

GRT INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Autonomous)

Accredited by NAAC || Approved by AICTE, New Delhi || Affiliated to Anna University, Chennai
Chennai-Tirupathi Highway, Tiruttani – 631209



B.E / B.Tech., Regulations 2024 (R-2024)

CHOICE BASED CREDIT SYSTEM (CBCS)

and

OUTCOME BASED EDUCATIONS (OBE)

**Common to all B.E / B.Tech. Full-Time Programmes
(For Students Admitted from the Academic Year 2024-2025 Onwards)**

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	Chennai Tirupathi Highway, Tiruttani - 631209	www.grt.edu.in

REGULATIONS 2024

CHOICE BASED CREDIT SYSTEM and OUTCOME BASED EDUCATION

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

These regulations are applicable to all candidates admitted into **B.E./B.Tech. Degree Programmes** at GRT Institute of Engineering and Technology, Tiruttani 631209, from the academic year **2024 – 2025 onwards**.

1.	PRELIMINARY DEFINITIONS AND NOMENCLATURE
	In this Regulation, unless the context otherwise specifies.
	<ul style="list-style-type: none"> • “University” means affiliating University, ANNA UNIVERSITY, CHENNAI.
	<ul style="list-style-type: none"> • “Programme” means Degree Programme (i.e) B.E./B.Tech. Degree Programme.
	<ul style="list-style-type: none"> • “Branch” means Discipline or Specialization of B.E./B.Tech. Degree Programme, like Civil Engineering, Mechanical Engineering, etc
	<ul style="list-style-type: none"> • “Course” means a theory, theory cum practical and practical subject that is normally studied in a semester, like Calculus and Linear Algebra, Problem Solving and C Programming, etc.
	<ul style="list-style-type: none"> • “Credit” means a numerical value allocated to course units to describe the students’ workload required per week.
	<ul style="list-style-type: none"> • “Grade” means the letter grade assigned to each course based on the marks range specified.
	<ul style="list-style-type: none"> • “Grade point” means a numerical value (0 to 10) allocated based on the grade assigned to each course.
	<ul style="list-style-type: none"> • “OBE” means Outcome Based Education
	<ul style="list-style-type: none"> • “CBCS” means Choice Based Credit System: <ul style="list-style-type: none"> • CBCS is a flexible system of learning that permits students to learn at their own pace. • Choose electives from a wide range of elective courses offered by the departments. • Adopt an inter-disciplinary approach in learning.
	<ul style="list-style-type: none"> • “Head of the Institution” means the Principal, Chairman, Academic Council of the College.
	<ul style="list-style-type: none"> • “COE” means Controller of Examinations means the authority of the College who is responsible for all activities of the Examinations.
	<ul style="list-style-type: none"> • “HOD” means Head of the Department concerned.
	<ul style="list-style-type: none"> • “PAC” means Programme Assessment Committee
	<ul style="list-style-type: none"> • “AEC” means Assessment Evaluation Committee

2.	ELIGIBILITY FOR ADMISSION																								
2.1	Admission to First Years																								
	The candidates seeking admission for the first semester to the eight semester B.E. / B.Tech., degree programme:																								
(i)	Should have passed the Higher Secondary Examinations of (10+2) Curriculum (Academic Stream) prescribed by the Government of Tamil Nadu with Mathematics, Physics and Chemistry as three of the four subjects of study under Part-III or any examination of any other University or authority accepted by the Syndicate of Anna University as equivalent thereto.																								
	(OR)																								
(ii)	Should have passed the Higher Secondary Examination of Vocational Stream (Vocational groups prescribed for B.E./B.Tech. admission as per Government of Tamil Nadu).																								
2.2	Lateral Entry Admission																								
	The candidates seeking admission for the third semester to the eight semester B.E./ B.Tech., degree programme:																								
(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)	<ul style="list-style-type: none"> 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 College. 																								
3.	PROGRAMMES OFFERED																								
	The following programmes/disciplines of study approved by Anna University, Chennai and All India Council for Technical Education, New Delhi are offered by the College.																								
	Table I - Programmes Offered by the College																								
	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>S. No</th> <th>Branch</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>B.E., - Mechanical Engineering</td> <td>ME</td> </tr> <tr> <td>2</td> <td>B.E., -Electrical and Electronics Engineering</td> <td>EE</td> </tr> <tr> <td>3</td> <td>B.E., -Electronics and Communication Engineering</td> <td>EC</td> </tr> <tr> <td>4</td> <td>B.E., -Biomedical Engineering</td> <td>BM</td> </tr> <tr> <td>5</td> <td>B.E., -Computer Science and Engineering</td> <td>CS</td> </tr> <tr> <td>6</td> <td>B.Tech.- Artificial Intelligence and Data Science</td> <td>AI</td> </tr> <tr> <td>7</td> <td>B.Tech.-Information Technology</td> <td>IT</td> </tr> </tbody> </table>	S. No	Branch	Code	1	B.E., - Mechanical Engineering	ME	2	B.E., -Electrical and Electronics Engineering	EE	3	B.E., -Electronics and Communication Engineering	EC	4	B.E., -Biomedical Engineering	BM	5	B.E., -Computer Science and Engineering	CS	6	B.Tech.- Artificial Intelligence and Data Science	AI	7	B.Tech.-Information Technology	IT
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4.	STRUCTURE OF PROGRAMMES																								
	OBE and CBCS are two educational frameworks that have gained traction in recent years for their ability to enhance the quality and flexibility of education. Here's a brief overview of each:																								
	<ul style="list-style-type: none"> OBE is an educational approach that focuses on defining specific learning outcomes that students should achieve by the end of a course or program. 																								

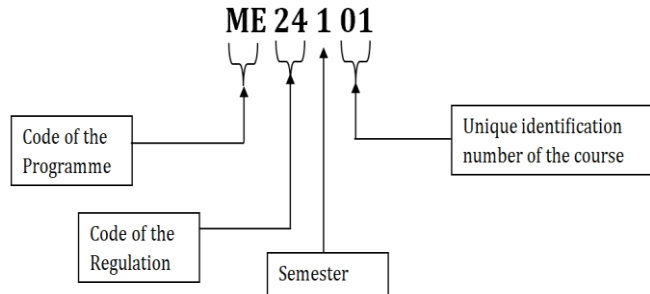
	<ul style="list-style-type: none"> • Instead of focusing solely on content delivery, OBE emphasizes what students are expected to know, understand, and be able to do after completing their education.
	<ul style="list-style-type: none"> • OBE encourages a shift from a teacher-centred approach to a learner-centred approach, where the emphasis is on student mastery of skills and knowledge rather than simply covering a prescribed curriculum.
	<ul style="list-style-type: none"> • Assessment in OBE is aligned with the defined outcomes, often using rubrics and performance tasks that measure students' ability to demonstrate their learning.
	<ul style="list-style-type: none"> • CBCS is a system that allows students to choose courses from a list of elective courses offered by an institution, in addition to the core courses required for their program.
	<ul style="list-style-type: none"> • Each course is assigned a certain number of credits, and students earn credits upon successful completion of a course.
	<ul style="list-style-type: none"> • CBCS provides flexibility for students to pursue their academic interests and tailor their education according to their career goals.
	<ul style="list-style-type: none"> • The system also facilitates mobility between institutions, as credits earned in one institution can often be transferred to another, provided they are part of the same CBCS framework.
	<p>Combining OBE with CBCS can provide a comprehensive educational experience that focuses on both student learning outcomes and flexibility in course selection. By defining clear learning outcomes and allowing students to choose courses that align with their interests and goals, institutions can better prepare students for success in their chosen fields and adapt to the evolving needs of the workforce. Additionally, both frameworks can contribute to fostering a culture of continuous improvement and innovation in higher education.</p>
4.1	Categorization of Courses
	<p>The B.E./B.Tech program will feature a curriculum inclusive of syllabi consisting of Theory, Theory cum Practical, and Practical courses in every semester, alongside professional skills training/industrial training, Project work, Internship, etc. These components have been duly sanctioned by the respective Board of Studies and Academic Council of the College. All programs adhere to clearly defined Programme Outcomes (PO), Programme Specific Outcomes (PSO), and Programme Educational Objectives (PEOs) in accordance with OBE) principles. Each course's content is crafted based on the Course Outcomes (CO). The courses will be classified into the following categories:</p>
	<ul style="list-style-type: none"> • Humanities and Social Sciences (HS) encompassing Management Courses, English Communication Skills, Universal Human Values, and Yoga & Values for Holistic Development.
	<ul style="list-style-type: none"> • Basic Science (BS) Courses include Mathematics, Physics, Chemistry, Biology, Environmental Science etc.
	<ul style="list-style-type: none"> • Engineering Science (ES) Courses include Engineering Practices, Engineering Graphics, Basics of Civil / Mechanical / Electrical / Electronics /Instrumentation, Computer Engineering, etc.
	<ul style="list-style-type: none"> • Professional Core (PC) Courses include the core courses relevant to the chosen specialization/branch.
	<ul style="list-style-type: none"> • Professional Elective (PE) Courses include the elective courses relevant to the chosen specialization/ branch.
	<ul style="list-style-type: none"> • Open Elective (OE) Courses include the courses offered by a branch to other branches, from the list specified in the respective curriculum of the B.E. / B. Tech. Programmes.
	<ul style="list-style-type: none"> • Employability Enhancement Courses (EEC) such as Project work, Professional Skills/Industrial Training, Comprehensive Test & Viva, Entrepreneurships/Start-ups, and Internship/In-plant Training in Industry or elsewhere.
	<ul style="list-style-type: none"> • Mandatory Courses (MC) include the courses such as Languages, Wellbeing etc.
	<ul style="list-style-type: none"> • Audit Courses (AC) include the courses such as Constitution of India, Sangam Literature etc.

