

PERI

INSTITUTE OF TECHNOLOGY

(AN AUTONOMOUS INSTITUTION, AFFILIATED TO ANNA UNIVERSITY)

NO.1, MANNIVAKKAM, CHENNAI-600048, TAMIL NADU

ACADEMIC REGULATIONS

R2024A

UG REGULATIONS 2024A

CHOICE BASED CREDIT SYSTEM

COMMON TO ALL B.E. / B.TECH. FULL-TIME PROGRAMME

(APPLICABLE FOR BATCHES ADMITTED FROM 2026-2027)



VISION & MISSION

VISION

To be an internationally recognized seat of higher learning in Engineering, Technology & Science. PERI also visualizes being a research incubator for academicians, industrialists and researchers from across the country/world.

MISSION

- It strives to provide quality Technical Education at affordable cost.
- Providing state-of-the-art infrastructure facilities to achieve excellence in teaching-learning, Research & Development.
- Aligning with leading industries to create competent engineers through internships and placement focused training.
- Create an environment which is conducive to learn skills which will solve pressing issues along with foundation in moral values and ethics.

CONTENTS

SECTION NO.	TITLE	PAGE NO.
1	PREAMBLE	1
2	PRELIMINARY DEFINITIONS AND NOMENCLATURE	1
3	ADMISSIONS	2
	3.1 Regular admission	2
	3.2 Lateral Entry Admission	2
	3.3 Advanced standing Admission	3
4	ACADEMIC PROGRAMMES	3
	4.1 Programme Duration	3
	4.2 The medium of Instruction and Examination	4
	4.3 Minimum Instruction Days	4
	4.4 End semester examination	4
5	TRANSITORY REGULATIONS	4
6	CURRICULUM FRAMEWORK	5
	6.1 Prologue	5
	6.2 Categorization of course	5
	6.3 Personality and character development	10
	6.4 Value added courses	11
	6.5 Online courses	11
	6.6 Number of Courses per semester	12
	6.7 Credit assignment	12
	6.8 Course code	12
7	CURRICULAR FRAMEWORK FOR HONORS PROGRAMME	13
	7.1 Context of Honours Programme	13
	7.2 B.E./ B. Tech. (Honours) Degree Programme	13
	7.3 B.E./ B. Tech. (Honours with specialization in the same discipline) Degree Programme	13
	7.4 Other Criteria for Evidence of Success for Honours Programme	13
8	CURRICULAR FRAMEWORK FOR MINOR PROGRAMME	15

8.1	Context of Minors Programme	15
8.2	B.E./ B. Tech. (Minors with specialization in another programme) Degree Programme	15
8.3	Other Criteria for Evidence of Success for Minor Programme	15
9	COURSE REGISTRATION	17
9.1	Course Enrollment Process	17
9.2	Flexible to Add or Drop Courses	18
10	REQUIREMENTS FOR APPEARING END SEMESTER EXAMINATION	18
10.1	Attendance	18
10.2	Registration for Examinations	19
10.3	Completion of Coursework	19
11	FACULTY ADVISOR	19
11.1	Class Advisor	19
11.2	Student Mentor	20
12	CLASS COMMITTEE	21
13	COURSE COMMITTEE FOR COMMON COURSES	22
14	EXAMINATION SYSTEM	23
15	CONTINUOUS INTERNAL ASSESSMENT AND INTERNAL MARK	24
15.1	Theory Course	24
15.2	Theory courses with a laboratory / project component	26
15.3	Laboratory Courses	27
15.4	Engineering Graphics and Design	28
16	END SEMESTER EXAMINATION AND EVALUATION	29
16.1	Theory Course	29
16.2	Engineering Graphics and Design	30
16.3	Laboratory Course	30
17	END SEMESTER CAPSTONE PROJECT / PROJECT WORK EVALUATION	30
17.1	Internal Assessment	31
17.2	End Evaluation	31
18	EVALUATION OF MANDATORY/AUDIT COURSES	32

19	EVALUATION OF EMPLOYABILITY ENHANCEMENT COURSES	33
19.1	Course offered by the Department	33
19.2	Course offered by an External Agency	33
20	EVALUATION OF INTERNSHIP	34
20.1	Summer Internship	34
20.2	Final Semester Internship Cum Project Work	35
21	EVALUATION OF ONLINE COURSES	35
22	PASSING REQUIREMENTS	36
23	SUPPLEMENTARY EXAMINATIONS	36
24	ARREAR EXAMINATIONS	36
25	AWARD OF LETTER GRADES	37
25.1	Grading System	37
25.2	Absolute Grading	37
25.3	Relative Grading	37
25.4	Grade Sheet, GPA and CGPA	37
26	AWARD OF THE DEGREE	38
26.1	Requirement for the award of the degree	38
26.2	Classification of the Degree Awarded	39
27	EVALUATION AND REEVALUATION	40
28	PROVISION FOR WITHDRAWAL FROM END-SEMESTER EXAMINATION	40
29	PROVISION FOR AUTHORISED BREAK OF STUDY	41
30	DISCIPLINE	43
31	REVISION OF REGULATIONS, CURRICULUM AND SYLLABI	43

1. PREAMBLE

The first autonomous regulation (**R24**) of the PERI Institute of Technology (**Subsequently referred to as PERI IT**) is formulated based on the guidelines of Anna University, Chennai, and abide by the norms of Tamil Nadu Government. The Academic Council (AC) of this Institution has duly approved regulation **R24**.

- i. It is common for all undergraduate programme (B. E. /B. Tech.) offered by the institution with effect from the academic year **2024 – 25**, and lateral entries will be admitted during **2025 - 26**.
- ii. The institution offers a **B. E /B. Tech** degree with **Honors/Minor** to students who fulfill all the academic eligibility requirements for the regular and Honors/Minor programme. The objective is to provide additional learning opportunities to academically motivated students.
- iii. The regulations hereunder are subject to amendments made by the Institution's AC from time to time, keeping the Board of Studies (BOS) recommendations in view. The AC will decide the batches of students already undergoing the Programme applicable to these amendments.

2. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In this Regulation, unless the context otherwise specifies:

- i. “**Programme**” means Degree Programme that is B.E./B.Tech. Degree Programme.
- ii. “**Discipline**” means specialization or branch of B.E./B.Tech. Degree Programme, like Civil Engineering, Information Technology, etc.
- iii. “**Course**” means a theory/ theory course with laboratory component / laboratory course with theory component or laboratory subject that is normally studied in a semester, like Mathematics, Physics, etc.
- iv. “**Head of the Institution**” means the Principal of the College.
- v. “**Head of the Department (HOD)**” means the Head of the Department concerned.
- vi. “**Controller of Examinations (COE)**” means the authority of the College who is responsible for all examination activities of the College.
- vii. “**BoS Chairman**” means Chairperson of Board of Studies of each department Division (S&H)

- viii. **“Credit”** means a numerical value allocated for each course to describe the student’s workload required per week.
- ix. **“Grade”** means the letter grade assigned to each course based on the range of marks specified.
- x. **“Grade Point”** means a numerical value (0 to 10) allocated based on the grade assigned to each course.
- xi. **“Institution”** means PERI Institute of Technology.
- xii. **“University”** means ANNA UNIVERSITY, CHENNAI.

3. ADMISSION

3.1 Regular admission: (Join in the first year of B. E/B. Tech Programme)

A candidate who seeks admission into B.E/B. Tech Programme at a 1st year level should have passed 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 as prescribed by the University.

(OR)

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

3.2 Lateral Entry Admission: (Join in the second year of B.E/B. Tech Programme)

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)

The candidates who possess the Degree in Science (B.Sc.) (10+2+3 stream) with Mathematics as a subject at the B.Sc. Level are eligible to apply for Lateral entry admission to the third semester of B.E. / B.Tech.

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

3.3 Advanced standing Admission (Transfer from other Colleges/Readmission due to discontinuation)

These may arise in the following cases:

- When a student seeks transfer from other colleges to PERI IT and desirous of pursuing the study at PERI IT in an eligible branch of study.
- When re-admitting a student into the same Programme due to detention, a change of regulation may happen.

In all such cases of admission, the statutory body permission's is to be obtained, and the transitory regulations will govern the Programme of study at PERI IT.

