly approved by the Director, Academic Courses.

The first meeting of the Common Course Committee shall be held within fifteen days from the date of formation of the committee. The nature and weightage of the continuous assessments shall be decided in the first meeting, within the framework of the Regulations. Two or three subsequent meetings in a semester may be held at suitable intervals.

In addition the "Common Course Committee" shall meet to ensure uniform evaluation of continuous assessments after arriving at a common scheme of evaluation for the assessments (vide clause 10).

Wherever feasible, the common course committee shall prepare a common question paper for the continuous assessment tests also. The question paper for the end semester examination is common and shall be set by the Course Coordinator, in consultation with all the teachers.

### **9.2 MULTIPLE COURSES COMMITTEE**

"Multiple Courses Committee" comprises of all teachers handling courses of a particular semester, including common course teachers and two student representatives from the course concerned. One of the above teachers, nominated by the Head of the Department shall coordinate the activities of this committee. The functions of this committee are as follows:

The first meeting of the Multiple Courses Committee shall be held within fifteen days from the date of formation of the committee. The nature and weightage of the continuous assessments shall be decided in the first meeting, within the framework of the regulations. Two or three subsequent meetings in a semester may be held at



suitable intervals. During these meetings, the student members shall meaningfully interact and express their opinions and suggestions of all the students to improve the effectiveness of the teaching-learning process. It is the responsibility of the student representatives to convey the proceedings of these meetings to all the students.

### **9.3 OVERALL MONITORING COMMITTEE**

**9.3.1** In addition, there shall be an overall monitoring committee for each semester of a programme, which comprises of (i) the Head of the Department (convener), (ii) the Faculty Advisors of the programme and (iii) Multiple Course Coordinator. This overall monitoring committee shall meet periodically to discuss academic related matters, progress and status of the students of the semester concerned.

**9.3.2** The overall monitoring committee can also invite some of the students for any of the committee meetings if necessary.

## 10. ASSESSMENT PROCEDURES FOR AWARDING MARKS

All B.E./B.Tech. programmes consist of Theory Courses, Laboratory Courses and Employability Enhancement Courses. Employability Enhancement Courses include Project Work, Seminar, 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). For Theory Courses out of 100 marks, the maximum marks for continuous assessment is fixed as 50 and the end semester examination carries 50 marks. For Laboratory Courses out of 100 marks, the maximum marks for continuous assessment is fixed as 75 and the end semester examination carries 25 marks. The continuous assessment is 60 marks for the project work, and project report evaluation and viva-voce examination carries 40 marks. All other courses included under Employability Enhancement Courses are evaluated by Continuous Assessments only. There is no evaluation for Audit Courses. However, minimum attendance requirement as per clause 7 shall be satisfied. (i.e.) Each course shall be evaluated for a maximum of 100 marks as shown below:

S. No	Category of course	Continuous Assessments	End-Semester Examinations
i.	Theory Courses / Theory Courses with Laboratory	50 Marks	50 Marks
ii.	Laboratory Courses	75 Marks	25 Marks
iii.	Project Work	60 Marks	40 Marks
iv.	All other EEC Courses and Mandatory Courses	100 Marks	-

Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD' for every semester, which consists of attendance marked in each theory / Laboratory/EEC/MC class, the assessment marks and the record of class work (topics covered), separately for each course handled by the teacher. This should be submitted to the Head of the Department periodically (at least three times in a semester) for checking the syllabus coverage and the records of assessment marks and attendance. The Head of the Department will affix his/her signature and date after due verification. At the end of the semester, the record should be verified by the Head of the Department who shall keep this document in safe custody (for five years). The records of attendance and assessment of both current and previous semesters should be available for inspection.

Applicable to the students joined the programme in the academic year 2019-2020 & 2020-2021.

## ASSESSMENT PROCEDURES FOR AWARDING MARKS

Amendment  
of  
Clause 10  
from the  
Academic  
year  
2021-2022

All B.E./B.Tech. programmes consist of Theory Courses, Laboratory 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). For Theory Courses out of 100 marks, the maximum marks for continuous assessment is fixed as 40 and the end semester examination carries 60 marks. For Laboratory Courses out of 100 marks, the maximum marks for continuous assessment is fixed as 60 and the end semester examination carries 40 marks. The continuous assessment is 60 marks for the project work, and project report evaluation and viva-voce examination carries 40 marks. All other courses included under Employability Enhancement Courses are evaluated by Continuous Assessments only. There is no evaluation for Audit Courses. However, minimum attendance requirement as per clause 7 shall be satisfied.