4.2	Personality and Character Development
	Upon admission, all students will be required to enrol in one of the personality and character development programs: NCC/NSS/YRC/UBA/NSO and undergo training for about 80 hours . The training shall include classes on hygiene and health awareness and training in first aid. Activities of science, literature and fine arts also will be helpful for personality and character development.
	<ul style="list-style-type: none"> • National Cadet Corps (NCC) will have about 20 parades.
	<ul style="list-style-type: none"> • National Service Scheme (NSS) will encompass social service activities within and around the College/Institution.
	<ul style="list-style-type: none"> • The Youth Red Cross (YRC) will engage in social service activities within the College/Institution and its surrounding areas.
	<ul style="list-style-type: none"> • Unnat Bharat Abhiyan (UBA) integrates higher education academic institutions with local communities.
	<ul style="list-style-type: none"> • National Sports Organization (NSO) will feature Sports, Games, Drills, and Physical exercises.
	While the training activities will normally be during weekends, the camp will normally be during vacation period.
	The Science club will arrange activities aimed at popularizing science and fostering scientific curiosity. These activities may include astronomy, studying the works of renowned scientists from India and abroad, and commemorating National Science Day.
	A Literary Club, such as the "Tamil Ilakkiya Mandram," will be established to organize vibrant literary events promoting humanist values, morals, and ethical principles depicted in literature.
	The Fine Arts Club will encourage pursuits like music, painting, and the creation of documentary films with social themes.
	Students who enrol and take active participation in anyone of the above activities for 80 hours and participate at least one event/programme will be given a certificate by the Head of the Institution and the copy of the same shall be forwarded to the Controller of Examinations for the purpose of record and scrutiny. No fee shall be charged for all these activities.
4.2.1	Induction Programme
	<ul style="list-style-type: none"> • Induction Programme is mandatory for the students pursuing the Undergraduate Programme.
	<ul style="list-style-type: none"> • List of students who have successfully completed the Induction Programme shall be certified by the Head of the Institution.
	<ul style="list-style-type: none"> • The completion of the Induction Programme shall be printed in the Grade Sheet as "COMPLETED".
	<ul style="list-style-type: none"> • In the case of students who have got admitted later and those who have not attended the Induction Programme at the time of joining the degree programme, it shall be conducted later and on completion, it shall be recorded in the grade sheet.
	<ul style="list-style-type: none"> • No fee will be charged towards the conduct of the Induction Programme and for including in the STATEMENT OF GRADES for the successful completion of the Induction Programme.
4.3	Number of Courses Per Semester
	Each semester curriculum shall normally have maximum of 7 Theory and Laboratory integrated Theory courses and 5 Laboratory courses and Employability Enhancement Course(s) put together. However, the total number of courses per semester shall not exceed 12 . Each course will be credited according to Clause 4.4

4.4 Course Code and Credit Assignment

COURSE CODE

Each course offered by a department under Professional Core Courses category is assigned with a course code consisting of two alphabets, followed by five numerals. First two alphabets denote the code of the Programme. First two numerals denote the code of the Regulation. Third numeral denotes 'Semester' and last two numerals denotes the unique identification number of the course. For example, in B.E., Mechanical Engineering programme, a particular PC offered in the first semester is denoted as



- For Professional Elective Courses offered by the Department, the third numeral denoting 'Semester' is designated as 'P'.
- For Open Elective Courses offered by the Department, the third numeral denoting Semester is designated as '9'.
- For common mandatory courses offered by the Department, the third numeral denoting Semester is designated as 'C'.
- For Skill Development Courses offered by the Department, the third numeral denoting Semester is designated as 'S'.
- For Management Elective Courses offered by the Department, the third numeral denoting Semester is designated as 'M'.

CREDIT ASSIGNMENT

Every B.E. / B. Tech. Programme will have a curriculum comprising courses of study with the prescribed syllabi. Each course is assigned with certain number of credits based on the contact hours L-T-P-C (L- Lecture, T- Tutorial, P- Practical, C-Credit) as specified in **Table III**. The hours per week mentioned for each course refer to periods per week. Each course is normally assigned certain number of credits as given below.

Table III - Allotment of Credits

Contact Period per Week	Credits
One Lecture Period	1
One Tutorial Period	1
Two Laboratory Period	1
Two Project Period	1
Minimum 60 Hours - Training/Internships (Two Spells not less than 20 Hours)	1

CREDITS TO AWARD DEGREE

The minimum prescribed credits required for the award of the degree shall be within the limits specified below:

The minimum prescribed credits required for the award of the degree shall be within the limits specified below:

Table IV – Prescribed Credit Range

Programme	Prescribed Credit Range
U.G (B.E/B.Tech)	160 - 170

4.5	Elective Courses																				
	The professional Elective Courses are listed in the Curriculum in Table format as verticals (Specialization 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 enrol more than one elective course from the same vertical in a semester. In the subsequent semesters students are permitted to enrol one more course in a row, provided if 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 the offer of each professional elective at least two choices shall be offered.																				
4.5.1	Procedure to drop Professional Elective / Open Elective course(s) and computation of Grade point																				
	<p>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.</p> <p style="text-align: center;">Table V</p> <table border="1" data-bbox="280 904 1417 1167"> <thead> <tr> <th>No. of Courses</th> <th>Total No. of Credits earned</th> <th>Courses to be printed in the grade sheet</th> <th>No. of Professional elective / Open Elective can be dropped</th> <th>No. of credits considered for GPA / CGP calculation</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2</td> <td>1</td> <td>-</td> <td>-</td> </tr> <tr> <td>2</td> <td>4</td> <td>2</td> <td>1</td> <td>3</td> </tr> <tr> <td>3</td> <td>6</td> <td>3</td> <td>2</td> <td>6</td> </tr> </tbody> </table>	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 / CGP calculation	1	2	1	-	-	2	4	2	1	3	3	6	3	2	6
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 / CGP calculation																	
1	2	1	-	-																	
2	4	2	1	3																	
3	6	3	2	6																	
	<ul style="list-style-type: none"> 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 up to 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 enroll the PE/OE (as the case may be) to meet the total credit requirements to earn the degree.																				
4.5.2	Method for computation of Grade point of dropped PE / OE courses																				
	<p>The method of Computation of Grade point for the dropped PE/OE courses is given below:</p> <ol style="list-style-type: none"> 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 shall be dropped of 3 credits each, with grade point computed as above.