4. ACADEMIC PROGRAMMES

The Institution is offering B.E/B.Tech., Programme in the following disciplines:

- B.E Civil Engineering (CE)
- B.E Computer Science Engineering (CS)
- B.E Electrical and Electronics Engineering (EE)
- B.E Electronics and Communication Engineering (EC)
- B.E Mechanical Engineering (ME)
- B.E Computer Science (Cyber Security) (SC)
- B.E Computer Science (Artificial Intelligence and Machine Learning) (AM)
- B.Tech Artificial Intelligence and Data Science (AD)
- B.Tech Information Technology (IT)
- B.Tech Computer Science and Business Systems (CB)
- B.E Computer Science and Design (CD)
- B.E Computer Science and Engineering (Data Science) (CF)
- B.E Computer Science and Engineering (Artificial Intelligence) (CA)
- B.E Robotics and Artificial Intelligence (RI)

4.1 Programme Duration

The duration of an academic programme shall be four (04) years consisting of eight (08) semesters. The programme period for lateral entry students admitted in the 2nd year shall be three (03) years and consist of six (06) semesters.

4.1.1 Maximum duration

The maximum period a student can take to complete a full-time academic programme will be as follows:

- a. Regular admission:** Seven academic years i.e., fourteen (14) semesters in sequence from the year of admission
- b. Lateral entry admission:** Six academic years i.e., twelve (12) semesters in sequence from the year of admission.
- c. Advanced standing admission:** The maximum time for completion of the programme of study will be applicable as stipulated in the Programme curriculum defined at admission. However, it should not be more than (a) and (b).

4.1.2 Cancellation of admission

Students who fail to fulfill all the academic requirements for the award of the degree within the prescribed duration as per article 4.1.1, will forfeit their admissions. However, for the students availing Gap year facility, this period shall be extended by two years at the most. These two years would be in addition to the maximum period permitted for graduation.

4.2 The medium of Instruction and Examination

The medium of instruction and examination is English.

4.3 Minimum Instruction Days

Each semester will consist of a minimum of 90 instruction days or 630 periods of 45 minutes each. However, additional classes for improvement, special coaching, model tests, etc., may be conducted over and above the specified periods.

4.4 End Semester Examination

The end-of-semester examination will ordinarily follow immediately after the last working day of the semester, commencing from the first semester as per the academic schedule prescribed from time to time.

5. TRANSITORY REGULATIONS

For those who are admitted under advanced standing, these transitory regulations will provide the modus of Operandi. At the time of such admission, based on the programme pursued (case by case)

- The BOS of the concerned discipline establishes equivalent courses completed by the student.
- Marks/Credits are transferred for all such equivalent courses and treated as completed in the study prescribed by PERI IT.
- A programme chart of residual courses not completed will be devised, and a programme of study with the duration specified will be prescribed for pursuit at PERIIT.
- Marks obtained in the previous system shall be converted to equivalent grades and CGPA.

All other modalities and regulations governing shall be the same as those applicable to the stream of students with whom such a candidate is merged with current regulations.

6. CURRICULUM FRAMEWORK

6.1 Prologue

PERI IT is committed to producing industry-ready, value-added bright engineering graduates through an enhanced curriculum, innovative teaching-learning process, excellent examination, and evaluation systems. Moreover, the curriculum is designed based on AICTE model curriculum and Anna University academic regulation 2021-22. The curriculum feature is that the courses must cover the depth (Specialization) and breadth (Multidisciplinary) for the attainment of program outcomes have been included.

6.2 Categorization of Courses

B.E./B. Tech Programme course structure of every specialization comprises required courses fall in the below categories.

S. No.	Category	Code
1	Basic Science Courses	BSC
2	Humanities and Social Science and Management Courses	HSMC
3	Engineering Science Courses	ESC
4	Professional Core Courses	PCC

Conti.....

S. No.	Category	Code
5	Professional Elective Courses	PEC
6	Open Elective Courses	OEC
7	Employability Enhancement Courses	EEC
8	Audit courses	AC
9	Mandatory Courses	MC

6.2.1 Basic Science Courses

The BSC's give a gateway to the freshmanship B.E / B. Tech graduates. It includes Physics, Chemistry, Mathematics and Biology and its Laboratory practices, and Environmental Science. The Board of Study concern may recommend additional BSC to understand advanced courses in higher classes.

6.2.2 Humanities and Social Science and Management Courses

HSMC's include professional English and communication skills, engineering economics, managerial & finance, and communication skills laboratory etc.

6.2.3 Engineering Science Courses

Engineering Science courses are the prerequisite course encompassing many different scientific principles and associated mathematics that underlie engineering. These courses have come across the first two years. It includes Engineering Practices, Engineering Graphics, Basics of Civil / Mechanical / Electrical / Electronics / Instrumentation, Computer Engineering, etc. The concerned BOS shall explore the possibility of the introduction of these courses and their practical component.

6.2.4 Professional Core Courses

It consists of a set of courses considered necessary for the students of the specific program. The courses under this category satisfy the program-specific criteria prescribed by the appropriate professional societies. The BOS concern must verify the prerequisite course and sequence of the required courses for the professions to tackle the most demanding challenges and advance global society's well-being.

6.2.5 Professional Elective Courses

The curriculum also gives the Institution flexibility in offering a variety of PEC's to the students of a particular discipline, which cover depth and breadth to broaden the student's knowledge. The students may register for appropriate electives offered in the program based on their area of interest. The BOS is empowered to identify as many tracks as possible in emerging technologies and industrial relevance.

6.2.6 Open Elective Courses

The OEC's are offered across the programs to enhance the knowledge breadth in emerging areas/technologies and professional competency of the students in the job market. Each Department shall offer sufficient courses to choose from and indicate the maximum number of students allowed to register for each course subject to the faculty's availability. However, a student shall choose an OEC from the list so that he/she has not studied the same course in any form during the Programme.

Note: The College shall invite registration forms from the students at the beginning of the semester for offering professional and open elective courses. There shall be a limit on the minimum (not less than twenty) and the maximum number of registrations based on class/section strength.

6.2.7 Employability Enhancement Courses

It includes Soft Skills, Problem Solving Techniques, Project Work, Internship, Seminar, and Industrial Training etc.

i. Industrial Training/Internship

- The student shall register for the industrial training or internship according to the course structure during the summer or winter.
- It shall be completed in collaboration with Industries after due approval from the Head of the institution. However, it must be completed before the commencement of the VII semester.
- The candidate shall submit an attendance and completion certificate to the concerned BOS after the due course of completion of the industrial training or internship.
- The student must submit a report on the work carried out during the internship.
- The concerned BOS must submit the attendance and completion certificates and a

sample report to the COE office within five (5) working days from the commencement of the VII semester.

- The evaluation will be performed along with the VII semester laboratory external examination and the credential will be reflected on the student's VII semester grade sheet.

ii. Industrial Visit

- Every student is required to go for at least one industrial visit every semester, starting from the second year of the Programme.
- The concerned HOD shall ensure the necessary arrangements in this regard.

iii. Capstone Project / Project Work

- A Capstone Project / Project Work is a final-year integrative, outcome-based engineering project undertaken by students to collaboratively address a complex real-world or industry-relevant problem through systematic design, analysis, development, implementation, and evaluation. The project shall provide an opportunity for students to demonstrate professional competencies, interdisciplinary knowledge, innovation, ethical responsibility, and the attainment of the prescribed Programme Outcomes (POs) and Programme Specific Outcomes (PSOs). The Capstone Project / Project work may be carried out individually or in groups consisting of not more than four students. The Head of the Department shall constitute a Project Review Committee (PRC) to monitor, evaluate, and assess the progress of the Capstone Project / Project Work during both phases of execution.

a) Capstone Project / Project Work – Phase I (VII Semester)

During Phase I, students shall undertake the preliminary stages of project development, which shall include the following activities:

- Identification of a real-world, societal, research, industry problem or innovative solutions.
- Conduct of literature survey and review, including relevant journals, conference proceedings, patents, codes, standards, and technical reports.
- Formulation of the problem statement, scope, and objectives.
- Carrying out feasibility analysis considering technical, economic, environmental, ethical, and societal aspects.
- Development of system architecture, design, simulation, or modelling, as

applicable.

- Selection and justification of appropriate tools, techniques, software, materials, and methodologies.
- Preparation of algorithm design, structural design, process plan, or implementation framework, as relevant to the discipline.

b) Capstone Project / Project Work – Phase II (VIII Semester)

During Phase II, students shall complete the execution and validation of the proposed work through the following activities:

- Prototype development, coding, fabrication, or implementation of the proposed solution.
- Iterative testing, verification, debugging, and refinement of the developed system.
- Conduct of performance evaluation and validation using appropriate metrics.
- Benchmarking and comparison with existing methods, standards, or industry practices.
- Preparation and submission of a comprehensive project report in the prescribed format.
- Submission of a technical paper/manuscript for publication in conferences, journals, or institutional repositories, as encouraged by the department.
- Final demonstration and Viva-Voce examination before the Project Review Committee.

