

**SHIKSHAA INSTITUTE OF ADVANCED TECHNOLOGIES**

**REGULATIONS 2021**

**CHOICE BASED CREDIT SYSTEM**

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

(For the students admitted to B.E. / B.Tech. Programme from the Academic year 2024- 2025 onwards)

**1. 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. **“Specialization”** means discipline of B.E. / B.Tech. Degree Programme, like Mechanical 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. **“Controller of Examinations”** means the Authority of the Institution who is responsible for all activities of the End Semester Examinations of the Institution.
- v. **“Head of the Institution”** means the Principal of the Institution.
- vi. **“Head of the Department”** means Head of the Department concerned.
- vii. **“University”** means ANNA UNIVERSITY, CHENNAI.

**2. ADMISSION PROCEDURE**

**2.1. Admission to First Semester**

- i. Students for admission to the first semester of the eight semester B.E./B.Tech. Degree Programme shall be required to have a pass in Higher Secondary Examination (Academic 10 + 2) Curriculum or its equivalent examinations with Mathematics, Physics and Chemistry/any other subjects accepted by the Directorate of Technical Education, Tamil Nadu and the affiliating University.

**(OR)**

- ii. Shall be required to have a pass in Higher Secondary Examination of Vocational Stream (Vocational groups in Engineering / Technology) as prescribed by the Directorate of Technical Education, Tamil Nadu and the affiliating University.

**2.2. Lateral Entry Admission**

- i. Candidates who possess 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. Programme corresponding to the branch

of study.

**(OR)**

- ii. The candidates who possess the Degree in Science (B.Sc.) (10+2+3 stream) with mathematics as a course at the B.Sc. level are eligible to apply for admission to the third semester of B.E. / B.Tech. Such candidates shall undergo two additional engineering courses in the third and fourth semesters as prescribed by the academic council of the institution.

### **3. UG PROGRAMMES OFFERED**

A student may be offered admission to any one of the programme of study approved by the University. The recommended credit range for each programme is 165 –180, preferably around 170.

1. B.E. - Computer Science and Engineering
2. B.E. - Electrical and Electronics Engineering
3. B.E. - Electronics and Communication Engineering
4. B.E. - Mechanical Engineering
5. B.Tech.- Artificial Intelligence and Data Science
6. B.E.- Artificial Intelligence and Machine Learning

### **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, 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)** include inter-disciplinary courses which are offered in other Engineering/Technology Programme of study
- 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. **Mandatory courses (MAC)** include Personality and Character development and the courses recommended by the regulatory bodies such as AICTE, UGC, etc.
- ix. **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.

#### **4.1.1. Mandatory Personality and Character Development Programme**

- 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, Women self esteem, self defense 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 hygiene and 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.

#### **4.1.2. 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 as **per UGC/AICTE guidelines**.

#### **4.2. Number of Courses per semester**

The Curriculum of each semester shall normally have a blend of theory courses and theory cum practical courses not exceeding 6 and Practical courses not exceeding 3. In addition, Employability Enhancement Course(s) may also be included. Each course may have credits assigned as per clause 4.3. However, the total number of courses per semester shall not exceed 10 (including EEC). Pre-final semester may have 4 to 6 theory courses, Mini Projects and laboratory courses not exceeding 2. The final semester may have a blend of 2 theory courses and Project work.

#### 4.3. Credit Assignment

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

Contact period per week	Credits
One Period of Lecture ( L) per week	1
One period of Tutorial (T) per week	1
2 Practical Periods (Laboratory / Seminar / Project Work / etc.)	1

The Contact Periods per week for laboratory can only be in multiples of 2. The length of these semesters shall be 15 to 18 weeks. Credit for a course shall vary from 1 to 4.

#### 4.4. Internship

The students may undergo Internship for a period as specified in the Curriculum during the summer / winter vacation. The students may undergo Internship at a Research organization / University / industry (after due approval from the Heads of the Departments) continuously for the entire period.

If Internship is not prescribed in the curriculum, the student may undergo Internship optionally and the credits earned through the Internship shall be over and above the total credit requirement for the award of the degree.

Duration of Internship	Credits
2 Weeks	1
4 Weeks	2

#### 4.5. 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.

#### **4.6. 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. The Head of the Department can constitute a committee, a team of senior faculty members (preferably three) to recommend the list of value added courses. One/two credit courses shall be offered by a department with the prior approval from the committee. The details of the syllabus, timetable and faculty may be sent to the controller of examinations after approval from the Head of the Department. Students can take a maximum of two 'one credit courses' or one 'two credit course'.