4.6 Employability Enhancement Courses

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 every semester from V to VII.

Table VI

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.

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.

4.6.1 Industrial Training / Internship

Students have the option to undertake Industrial training for duration specified in the Curriculum, either during summer or winter vacation. In this scenario, the training must be completed continuously for the entire period. Alternatively, students may opt for an Internship at a Research organization or University (subject to approval from the Head of the department and Head of the Institution) for the duration prescribed in the curriculum, again during summer or winter vacation, in place of Industrial training.

If a student accumulates three credits from Industrial Training/Internship, they may choose to forego one Professional Elective Course/Open Elective Course. In such instances, Industrial

Training/Internship must be carried out continuously for a minimum of two weeks in an organization. However, if the student earns 1 or 2 credits, these credits will not be considered for degree classification. Students are permitted to engage in a maximum of 6 weeks of Industrial Training/Internship throughout their entire study duration.

Table VII - Training/Internship Credits

Duration of Training/Internship	Credits
2 weeks	1
4 weeks	2
6 weeks	3
*1 week=40 Internship Hours	

(OR)

A candidate may be permitted to establish a start-up and work part-time for it, applying their innovative ideas, thus becoming a student entrepreneur during the B. E/B. Tech program. Candidates can initiate their start-up from the fifth semester onwards, either within or outside the college premises. Such student entrepreneurs may earn 3 credits in place of Professional Skills Training II. The scope of the start-up could be interdisciplinary or multidisciplinary. The progress of the start-up will be evaluated through periodic reviews by a panel of members appointed by the principal.

4.7 Online Courses / Self Study Courses

4.7.1 Online Courses

Students may be authorized to enroll in and receive credit for online courses provided by platforms such as SWAYAM, NPTEL, or esteemed institutions like IITs, NITs, and NASCOM, subject to approval from the Head of the Institution. To ensure academic integrity, the Head of the Institution will establish a committee tasked with verifying that students have not previously completed such courses and will not duplicate them as part of their Professional Core, Professional Elective, or Open Elective courses. The number of credits and transfer of credits are based on the procedure explained in Table and the Mapping of the marks with the grades is explained in Table. The mapping of marks with grades is applicable only if the student passes the course as per the guidelines of NPTEL.

Table VIII- Duration of the Course and Number of Credits

No of weeks	No of credits
4	1
8	2
12	3
16	4

Table IX - Mapping of Marks Scored in NPTEL Course and Credits Earned

No of weeks	No of credits
O	90-100
A+	80-89
A	70-79
B+	60-69
B	50-59
C	40-49

Students may earn a **maximum of 8 credits**, as prescribed in their program's curriculum, through online courses.

	If a student wishes to seek exemption from Professional Elective Courses (PE) or Open Elective Courses (OE) based on credits earned from online courses, they can do so by submitting a written request to the respective Head of the Department. The committee, formed by the Chairman of the Academic Council, will then decide on the course exemption, following equivalence norms regarding contact hours, credits, and grades. Grades attained by students in online courses that are not claimed for exemption will be factored into the computation of the Cumulative Grade Point Average (CGPA).
4.7.2	Self-Study Courses
	A student may choose to enrol limited to one course during the entire course period under the Self-Study mode, only from the 5th semester. These courses can either be an Open Elective Course (OE) or a Professional Elective Course (PE), subject to specific approval from the committee appointed by the Chairman of the Academic Council. To be eligible, the student must have a CGPA of 7.5 or higher and no standing arrears.
	Under this mode, students will be responsible for independent study, guided by a faculty member approved by the Programme Assessment Committee (PAC). The faculty members will oversee the periodic monitoring and evaluation of the course, ensuring academic progress and adherence to learning objectives. The evaluation methodology shall be the same as that of a theory course.
4.7.3	Elective courses may be waived for a candidate who fulfils the necessary credit requirements outlined in clauses 4.7.1 and 4.7.2, by enrolling in the appropriate number of courses beforehand.
4.8	Value Added Courses (VAC)
	The 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 the Department of the institution with the prior approval of BoS and Academic Council. The details of the syllabus, time table and faculty may be sent to the Head of the Institution in advance (at least one month before) for the approval before the course is offered. Students can take a maximum of two one-credit courses / one two-credit course during the entire duration of the Programme.
4.9	Mandatory Courses (MC)
	The student shall study the mandatory courses and it will be mentioned in the Grade Sheet. However, it will not be considered for computation of CGPA.
4.10	Audit Courses (AC)
	The student may optionally study audit courses and it will be mentioned in the Grade Sheet. However, it will not be considered for computation of CGPA.
4.11	Honours / Minor Degree Courses
	B.E / B.Tech. (Hons.)
4.11.1	a) The students should have earned additional courses (minimum of 18 credits) from more than one vertical of the same programme. b) Should have passed all the 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.
4.11.2	B.E./B.Tech. Minor with specialization in another discipline The student should have earned additionally a minimum of 18 credits in anyone of the verticals of other B.E/B.Tech programmes. 1. For these 18 credits students can optionally enroll and study a maximum of 6 credits in online

	<p>mode from SWAYAM-NPTEL platform (in addition to the three online courses permitted for courses of curriculum), as approved by the Centre for Academic Courses.</p> <p>2. B.E / B.Tech. (Hons.) and B.E./B.Tech. minor with specialization in another discipline will be optional for students and the students shall be permitted to select any one of them only.</p> <p>3. 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.</p> <p>4. B.E/B.Tech. (Hons.) or B.E./ B.Tech. Minor shall be offered by the Department irrespective of the number of students enrolled.</p> <p>5. If a student decides not to opt for Honors, 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.</p>
4.11.3	If the student has studied a greater 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. The 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.
4.11.4	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.
4.11.5	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.
4.11.6	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.
4.11.7	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.
4.12	Medium of instruction
	The medium of instruction, examinations, project report etc. shall be in English except for the two courses offered in Tamil/Bilingual mode.
5	DURATION OF THE PROGRAMME
5.1	A student is ordinarily expected to complete the B.E./B.Tech. Programme in 8 semesters (for HSC students) and six semesters (for Lateral Entry students) but in any case, not more than 14 Semesters for HSC (7 Years) students and not more than 12 semesters (6 Years) for Lateral Entry students.
5.2	For regulation, the academic year will be divided into two semesters, the winter semester normally spanning from June to November and the summer semester from December to May.
5.3	Each semester shall normally consist of 80 working days or 540 periods of 50 minutes each. The Head of the Institution shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus and that the teacher teaches the full content of the specified syllabus for the course being taught.
5.4	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-18) in order that the student may be eligible for the award of the degree (vide clause-16).

5.5	<p>The Head of the Institution may instruct the Head of the Departments to conduct additional classes for improvement, special coaching, conduct of model test etc., over and above the specified periods for each course. But for the purpose of calculation of attendance requirement or writing the end semester examinations (as per clause 8) by the students, the periods conducted for each course within the given academic schedule as specified in the curriculum for each course shall be considered and the percentage of attendance of each course shall be calculated accordingly. The academic schedule normally commences from the opening/reopening day specified by the Head of the Institution for a particular semester and ends with the previous working day of the end semester theory examination.</p> <p>The following method shall be used for calculating the percentage of attendance.</p> $\text{Percentage of Attendance} = \frac{\text{Total no. of periods attended in all the courses per semester}}{\{(No. of periods /week as prescribed in the curriculum) \times \text{No. of Weeks taken together for all courses of the semester}\}} \times 100$
6	COURSE REGISTRATION
6.1	Each student, on admission shall be assigned to a Class Advisor who shall advise/counsel the student about the details of the academic programme and the choice of course(s) considering the student's academic background and career objectives.
6.2	Every student shall enrol for the courses of the succeeding semester, in the current semester. However, the student shall confirm the enrolment by registering for the courses within the first Seven working days after the commencement of the semester concerned.
6.3	After registering for a course, a student shall attend the classes, satisfy the attendance requirements, earn Continuous Assessment marks, and appear for the End Semester Examinations.
6.3.1	Each student, on admission to the programme, shall register for all the courses prescribed in the curriculum in the first Semester of study (III Semester for students admitted under lateral entry stream).
6.3.2	The enrolment for all the courses of the Semester II will commence 10 working days prior to the last working day of Semester I. The student shall confirm the enrolment by registering for the courses within the first five working days after the commencement of the Semester II. In case, if a student fails to register in course(s), he / she may be permitted to register the same in the subsequent semesters or when it is offered.
6.3.3	The enrolment for the courses of the Semesters III to VIII will commence 10 working days prior to the last working day of the preceding semester. The student shall enrol for the courses with the guidance of the student's Faculty Advisor. If a student wishes, the student may drop or add courses within five working days after the commencement of the semester concerned and complete the registration process duly authorized by the Class Advisor.
6.3.4	The maximum number of credits that can be registered in a semester is 36 . However, this does not include the number of Re-appearance (U) and Withdrawal (WD) courses registered by the student for the appearance of Examination.
6.3.5	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, except for the arrear courses.