Each phase of the Capstone Project / Project Work shall comprise three periodic reviews conducted by the Project Review Committee and one End Semester Project Review/Viva-Voce Examination.

iv. Applied Engineering/ Computing project (VI semester)

The Applied Engineering Project (AEP) shall be a practice-oriented and outcome-based course designed to provide students with an opportunity to experience the complete engineering project life cycle prior to undertaking the Project Work / Capstone Project. The course shall enable students to identify, analyse, and address a innovative solution, minor real-world social, community, environmental, or industry-related problem through the application of fundamental

engineering principles, appropriate tools, and systematic problem-solving methodologies. The Applied Engineering Project shall facilitate the development of competencies related to project planning, teamwork, communication, professional ethics, innovation, and societal responsibility.

The Applied Engineering Project may be undertaken individually or in groups consisting of not more than four students. The Head of the Department shall constitute an Project Review Committee (PRC) to guide, monitor, and evaluate the progress of the project.

The students shall execute the Applied Engineering Project through the identification of a minor social, community, environmental, or industry-related problem; formulation of the problem statement and objectives; review of relevant literature and existing solutions; feasibility analysis; development of an appropriate design or implementation plan; prototype development, simulation, or process improvement; testing and validation of the proposed solution; analysis of results and necessary refinements; and preparation of a project report followed by presentation and viva voce examination. The Applied Engineering Project shall serve as a **pre-capstone experiential learning activity**, enabling students to practise the end-to-end engineering project development process within an academic environment and preparing them for the successful execution of the Project Work / Capstone Project in the subsequent semesters.

6.2.8 Audit Courses

- It includes the courses such as Constitution of India, Sangam literature etc.
- The student may optionally study audit courses prescribed by the Institution, which will be mentioned in the grade sheet. However, it will not be considered for the computation of SGPA/CGPA.

6.2.9 Mandatory Courses

- In this curriculum, AICTE suggested courses such as Environmental Sciences, Universal Human Values, Ethics, and Essence of Indian Traditional Knowledge shall be included as non-credit mandatory courses. Out of which Environmental Sciences is mandated for all branches.
- The student must study the mandatory courses prescribed in the curriculum, which will be mentioned in the grade sheet. However, it will not be considered for the computation of CGPA.

6.3 Personality and Character Development

All students shall enroll, on admission, in any one of the personality and character development programs and undergo training, conduct, or participate in activities. These are

- National Cadet Corps (NCC),
- National Service Scheme (NSS),
- YOGA,
- Youth Red Cross (YRC),
- Women's Development Cell,
- Speakers' Forum,
- Science Club,
- Literary Club,
- Fine Arts Club, etc.

6.4 Value Added Courses

- The department concerned shall be permitted to offer one (01) or two (02) credit courses as value-added courses (VAC) with prior approval from the Head of the institution.
- The students may optionally undergo the VAC over and above the courses prescribed in the curriculum to obtain practical and industry-specific knowledge.
- The credits earned through the VAC shall be over and above the total credit requirements prescribed in the curriculum for the award of the degree.
- The detailed syllabus, timetable, and course coordinator details must be sent to the COE office before the commencement of the course.
- The credits earned through these optional courses will not be counted for GPA or CGPA computation but will be indicated in the grade sheet.

6.5 Online Courses

- To provide students with opportunities to enhance their knowledge and skills, are permitted to optionally enroll and study a maximum of three online courses subject to a maximum of nine credits offered by SWAYAM, NPTEL, the Top 500 QS-ranking educational institutions, and top MNCs with the approval of the Head of the institution.
- The concerned HOD must ensure that the student has not studied such courses and would not repeat them as Professional Core, Professional Elective, or Open Elective courses.
- However, the concerned HOD will list out the agencies that have been approved by the

academic council and list the courses aligned with the curriculum and academic goals.

- The successful completion of these courses shall be considered in lieu of professional elective / open elective courses of curriculum as approved by the Head of the Institution.
- Each student is allowed to register for only one online course in a semester starting from the fourth semester and must complete it before the end of the seventh semester.

6.6 Number of Courses per Semester

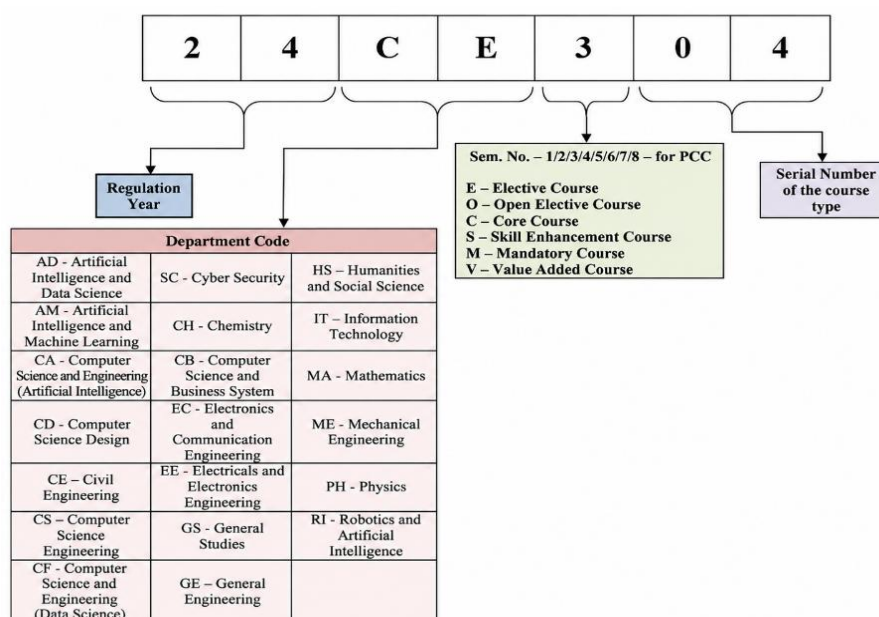
- Each semester, the curriculum shall normally have a blend of theory courses, theory courses with a laboratory component, laboratory courses with a theory component, laboratory courses, employability enhancement courses, mandatory courses, and audit courses not exceeding 12.

6.7 Credit Assignment

- Credit means quantified and recognized learning. Credit is measured in terms of contact hours per week in a semester and is summarized.

Contact period per week	CREDITS
1 Lecture Period / week	1
Tutorial Period / week	1
1 Laboratory Period (also for EEC courses like Seminar / Project Work / Case study / etc.)	0.5

6.8 Course Code



7. CURRICULAR FRAMEWORK FOR HONOURS PROGRAMME

7.1 Context of Honours Programme

- A student should have earned a CGPA of 7.5 and above up to the third semester and should have passed all the courses on the first attempt (*Academic student from first semester onwards and lateral entry student only third semester*) to be eligible for enrolling in **B.E./B.TECH (Honours)**, and **B.E./B.TECH (Honours with specialization in the same discipline)** degree programmes.

7.2 B.E./ B. Tech. (Honours) Degree Programme

- i. The students should have taken additional courses from any of the verticals of the same programme and earned a minimum of 18 credits from the V semester onwards.
- ii. The students should have passed all the courses prescribed in the curriculum and additional courses on their first attempt itself.
- iii. The students should have earned a minimum of 7.5 CGPA, considering all the courses prescribed in the curriculum for eight semesters and additional courses.

7.3 B.E./ B. Tech. (Honours with specialization in the same discipline) Degree Programme

- i. The student should have earned additionally a minimum of 18 credits from a specified group of professional electives (vertical) in the same programme from V semester onwards.
- ii. The student should have passed all the courses prescribed in the curriculum and additional courses on the first attempt itself.
- iii. The student should have earned a minimum of 7.5 CGPA, considering all the courses prescribed in the curriculum for eight semesters and additional courses.

7.4 Other Criteria for Evidence of Success for Honours Programme

- i. Out of these 18 credits to be earned by the students opting for a **B.E./B.TECH (Honours)** and **B.E./B.TECH (Honours with specialization in the same discipline)** degree programmes, they can earn a maximum of 6 credits (subject to the maximum of three courses) in online mode (like the SWAYAM platform), with the approval of the respective BOS.
- ii. For the categories 7.2 and 7.3 of the 18 additional credits to be acquired, 12 credits shall be earned by undergoing specified courses listed as pools, with four courses, each

carrying 3 credits. The remaining 6 credits must be acquired through MOOCs, which shall be domain specific. For 3 credits the student must complete 12 weeks course. If 2 credits can be given for 8 weeks course at the same time, he/she must complete 4 weeks theory or practical course to earn 1 credit. The concerned BOS will provide guidelines.