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

S. No	Category of course	Continuous Assessments	End-Semester Examinations
i.	Theory Courses	40 Marks	60 Marks
ii.	Theory Courses with Laboratory	50 Marks	50 Marks
iii.	Laboratory Courses	60 Marks	40 Marks
iv.	Project Work	60 Marks	40 Marks
v.	All other EEC Courses and Mandatory Courses	100 Marks	-

Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD' for every semester, which consists of attendance marked in each theory / Laboratory/EEC/MC class, the assessment marks and the record of class work (topics covered), separately for each course handled by the teacher. This should be submitted to the Head of the Department periodically (at least three times in a semester) for checking the syllabus coverage and the records of assessment marks and attendance. The Head of the Department will affix his/her signature and date after due verification. At the end of the semester, the record should be verified by the Head of the Department who shall keep this document in safe custody (for five years). The records of attendance and assessment of both current and previous semesters should be available for inspection.

## 10.1 ASSESSMENT FOR THEORY COURSES

Applicable to the students joined the programme in the academic year 2019-2020 & 2020-2021.

For Theory Courses out of 100 marks, the maximum marks for continuous assessment is fixed as 50 and the end semester examination carries 50 marks. The University examinations (End Semester Exams) for theory courses will be of 3 hours duration and shall normally be conducted between October and December during the odd semesters and between April and June during the even semesters. End semester Examination is a mandatory requirement for passing the course.

Continuous Assessment comprises of two assessments of equal weightage, conducted by the course instructor / coordinator / department. There shall be assignment / case study / tutorial / quiz / mini-project apart from two written tests with the following weightage.

Description of Assessment I	Weightage	Description of Assessment II	Weightage
Test 1	75%	Test 2	75%
Assignments / Case study / Tutorial / Quizzes / Presentations / Mini Project	25%	Assignments / Case study / Tutorial / Quizzes / Presentations / Mini Project	25%

The total marks obtained in the two assessments put together shall be reduced to 50 marks and rounded to the nearest integer. One assessment test would be conducted in a day, in the case of tests, and they would be of one and a half hours durations each. Students will have regular classes on the assessment days of these tests. In case a student misses the assessment due to medical reasons (hospitalization / accident / specific illness) or due to participation in the College / University / State / National / International level Sports events with prior permission from the Chairman, Sports Board, only one Reassessment may be given at the end of the semester after getting approval from the Head of the Department by the concerned course instructor.

## ASSESSMENT FOR THEORY COURSES

Amendment of Clause 10.1 from the Academic year 2021-2022

For Theory Courses out of 100 marks, the maximum marks for continuous assessment is fixed as 40 and the end semester examination carries 60 marks.

The University examinations (End Semester Exams) for theory courses will be of 3 hours duration and shall normally be conducted between October and December during the odd semesters and between April and June during the even semesters. End semester Examination is a mandatory requirement for passing the course and every

student should appear for the examination for theory, laboratory courses and project work.

Continuous Assessment comprises of two assessments each carrying 100 marks, conducted by the course instructor / coordinator / department. 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 the two assessments).

<b>Assessment I (100 Marks)</b>		<b>Assessment II (100 Marks)</b>		<b>Total Internal Assessment</b>
Individual Assignment /Case Study/ Seminar /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.

A minimum of two internal assessments will be conducted as a part of continuous assessments. 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 / 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.

The total marks obtained in the two assessments put together shall be reduced to 40 marks and rounded to the nearest integer. One assessment test would be conducted in a day, in the case of tests, and they would be of one and a half hours durations each. Students will have regular classes on the assessment days of these tests. In case a student misses the assessment due to medical reasons (hospitalization / accident / specific illness) or due to participation in the College / University / State / National / International level Sports events with prior permission from the Chairman, Sports Board, only one Reassessment may be given at the end of the semester after getting approval from the Head of the Department by the concerned course instructor.

## 10.2 ASSESSMENT FOR THEORY COURSES WITH LABORATORY COMPONENT

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

<b>S. No.</b>	<b>Category of Courses</b>	<b>Assessment for Theory</b>	<b>Assessment for Laboratory</b>	<b>End Semester</b>
1	Theory Integrated with Practical	30 (T) (Two assessment)	20 (L) (One assessment)	50 (T)
2	Practical Integrated with Theory	20 (T) (One assessment)	30 (L) (Two assessment)	50 (T/L)

Applicable to the students joined the programme in the academic year 2019-2020 & 2020-2021.

The sum of marks of all three assessments shall be reduced to 50 marks and rounded to the nearest integer.