#### **4.7. Online Courses**

Students will be permitted to do online courses during 3<sup>rd</sup> to 8<sup>th</sup> semesters with final certification exams (NPTEL) to earn up to a maximum of six credits (which are provided with certificate after evaluation of the performance) with the prior approval from the Head of the Department. The Head of the Department can constitute a committee, a team of senior faculty members (preferably three) to recommend the list of online courses. On successful completion of each online course, the student has to submit the copy of the certificate to the Head of the Department. The committee recommends the credit and the grade that should be awarded to the student by appropriately mapping the score earned by the student. The results can be sent to the Controller of Examinations after the due approval by the Head of the Department. On successful completion of online courses adding to three credits, the student can obtain a waiver from doing either a Professional Elective or an Open Elective.

#### **4.8. Medium of Instruction**

The medium of instruction is English for all courses, examinations, seminar presentations and project/thesis/dissertations reports.

### **5. DURATION OF THE PROGRAMMES**

**5.1** The minimum and maximum periods for completion of the UG programmes are given below

<b>Programme</b>	<b>Minimum No. of semesters</b>	<b>Maximum No. of semesters</b>
<b>B.E./ B.Tech.</b>	8	14
<b>B.E./ B.Tech. Lateral Entry</b>	6	12

Each semester normally consists of 90 working days. In any contingent situation, the number of working days per semester shall not be less than 75 days. The Head of the Institution is given the discretionary powers to decide the number of working days in such contingencies.

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.

For regulations, the academic year has been divided into two semesters, the Odd semester normally spanning from July to November and the even semester from January to May.

The First semester of B.E. / B.Tech. Degree Programme normally spans from August to December and Second semester from January to May.

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 17**) 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 REGISTRATION

- i. Each student on regular admission has to register for all the courses prescribed in the first year of study.
- ii. A student has to earn the minimum number of total credits specified in the curriculum of the chosen programme of study in order to be eligible to obtain the degree. However, a student can earn more than the minimum number of credits, if he/she wish. In such cases, the minimum number of credits required for the completion of the programme alone would be considered for CGPA calculation.
- iii. The registration for the courses of the semesters III to VIII will commence 10 working days prior to the commencement of classes of the current semester. The student shall register for the courses with the guidance of his faculty mentor. The student may also drop courses (**vide clause 6.1**) within 5 working days of the commencement of the concerned semester and complete the registration process.
- iv. For an elective to be offered, the department shall specify the minimum number of students required.
- v. After registering for a course, a student should attend classes, satisfy attendance requirements (**vide clause 7**), earn continuous assessment and appear for the End Semester Examinations.

### 6.1. Flexibility to add or Drop courses

A student has to earn the total number of credits specified in the curriculum of the respective programme of study in order to be eligible to obtain the degree. However, if the student wishes, then the student is permitted to earn more than the total number of credits prescribed in the curriculum of the student's programme within the minimum duration of the programme.

From the III to VIII semesters, the student has the option of registering for additional courses or dropping existing courses. The total number of credits that a student can add or drop is limited to 8, subject to a maximum of 2 courses.

The student shall register Project work in VIII Semester. A student can earn a maximum of 2 one-

credit courses per semester.

## **6.2. 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.

**6.2.1** 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.

**6.2.2** 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.

**6.2.3** If a student fails to secure a pass in any theory or Laboratory course (including elective theory), he/she is given a maximum of three consecutive attempts to complete the course as per **Clause 11**. The internal assessment marks will be valid only for next three consecutive semesters. However during that period, the student shall have a choice to carry forward the internal assessment marks for reappearance, or can be allowed to redo the internal assessment if necessary.

**6.2.4** If the course in which the student fails to secure a pass even after three arrear attempts 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.

**6.2.5** The student who fails in Project work shall register for the course again, when offered next, and redo the course. In this case, the student shall attend the reviews and fulfill the attendance requirements as per clause 7.

**6.2.6** The student who fails in Seminar / Internship / Case Study 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**.

## **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 Principal Competent Authority 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 6.2**. 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.

**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 Head of the Department concerned.

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. Overall Monitoring Committee**

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) Common Course Coordinator. This overall monitoring committee shall meet periodically to discuss academic related matters, progress and status of the students of the semester concerned.

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

## **10. SYSTEM OF EXAMINATION AND ASSESSMENT PROCEDURE**

Performance in each course of study shall be evaluated based on

- i. Continuous internal assessment throughout the semester
- ii. End Semester Examinations (ESE) at the end of the semester.