- iii. It is the responsibility of the student to acquire/complete prerequisite before taking the respective course. The courses offered in each pool shall be domain specific courses and advanced courses.
- iv. The concerned BOS shall decide on the minimum enrolments for offering Honours program by the department. If minimum enrolments criteria are not met, then the students shall be permitted to register for the equivalent MOOC courses as approved by the concerned Head of the department in consultation with BOS.
- v. Each pool can have theory as well as laboratory courses. If a course comes with a lab component, that component must be cleared separately. The concerned BOS shall explore the possibility of introducing virtual labs for such courses with lab component.
- vi. Attendance will not be monitored for MOOC courses. Students must acquire a certificate from the agencies approved by the BOS with grading or marks or pass/fail to earn 6 credits. If the MOOC course is a pass/fail course without any grades, the grade to be assigned will be decided by the committee formed by the Head of the institution upon academic council guidelines.
- vii. The concerned BOS shall also consider courses listed under professional electives of the respective B.E./B. TECH programs for the requirements of **B.E./B. TECH (Honours)**. However, a student shall be permitted to choose only those courses that he/she has not studied in any form during the programme.
- viii. If a student decides not to continue with the Honours degree programme mentioned in 7.2 and 7.3 after completing a certain number of additional courses, the additional courses studied shall be considered instead of the professional elective courses that are part of the curriculum.
- ix. If the student has studied a greater number of such courses than the number of professional elective courses required as per the curriculum for a B.E. or B.Tech. Degree (without Honours degree), the courses with higher grades shall be considered for the calculation of the CGPA. The remaining courses shall be printed on the grade sheet, and they will not be considered for the calculation of CGPA.

- x. Honors must be completed simultaneously with a major degree program. A student cannot earn Honours after he/she has already earned a bachelor's degree.

8. CURRICULAR FRAMEWORK FOR MINORS PROGRAMME

8.1 Context of Minors Programme

- A student should have earned a CGPA of 7.5 and above up to the third semester and should have passed all the courses on the first attempt (*Academic student from first semester onwards and lateral entry student only third semester*) to be eligible for enrolling in **B.E./B.TECH (Minors with specialization in another program)** degree programs.

8.2 B.E./ B. Tech. (Minors with specialization in another programme) Degree Programme

- i. Students who are desirous of pursuing additionally a minimum of 18 credits in any one of the verticals offered by engineering disciplines may opt for additional courses in
 - (a) minor specialization groups offered by a department other than their parent department. For example, if a Mechanical Engineering student selects subjects from Civil Engineering under this scheme, he/she will get a B.E Mechanical Engineering with a minor degree in Civil Engineering.
 - (b) Industry-relevant tracks of any branch to obtain a Minor Degree. For example, a B.E Mechanical Engineering student can opt for industry-relevant tracks like Data Mining, IOT, Machine learning, Block Chain and Cyber Security, Data Science, Augmented Reality (AR) and Virtual Reality (VR), Business Analytics etc.
- ii. The BOS concerned shall identify as many tracks as possible in the areas of emerging technologies and industrial relevance/demand.
- iii. The list of disciplines/branches eligible to opt for a particular industry-relevant minor specialization shall be mentioned clearly by the respective BOS.

8.3 Other Criteria for Evidence of Success for Minor Programme

- i. Out of these 18 credits to be earned by the students opting for a **B.E./B.TECH (Minors with specialization in another program)** degree programme, they can earn a maximum of 6 credits (subject to the maximum of three courses) in online mode (like the SWAYAM platform), with the approval of the respective HOD.

- ii. For the category 8.2 of the 18 additional credits to be acquired, 12 credits shall be earned by undergoing specified courses listed by the concerned BOS, with four courses, each carrying 3 credits. The remaining 6 credits must be acquired through MOOCs, which shall be specified by the BOS. For 3 credits the student must complete 12 weeks course. If 2 credits can be given for 8 weeks course at the same time, he/she must complete 4 weeks theory or practical course to earn 1 credit. The concerned BOS will provide guidelines.
- iii. It is the responsibility of the student to acquire/complete prerequisite before taking the respective course. If a course comes with a lab component, that component must be cleared separately. A student shall be permitted to choose only those courses that he/she has not studied in any form during the Programme.
- iv. There shall be no limit on the number of programs offered under Minor. The Institution can offer minor programs in emerging technologies based on expertise in the respective departments or can explore the possibility of collaborating with the relevant industries/agencies in offering the program.
- v. The concerned BOS shall decide on the minimum enrolments for offering Minor program by the department. If a minimum enrolment criterion is not met, then the students may be permitted to register for the equivalent MOOC courses as approved by the concerned Head of the department in consultation with BOS.
- vi. Attendance will not be monitored for MOOC courses. Students must acquire a certificate from the agencies approved by the BOS with grading or marks or pass/fail to earn 3 credits. If the MOOC course is a pass/fail course without any grades, the grade to be assigned as decided by the university/academic council.
- vii. Students can opt for the industry relevant minor specialization as approved by the concerned departmental BOS. Student can opt for the courses from an external agency recommended and approved by concerned BOS and should produce course completion certificate. The BOS of the concerned discipline of Engineering shall review such courses being offered by eligible external agencies and prepare a fresh list every year incorporating the latest skills based on industrial demand.
- viii. A committee should be formed at the level of college/department to evaluate the grades/marks given by external agencies to a student which are approved by concerned BOS. Upon completion of courses the departmental committee should convert the obtained grades/marks to the maximum marks assigned to that course. The controller

of examinations can take a decision on such conversions and may give appropriate grades.

- ix. If a student decides not to continue with the minor degree programme, after completing a certain number of courses, the additional courses studied shall be considered, instead of the open elective courses that are part of the curriculum.
- x. With this option, if the student has accumulated more open electives than required for a B.E. or B.Tech. Degree (without a minor degree) as per the curriculum, then the courses with higher grades shall be considered for the calculation of the CGPA. The remaining courses shall be printed on the grade sheet; however, they will not be considered for the calculation of CGPA.
- xi. Minor must be completed simultaneously with a major degree program. A student cannot earn the Minor after he/she has already earned bachelor's degree.

9. COURSE REGISTRATION

9.1 Course Enrollment Process

- i. Each student must register for all courses to be undergone in the curriculum of a particular semester. However, the class advisor shall counsel the student about the details of the academic programme and the choice of elective courses, and courses for pursuing an Honours and Minor degree considering the student's academic background and career objectives.
- ii. The registration details of the student shall be approved by the Head of the Institution and forwarded to the Controller of Examinations. This registration is for undergoing the course as well as for writing the End Semester Examinations.
- iii. The maximum number of credits that can be registered in a semester is between 30 and 32. However, this does not include the number of re-appearance (RA) and withdrawal (W) courses registered by the student for the appearance of the Examination.
- iv. Upon admission, the student shall register for all the courses prescribed in the curriculum of the student's first semester of study.
- v. Enrollment for all the courses from semesters II to VIII will commence five working days before the commencement of the succeeding the student shall enroll in the courses with the guidance of the student's faculty advisor.
- vi. The student may drop or add courses (see clause 9.2) within five working days after

the commencement of the concerned semester and complete the registration process duly authorized by the head of the department and head of the institution.

- vii. The number of students opting for an elective course should not be less than 30 for departments with triple intake and 15 for departments with double or single intake.
- viii. However, the minimum number is not applicable for students enrolling in B.E. or B.Tech. (Hons) and B.E. or B.Tech. (Minor).

9.2 Flexible to Add or Drop Courses

- i. A student must earn the total number of credits specified in the curriculum of the respective programme of study to be eligible for the award of the degree.
- ii. From the second to seventh semesters, the student has the option of dropping existing courses in a semester during registration.
- iii. The 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.
- iv. From the V to VIII semesters, the student has the option of registering for additional courses in a semester.
- v. While enrolling for B.E. / B. Tech. (Hons) or B.E. / B. Tech. Minor, the total number of credits a student can add in a semester is limited to 6, subject to a maximum of 2 courses.
- vi. The maximum number of credits enrolled in a semester (Honours and Minor) shall not exceed 32. The online courses registered for B.E. / B. Tech. (Hons.) and B.E. / B. Tech. Minor shall be over and above these 30 credits.