**ASSESSMENT FOR THEORY COURSES WITH LABORATORY COMPONENT / LABORATORY COURSES WITH THEORY COMPONENT**

Amendment of Clause 10.2 from the Academic year 2021-2022

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 Assessment 1	Internal Assessment 2	End Semester Examination
1	0	4	3	Lab (25%)	Theory (25%)	Lab only (50%)
1	0	2	2	Lab (25%)	Theory (25%)	Lab only (50%)
2	0	2	3	Theory (25%)	Lab (25%)	Theory (25%) Lab (25%)
3	0	2	4	Theory (25%)	Lab (25%)	Theory (35%) Lab (15%)
2	0	4	4	Theory (25%)	Laboratory (25%)	Theory (15%) Lab(35%)

The procedure for the conduct of internal assessments for theory and laboratory components shall be as per the clause 10.1 and 10.2 respectively.

\*The weighted average shall be converted into 50 marks for internal Assessment.

**10.3 ASSESSMENT FOR LABORATORY COURSES**

Applicable to the students joined the programme in the academic year 2019-2020 & 2020-2021.

For Laboratory Courses out of 100 marks, the maximum marks for Continuous Assessment is fixed as 75 and the End Semester Examination carries 25 marks.

Every laboratory exercise / experiment shall be evaluated based on the student's performance during the laboratory class and the student's records maintained. There shall be at least one assessment test. The criteria for arriving at the Continuous Assessment marks of 75 shall be decided at the respective course committee meetings.

The University examinations for Laboratory courses will be of 3 hours duration and shall normally be conducted between October and December during the odd semesters and between April and June during the even semesters.

**ASSESSMENT FOR LABORATORY COURSES**

Amendment of Clause 10.3 from the Academic year 2021-2022

For Laboratory Courses out of 100 marks, the maximum marks for Continuous Assessment is fixed as 60 and the End Semester Examination carries 40 marks.

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

The University examinations for Laboratory courses will be of 3 hours duration and shall normally be conducted between October and December during the odd semesters and between April and June during the even semesters.

#### 10.4 ASSESSMENT FOR PROJECT WORK

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

There shall be **two assessments** (each 100 marks) during the semester by a review committee. The student shall make presentation on the progress made before the committee. The Head of the Department shall constitute a review committee for each programme. There shall be a minimum of three members in the review committee. The committee shall consist of the guide, project co-ordinator and one of the faculty members. The total marks obtained in the two Reviews shall be reduced to a maximum of 60 marks.

The student(s) is expected to submit the project report on or before the last working day of the semester. The University examination for the project work shall consist of the evaluation of the final project report submitted by the student or students of the project group by an external examiner, followed by a viva-voce examination conducted separately for each student by a committee consisting of the external examiner and an internal examiner (other than supervisor). The project co-ordinator shall be the internal examiner. The Head of the Department with the approval of the Chairman of the Faculty shall appoint the External Examiner for the End Semester Examinations of the Project Work.

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

Applicable  
to the  
students  
joined the  
programme  
in the  
academic  
year 2019-  
2020 & 2020-  
2021.

Continuous Assessment 60 Marks						End Semester Examination 40 Marks		
Review I (30 Marks)			Review II (30 Marks)			Report Evaluation (20 Marks)	Viva – Voce (20 Marks)	
Project Co-ordinator	Member	Guide	Project Co-ordinator	Member	Guide	External Examiner	External Examiner	Internal Examiner
10	10	10	10	10	10	20	10	10

### ASSESSMENT FOR PROJECT WORK

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

There shall be **three<sup>#</sup> assessments** (each 100 marks) during the semester by a review committee. The student shall make presentation on the progress made before the committee. The Head of the Department shall constitute a review committee for each programme. There shall be a minimum of three members in the review committee. The committee shall consist of the guide, project co-ordinator and one of the faculty members. The total marks obtained in the three<sup>#</sup> reviews shall be reduced to a maximum of 60 marks.

The student(s) is expected to submit the project report on or before the last working day of the semester. The University examination for the project work shall consist of the evaluation of the final project report submitted by the student or students of the project group by an external examiner, followed by a viva-voce examination conducted separately for each student by a committee consisting of the external examiner and an internal examiner (other than supervisor). The project co-ordinator shall be the internal examiner. The Head of the Department with the approval of the Chairman of the Faculty shall appoint the External Examiner for the End Semester Examinations of the Project Work. The continuous assessment and End Semester Examinations marks for Project Work and the Viva-Voce Examination will be distributed as indicated below.

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

Amendment  
of  
Clause 10.4  
from the  
Academic  
year  
2021-2022

<sup>#</sup>Corrected  
as 'Three'  
instead of  
'Two'



**10.4.1** If the project report is not submitted on or before the specified deadline, an extension of time up to a maximum limit of 30 days may be given for the submission of project work with due approval obtained from the Head of the Department. If the project report is not submitted even beyond the extended time, then the student(s) is deemed to have failed in the Project Work.