6.4	Reappearance Registration
6.4.1	If a student fails in a theory course, the student shall do reappearance registration (Examination) for that course in the subsequent semesters or when it is offered next.
6.4.2	If the theory course, in which the student has failed, is either a professional elective or an open elective, the student may register for the same professional elective or open elective course, respectively in the subsequent semesters.
6.4.3	If a student is prevented from writing the end semester examination of a course or several courses due to lack of attendance, the student must register for that / those course(s) again, when offered next, attend the classes and fulfil the requirements by attending the classes and satisfy the attendance requirements (vide Clause 7.1). Then they can earn Continuous Assessment marks and appear for the End Semester Examination.
6.4.4	If the course, in which the student has 'lack of attendance', is a Professional Elective or an Open Elective, the student may register for the same or any other Professional Elective or Open Elective course(s) respectively in the subsequent semesters and appear in the examination as per clause 6.4.4.
6.4.5	If a student fails to secure a pass in any theory courses (including elective) he/she is given a maximum of three arrear attempts to complete the courses. If the student still fails to secure a pass, he/she shall register for the same when offered next and repeat the course.
6.5	FLEXIBILITY TO ADD OR DROP COURSES
6.5.1	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.
6.5.2	From the second to final semesters, the student has the option of dropping existing courses in a semester during registration. Total number of credits of such courses shall not exceed 6 per semester. The student is permitted to drop the course(s) within 30 days of the commencement of the academic schedule.
6.5.3	From the V to VIII semesters, the student has the option of registering for additional courses in a semester. With regard to enrolling for B.E. / B. Tech. (Hons) or B.E. / B. Tech. Minor The total number of credits that a student can add in a semester is limited to 6, subject to a maximum of 2 courses. Maximum number of credits enrolled in a semester (Honours and Minor) shall not exceed 36.
6.5.4	The online courses registered for B.E. / B. Tech. (Hons.) and B.E. / B. Tech. minor shall be over and above these 36 credits.
6.6	REQUIREMENTS FOR COMPLETION OF THE SEMESTER
	A student who has fulfilled the following conditions (vide clause 8.1 and 8.2) shall be deemed to have satisfied the attendance requirements for appearing for end semester examination of a particular course.
6.6.1	Ideally every student is expected to attend all classes of all the courses and secure 100% attendance. However, in order to give provision for certain unavoidable reasons such as medical / participation in sports, the student is expected to attend at least 75% of the classes. Therefore, he/she shall secure not less than 75% (after rounding off to the nearest integer) of overall attendance as calculated as per clause 5.5.
6.6.2	If a student secures overall attendance between 65% and 74% 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 Head of the Department concerned and Principal, the student shall be given exemption from the prescribed attendance requirement. The student shall be permitted to appear for the end semester examination of that course with recommendations of the committee constituted by the principal, followed by

	paying prescribed fee fixed time to time. In all such cases, the student should submit the required documents on joining after the absence to the Head of the Department through the Proctor.
6.6.3	Students who secure less than 65% overall attendance shall not be permitted to write the University examination at the end of the semester and not permitted to move to the next semester. They are required to repeat the incomplete semester in the next academic year, as per the norms prescribed.
6.6.4	The student academic progress, character and conduct have to be satisfactory.
7	CLASS ADVISOR
7.1	There shall be a Class Advisor for each class. The Class Advisor will be one among the Course-instructors of the class. He/she will be appointed by the Head of the Department of the department concerned. The responsibilities of the Class Advisor shall be:
7.2	To collect and maintain the records of all the students in the class and various statistical details of students.
7.3	To act as the channel of communication between the Head of the Department and the students of the respective class.
7.4	To help the chairperson of the class committee in planning and conduct of the class committee meetings.
7.5	To monitor the academic performance of the students including attendance and to inform the class committee, Head of the Department and the concerned student
7.6	To attend to the students' welfare activities like awards, medals, scholarships and industrial visits.
7.7	To provide necessary details to COE with the approval of Head of the Department.
7.8	To ensure that each course faculty has informed the method of assessment, weightage and award of marks for all the course offered in the semester, within one week from the commencement of the classes.
8	REQUIREMENTS FOR APPEARING FOR THE END SEMESTER EXAMINATION OF A COURSE
8.1	A student shall normally be permitted to appear for End semester examination of the course if the student has satisfied the attendance requirements and has registered for examination in those courses of that semester by paying the prescribed fee. This permission could be availed by the students only two times during the entire course of study.
8.2	Further, examination registration by a student is mandatory for all the courses in the current semester and all arrear(s) course(s) for the end semester examinations failing which, the student will not be permitted to move to the higher semester.
8.3	When a candidate is deputed for a National / International Sports event during End Semester examination period, supplementary examination shall be conducted for such a candidate on return after participating in the event within a reasonable period of time. Such appearance shall be considered as first appearance.
8.4	A student who has already appeared for a course in a semester and passed the examination is not entitled to reappear in the same course for improvement of letter grades / marks.
9	CLASS COMMITTEE
9.1	Every class shall have a class committee consisting of teachers of the class concerned, student representatives and a chairperson who is not teaching the class. It is like the "Quality Circle" (more commonly used in industries) with the overall goal of improving the teaching-learning process. The functions of the class committee include. <ul style="list-style-type: none"> Solving problems experienced by students in the classroom and in the laboratories.

	<ul style="list-style-type: none"> • Clarifying the regulations of the degree programme and the details of rules therein particularly clause 5 and 6 which should be displayed on college Noticeboard. • Informing the student representatives the academic schedule including the dates of assessments and the syllabus coverage for each assessment. • Informing the student representatives the details of Regulations regarding weightage used for each assessment. In the case of practical courses (laboratory / drawing /project work / seminar etc.) the breakup of marks for each experiment / exercise /module of work, should be clearly discussed in the class committee meeting and informed to the students. • Analysing the performance of the students of the class after each test and finding the ways and means of solving problems, if any. • Identifying the weak students, if any, and requesting the teachers concerned to provide some additional help or guidance or coaching to such weak students.
9.2	The class committee for a class under a particular branch is normally constituted by the head of the department. However, if the students of different branches are mixed in a class (like the first semester which is generally common to all branches), the class committee is to be constituted by the principal.
9.3	The class committee shall be constituted within the first week of each semester.
9.4	At least four student representatives (usually 2 boys and 2 girls) shall be included in the class committee.
9.5	The chairperson of the class committee may invite the class advisor and the Head of the department to the meeting of the class committee.
9.6	The principal may participate in any class committee of the institution.
9.7	The chairperson is required to prepare the minutes of every meeting, submit the same to Principal within two days of the meeting and arrange to circulate it among the students and teachers concerned. If there are some points in the minutes requiring action by the management, the same shall be brought to the notice of the Management by the Head of the Institution.
9.8	The first meeting of the class committee shall be held within one week from the date of commencement of the semester, to inform the students about the nature and weightage of assessments within the framework of the Regulations. Two or three subsequent meetings may be held in a semester at suitable intervals. The Class Committee Chairman shall put on the Notice Board the cumulative attendance particulars of each student at the end of every such meeting to enable the students to know their attendance details to satisfy the clause 8 of this Regulation. During these meetings the student members representing the entire class, shall meaningfully interact and express the opinions and suggestions of the other students of the class to improve the effectiveness of the teaching-learning process.
10	COURSE COMMITTEE
	Each common theory course offered to more than one discipline or group, shall have a “Course Committee” comprising all the teachers teaching the common course with one of them nominated as the course coordinator. The nomination of the course coordinator shall be made by the Head of the Department / Head of the Institution depending upon whether all the teachers teaching the common course belong to a single department or to several departments. The ‘Course Committee’ shall meet in order to arrive at a common scheme of evaluation for the test and shall ensure a uniform evaluation of the tests. Wherever feasible, the Course Committee may also prepare a common question paper for the internal assessment test(s).