10. REQUIREMENTS FOR APPEARING END SEMESTER EXAMINATION

- A student who has fulfilled the following conditions shall be deemed to have satisfied the requirements for appearing for the end-of-semester examination.

10.1 Attendance

- i. Ideally, every student is expected to attend all classes of all the courses and secure 100%. However, to make provision for certain unavoidable reasons, such as medical treatment or participation in sports, the student is expected to attend at least 75% of the classes. Therefore, he or she shall secure not less than 75% (after rounding off to the nearest integer) of overall attendance.
- ii. However, a student who secures overall attendance between 65% and 75% in the

current semester due to medical reasons (prolonged hospitalization, accident, or specific illness) / participation in sports events may be permitted to appear for the current semester examinations, subject to the condition that the student shall submit the medical certificate or sports participation certificate attested by the Head of the Institution. The same shall be forwarded to the Controller of Examinations for record purposes. In all such cases, the students should submit the required documents upon joining after their absence to the Head of the Department through the Class Advisor.

- iii. Students who do not satisfy clauses 10.1 (i) and 10.1 (ii) and who secure less than 75% attendance will not be permitted to write the end semester examination and will not be permitted to move on to the next semester. They are required to redo the incomplete semester in a subsequent academic year.
- iv. To calculating the attendance requirement for writing the end-of-semester examinations by the students for every course, the following method shall be used:
$$\% \text{ of attendance} = \frac{\text{Total no. of periods attended in a course during the semester}}{\text{Total number of periods conducted in that semester for a particular course}} \times 100$$
- v. In the case of reappearance (Arrear) registration for a course, the attendance requirement as mentioned in Clauses 10.1 (i) – 10.1 (iii) is not applicable. However, the student must register for the examination in that course by paying the prescribed fee.

10.2 Registration for Examinations

- Students must register for the end-of-semester examinations by completing the necessary forms and paying the required examination fees within the specified deadlines.

10.3 Completion of Coursework

- Students must complete all laboratory work and projects and submit assignments as per the course requirements.

11. FACULTY ADVISOR

11.1 Class Advisor

- There will be a class advisor for each class and the class advisor will be one of the course instructors. The head of the department concerned will appoint him or her. The

class advisor is the ex-officio member and the convener of the class committee. The responsibilities of the class advisor shall be:

- i. To act as the channel of communication between the head of the department and the students of the respective class.
- ii. To collect and maintain various statistical details about the students.
- iii. To assist the chairperson of the class committee in the planning and conduct of the class committee meetings.
- iv. To monitor the academic performance of the students, including attendance, and to inform the class committee.
- v. To attend to the student's welfare activities like awards, medals, scholarships, and industrial visit.
- vi. To communicate the academic performance of their student to the parents.
- vii. To guide student enrollment and registration for the course.
- viii. To authorize the final registration of the courses at the beginning of each semester.
- ix. To collect and maintain the academic and co-curricular records of the students.

11.2 Student Mentor

- Student mentoring is an integral part of the academic system, designed to support students' overall development and academic success. The mentoring system ensures that students receive personalized guidance and assistance throughout their academic journey. Here are the key aspects of student mentoring:
 - i. Introduce and discuss the concept of **Student welfare Committee** with the assigned mentees.
 - ii. Call a meeting of all mentees individually and record their necessary details in the IGURU Portal. In general, a minimum of three meetings must be conducted over the semester in the subsequent interval of CAT-I, CAT-II & Model exams.
 - iii. Direct the students to proceed with Training, Soft skills, Online Courses (NPTEL), industrial visit, and Internships, to meet the grade requirements as per the regulation.
 - iv. Inform their mentees about the various facilities and activities available to enhance their curricular and co-curricular activities.
 - v. The mentor should be aware of the complete background of their mentees and

- should discuss the difficulties in Academic/Non-academic and personal issues.
- vi. The mentor should maintain track of records of their mentees such as attendance, academic performance and behavioral aspects in consultation with the concerned stakeholders.
 - vii. If any remedial class is needed for any course, the same is to be facilitated in consultation with the concerned course teacher and HOD.
 - viii. In case of long or frequent absences from class, it should be communicated to the parent and the reason for absence is to be updated in the IGURU portal.
 - ix. Mentors should educate gender equality to their mentees and if they come across any ragging, verbal abuse, or harassment issues it should be addressed immediately by escalating to the concerned authorities.
 - x. Here are some student welfare committees to address the issues:
 - a. Academic Mentoring Committee : Academic related issues
 - b. Centre for Academic guidance and support : Administration issues committee
 - c. Self-development counselling committee : Personal issues

12. CLASS COMMITTEE

- i. 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:
 - Solving problems experienced by students in the classroom and in the laboratories.
 - Clarifying the regulations of the degree programme and the details of rules therein particularly (clauses 4.1 and 10.1).
 - Informing the student representatives of the academic schedule including the dates of assessments and the syllabus coverage for each assessment.
 - Informing the student representatives of 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 discussed in the class committee meeting and informed to the students.
 - Analyzing the performance of the students of the class after each test and

finding the ways and means of solving problems, if any.

- Identifying the slow learners, if any, and requesting the teachers concerned to provide some additional help or guidance or coaching to such students.
- ii. The class committee for a class in a particular branch is normally constituted by the head of the department.
- iii. The class committee shall be constituted within the first week of each semester.
- iv. At least 4 student representatives (usually 2 boys and 2 girls) shall be included in the class committee, covering all the elective courses.
- v. The chairperson of the class committee may invite the class adviser(s) and the Head of the Department to the class committee meeting.
- vi. The Head of the Institution may participate in any class committee meeting of the institution.
- vii. The chairperson is required to prepare the minutes of every meeting, submit the same to the head of the institution within two days of the meeting, and arrange to circulate them 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.
- viii. 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.
- ix. A minimum of two subsequent meetings may be held in a semester at suitable intervals.
- x. **The Class Committee Chairperson shall display the cumulative attendance particulars of each student on the notice board at the end of every such meeting to enable the students to know their attendance details to satisfy clause 10.1 of this Regulation.**
- xi. During these meetings, the student members representing the entire class shall meaningfully interact and express the opinions and suggestions of the other students in the class to improve the effectiveness of the teaching-learning process.

13. COURSE COMMITTEE FOR COMMON COURSES

- i. Any course (theory, practical, or integrated) handled by more than one teacher shall have a committee for the course, comprising all teachers teaching that course. One of

the teachers shall be nominated as course coordinator by the concerned HOD.

- ii. The first meeting of the committee for the common course shall be held within fifteen days from the date of the committee's formation. The nature and weightage of the continuous assessments shall be decided in the first meeting, within the framework of the Regulations.
- iii. A minimum of two subsequent meetings in a semester may be held at suitable intervals to ensure uniform and effective delivery of the course.
- iv. In addition, the committee shall meet to ensure uniform evaluation of continuous assessments after arriving at a common scheme of evaluation for the assessments. Wherever it is feasible, the course committee may also prepare a common question paper for the internal assessment test(s).

14. EXAMINATION SYSTEM

- i. To evaluate a student's performance in a course, the Institution conducts the following well-structured examination.
 - Continuous Internal Assessment (CIA) throughout the semester
 - End-Semester Examination (ESE) at the end of the semester
- ii. Course wise weightage for CIA and ESE are depicted below.

S. No.	Courses	CIA-Marks	ESE-Marks	Total Marks
1	Theory	40	60	100
2	Theory with Practical	40	60	100
3	Theory with Project	40	60	100
4	Practical	50	50	100
5	Project Work	50	50	100
6	EEC	100	--	100
7	Mandatory/Audit Course	100	--	100

- iii. The end semester examination (theory and practical) of 3 hours duration shall ordinarily be conducted between November and January during the odd semesters and between April and June during the even semesters.
- iv. The End Semester Examination for Project Work shall consist of
 - An evaluation of the final report submitted by the student or students of the project group (not exceeding 4 students) by an external examiner and an

internal

- A viva voce examination is conducted separately for each student by a committee consisting of the external examiner, the supervisor of the project group, and an internal examiner.
- v. For the end-semester examination of practical courses, including project work, the internal and external examiners shall be appointed by the Controller of Examinations.

15. CONTINUOUS INTERNAL ASSESSMENT AND INTERNAL MARK

15.1 Theory Course

- The continuous internal assessment of a theory course will be performed through two assessment cycles and one model examination in a semester by pen paper for twenty-five (25) marks. The rest fifteen (15) marks will be evaluated through experiential learning (a scoring rubric assessment).