**10.4.2** Students shall undertake start-up for the development of products. If the outcome of a start-up is a fully developed product and whose concept is tested and validated, then it shall be considered in lieu of the project work. Such students shall submit a start-up report, which includes the concepts and process flow of the developed product, publications and patents, if any.

**Insertion  
of new  
Clause  
10.4.2**

The evaluation of the start-up report is as per the clause 10.4.

**10.5 ASSESSMENT FOR SEMINAR / PROFESSIONAL PRACTICES / CASE STUDY/ CREATIVE AND INNOVATIVE PROJECT**

The **Seminar / Case study / 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 / demonstration 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%).

**10.6 ASSESSMENT FOR INDUSTRIAL / PRACTICAL TRAINING / INTERNSHIP / SUMMER PROJECT**

**10.6.1** The Industrial / Practical Training shall carry 100 marks and shall be evaluated through continuous assessment only as per Table 1. At the end of the Industrial / Practical training / internship / Summer Project, 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 Additional Controller of Examinations by the Head of the Department.

**10.6.2** The Industrial / Practical Training **which is not part of the curriculum (Clause 4.6.2)**, shall carry 100 marks and shall be evaluated **through internal assessment only** as per Table 1. At the end of Industrial / Practical training / internship / Summer Project, the student shall submit a certified report (evaluated out of 100 marks by a mentor/guide) from the organization where the student has undergone training. The viva-voce examination will be conducted by a three-member committee constituted by the Head of the Department. The committee comprises of one expert from an industry/organisation and two members (a coordinator and a member) from the Department. Certificates (issued by the Organization) submitted by the student shall be attached to the mark list (with grade) and sent to Additional Controller of Examinations by the Head of the Department.

Table 1

INTERNSHIP / INDUSTRIAL TRAINING		
EVALUATION		
REPORT	PRESENTATION	VIVA VOCE
40	30	30

**10.7 ASSESSMENT FOR VALUE ADDED COURSE**

The value-added course shall carry 100 marks and shall be evaluated through **continuous assessments only**. Two Assessments shall be conducted during the semester by the Department concerned. The total marks obtained in the tests shall be reduced to 100 marks and rounded to the nearest integer. The Head of the Department may identify a faculty member as coordinator for the course. A committee consisting of faculty member handling the course, coordinator and a senior faculty member nominated by the Head of the Department shall monitor the evaluation process.

Amendment  
of  
Clause 10.7

**10.8 ASSESSMENT FOR ONLINE COURSE**

Students may be permitted to credit online courses (which are provided with certificate) with the approval of the Departmental Consultative Committee and Centre for Academic Courses, subject to a maximum of three credits. This online course of 3 credits can be considered instead of one elective course. The student needs to obtain certification or credit to become eligible for writing the End Semester Examination to be conducted by Anna University. The Head of the Department may identify a faculty member as coordinator for the course, who is responsible for the evaluation process. The course shall be evaluated through the End Semester Examination only. The evaluation methodology shall be the same as that of a theory course. (vide clause 10.1). In case of credits earned through online mode from a University approved by the appropriate authorities of Anna University, the credits may be transferred and grades shall be assigned by a committee consisting of the Chairman of the Faculty concerned, Head of the Department and a senior faculty member nominated by the Chairman.

Applicable  
to the  
students  
joined the  
programme  
in the  
academic  
year 2019-  
2020 & 2020-  
2021.

## 10.9 ASSESSMENT FOR MINI PROJECT / MINI PROJECT AND SEMINAR

Insertion  
of new  
Clause 10.9

The Mini Project/ Mini Project and Seminar shall carry 100 marks and shall be evaluated through three reviews as continuous assessments. The first and second reviews are to be evaluated by a three member internal committee constituted by the HOD which includes the guide. At the end of the semester the student shall submit a brief report on the Mini Project. The third review will be conducted based on this report and Viva-Voce Examination conducted internally by the same committee and the evaluation report shall be sent to Additional Controller of Examinations by the Head of the Department.

The breakup of marks is given in the Table below:

Mini Project/ Mini project with Seminar	Internal Assessment Evaluation			
	Review I	Review II	Review III (50 marks)	
			Report	Viva-Voce Examination
Marks	25	25	20	30

## 11 PASSING REQUIREMENTS

11.1 The Passing requirement for a student in a course is determined based on the marks obtained both in Continuous Assessment and End Semester Examinations. If the student gets <50% of total marks, then the student will be awarded only RA (Reappearance) grade. All other grades will be decided by the faculty concerned. While fixing the grades, the mean mark shall be at the middle of the 'A' grade range. A student who earns a minimum of 6 grade points in a course is declared to have successfully passed the course.

Applicable  
to the  
students  
joined the  
programme  
in the  
academic  
year 2019-  
2020 & 2020-  
2021.