11	SYSTEM OF EXAMINATION																																																		
11.1	The duration of end semester examination for theory, theory cum practical course and practical courses shall be three hours and normally conducted between October and December during the winter semesters and between April and June during the summer semesters.																																																		
11.2	<p>Total marks for each course (Theory, Practical, Embedded course & Project work) will be 100, comprising of two components namely,</p> <ul style="list-style-type: none"> • Continuous Internal Assessment (CIA) throughout the semester • End Semester (ES) Examinations <p>However, there are some courses like Mandatory courses, online courses, internship, etc., have only continuous assessment for 100 marks without an end semester examination. The PAC shall recommend such courses every semester with assessment pattern to AEC for approval. The scheme of assessment shall be made available to the students during the course registration. Each course shall be evaluated for a maximum of 100 marks as illustrated below.</p>																																																		
	<p>Table X - Weightage of Marks for Category of Courses</p> <table border="1"> <thead> <tr> <th>S.No</th> <th>Category of Course</th> <th>Weightage of CIA</th> <th>Weightage of ES</th> <th>Total marks</th> </tr> </thead> <tbody> <tr> <td>a.</td> <td>Theory Courses</td> <td>40</td> <td>60</td> <td>100</td> </tr> <tr> <td>b.</td> <td>Theory +Practical Courses</td> <td>50</td> <td>50</td> <td>100</td> </tr> <tr> <td>c.</td> <td>Practical Courses</td> <td>60</td> <td>40</td> <td>100</td> </tr> <tr> <td>d.</td> <td>Project Work</td> <td>60</td> <td>40</td> <td>100</td> </tr> <tr> <td>e.</td> <td>Make a Product</td> <td>100</td> <td></td> <td></td> </tr> <tr> <td>f.</td> <td>Employability Enhancement Courses</td> <td>100</td> <td>-</td> <td>100</td> </tr> <tr> <td>g.</td> <td>Online Course</td> <td>-</td> <td>-</td> <td>100</td> </tr> <tr> <td>h.</td> <td>Non-Credit Course</td> <td>100</td> <td>-</td> <td>100</td> </tr> <tr> <td>i.</td> <td>Audit Course</td> <td>100</td> <td>-</td> <td>100</td> </tr> </tbody> </table>	S.No	Category of Course	Weightage of CIA	Weightage of ES	Total marks	a.	Theory Courses	40	60	100	b.	Theory +Practical Courses	50	50	100	c.	Practical Courses	60	40	100	d.	Project Work	60	40	100	e.	Make a Product	100			f.	Employability Enhancement Courses	100	-	100	g.	Online Course	-	-	100	h.	Non-Credit Course	100	-	100	i.	Audit Course	100	-	100
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11.2.1	For all the practical courses, students shall obtain bonafide certificate for the Record completed from the faculty in-charges and Head of the Department on or before the day of the practical examination. Students who have not obtained the bonafide certificate are not permitted to appear for the examination.																																																		
11.2.2	Project work may be allotted to a single student or to a group of students not exceeding 4 per group.																																																		
11.3	For the end semester examinations in both theory and practical courses including project work the internal and external examiners shall be appointed by the principal.																																																		
11.4	Students are prohibited from entering into the examination hall / laboratories with any book or any portion of books, manuscript, or paper of any description or communicating with or copying from each other or communicating with anyone outside the examination hall / laboratories. Programmable calculator, Cell phones and other electronic gadgets shall not be permitted inside the examination hall / laboratories. However, any required code books and data sheets / books, if necessary, may be permitted inside the examination hall / laboratories with the approval of the Chief Superintendent / Examiners. The students are warned that any form of malpractice will be dealt with severely. The disciplinary action will be taken by the college authorities after conducting an enquiry. The punishment may even be cancelling all the end semester examinations written by the student in the particular semester and debarring permanently from all the end semester examinations in the particular semester.																																																		
11.5	The hall ticket must be produced by all the students at the time of writing the examination. If a student fails to produce the hall ticket on any grounds, he/she should get a duplicate Hall ticket from the Controller of Examinations office through the Chief Superintendent /Examiner by paying the duplicate hall ticket fee.																																																		

11.6 Examiners for setting and validating end semester examination question papers for theory courses, evaluating end semester examination answer scripts, conducting practical examinations and evaluating project works shall be appointed by the Controller of Examinations after obtaining approval from the Chairperson of the Academic Council of the College.

12 **PROCEDURE FOR CONTINUOUS INTERNAL ASSESSMENT &AWARDING MARKS**

12.1 **CONTINUOUS INTERNAL ASSESSMENT SCHEME FOR THEORY COURSES**

The internal assessment procedure for theory courses are as follows:

Table XI - Awarding Marks for Theory Course

Assessment	Portions	Duration	Maximum Marks	Maximum CIA Marks
First Internal Assessment Test	2/3 or 3/2 Units	1 Hour 30 Mts	50 Marks	20 (200 marks is converted to 20 marks and rounded off to the nearest integer)
Second Internal Assessment Test	3/2 or 2/3 Units	1 Hour 30 Mts	50 Marks	
Model Examination	5 Units	3 Hours	100 Marks	
Other Assessment	Assignments			10
	Multiple Choice Questions / Mini projects / Quiz / Seminars / Case study others			5
	Attendance			5
Total Continuous Internal Assessment Marks				40

*Assignment, Solving Open Ended Problems, Quiz, Seminar, Case Study, Mini Project, Activity Points or any method approved by PAC and AEC.

Always, Faculty handling the course/HoD has to submit the marks out of 100 for each assessment component of CIA and along with overall mark distribution (out of CIA) to CoE. CoE will calculate total IA marks of the student using appropriate formula. The total CIA mark is rounded to the nearest integer (out of 40 marks).

Reassessment test shall be conducted for the students who were absent for CIA due to medical reasons like hospitalization for accident/illness or participation in the college/ University/ State/National/International level sports event/ other genuine reasons and also marks shall be considered with a Weightage of 80 % with prior permission from Principal through Head of the Department.

12.2 **CONTINUOUS INTERNAL ASSESSMENT SCHEME FOR PRACTICAL COURSES**

The total IA marks for laboratory courses shall be 60 marks. Each experiment will be evaluated for maximum of 10 marks based on the performance of the students and record work. The average of all the experiments will be converted to 30 marks. There shall be model practical exam for 100 marks, and the mark obtained will be converted to 20 marks and attendance will be awarded for 10 marks. The total IA marks will be rounded to the nearest integer (out of 60 marks)

Table XII Continuous Internal Assessment Scheme for Practical Courses

Method	Lab Experiment Performance	Model Practical Exam	Total CIA	Total ESE	Total Marks (CIA+ESE)
Details	Completion of experiment and evaluation of laboratory record.	Model examinations	-	End Semester Exam	-
CIA Marks	40	20	60	40	100

12.3 CONTINUOUS INTERNAL ASSESSMENT SCHEME FOR THEORY CUM PRACTICAL COURSES

The assessment procedure for theory cum practical assessment procedure to be followed is as follows:

Table XIII- Continuous Internal Assessment Scheme for Theory Cum Practical Courses

Assessment	Portions	Duration	Maximum Marks	Maximum CIA Marks
First Internal Assessment Test	2/3 or 3/2 Units	1 Hour 30 Mts	50 Marks	20 (200 marks is converted to 20 marks and rounded off to the nearest integer)
Second Internal Assessment Test	3/2 or 2/3 Units	1 Hour 30 Mts	50 Marks	
Model Examination	5 Units	3 Hours	100 Marks	
Non-Test Based Assessment*	It will be announced by the course faculty during the commencement of the classes			10
Lab Component	Each lab experiment: 10 marks. Average of all experiments are taken and converted to 20 marks			20
Total Continuous Internal Assessment Marks (CIA)				50
End semester examinations (ESE)				50
Total marks (CIA + ESE)				100

INTERNAL ASSESSMENT MARKS: 50 Marks
END SEMSSTER EXAM MARKS: 50Marks

Weightage of Continuous Internal Assessment and End Semester Examination marks will be 50% each. The distribution of marks for the theory and laboratory components in the Continuous Internal Assessments and End Semester Examination for different types of courses are provided in the table.