Each course, both theory / integrated and practical including project work shall be evaluated for a maximum of 100 marks.

For all the End semester examinations, wherever necessary, the internal and external examiners shall be appointed by the Controller of Examinations.

Each course shall be evaluated for a maximum of 100 marks as detailed in Table

<b>S.No</b>	<b>Category of course</b>	<b>Continuous Internal Assessments</b>	<b>End-Semester Examinations</b>
<b>1.</b>	<b>Theory Courses</b>	40 Marks	60 Marks
<b>2.</b>	<b>Theory Courses with Laboratory</b>	40 Marks	60 Marks
<b>3.</b>	<b>Laboratory Courses</b>	50 Marks	50 Marks
<b>4.</b>	<b>Project Work</b>	40 Marks	60 Marks
<b>5.</b>	<b>All other EEC Courses</b>	100 Marks	----
<b>6.</b>	<b>Value added Courses</b>	100 Marks	----

There is no evaluation for Audit Courses. However, minimum attendance requirement as per clause 7 shall be satisfied.

Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD' for every semester, which consists of attendance marked in each theory / Laboratory/EEC/AC 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**

For Theory Courses including mandatory courses out of 100 marks, the maximum marks for Continuous assessment is fixed as 40 and the End Semester Examination carries 60 marks. The End Semester Examination for theory courses including mandatory courses will be of 3 Hours duration and shall normally be conducted for a maximum of 100 marks between November /December during the Odd Semesters and between April/May during the Even Semesters. End semester Examination is mandatory requirement for passing the Course.

Continuous Assessment is based on the performance of the Students in tests and tutorial or

objective type tests. Three assessments of equal weightage will be conducted by the Controller of Examinations. The total marks obtained in the assessments put together shall be reduced to 40 marks and rounded off to the nearest integer. In case a student misses the assessment due to medical reasons (hospitalization / accident / specific illness) or due to participation in the College / University / State / National / International level Sports events with prior permission from the HOD, a Re-assessment may be given at the end of the semester after getting approval from the Head of the Department through the concerned Course handling faculty.

To arrive the Continuous Assessment Mark, the following guidelines are to be followed

S.No.	Category Details	Marks
1	<b>Assessment I</b>	15
2	<b>Assessment II</b>	15
3	Employability online Test/Mini Projects/ Scopus indexed publications/ Online MCQs/ Case studies/Tutorials/Innovative Projects idea generation/ Problem solving and Implementation	10
<b>Total</b>		<b>40</b>

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 intimation from the Head of the institution, a Reassessment may be given after getting approval from the Head of the Department through the concerned Faculty advisor.

### 10.2. Assessment for Theory Courses with Laboratory Component

The maximum marks for Internal Assessment shall be 40 in case of theory courses with Laboratory component.

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

Sl. No	Category of Courses	Internal Assessment(40)		End-Semester Examination
		Assessment for Theory (T)	Assessment for Laboratory (L)	
1	<b>Theory Courses with Laboratory Component</b>	<b>30 (T)</b> <b>(Two assessments)</b>	<b>10 (L)</b> <b>(One assessment)</b>	<b>60 (T)</b>

### 10.3. Assessment for Laboratory Courses

Each laboratory Courses shall be evaluated for a maximum of 100 marks. Every laboratory exercise / experiment shall be evaluated based on the student performance during the laboratory

class and the student's record shall be maintained. The End Semester Examination will be conducted for 3 hours duration and shall normally be conducted for a maximum of 100 marks by Examiner other than the concerned laboratory course handling faculty.

Sl. No	Description	Marks
1	<b>Internal Assessment</b> Average mark awarded for Design and conduct of experiments(10 Marks), observation / coding / implementation (10 Marks),Results (10 Marks), Viva-Voce (10 Marks) and Record (10 Marks) in regular class works	50
2	<b>End Semester Practical Examinations</b> conducted by <b>Internal Examiner appointed by Controller of Examinations.</b>	50
<b>Total</b>		100

Examination 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

Project work may be allotted to a single student or to a group of students not exceeding 4 per group.

The Head of the department shall constitute a review committee for project work. There shall be three reviews during the semester by the review committee. The student shall make presentation on the progress made by him / her before the committee. The marks obtained in the three reviews will be as indicated in **clause 10.4.1**.