A candidate who secures not less than 50% of total marks prescribed for the courses (Internal Assessment + End semester examination) with a minimum of 45% of the marks prescribed for the end-semester Examination in theory, theory with practical components and practical courses (including Project work), shall be declared to have passed in the Examination.

Amendment  
of  
Clause 11.1  
from the  
Academic  
year  
2021-2022

11.2 If a student fails to secure a pass in a theory course / laboratory course (except electives), the student shall register and appear only for the end semester examination in the subsequent semester. In such case, the internal assessment marks obtained by the candidate in the first appearance shall be retained and considered valid for all subsequent attempts till the candidate secure a pass. However, from the third attempt onwards if a candidate fails to obtain pass marks (IA + End Semester Examination) as per clause 11.1, then the candidate shall be declared to have passed the examination if he/she secure a minimum of 50% marks prescribed for the university end semester examinations alone.

Amendment  
of  
Clause 11.2

**11.3** In Project work 1 and / or 2 if a student has submitted the project report but absent in the end semester examination, the student is deemed to be failed. In this case and also if a student attends and fails in the End semester examination of Project work of B.E. / B.Tech, he/she shall attend end semester examination again within 30 days / 60 days from the date of declaration of the results of project work 1 / project work 2 respectively. The subsequent viva-voce examination will be considered as reappearance with payment of exam fee. In case, the student fails in the subsequent viva-voce examination also, the student shall redo the course again, when offered next.

**11.4** The passing requirement for the courses which are assessed only through continuous assessment (EEC courses except project work) except Mandatory Courses, shall be fixed as minimum 50% and the rest of the grades are decided by the faculty concerned.

**11.4.1** If a candidate fails in the Creative innovative project (EEC course), he/she has to resubmit the Project Report within 30 days from the date of declaration of the results. The resubmission of the project report and subsequent viva-voce examination will be considered as reappearance with payment of exam fee. In case a student fails in the resubmission of the project report and the subsequent viva-voce examination, the student shall register for the course in the subsequent semester.

**11.5 Supplementary Examinations**

If a student fails to secure a pass in theory course(s) of VIII semester examination, he/she is eligible to appear for a one time Supplementary Examination which shall be conducted at the end of VIII semester, for the subjects of VIII semester alone within 30 days from the date of declaration of the results.

**11.6 End semester valuation clarification day**

For a theory course where there is an end semester examination, a valuation clarification day shall be conducted within 10 - 15 days from the date of the last examination. The date of the clarification day for each course shall be announced by the Head of the Department concerned. On this day, the students can view their end semester answer papers in the presence of the course instructor and get any clarifications / corrections done. In cases of dispute, where the student is not satisfied with the clarifications / corrections, the matter can be referred to a committee, consisting of the Head of the Department of the courses concerned / HOD nominee, concerned course instructor and a subject expert. In case a student does not attend the valuation clarification day on the specified date, no further clarifications will be entertained. The results will be published after the end semester valuation clarification day.

**12 AWARD OF LETTER GRADES**

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

joined the programme in the academic year 2019-2020 & 2020-2021.

Letter Grade	Grade Points
O (Outstanding)	10
A + (Excellent)	9
A (Very Good)	8
B + (Good)	7
B (Average)	6
RA (Reappearance Registration)	0
SA (Shortage of Attendance)	0
W (Withdrawal)	0

'RA' denotes Reappearance registration is required for that particular course.

'SA' denotes shortage of attendance (as per Clause 7) and hence prevented from writing end semester examination.

'W' indicates withdrawal from the course.

The award of letter grades will be decided using relative grading principle except Laboratory Courses and Project Work. The performance of a student will be reported using letter grades, each carrying certain points as detailed below:

Amendment of Clause 12.1 from the Academic year 2021-2022

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

'U' denotes Reappearance registration is required for that particular course.

'SA' denotes shortage of attendance (as per Clause 7) and hence prevented from writing end semester examination.

'WD' indicates withdrawal from the course.

### 12.1.1 Relative Grading

For those students who have passed the course (theory course / laboratory integrated courses / theory integrated courses / all other EEC except laboratory course / Project Work Courses), the relative grading shall be done. The marks of those students who have passed only shall be inputted in the software developed for relative grading. The evolved relative grading method normalizes the results data using the BOX-COX

Insertion of new Clause 12.1.1 from the Academic

transformation method and computes the grade range for each course separately and awards the grade to each student. (theory course / laboratory integrated courses / theory integrated courses and all other EEC Courses). If the students' strength is greater than 30, the relative grading method shall be adopted.

year 2021-2022

### 12.1.2 Absolute Grading

- In all the courses, if the number of students who have passed the course is less than or equal to 30 then absolute grading shall be followed with the grade range as specified in the Table.
- For the Project Work / Internship and Laboratory Courses, absolute grading procedure shall be followed as given in the Table below irrespective of the number of students who have passed the course.