Table XIV- Continuous Internal Assessment Scheme for Theory Cum Practical Courses

L	T	P	C	Continuous Internal Assessment	End Semester Examination
1	0	4	3	Laboratory (25%) Theory (25%)	Laboratory only (50%)
1	0	2	2	Laboratory (25%) Theory (25%)	Laboratory only (50%)
2	0	2	3	Theory (25%) Laboratory (25%)	Theory (25%) Laboratory (25%)
3	0	2	4	Theory (25%) Laboratory (25%)	Theory (35%) Laboratory (15%)
2	0	4	4	Theory (25%) Laboratory (25%)	Theory (15%) Laboratory (35%)

12.4 ASSESSMENT FOR PROJECT / MINI PROJECT / INTERNSHIP / INDUSTRIAL TRAINING

Project work [Mini Project / Project Work] will be evaluated by continuous assessment (60) and end semester assessment (40). The Head of the Department shall constitute a review committee consists of Head of the Department, Supervisor and a project coordinator. There shall be three reviews by the review committee. The students shall make presentation on the progress made before the committee.

Table XVI (A) - Project Work

Continuous Internal Assessment (60 Marks)			End Semester Examination (40 Marks)			
Review I	Review II	Review III	Project Report	Viva-Voce Examination		
10	20	30	External	Internal	External	Supervisor
			10	10	10	10

In case of industry projects, the internal and external supervisors allot marks for the maximum of 5 marks each in the End Semester Examination. If the industry expert is not available for End

Semester Examination, Internal Supervisor will assign marks out of maximum 10.

Table XVI (B) – Weightage for Assessment for Mini Project Work

Review I	Review II	Review III	
25%	25%	Report	Viva-voce
		20%	30%

Table XVI (C) – Weightage for Assessment for Internship / Industrial Training

Report	Presentation	Viva-voce
40%	30%	30%

Resubmission of project: If a student could not submit thesis in time /could not attend viva – voce exam/ could not complete the industry project as per the specification of the industry / fail to clear the project due to unforeseen circumstances, he/she is permitted to resubmit his work within 30 days after the publication of the results. Evaluation and passing requirements remain same as like regular project work course. Such resubmission of project work shall not be construed as an appearance for the eligibility of the student for the classification of the degree.

12.5 ASSESSMENT FOR MAKE A PRODUCT

12.5.1

Students can gain hands on experience in product development by enrolling in this course. It's a collaborative effort. Every team will have three to four members. Each team participating in MAP must identify a need or product, specify the goal to be achieved, design, and develop the product, and show that it has served the necessary purpose. It could be a software program or a hardware project. It may be an entirely new product or an enhanced version of an already existing one. Rather than the successful conclusion, the focus is on the process and demonstration of product development. The members of the team for interdisciplinary projects may come from different departments or programs.

12.5.2

Each MAP team is supervised by a faculty supervisor who is assigned by the department head. An additional faculty supervisor from the relevant department may serve as a joint supervisor for applications spanning multiple disciplines.

12.5.3

The Head of the Department will designate a MAP Coordinator for each program, who will oversee all MAP-related activities.

A MAP Review Committee will be assigned to each department to oversee the review process and assign grades. The committee is made up of the Supervisor of the MAP team, the Department Head's nominee for a Senior Faculty member, and the Department MAP Coordinator (Convenor). The assessment is worth 100 marks and the following are the assessment guidelines:

TABLE XVII

Continuous Internal Assessment (60 Marks)			End Semester Examination (40 Marks)			
Review I	Review II	Review III	Project Report	Viva-Voce Examination		
Product Identification	Design & Progress made	Fabrication/ Development	External	Internal	External	Supervisor
20	20	20	10	10	10	10

12.6 ASSESSMENT FOR INDUSTRIAL TRAINING / INTERNSHIP

The Industrial Training/ Internship shall carry 100 marks and shall be evaluated through continuous assessment only. At the end of Industrial training / Internship, the student shall submit a brief report on the training undergone and a certificate from the organization concerned. The evaluation will be

made based on this report and a Viva-Voce Examination, conducted internally by a three-member Departmental Committee constituted by the Head of the Department. Certificates (issued by the Organization) submitted by the student shall be attached to the mark list and sent to Controller of Examinations by the Head of the Department.

Evaluation Procedure – Industrial Training / Internship

TABLE XVIII

Report	Presentation	Viva-voce	Total
40	30	30	100

12.7 ASSESSMENT FOR VALUE ADDED COURSES

- Each Value-Added Course will be assessed for 100 marks and shall be evaluated through Continuous Internal Assessment (CIA) mode only and there is no End Semester Examination. Value Added Courses may be a theory or laboratory or Theory cum laboratory course. The assessment will be carried out accordingly. The method of assessment, weightage and evaluation procedure will be announced prior to the commencement of the course by the course faculty with the approval of the Head of the Department. The assessment will be carried out by the course faculty.
- The credits and grades obtained will not be considered for credit and CGPA calculations.
- Class Advisor and Head of the Department are responsible for record keeping and communicating the details to COE.

12.8 ASSESSMENT FOR ONLINE COURSE

Students may be permitted to register for online courses (which are provided with certificate) as specified in clause 4.7. On successful completion of the online courses, Program Assessment Committee (PAC) will assess the online courses by providing 60% Weightage to the marks earned through online courses and 40% Weightage to the assessment by PEC by retaining the credits specified in the certification. Online course of 3 credits can be considered instead of one elective course (PE/OE).

12.9 ASSESSMENT FOR SELF STUDY COURSE

The faculty member approved by the Head of the Department shall be responsible for periodic monitoring and evaluation of the course. The assessment shall be through Continuous Assessment and End Semester Examination as like a theory course.

12.10 ASSESSMENT FOR MANDATORY COURSE

Mandatory Courses (MC) should be studied compulsorily by all the students irrespective of the programme, which include Induction Program, Environmental Science, and etc. MC course may or may not have credits. Mandatory courses with credits will be assessed as specified in the curriculum. Mandatory courses without credits will be assessed like an Audit course. Mandatory Courses may belong to any course type (say HS, PC, PE, etc.,) that the student has to study compulsorily.

12.11 DISPLAY OF INTERNAL ASSESSMENT (IA) MARKS

The total Internal Assessment (IA) marks obtained by the student for every course have to be displayed by the respective Head of the Departments at least **FIVE WORKING DAYS** prior to commencement of End Semester Examinations.