A. Pen-paper Assessment

- i. Each course consists of six units.
- ii. Each assessment cycle covers three units.
- iii. There will be two CAT examinations and one model examination (ME).
- iv. There will be one CAT for each cycle
- v. The Controller of the Examinations conducts the CAT examinations.
- vi. CAT-I examination covers units-I, II, and III, whereas CAT-II examination covers the unit-IV and Units-V and VI.
- vii. Each CAT Examination is conducted for a hundred (100) marks with 3 hours duration. The marks secured by the student out of 100 are scaled to 05 using a range scale. The CAT question paper is like the end-semester examination. It comprises of three parts: Part A with sixteen easy questions (single word) spread across the entire syllabus of the examination. Part B with twelve short questions carrying two marks each and weighing twenty-four (24) marks. Part C is the challenging part and contains six questions with internal choice and carries a total of sixty (60) marks. The question may come across from the examination syllabus.
- viii. At the end of the semester, a model examination will be conducted for the entire syllabus like semester-end examinations. The marks secured by the student out of 100 are scaled to 10 using a range scale.

- Therefore, the weightage of the pen paper will be twenty-five (20) marks. i.e., the cumulative sum of CAT-I and II, Model Exam.

B. Experiential Learning

S.No.	Classroom & Assessment Activities (I)	Industry & Field Engagement (II)	Research, Innovation & Creativity (III)
1	Seminar with visual presentation	Field visits	Technical project
2	Poster presentation	Field works	Publications
3	Group discussion	Self-study – NPTEL/MOOC/Swayam	Paper Presentation
4	Debate	Online certifications	Case studies
5	Think/pair/share activities	Competitive events	Market survey
6	Role play	Participation in open source communities	Model development
7	Technical talks	Applications development using open source	Patent filing
8	Brainstorming sessions	Assessment with Edutech platforms	Simulation and design projects
9	Caselet discussions (mini cases)	Real-time problem-solving tasks	Prototype development/ Project based automation
10	Assignments	Design challenges (Hackathons)	Innovation contest
11	Surprise tests	Coding contests / algorithm design	Hackathons
12	Multiple choice quizzes	Reverse engineering exercises	Conference presentations
13	Puzzle, enigma, contradiction	AI model designing	Technology integrations
14	Open book/ problem-solving exams	Data analysis activities	Virtual labs
15	-	Video Synthesis	Subject-specific Internship

- The course lecturer concerned should adopt an experience learning approach that emphasizes the direct engagement of learners with the subject matter through hands-on experiences.
- In this method, learning is facilitated by direct involvement in activities, experiments, projects, or real-world scenarios rather than obediently gaining information in a traditional classroom setting.

- iii. Experiential learning encourages learners to think critically, analyze information, and solve problems in authentic situations.
- iv. The styles of experience learning are course specific. Therefore, the concerned BoS should involve the module coordinators/course coordinators / course lecturers to list out different attributes of experience learning based on the course outcomes to attain higher order cognitive levels.

C. Internal Mark

- The internal mark for a course is illustrated in Table.

Pen-Paper Assessment	CAT-I (A)	:	05M
	CAT-II (B)	:	05M
	Model Exam (C)	:	10M
	Total (D = A+B+C)	:	20M
Experiential Learning (E)		:	20M
Internal mark (F = D+E)		:	40M

D. Range Scale

Range of Marks	Scaled for 05 Marks	Scaled for 10 Marks
01-20	01	02
21-40	02	04
41-60	03	06
61-80	04	08
81-100	05	10

15.2 Theory courses with a Laboratory component / Project Component

15.2.1 Assessment of Theory Component

- The procedure described for the theory course is applicable for evaluating the theory component

15.2.2 Assessment of Lab Component

- i. There will be two model lab examinations along with regular practice laboratory classes.
- ii. The model lab examinations will be conducted by the course lecturer's concern, like the end-semester practical examination.
- iii. The duration of the model lab examination is 03 hours for a hundred (100) marks and each examination mark is scaled down to ten (10) marks.
- iv. Every student must practice ten experiments during the practical session. The

student will be given two (02) marks for each experiment upon the completion of accurate observation, participating viva voce, and submitting the record.

S. No	Continuous Assessment Components	Continuous Internal Assessment Marks
1	Day-to-Day Evaluation	20
2	Model Lab Exam –I	10
3	Model Lab Exam –II	10
Total Internal marks		40

15.2.3. Project Component and Assessment

- The project component shall comprise five exercises and one Course Project to be completed at the end of the semester.
- During the practical sessions, each student shall complete the prescribed five exercises. Each exercise shall be evaluated for 4 marks, carrying a total of 20 marks.
- The Model Examination shall consist of a Project Review and Project Report Submission. The performance of the student shall be evaluated using the prescribed rubrics for 100 marks, which shall subsequently be scaled down to 20 marks.
- The End Semester Examination shall consist of the evaluation of the Course Project, including final project review and project report, as per the prescribed assessment rubrics.

S.No	Continuous Assessment Components	Continuous Internal Assessment Marks
1	Five Exercises (5 x 4 Marks)	20
2	Model Project Review and Report Submission (100 Marks Scaled down to 20 Marks)	20
Total Internal marks		40

15.2.4 Final Internal Mark

- The final internal mark will be the weighted average of the marks obtained in 15.2.1 and 15.2.2/15.2.3.

15.3 Laboratory Courses

- The maximum mark for continuous internal assessment shall be 50 for practical courses. For this purpose, every laboratory exercise/experiment shall be evaluated continuously i.e., conduct of experiment/exercise and maintenance of records.
- Every student must practice ten (10) experiments during the practical session. The

- student's performance for each experiment will be evaluated daily for two marks
- (2) upon conduction of laboratory experiments, completion of the accurate observation, participating viva-voce and submitting the record.
- iii. Ten (10) marks will be given for the completion of two innovative projects following the laboratory practice. If innovative projects are not possible to follow laboratory practice, students are asked to attend field visits and submit certificates, for which ten marks will be awarded.
 - iv. There will be two model lab examinations along with regular practice laboratory classes.
 - v. The model lab examinations will be conducted according to the course lecturer's concern, like the end-semester practical examination.
 - vi. The duration of the model lab examination is 03 hours for a hundred (100) marks and each examination mark is scaled down to ten (10) marks.
 - vii. In case the student is absent for the laboratory session, he can attend the same experiment on Saturday by requesting the concerned subject coordinator and the Head of the department.

S. No	Continuous Assessment Components	Continuous Internal Assessment Marks
1	Day-to-Day Evaluation	20
2	Innovative Project/Field Visit	10
3	Model Lab Exam –I	10
4	Model Lab Exam –II	10
Total Internal marks		50

15.4 Evaluation of Engineering Graphics and Design

- For the subject Engineering Graphics, the distribution shall be forty (40) marks for internal evaluation and sixty (60) marks for the end-semester examination. The internal assessment procedure is as follows,
 - i. There shall be two CAT examinations in a semester.
 - ii. CAT-I examination covers units-II, and III, whereas CAT-II examination covers the unit-IV and Units-V and VI.
 - iii. Each CAT examination (only descriptive) is conducted for a hundred (100) marks for 3 hours. The marks secured by the student out of 100 are scaled to 05 using a range scale.

- iv. The CAT question paper comprises five questions from the examination syllabus with internal choice and carries an equal mark.
 - v. At the end of the semester, a model examination will be conducted for the entire syllabus (Units II to VI) like semester-end examinations. The marks secured by the student out of 100 are scaled to 10 using a range scale.
 - vi. There will be a weekly class test (CT) throughout the semester.
 - vii. The course lecturer will conduct the class test for fifty (50) marks of 60 minutes. The weighted average mark is scaled to 05 marks. The college academic committee will decide the number of class test marks to consider at the semester's end
 - viii. Therefore, the weightage of the pen paper will be twenty-five (25) marks. i.e., the cumulative sum of CAT-I and II, ME, and CT
 - ix. There shall be day-to-day work and the concerned course lecturer about awarding fifteen (15) marks.
- Therefore, the internal mark will be forty (40) marks, i.e., the pen-paper examinations (25M) plus day-to-day (15M) evaluations.