Insertion of new Clause 12.1.2 from the Academic year 2021-2022

**Table – Grade range for absolute grading**

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

**12.2** For the Co-curricular activities such as National Cadet Corps (NCC)/ National Service Scheme (NSS) / NSO / YRC, every student shall put in a minimum of 75% attendance in the training and attend the camp. The training and camp shall be completed during the first year of the programme. However, for valid reasons, the Head of the Institution may permit a student to complete this requirement in the second year.

Amended Clause of 12.2 exempted for the academic year 2019-2020 & 2020-2021

This co-curricular activity is not compulsory for the award of degree, for those students who have joined in the Academic year 2019-2020 and 2020-2021.

**12.3** The grades O, A+, A, B+, B obtained for the one/two credit course shall figure in the Mark sheet under the title '**Value Added Courses**'. The other grades RA, SA **will not figure in the mark sheet.**

### 13. GPA AND CGPA CALCULATION

**13.1** The Course Teacher shall handover the foil sheet and grade sheet to the HOD concerned for onward transmission to the ACOE (UD) for processing of results. After results are declared, Grade Sheets will be issued to each student which will contain the following details:

Applicable only to students admitted in Academic year 2019-2020

- the list of courses registered during the semester and the grades scored.
- the Grade Point Average (GPA) for the semester and
- the Cumulative Grade Point Average (CGPA) of all courses registered from first semester onwards.

During each semester, the list of courses registered and the grades scored in each

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

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

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

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

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

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

**13.1a** The Course Teacher shall handover the foil sheet and grade sheet to the HOD concerned for onward submission to the ACOE (UD) for processing of results. After results are declared, Grade Sheets will be issued every semester to each student which will contain the following details:

**Insertion in  
Clause 13.1a  
from the  
Academic  
year 2020-  
2021**

- The list of courses of curriculum registered during the semester and the grades scored.
- List of courses studied for Hons., minor or any other additional courses (vide clause 4.11(6)) in which the student has passed with the grades under the title, "*Additional Courses*".
- The Grade Point Average (GPA) for the semester considering only the courses of curriculum (not the additional courses) and
- The Cumulative Grade Point Average (CGPA) of all courses registered from first semester onwards considering only the courses of curriculum (not the additional courses). However, for the students who have successfully completed the requirements of B.E. / B. Tech. (Hons) and B.E. / B.Tech. Minor vide Clause 4.11, grades scored in the six additional courses shall be taken into account for the computation of CGPA.

During each semester, the list of curricular courses (not the additional courses) registered and the grades scored in each course are used to compute the Grade

Point Average (GPA). The GPA is the ratio of the sum of the products of the number of credits of curricular courses (not the additional courses) registered and the grade points corresponding to the grades scored in those courses, taken for all the courses, to the sum of the number of credits of all the courses in the semester.

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

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

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

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

CGPA will be calculated in a similar manner, considering all the curricular courses (not the additional courses) enrolled from first semester. "U" and "SA" grades will be excluded for calculating GPA and CGPA.

- |             |  |                                    |
|-------------|--|------------------------------------|
| <b>13.2</b> | Credits earned through one / two credit value added courses, shall not be considered for calculating the GPA or CGPA.  | Amendment<br>of<br>Clause 13.2     |
| <b>13.3</b> | If a student studies more number of professional and open electives than required as per the student's programme curriculum (if the student decides not to opt for Hons. and Minor), the calculation of final CGPA shall be as per 4.11.6 and 4.11.7.  | Amendment<br>of<br>Clause 13.3     |
| <b>13.4</b> | If a student successfully completes all the requirements of the programme and also meets the requirements of B.E. / B. Tech. (Hons) or B.E. / B. Tech. Minor but desires not to opt for the additional qualification, then he/she has to submit a declaration with regard to the same within 30 days before the completion of VIII semester.   | Insertion<br>of new<br>Clause 13.4 |
| <b>13.5</b> | In the consolidated grade sheet, the CGPA earned shall be converted into percentage of marks as follows:<br><br>Percentage of Marks = CGPA × 10.   | Insertion<br>of new<br>Clause 13.5 |
| <b>14</b>   | <b>ELIGIBILITY FOR THE AWARD OF DEGREE</b>   |                                    |
| <b>14.1</b> | A student shall be declared to be eligible for the award of the B.E. / B.Tech. Degree provided the student has<br><br>i. Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time.<br><br>ii. Successfully completed the course requirements, appeared for the End-Semester examinations and passed all the subjects prescribed in all the 8 semesters within |                                    |



a maximum period of 7 years reckoned from the commencement of the first semester to which the candidate was admitted.