12.12 ATTENDANCE RECORD

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

	Head of the Department periodically (at least three times in a semester) for checking the syllabus coverage and the records of test marks and attendance. The Head of the Department will put his/her signature and date after due verification. At the end of the semester, the record should be verified by the Head of the Institution who will keep this document in safe custody (for five years). Any inspection team appointed by the Institution may verify the records of attendance and assessment of both current and previous semesters.
12.13	CONDUCT OF ACADEMIC AUDIT BY EVERY INSTITUTION
	Academic Audit is to be done for every course taught during the semester. For the internal assessments conducted for each course as per details provided in Clause 12, the academic records shall be maintained in the form of documentation for the individual assignments / case study report / report of mini project submitted by each student and assessment test question paper and answer script. Report of industrial training / internship shall also be maintained, if applicable. For laboratory courses students' record shall be maintained. Further, the attendance of all students shall be maintained as a record.
	The Head of the Institution shall arrange to conduct the Academic Audit and verify the records for every course in a semester by forming the respective committees with an external course expert as one of the members drawn from a technical institution of repute near the institute.
13	PASSING REQUIREMENTS FOR A COURSE
13.1	A student shall normally be permitted to appear for End semester examination of the course if the student has satisfied the attendance requirements and has registered for examination in those courses of that semester by paying the prescribed fee. This permission could be availed by the students only two times during the entire course of study.
13.2	Further, examination registration by a student is mandatory for all the courses in the current semester and all arrear(s) course(s) for the end semester examinations failing which, the student will not be permitted to move to the higher semester.
13.3	When a candidate is deputed for a National / International Sports event during End Semester examination period, supplementary examination shall be conducted for such a candidate on return after participating in the event within a reasonable period of time. Such appearance shall be considered as first appearance.
13.4	A student who has already appeared for a course in a semester and passed the examination is not entitled to reappear in the same course for improvement of letter grades / marks.
14	PHOTOCOPY /REVALUATION OF ANSWER SCRIPTS
14.1	A student shall apply for revaluation (in a prescribed format) of his / her semester examination answer script in a theory course within 1 week from the declaration of results, on payment of a prescribed fee through proper application to the Controller of Examinations. The Controller of Examinations shall arrange for the revaluation and the results shall be intimated to the candidate concerned. Revaluation is not permitted for practical courses and project work.
14.2	A student can apply for the Photocopy of his/her end semester examination answer script on payment of the prescribed fee through proper application to the Controller of Examinations after the end semester/revaluation results are announced to get himself / herself convinced of the valuation/revaluation.
14.3	A student can apply for revaluation of answer scripts for all the theory appeared.
14.4	Review: Candidates not satisfied with Revaluation can apply for Review of his/ her examination answer paper in a theory course, within the prescribed date on payment of a prescribed fee through proper application to Controller of Examination through the Head of the Institution.

14.5	Candidates applying for Revaluation only are eligible to apply for Review.																														
15	AWARD OF LETTER GRADE																														
15.1	<p>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:</p> <p style="text-align: center;">Table XIX- Award of Grade</p> <table border="1" data-bbox="512 405 1185 931"> <thead> <tr> <th>Letter Grade</th> <th>Grade Points</th> <th>Range of Percentage Total Marks</th> </tr> </thead> <tbody> <tr> <td>O (Outstanding)</td> <td>10</td> <td>91 - 100</td> </tr> <tr> <td>A + (Excellent)</td> <td>9</td> <td>81-90</td> </tr> <tr> <td>A (Very Good)</td> <td>8</td> <td>71-80</td> </tr> <tr> <td>B + (Good)</td> <td>7</td> <td>61-70</td> </tr> <tr> <td>B (Average)</td> <td>6</td> <td>51-60</td> </tr> <tr> <td>C (Satisfactory)</td> <td>5</td> <td><50</td> </tr> <tr> <td>U (Re-appearance)</td> <td>0</td> <td>-</td> </tr> <tr> <td>SA (Shortage of Attendance)</td> <td>0</td> <td>-</td> </tr> <tr> <td>WD (Withdrawal)</td> <td>-</td> <td>-</td> </tr> </tbody> </table> <p>A student is deemed to have passed and acquired the corresponding credits in a particular course if he/she obtains any one of the following grades: “O”, “A+”, “A”, “B+”, “B”, “C”. “SA” denotes shortage of attendance and hence prevented from writing the end semester examinations. “SA” will appear only in the result sheet.</p> <p>“U” denotes that the student has failed to pass in that course. “WD” denotes withdrawal from the exam for the course. The grades U and WD will figure both in the Grade Sheet as well as in the Result Sheet. In both cases, the student has to appear for the End Semester Examinations as per the Regulations.</p> <p>If the grade U is given to Theory Courses/ Laboratory Courses it is not required to satisfy the attendance requirements (vide clause 8), but has to appear for the end semester examination and fulfil the norms specified in clause 13 to earn a pass in the respective courses.</p> <p>If the grade U is given to EEC course (except Project Work), which are evaluated only through internal assessment, the student shall register for the course again in the subsequent semester, fulfil the norms as specified in clause 13 to earn pass in the course. However, attendance requirement need not be satisfied.</p>	Letter Grade	Grade Points	Range of Percentage Total Marks	O (Outstanding)	10	91 - 100	A + (Excellent)	9	81-90	A (Very Good)	8	71-80	B + (Good)	7	61-70	B (Average)	6	51-60	C (Satisfactory)	5	<50	U (Re-appearance)	0	-	SA (Shortage of Attendance)	0	-	WD (Withdrawal)	-	-
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SA (Shortage of Attendance)	0	-																													
WD (Withdrawal)	-	-																													
15.1.1	<p>Relative Grading</p> <p>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 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.</p>																														
15.1.2	<p>Absolute Grading</p> <ul style="list-style-type: none"> 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 																														

	<p>be followed as given in the Table below irrespective of the number of students who have passed the course.</p> <table border="1"> <tr> <td>O</td> <td>A+</td> <td>A</td> <td>B+</td> <td>B</td> <td>C</td> <td>U</td> </tr> <tr> <td>91-100</td> <td>81-90</td> <td>71-80</td> <td>61-70</td> <td>56-60</td> <td>50-55</td> <td><50</td> </tr> </table>	O	A+	A	B+	B	C	U	91-100	81-90	71-80	61-70	56-60	50-55	<50
O	A+	A	B+	B	C	U									
91-100	81-90	71-80	61-70	56-60	50-55	<50									
15.3	GPA AND CGPA CALCULATION														
	<p>After the results are declared, Grade Sheets will be issued to each student which will contain the following details:</p> <ul style="list-style-type: none"> List of courses registered during the semester and the grades scored. Grade Point Average (GPA) for the semester and Cumulative Grade Point Average (CGPA) of all courses registered from first semester onwards. <p>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.</p> $GPA/CGPA = \frac{\sum_{i=1}^n C_i G_{P_i}}{\sum_{i=1}^n C_i}$ <p>Where,</p> <ul style="list-style-type: none"> C_i - is the Credits assigned to the course, G_{P_i} - is the grade point corresponding to the letter grade obtained for each course. n - is number of all Courses successfully cleared during the semester in the case of GPA and during all the semesters in the case of CGPA. <p>CGPA will be calculated in a similar manner, considering all the courses enrolled from first semester. "U" and "SA" grades will be excluded for calculating GPA and CGPA.</p>														
15.3.1	The credits earned through one credit courses shall not be considered for calculating GPA and CGPA.														
15.3.2	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.														
16	ELIGIBILITY FOR THE AWARD OF DEGREE														
	<p>A student shall be declared to be eligible for the award of the degree if he/she has satisfied the following:</p> <ul style="list-style-type: none"> Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time. Successfully completed the course requirements, appeared for the End-Semester examinations, and passed all the subjects within the period as prescribed in Clause 6. Successfully passed any additional courses prescribed by the college whenever readmitted under regulations other than 2024 Regulations. Successfully completed the PCD courses like NSS / NSO / YRC/RSP. No disciplinary action pending against the student. 														
16.1	CLASSIFICATION OF THE DEGREE AWARDED														

16.1.1	FIRST CLASS WITH DISTINCTION
	<p>A student who satisfies the following conditions shall be declared to have passed the examination in First class with Distinction:</p> <ul style="list-style-type: none"> • Should have passed the examination in all the courses of all the eight semesters (6 semesters in the case of Lateral Entry) in the student's First Appearance within five years (four years in the case of Lateral Entry). • Withdrawal from examination (vide Clause 12) will not be considered as an appearance. • Should have secured a CGPA of not less than 8.50. • One-year authorized break of study (if availed of) is included in the five years (four years in the case of lateral entry) for award of First Class with Distinction. • Should NOT have been prevented from writing end semester examination due to lack of attendance in any semester.