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

**10.4.1** The project work shall be evaluated for a maximum of 100 marks, of which continuous Assessments carry 40 marks (total) and the End Semester Examination (Project report evaluation and Viva- Voce Examination) carries 60 marks. The project report shall be submitted as per the approved guidelines. The evaluation of the project reports will carry 20 marks and the same mark shall be awarded to every student within the project group for the project report. The viva-voce examination shall carry 40 marks and marks are awarded to each student of the project group based on the individual performance in the viva-voce examination.

Continuous Assessment 40 Marks (By supervisor and Committee Members)			End semester Examination 60 Marks			
Review I	Review II	Review III	Project Report Evaluation 20 marks		Viva-Voce 40 marks	
10	10	20	Internal	External	Internal	External
			10	10	20	20

**10.4.2** If a student fails to submit the project report on or before the specified deadline, he/she is deemed to have failed in the Project Work and shall re-register for the same in a subsequent semester.

#### **10.5. Assessment for Seminar / 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 one presentation / demonstration in the prescribed semester before the evaluation committee. The three member committee consisting of one coordinator 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 Internship**

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

INTERNSHIP (INTERNAL ASSESSMENT)		
REPORT	PRESENTATION	VIVA VOCE

40	30	30
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### **10.7. Assessment for Value Added Course**

The one/two credit 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 the Head of the Department, staff handling the course (if available), coordinator and a senior Faculty member nominated by the Head of the Department shall monitor the evaluation process. The grades shall be assigned to the students by the above committee based on their relative performance.

### **10.8. Assessment for Online Course**

On successful completion of each online course, the student has to submit the copy of the certificate to the Head of the Department. The Head of the Department shall form a team of senior faculty members (preferably three) for recommending the credit and the grade that should be awarded to the student by appropriately mapping the score earned by the student. The results can be sent to the Controller of Examinations after the due approval by the Head of the Department. On successful completion of online courses adding to three credits, the student can obtain a waiver from doing either a Professional Elective or an Open Elective.

## **11. PASSING REQUIREMENTS**

- 11.1.** The passing requirement for a student in a course is determined based on the marks obtained both in continuous assessment and end semester examinations. A student, who secures not less than 50% of total marks prescribed for the course [continuous Internal Assessment + End semester Examinations] earns a minimum of 6 grade points in a course subject to secure a minimum of 50% marks in the end semester examinations, wherever applicable, shall be declared to have successfully passed the course.
- 11.2.** If a student fails to secure a pass in theory courses/ laboratory course in the current semester examination, he/she is allowed to write arrear examinations. The internal assessment marks will be valid only for the next three consecutive semesters. However during that period, the student shall have a choice to carry forward the internal assessment marks for reappearance, or can be allowed to redo the internal assessment, if necessary.
- 11.3.** The passing requirement for the courses which are assessed only through purely internal assessments (EEC courses except project work), is 50% of the internal assessment (continuous assessment) marks only.
- 11.4.** If a candidate fails in the Creative innovative project (EEC course), he/she has to revise the Project Report within 30 days from the date of declaration of the results. The revised report is reassessed by subsequent viva-voce examination. It 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.** Double valuation is adopted for all the theory courses in order to overcome any subjectivity in single valuation in the end semester examinations. So the provision for revaluation does not arise. The marks whichever is higher, that will be considered for final mark of the student.

**11.6.** If the difference in the total marks awarded is greater than 15 between the first and second valuation, Third valuation will be carried out. Highest marks awarded in the two valuations having difference less than 15 marks, will be the final mark. However, if a student wants to appeal for review of the result in any subjects, he / she can submit a challenge review applications to COE office. A committee consisting of the Head of the Department, concerned faculty advisor and a subject expert (Internal / External) nominated by the Head of the Institution will review and give its recommendations to the Controller of Examinations.

### **11.7 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.

## **12. AWARD OF LETTER GRADES**

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

<b>Range of Total Marks (TM) (Continuous assessment + End Semester Examinations)</b>	<b>Letter Grade</b>	<b>Grade Point</b>
$91 \leq \text{TM} \leq 100$	O	10
$81 \leq \text{TM} \leq 90$	A+	9
$71 \leq \text{TM} \leq 80$	A	8
$61 \leq \text{TM} \leq 70$	B+	7
$50 \leq \text{TM} \leq 60$	B	6
$0 \leq \text{TM} < 50$	RA	0
Shortage of Attendance	SA	-
Absent	AB	0
Audit Course	AU	-
Course Withdrawal	W	-

‘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.