16. END SEMESTER EXAMINATION AND EVALUATION

16.1 Theory Course

- i. The end-semester examination will be conducted with the entire syllabus of a course for hundred (100) marks with a three-hour duration. The secured mark is scaled down to sixty (60) marks. The question paper comprises of three parts:
- ii. Part A with sixteen easy questions (single word) spread across the entire syllabus of the examination.
- iii. Part B with twelve short questions carrying two marks each and weighing twenty-four (24) marks.
- iv. Part C is the challenging part and contains six questions with internal choice and carries a total of sixty (60) marks. The question may come across from the examination syllabus.
- v. A student must secure not less than 50% of marks in the total internal and end semester examination, provided a minimum of 45% of marks is secured in the end semester Examination to earn the credits allotted to each course.

16.2 Engineering Graphics and Design

- The end-semester examination will be conducted with the entire syllabus of a course for hundred (100) marks with a three-hour duration. The secured mark is scaled down to sixty (60) marks. The end-semester examination contains five questions with internal choice from unit II to unit VI and carries an equal mark.

16.3 Laboratory Course

- i. The end-practical examination will be conducted for hundred (100) marks with a three-hour duration. The secured mark is scaled down to fifty (50) marks for only practical, whereas theory cum practical course is scaled down to sixty (60) marks.
- ii. The internal examiner shall conduct the examination jointly with an external examiner duly appointed by the Controller of Examinations.
- iii. The evaluation scheme shall be prepared by both the examiners in consultation with the course coordinator/Programme coordinator.
- iv. The examiners shall evaluate the answer scripts; however, the mark award for viva voice is the external examiner's sole decision.

S. No.	Activity	Mark
1	Procedure	30
2	Experimental work	30
3	Results	20
4	Viva-voice	20
External marks:		100

17. END SEMESTER CAPSTONE PROJECT / PROJECT WORK EVALUATION

- i. The student shall register for Capstone Project / Project Work in the seventh and eighth semester. A single student or a group of students not exceeding four members can carry a capstone project / project work under a supervisor. Upon recommendation of the supervisor, the head of the department approves the batches.
- ii. The internal and external evaluation of a capstone project / project work is carried out for fifty (50) marks each.
- iii. The concerned head of the department shall constitute a review committee for

Project Work and oversee the same. The review committee consists of the supervisor, an expert from the department and a project coordinator from the department. If the project coordinator/expert member happens to be the supervisor, then an alternate member shall be nominated.

- iv. The student(s) is/are expected to submit the project report on or before the last working day of the semester. If a student fails to submit the project report on or before the specified deadline or the student has submitted the project report but did not appear for the viva-voce examination, it will be considered as a fail in the Capstone Project / Project Work and the student shall reregister for the same in the subsequent semester.

17.1 Internal Assessment

- i. There shall be three reviews during the semester by the review committee. The student shall make a presentation on the progress made by them before the committee.
- ii. Each review will be evaluated for 100 Marks and is scaled down (rounded up to the nearest integer) as follows to accumulate 50 Marks.

S. No.	Activity	Mark
1	Review-1	10
2	Review-2	20
3	Review-3	20
Internal mark:		50

17.2 End Evaluation

- i. The final project evaluation committee comprises the supervisor concerned, internal and external examiner duly appointed by the Controller of examinations from a panel of examiner (external) list.
- ii. The committee will prepare an evaluation scheme for hundred (100) marks, including a project report, and may ask the student to demonstrate using a PowerPoint presentation followed by viva voice for critical evaluation.

S. No.	Particulars	Mark
1	Internal Examiner	35

2	External Examiner	35
3	Supervisor	30
External mark:		100

- iii. The secured marks will be scaled down to 50 marks for Project Work / Capstone Project and 60 marks for Project integrated theory courses.

18. EVALUATION OF MANDATORY/AUDIT COURSES

- i. The student must satisfy these non-credit courses for the award of the degree.
- ii. There shall be two CAT examinations in a semester. Each CAT examination (only descriptive) is conducted for a hundred (100) marks for 03 hours.
- iii. The CAT-I examination covers units first three units (Units I, II, and III) whereas the CAT-II examination covers the remaining units (Unit-IV, V and VI).
- iv. The final mark is the weighted average of two CAT examinations.
- v. A student must secure 50% of the marks allotted in the internal evaluation to pass the course.
- vi. No marks or letter grades shall be allotted for all mandatory non-credit courses. However, attendance shall be considered while calculating aggregate attendance and must secure 75% in that course.
- vii. No supplementary examination. In case the student fails, a re-examination shall be conducted for failed candidates subjected to the institution's examination reform policy.

19. EVALUATION OF EMPLOYABILITY ENHANCEMENT COURSES

- Skill-based experiential learning courses are facilitated in the curriculum to enhance the student's employability skills.
- These courses may be purely Laboratory-based or theory-integrated laboratory-based. These courses will be given credits as per the credit policy.
- The student shall be given the option to choose either the skill courses being offered by the college or a certificate course being offered by industries/Professional bodies, or any other accredited bodies as approved by the concerned BOS.
 - i. Course offered by the Department
 - ii. Course offered by an external agency

19.1 Course offered by the Department

- i. Students must register for the course as per the Institution's policy in the event of a skill-oriented/advanced course offered by the department/institution.
- ii. The department/institution conducts it along with regular courses upon resource person availability.
- iii. On the other hand, the Institution / Department can collaborate with Industries / Professional bodies or any other accredited bodies to develop the course content and the same course is to be conducted not less than thirty (30) contact hours.
- iv. There shall be a continuous assessment for fifty (50) marks. The student must submit weekly/module-wise assignments and submit them as a final report. Also, the students' subject-specific skills are to be evaluated using suitable scoring rubrics.
- v. There shall be an end evaluation for fifty (50) marks by the internal evaluator appointed by the Controller of Examinations.
- vi. A student must secure 50% of the marks allotted for passing the course.
- vii. The student has to re-register for the course when offered subsequently if he/she fails to fulfil the attendance and End Examination marks requirement.

19.2 Course Offered by an External Agency

- i. The Department shall mark the student's attendance for the remaining courses in that semester, excluding the skill course in all the calculations of mandatory attendance requirements upon producing a valid certificate as approved by the concerned Board of Studies.
- ii. The student is deemed to have fulfilled the course's attendance requirement and acquired the credits assigned to the course.
- iii. The credits shall be awarded to the student upon producing the Course Completion Certificate from the agency/professional bodies as approved by the Board of Studies.
- iv. A committee shall be formed at the College level to evaluate the grades/marks given for a course by external agencies and convert them to equivalent marks/grades.
- v. 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 in 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.

- vi. If there is no certification from the firm/company, then 50% will be included in 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.
- vii. A student must secure 50% of the marks allotted for passing the course.
- viii. The recommended conversions and appropriate grades/marks are to be approved by the Academic Council.

20. EVALUATION OF INTERNSHIP

20.1 Summer Internship

- i. After completing the summer internship, the students shall register in the immediate respective odd semester. It will be evaluated at the end of the semester, along with an external laboratory examination.
- ii. At the time of registration, the student must produce the summer internship satisfactory report and certificate taken from the organization to be considered for evaluation.
- iii. A student will be required to submit a summer internship report to the concerned Department and appear for an oral presentation before the departmental committee.
- iv. The departmental committee consists of the Head of the Department; the mentor/supervisor of the internship; and a senior faculty member of the Department.
- v. The report and the oral presentation shall carry 50% weightage each. It shall be evaluated for a hundred (100) marks. There shall be no internal marks for the Summer Internship.
- vi. A student shall secure a minimum of 50% of marks for successful completion. If a student fails, he/she shall reappear as and when the Institution conducts semester supplementary examinations.
- vii. Completion of internships is mandatory. If any student fails to complete an internship, he/she will not be eligible for the award of a degree. In such cases, the

student shall repeat and complete the internship.

20.2 Final Semester Internship Cum Project Work

- i. The student can also undergo a semester-long internship in an industry / academic / research institution.
- ii. The project work carried out in an industry / academic/research institution shall be jointly supervised by a supervisor of the department and an expert from the organization as a joint supervisor.
- iii. The student shall be instructed to meet the supervisor periodically and to attend the review committee meetings to evaluate the progress. The review meetings, if necessary, may also be arranged in online mode with prior approval from the Head of the Institution and a suitable record of the meetings shall be maintained.
- iv. The review committee shall consist of the supervisor, the coordinator from the industry and the project coordinator from the Department, and the evaluation procedure follows clause 17.1.
- v. At the end of the semester, the candidate shall submit an internship completion certificate and a project report on the work carried out during the internship, and the evaluation procedure follows clause 17.2.
- vi. If the student has carried out a standalone project and completed the internship separately, the project work will be evaluated externally, and the internship will be evaluated internally (clause 20.1).