Table XX-First Class with Distinction

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 due to lack of attendance (viii)	Withdrawal from writing end semester examination (ix)
B.E./ B.Tech. (Regular)	3/4 years (lateral entry/regular)	4/5 years (lateral entry/regular)	-	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)	4/5 years (lateral entry/regular)	18 credits from more than one vertical of the same programme	8.50	First attempt	One year authorised break of study including in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E./ B.Tech. minor in other programme	3/4 years (lateral entry/regular)	4/5 years (lateral entry/regular)	18 credits from more than one vertical of the same programme	8.50	First attempt	One year authorised break of study including in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt

16.1.2	FIRST CLASS
	<p>A student who satisfies the following conditions shall be declared to have passed the examination in First class:</p> <ul style="list-style-type: none"> • Should have passed the examination in all the courses of all eight semesters within five years (all six semesters within four years in case of lateral entry). • One-year authorized break of study (if availed of) or prevention from writing the End Semester examination due to lack of attendance (if applicable) is included in the duration of five years (four years in the case of lateral entry) for award of First Class. • Should have secured a CGPA of not less than 6.50.

Table XXI -First Class with Distinction

Degree	Duration of programme	Duration permitted	Additional credits above the requirement of curriculum	CGPA	Pass in	Break of study	Prevention due to lack of attendance	Withdrawal from writing end semester examination
B.E./ B.Tech. (Regular)	3/4 years (lateral entry/regular)	4/5 years (lateral entry/regular)	-	6.50	-	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)	4/5 years (lateral entry/regular)	18 credits from more than one vertical of the same programme	7.50	First attempt	One year authorised break of study including in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E./ B.Tech. minor in other programme	3/4 years (lateral entry/regular)	4/5 years (lateral entry/regular)	18 credits from more than one vertical of the same programme	6.50	-	One year authorised break of study including in the Duration permitted (iii)	Included in duration permitted	-

16.1.3 SECOND CLASS

All other students (not covered in clauses 18.1 and 18.2) who qualify for the award of the degree shall be declared to have passed the examination in Second Class. A candidate who is absent in end semester examination in a course / project work after having registered for the same shall be considered to have appeared in that examination for the purpose of classification (subject to clause 11)

B.E./B.Tech. Regular and lateral entry and B.E./B.Tech. minor in specialisation other degree students (not covered in clauses 16.1 and 16.2) who qualify for the award of the degree (vide Clause 16) shall be declared to have passed the examination in Second Class.

Student earned additional 18 credits as per Clause 19 but does not satisfy the conditions mentioned in 18.1 or 18.2 shall not be awarded B.E/B.Tech. Honours. In such cases the mark sheet will show the additional courses studied and those courses shall not be considered for GPA computation. In such case if the student becomes eligible for First Class, while computing CGPA without taking into account the additional course studied, the student shall be awarded B.E. B.Tech. in First Class only.

17 PROVISION FOR WITHDRAWAL FROM END SEMESTER EXAMINATION

17.1 A student may, for valid reasons, (medically unfit / unexpected family situations / sports approved by the Chairman, Sports Board and the 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 COE through the Head of the Institutions with required documents.

17.2 Withdrawal application is valid if the student is otherwise eligible to write the examination (Clause 6) and if it is made within TEN days after the date of the examination(s) in that course or courses and recommended by the Head of the Institution and approved by the Controller of Examinations. For a student to withdraw from a course / course, he/she should have registered for the course, fulfilled the attendance requirements (vide clause 6) and earned continuous assessment marks.

17.3 Notwithstanding the requirement of mandatory 10 days, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.

17.4	In case of withdrawal from a course / course, the courses will figure both in the Grade Sheet as well as in the Result Sheet. However, withdrawal shall not be considered as an appearance for the eligibility of a student for First Class with Distinction.
17.5	If a student withdraws from writing end semester examinations for a course or courses, he/she shall register for the same in the subsequent semester and write the end semester examination(s).
17.6	If a student applies for withdrawal from Project Work, he/she will be permitted for the withdrawal only if the student has submitted the project report before the deadline. However, the student may appear for the viva-voce examination within 60 days after the declaration of results for Project Work and the same shall not be considered as reappearance.
17.7	Withdrawal is permitted for the end semester examinations in the final semester.
18	PROVISION FOR BREAK OF STUDY
18.1	A student is permitted to go on authorized break of study for a maximum period of one year as a single spell.
18.2	The application for break of study (prescribed format) shall be duly filled by the student and submitted through the principal in advance, in any case, not later than the last date of the first assessment period. In the case of short-term employment/ training/ internship, the application for break of study shall be approved and forwarded by the HoD to the Principal.
18.3	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 principal in the prescribed format through 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.
18.4	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-16).
18.5	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 principal through the concerned HOD before the end of the semester in which the student has taken break of study.
18.6	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.
18.7	The authorized break of study is included in the duration specified for passing all the courses for the purpose of classification.
18.8	If any student is prevented for want of required attendance, the period of prevention shall not be considered as authorized 'Break of Study'
18.9	No fee is applicable to students during the Break of Study period.
19	PROCEDURE FOR RE-JOINING THE PROGRAMME
19.1	A student who desires to rejoin the programme after a period of discontinuance/ prevention due to lack of attendance or who upon his/her own request is permitted by the authorities to repeat the study of any semester, may join the semester which he/she is eligible or permitted to join, only at the time of its normal commencement for a regular batch of students and after obtaining the approval from the Directorate of Technical Education (DOTE) followed by guidelines of parent University.
19.2	Rejoining/Readmission under different regulations
19.2.1	a) A student, who initially joins the college in previous Regulation and has to rejoin in an academic term of the present Regulation due to any reason, shall be bound by the rules of the current

	Regulation.
19.2.2	b) After readmission, the student is required to study the courses prescribed in the new Regulation.
19.2.3	c) If the student has already passed any course in the earlier Regulation/semesters of study, such courses are exempted. He/she has to undergo additional subjects to earn minimum required credit for the award of degree as per the recommendations of the committee.
19.2.4	d) In case, the students who do not have option of acquiring required credits with the existing courses offered as per the curriculum under autonomy, credit balance can be achieved by clearing the additional courses offered. The additional courses that are offered can be of theory or laboratory courses and shall be offered during semester or summer break
19.3	Transfer from other colleges (from Autonomous College/Anna University affiliated colleges)
19.3.1	a) Students seeking transfer from Affiliated Colleges/Autonomous Institutions/University are required to follow the prevailing guidelines of Directorate of Technical Education (DOTE) and Anna University, Chennai.
19.3.2	b) A committee comprising Principal and Head of the Department of the concerned discipline shall decide the courses and credits balance between old and new regulations on case-to-case basis for the students rejoined under different Regulations or transfer. The committee will specify additional or equivalent academic course work to be undertaken by such students who rejoin the current Regulations subject to approval of respective BoS and Director (Academic Courses), Anna University, Chennai.
19.3.3	c) Procedure for Rejoining/ Readmission / Transfer is subjected to change as per university guidelines.
20	PROCEDURE FOR USING SCRIBE
	If a candidate is physically handicapped (in case of accident/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-teaching employee.
21	DISCIPLINE
	<ul style="list-style-type: none"> • Every student is expected to follow the rules and regulations laid down by the Institute and the affiliating University, as published from time to time. • 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 college. The Head of the Institution shall constitute a disciplinary committee to enquire into acts of indiscipline and notify the punishment. In case of any serious disciplinary action which leads to suspension or dismissal, then a special committee shall be constituted by the Head of the Institution for taking the final decision. • If a student indulges in malpractice in any of the examinations, he / she shall be liable for punitive action as prescribed by the Institution.
22	CHANGE OF BRANCH
	There shall be no branch transfers after the completion of admission process.
23	REVISION OF REGULATIONS, CURRICULUM AND SYLLABI
23.1	The College 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 Governing Council.

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