For the Co-curricular activities such as NCC / NSS / NSO / YRC, a satisfactory / not satisfactory grading will appear in the mark sheet. Every student shall put in a minimum of 75% attendance in the training and attend the camp compulsorily. The training and camp shall be completed during the first year of the programme. However, for valid reasons, the Head of the Institution may permit a student to complete this requirement in the second year. A satisfactory grade in the above co-curricular activities is compulsory for the award of degree.

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

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

- The list of courses registered during the semester and the grades scored.
- The grade point average (GPA) for the semester
- 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.

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

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

$GP_i$  - is the grade point corresponding to the 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.



The credits earned through one / two credit courses shall not be considered for calculating GPA and CGPA.

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

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

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

- 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 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 Board of Studies.
- 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.

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

##### **15.1. 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 in the student's first appearance within five years, which includes authorized break of study of one year. Withdrawal from examination 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.

##### **15.2. 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 within five years 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.

### **15.3. Second Class:**

All other students (not covered in **clauses 15.1 and 15.2**) who qualify for the award of the degree (**vide Clause 14**) shall be declared to have passed the examination in Second Class.

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 16) for the purpose of classification.

## **16. PROVISION FOR WITHDRAWAL FROM EXAMINATION**

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

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.

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.

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).

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

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 with approval of Controller of Examinations.

## **17. BREAK OF STUDY FROM A PROGRAMME**

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.

When a student applies for break of study, the student shall apply to the Head of the Institution in advance. The application duly filled by the student shall be submitted through the Head of the

Department.

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 Academic Council 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.

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**).

In case there is any period of break of study more than the permitted duration of break of study, the student shall be permitted to continue the programme only if the approval is obtained from the Director of Technical Education /University through the Head of Institution before the end of the semester in which the student has taken break of study.

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

#### **18. PROCEDURE FOR USING SCRIBE**

If a candidate is physically handicapped (in case of accidents / ill health) at the time of examination, He / she may be permitted to use a scribe to write the examination. In such case 30 minutes extra time will be permitted for continuous assessment test and 60 minutes for end semester examination. The Scribe shall be a non-engineering student / graduate.

#### **19. DISCIPLINE**

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

In the event of an act of indiscipline being reported, the Head of the Institution shall constitute a disciplinary committee to enquire into act of indiscipline.

The Head of the Institution shall constitute a disciplinary committee consisting of the Head of the department to which the student concerned belongs, and the Heads of other department to enquire into acts of indiscipline and notify the Head of the institution 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 Head of the Institution for taking a final decision.

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

## **20. REVISION OF REGULATIONS, CURRICULUM AND SYLLABI**

The Academic council of the college reserves the right to revise or change or amend the regulations, the scheme of examinations, the curriculum and the syllabi from time to time if found necessary.

**2<sup>nd</sup> meeting of the Academic Council was held on 02.03.2022 (Wednesday)**

### **AC 02.01 CONSIDERED AND APPROVED CERTAIN AMENDMENTS PG AND UG REGULATIONS**

#### **UG REGULATIONS**

##### **a. Mandatory Personality and Character Development Programme – Club activities**

###### **Clause 4.1.1 in UG R2021 Regulations**

RESOLVED to have personality development programmes such as club activities like Mathematics Club, English Club, Tamil Club, Science Club etc., combined with character building / Service oriented activities such as NCC/NSS/NSO/YRC etc., for a total period of 80 hours

##### **b. Advancement of Courses**

###### **Clause 4.9 in UG R2021 Regulations**

RESOLVED that a student who have a CGPA of 7.50 and above and not having standing arrears at the end of Semester IV can undergo the eighth semester courses other than the Project Work in the sixth and seventh semesters itself.

##### **c. Conduct of Academic Audit**

###### **Clause 10.9 in UG R2021 Regulations**

RESOLVED to have the academic audit by academicians from external colleges after completion of the semester.

##### **d. Classification of Awarding – First class**

###### **Clause 15.2 in UG R2021 Regulations**

RESOLVED to follow the existing norms for awarding first class (students should have secured a CGPA not less than 7).

RESOLVED to be in line with norms for university departments and to wait until further revisions are made in the university departments regulations.

##### **e. Relative Grading for awarding grades for courses.**

###### **For both UG & PG R2021 Regulations**

Resolved to follow the university norms for awarding grades which will be announced in course of time by university.