- iii. Successfully passed any additional courses prescribed by the Director, Academic Courses.
- iv. Successfully completed the NCC / NSS / NSO / YRC requirements.
- v. No disciplinary action is pending against the student.
- vi. The award of Degree must have been approved by the Syndicate of the University.

## 14.2 CLASSIFICATION OF THE DEGREE AWARDED

### 14.2.1 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 (**Six Semesters for Lateral Entry**) in the student's first appearance within five years (**Four years for Lateral Entry**), which includes authorized break of study of one year. Withdrawal from examination (vide Clause 15) will not be considered as an appearance.
- Should have secured a CGPA of not less than 8.50.
- Should not have been prevented from writing end semester examination due to lack of attendance in any of the courses.
- Should not have been prevented due to lack of attendance from any of the credited courses of the Curriculum making up the total credit requirement. Audit courses shall not be considered for classifications.

Applicable  
only to  
students  
admitted in  
Academic  
year 2019-  
2020

### 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 of all the courses of all the eight semesters (**Six Semesters for Lateral Entry**) in the student's first appearance within five years (**Four years for Lateral Entry**), which includes authorized break of study of one year. Withdrawal from examination (vide Clause 15) will not be considered as an appearance.
- Should have secured a CGPA of not less than 8.50.
- Should not have been prevented from writing end semester examination in any of the courses of the Curriculum making up the total credit requirement.
- A student who satisfies norms given in clause 4.11 becomes eligible for classification of the degree with B.E./B.Tech. (Hons) and B.E./B.Tech. minor.

Amendment  
of  
clause  
14.2.1 from  
the  
academic  
year 2020-  
2021

Details are provided in Table

Degree (i)	Duration of programme (ii)	Duration permitted (iii)	Additional credits above the requirement of curriculum (iv)	CGPA (v)	Pass in (vi)	Break of study (vii)	Prevention to write End Semester Examination	Withdrawal from writing end semester examination (viii)
B.E./ B.Tech . (Regular)	4 years	5 years	-	8.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E./ B.Tech . Lateral Entry	3 years	4 years	-	8.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E./ B.Tech. (Hons)	3/4 years (Lateral entry, Regular respectively)	4/5 years (Lateral entry, Regular respectively)	18 credits from more than one verticals of the same programme	8.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E./ B.Tech . minor	3/4 years (Lateral entry, Regular respectively)	4/5 years (Lateral entry, Regular respectively)	18 credits from any one vertical of the other programme	8.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt

#### 14.2.2 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 (Six Semester for Lateral Entry) within five years (within Four years for Lateral Entry), which includes one year of authorized break of study (if availed) or prevention from writing the End Semester Examination due to lack of attendance (if applicable).
- Should have secured a CGPA of not less than 7.00.

Applicable to the students joined the programme in the academic year 2019-2020 & 2020 - 2021

- A student who satisfies norms given in clause 4.11 becomes eligible for classification of the degree with B.E./B.Tech. (Honours) and B.E./B.Tech. minor (Applicable to the students joined the programme in the academic year 2020 -2021, as per the amended clause 14.2.2.)

### 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 of all the courses of all eight semesters (Six Semester for Lateral Entry) within five years (within Four years for Lateral Entry), which includes one year of authorized break of study (if availed) or prevention from writing the End Semester Examination due to lack of attendance (if applicable).
- Should have secured a CGPA of not less than 6.50.
- A student who satisfies norms given in clause 4.11 becomes eligible for classification of the degree with B.E./B.Tech. (Honours) and B.E./B.Tech. minor.

Details are provided in Table.

Degree (i)	Duration of programme (ii)	Duration permitted (iii)	Additional credits (iv)	CGPA (v)	Pass in (vi)	Break of study (vii)	Prevention to write End Semester Examination	Withdrawal from writing end semester examination (viii)
B.E./ B.Tech . (Regular )	4 years	5 years	-	6.50	-	One year authorised break of study included in the Duration permitted (iii)	Included in the Duration permitted (iii)	-
B.E./ B.Tech . Lateral Entry	3 years	4 years	-	6.50	-	One year authorised break of study included in the Duration permitted (iii)	Included in the Duration permitted (iii)	-
B.E./ B.Tech . (Hons)	3/4 years (Lateral entry, Regular respectively)	4/5 years (Lateral entry, Regular respectively)	18 credits from more than one verticals of the same programme	7.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt

Amendment  
of  
clause  
14.2.2 from  
the  
Academic  
year 2021-  
2022

B.E./ B.Tech . Minor	3/4 years (Lateral entry, Regular respectively)	4/5 years (Lateral entry, Regular respectively)	18 credits from any one vertical of the other program me	6.50	-	One year authorise d break of study included in the Duration permitted (iii)	Included in the Duration permitted (iii)	-
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### 14.2.3 SECOND CLASS

Students who pursue B.E. / B.Tech. in Regular mode or lateral entry mode or B.E. / B.Tech. minor in specialisation of another discipline and who are not covered in Clause 14.2.1 and 14.2.2 and who qualify for the award of the degree (vide Clause 14.1) shall be declared to have passed the examination in **Second Class**.

**Amendment  
of  
Clause  
14.2.3**

**14.2.4** 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 (except approved withdrawal from end semester examinations as per clause 15) for the purpose of classification.

**Insertion of  
new clause  
14.2.4**

**14.2.5** Student earned additional 18 credits as per Clause 4.11 (i) and (ii) but does not satisfy the conditions mentioned in 14.2.1 or 14.2.2 shall not be awarded B.E. / B.Tech.(Hons.). In such case if the student becomes eligible for First Class, while computing CGPA with the Professional Elective / Open Elective courses with higher grades the student shall be awarded B.E. / B.Tech. in First Class only.

**Insertion of  
new clause  
14.2.5**

### 15 PROVISION FOR WITHDRAWAL FROM EXAMINATION:

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

**15.2** Withdrawal application shall be valid only if the student is otherwise eligible to write the examination (Clause 7) and if it is made within TEN working days before the commencement of the end semester examination in that course or courses and also recommended by the Head of the Department.

**15.3** Notwithstanding the requirement of mandatory TEN working days notice, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.

**15.4** If a student withdraws a course or courses from writing end semester examinations, he/she shall register the same in the subsequent semester and write the end semester examination(s)

**15.5** Withdrawal shall not be considered as an appearance for deciding the eligibility of student for First Class with Distinction.

**15.6** Withdrawal is permitted for the end semester examinations in the final semester only if the period of study of the student concerned does not exceed 5 years as per clause 14.2.1.

## **16 BREAK OF STUDY FROM A PROGRAMME**

**16.1** A student is permitted to go on break of study for a fixed period of one year as a single break in the entire course of study.

**16.2** When a student applies for break of study, the student shall apply to the Director, Academic Courses in advance, in any case, not later than the last date of the first assessment period. The application (downloaded from website) duly filled by the student shall be submitted through the Head of the Department.

**16.3** The students 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 to the Director, Academic Courses in the prescribed format through the Head of the Department at the beginning of the readmitted semester itself for prescribing additional/equivalent courses, if any, from any semester of the regulations in-force, so as to bridge the curriculum in-force and the old curriculum.

**16.3.1** Total number of credits to be earned by the student shall be more than or equal to the total number of credits prescribed in the curriculum in force. If the credit assigned for L T P of the courses are not same in two Regulations under consideration, then equivalence shall be arrived as per the credit assignment followed in the Regulations in force.

**Insertion of  
new  
Clause  
16.3.1**

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

**16.5** In case there is any period of break of study more than the permitted duration of break of study, the student shall be permitted to continue the programme only if the approval is obtained from the Director, Academic Courses through the concerned HOD before the end of the semester in which the student has taken break of study.

**16.6** If a student has not reported to the department for a period of two consecutive semesters without any intimation, the name of the student shall be deleted permanently from the college enrolment. Such students are not entitled to seek readmission under any circumstances.

**16.7** If a student in Full Time mode wants to take up job during the period of study, he/she shall apply for authorised break of study for one year. The candidate shall join the job only after getting approval of the same by The Director, Centre for Academic Courses.

## **17 DISCIPLINE**

**17.1** Every student is required to observe disciplined and decorous behaviour both inside and outside the college and not to indulge in any activity which will tend to bring down the prestige of the University / Department. The Head of the Institution shall constitute a disciplinary committee consisting of the Head of the Institution, Head of the department to which the student concerned belongs, and the Head of another department to enquire into acts of indiscipline and notify the University about the disciplinary action recommended for approval. In case of any serious disciplinary action which leads to suspension or dismissal, then a committee shall be constituted by the Registrar of the University for taking a final decision.

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

## **18 REVISION OF REGULATIONS, CURRICULUM AND SYLLABI**

The University may from time-to-time revise, amend or change the Regulations, Curriculum, Syllabus and Scheme of examinations through the Academic Council with the approval of the Syndicate.

Note:

The students who joined the Under Graduate programme in University Departments from the **Academic year 2022 – 2023 have to earn 3 additional credits**, due to addition of the following courses in the curriculum.

1. தமிழர் மரபு (Heritage of Tamils)
2. தமிழரும் தொழில்நுட்பமும் (Tamils and Technology)
3. Professional Development.

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