**3<sup>rd</sup> meeting of the Academic Council was held on 20.02.2023 (Friday)**

**AC 03.01 CONSIDERED AND APPROVED REVISIONS TO BE CARRIED OUT AS PER THE DIRECTIONS OF ANNA UNIVERSITY IN UG AND PG REGULATIONS**

**UG REGULATIONS**

**a. Assessment Procedure in Theory, Theory with Lab, Laboratory, Project work courses** – marks allocation for Continuous Internal Assessment and End Semester examinations:

**Clause 10 in UG R2021 Regulations**

For Theory courses 40 : 60

For Theory with laboratory component 50 : 50

For laboratory courses 60 : 40

For Project work 60 : 40

**b. Assessment for Theory with Laboratory component**

**Clause 10.2 in UG R2021 Regulations**

L	T	P	C	Internal Assessment 1	Internal Assessment 2	End semester examination
3	0	2	4	Theory (25%)	Laboratory (25%)	Theory (35%) Laboratory (15%)
2	0	4	4	Theory (25%)	Laboratory (25%)	Theory (15%) Laboratory (35%)

**c. Assessment for Laboratory courses**

**Clause 10.3 in UG R2021 Regulations**

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

\*Internal assessment shall be converted into 60 marks

**d. Assessment for Project work**

**Clause 10.4 in UG R2021 Regulations**

<b>Continuous Assessment 60 Marks (By supervisor and Committee Members)</b>			<b>End semester Examination 40 Marks</b>		
<b>Review I</b>	<b>Review II</b>	<b>Review III</b>	<b>Project Report Evaluation 20 marks</b>	<b>Viva-Voce 20 marks</b>	
<b>10</b>	<b>25</b>	<b>25</b>	<b>External</b>	<b>Internal</b>	<b>External</b>
			<b>20</b>	<b>10</b>	<b>10</b>

**e. Relative grading procedure for Theory, Theory with Lab courses.**

**Clause 12 in UG R2021 Regulations**

As per the guidelines of Anna University, relative grading using a software, shall be followed for those students who passed the examination as per the passing requirements. The evolved relative grading method normalizes the results data using the BOX-COX transformation method and computes the grade range for each course separately and awards the grade to each student. For a given course if the student strength is greater than thirty, the relative grading method shall be adopted. However, if the student's strength is less than or equal to thirty, then the fixed grading shall be followed with the grade range as specified below

<b>Letter Grade</b>	<b>O</b>	<b>A+</b>	<b>A</b>	<b>B+</b>	<b>B</b>	<b>C</b>	<b>U</b>
Range of total marks	91-100	81-90	71-80	61-70	56 - 60	50 - 55	< 50
Grade point	10	9	8	7	6	5	0

For those students who have not passed "U" grade (re-appearance) shall be awarded.

- Fixed grading for Laboratory, Project work and pure internal courses.
- Award of Letter Grades - Six letter grade system instead of 5 letter grade system.

**AC 03.02      CONSIDERED AND APPROVED WEIGHTAGE FOR CO-CURRICULAR ACTIVITIES IN INTERNAL ASSESSMENT AS PER THE DIRECTIONS OF ANNA UNIVERSITY**

**Clause 10.1 in UG R2021 Regulations**

Resolved to approve the weightage for Co-curricular activities as stated below:

The co-curricular performance/ achievements of the student such as Employability Online Test/Mini Projects/ Scopus indexed publications/ Online MCQs/ Case studies/Tutorials/Innovative Projects idea generation/ Problem solving and Implementation etc. shall be considered for 10 marks of the internal assessment.

**AC 03.03 CONSIDERED AND APPROVED INTERNAL ASSESSMENT MARKS CONSIDERATION FOR PASSING REQUIREMENT AS PER THE DIRECTIONS OF ANNA UNIVERSITY****Clause 11.2 in UG R2021 Regulations**

Resolved to approve the modifications with regard to consideration of internal assessment marks for passing requirement as per the directions of Anna University as given below:

**PASSING REQUIREMENTS**

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 11.1, 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.

**AC 03.04 CONSIDERED AND APPROVED THE CHANGES IN CLASSIFICATION OF DEGREE AWARDED AS PER THE DIRECTIONS OF ANNA UNIVERSITY****Clause 15.2 in UG R2021 Regulations**

Resolved to approve the following changes in classification of degree awarded as per the directions of Anna University:

Requirement for First class – 6.5 CGPA instead of 7 CGPA (with other norms followed as usual)

**AC 03.05 CONSIDERED AND APPROVED THE IMPLEMENTATION OF SKILL ENHANCEMENT TRAINING (NALYA-THIRAN) AS PER DOTE AND ANNA UNIVERSITY GUIDELINES.**

Resolved to approve the implementation of skill enhancement training (NALYA-THIRAN) as per DOTE and Anna University guidelines.