21. EVALUATION OF ONLINE COURSES

- i. Upon the successful completion of the online course, the student shall submit the marks/credit card provided by the competent authority to the concerned Head of the department.
- ii. The Head of the department concerned shall submit the details of the online courses to the Head of the institution (Chairman, Academic Council) for necessary action.
- iii. The Head of the Institution shall form a three-member committee with members as HOD and a faculty member from the Department of the Student, HOD of any other branch of the Institution.
- iv. The committee observes the UGC (Credit Framework for Online Learning Courses through SWAYAM) Regulation, 2016 & Notification 25th March 2021 and will

examine the marks/credits earned by the student and recommend appropriate credit and grade points according to the definition.

22. PASSING REQUIREMENTS

- i. A candidate who secures not less than 50% of the total marks prescribed for the course [internal assessment + End-semester examinations] with a minimum of 45% of the marks prescribed in the end-semester examination shall be declared to have passed the course and acquired the relevant number of credits. This is applicable for the theory courses, theory courses with laboratory components, theory courses with project component laboratory courses and project work.
- ii. If a student fails to secure a pass in a theory course/laboratory course, the student shall register and appear only for the end-semester examination in the subsequent semester. In such case, the internal assessment marks obtained by the 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 passing marks (CIA + End Semester Examination) as per **clause 22.1**, 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.
- iii. If a student has submitted the project report but is absent in the end-semester examination of project work, the student is deemed to have failed. If a student attends and fails the End semester examination of Project work of B.E. / B.Tech, he/she shall attend the end semester examination again within 60 days from the date of declaration of the results. The subsequent viva voce examination will be considered a reappearance with payment of the exam fee. In case, the student fails in the subsequent viva-voce examination also, the student shall redo the course again when offered next.
- iv. The passing requirement for the courses which are assessed only through purely internal assessments (EEC courses except Project Work and laboratory), is 50% of the continuous internal assessment marks only.

23. REMOVED

24. ARREAR EXAMINATIONS

- An arrear examination will be conducted along with regular end-semester

examinations. A student can appear in any number of arrear examinations for a course till he/she passes that course. However, the maximum stipulated period of the program cannot be relaxed under any circumstance.

25. AWARD OF LETTER GRADES

25.1 Grading of Courses

The grades and corresponding grade points are given in Table below.

Grading of Courses

Grade	Description	Grade Points
S	Outstanding performance with respect to course learning objectives; exhibits original and creative thinking, and demonstrates the ability to analyze critically and synthesize information	10
A+	Excellent performance with respect to course learning objectives and creative thinking	9
A	Very Good achievement with respect to course learning objectives	8
B+	Good achievement with respect to course learning objectives	7
B	Above Average achievement with respect to course learning objectives	6.5
C+	Average achievement with respect to course learning objectives	6
C	Satisfactory achievement	5
U	Re-appearance	0
SA	Shortage of Attendance	0
WC	Withdrawal of Course	0

25.2 Absolute Grading

Absolute grading system shall be followed for all category of courses. Range of marks for corresponding grades is presented in Table below

S	A+	A	B+	B	C+	C	U
91–100	81–90	71–80	66–70	61–65	56–60	50–55	<50

25.3 Removed

25.4 Grade Sheet, GPA and CGPA

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

- The Institution in which the student has studied
 - The list of courses registered during the semester and the grade scored.
 - The Grade Point Average (GPA) for the semester and
 - The Cumulative Grade Point Average (CGPA) of all courses enrolled from the first semester onwards.
- ii. GPA for a semester is the ratio of the sum of the products of the number of credits acquired for courses and the corresponding points to the sum of the number of credits acquired for the courses in the semester. CGPA will be calculated similarly, considering all the courses registered from the first semester. RA grades will be excluded from calculating GPA and CGPA.

Where,

$$GPA/CGPA = \frac{\sum_{i=1}^n (C_i \times GP_i)}{\sum C_i}$$

C_i is the number of Credits assigned to the course

GP_i is the point corresponding to the grade obtained for each course

n is the number of all courses successfully cleared during the semester in the case of GPA and during all the semesters in the case of CGPA.

26. AWARD OF THE DEGREE

26.1 Requirement for the award of the degree

- A student shall be declared to be eligible for the award of the B.E. / B.Tech. The degree provided the student has
 - i. Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time.
 - ii. Successfully completed the course requirements, appeared for the End – Semester Examinations and passed all the subjects within the period as prescribed in clause 4.1.
 - iii. Successfully passed any additional courses prescribed by BOS, whenever the student is readmitted under Regulations 2024.
 - iv. Successfully completed the NCC / NSS / NSO / YRC / Science Club / Literature Club / Fine Arts Club requirements.

- The eligible student list and data will be submitted to Anna University, Chennai-25 for the award of Degree.

26.2 Classification of the Degree Awarded

- A candidate who is absent from the End Semester Examination in a course/project work after having registered for the same shall be considered to have appeared in that examination for classification (subject to clauses 28 and 29).

26.2.1 First Class with Distinction

- A student who satisfies the following conditions shall be declared to have passed the examination in **First class with Distinction**:
 - i. Should have passed the examination in all the courses of all eight semesters (and 6 semesters in the case of Lateral Entry) in the student's First Appearance within five years and (Four years in the case of Lateral Entry).
 - ii. Withdrawal from examination (vide Clause 29) will not be considered as an appearance.
 - iii. Should have secured a CGPA of not less than 8.50.
 - iv. One-year authorized break of study (if availed of) is included in the five years and four years in the case of lateral entry for the award of First class with Distinction.
 - v. Should NOT have been prevented from writing End Semester Examination due to lack of attendance in any semester.

26.2.2 First Class

- A student who satisfies the following conditions shall be declared to have passed the examination in First class:
 - i. Should have passed the examination in all the courses of all eight semesters and 6 semesters in the case of Lateral Entry within five years and four years in the case of Lateral Entry.
 - ii. 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 and four years in the case of lateral entry for the award of First class.
 - iii. Should have secured a CGPA of not less than **6.50**.

26.2.3 Second Class

- All other students (not covered in clauses 26.2.1 and 26.2.2) who qualify for the award of the degree (vide Clause 26.1) shall be declared to have passed the examination in Second Class.

27 VALUATION AND REVALUATION

- i. The valuation of theory courses will be conducted through a central valuation system. The central evaluation must be under the direct supervision of the Controller of Examinations.
- ii. The controller of examinations will appoint the examiners (internal and external members) from the panel of examiners.
- iii. Removed
- iv. However, photocopy, reevaluation and review will be facilitated to the students. Upon the notification issued by the controller of examinations, the students can submit the applications for revaluation, along with the requisite fee receipt for revaluation of his/her answer script(s) of theory course(s), if he/she is not satisfied with marks obtained.
- v. The Controller of Examinations shall arrange for a re-evaluation of those answer script(s). Other than the first examiner, a new external examiner shall re-evaluate the answer script(s).
- vi. Better marks between the two will be taken into consideration.
- vii. Students not satisfied with revaluation can apply for a 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 the Controller of Examinations. Students applying for Revaluation only are eligible to apply for Review.
- viii. A committee consisting of the Head of the Department, the concerned course instructor and a subject expert (Internal / External) nominated by the COE will review and give its recommendations.

28 PROVISION FOR WITHDRAWAL FROM END-SEMESTER EXAMINATION

- i. For valid reasons such as medical unfitness, unexpected family situations, or participation in sports forwarded by the Chairman of the Sports Board and the Head of the Department (HOD), and approved by the Head of the Institution, a student

may 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 must be submitted to the Controller of Examinations (COE) through the proper channel with the required documents.

- ii. The withdrawal application is valid if the student is otherwise eligible to write the examination (Clause 10) and if it is submitted within ten days after the date of the examination(s) for that course or courses. The application must be approved by the Head of the Institution and forwarded to the Controller of Examinations. To withdraw from a course or courses, the student must have registered for the course, fulfilled the attendance requirements (vide Clause 10), and earned continuous assessment marks.
- iii. Notwithstanding the mandatory 10-day requirement, applications for withdrawal in special cases under extraordinary conditions will be considered based on the merits of each case.
- iv. In the case of withdrawal from a course or courses, the courses will be listed on both the Grade Sheet and the Result Sheet. However, such withdrawal shall not be counted as an appearance when determining a student's eligibility for First Class with Distinction.
- v. If a student withdraws from writing the end semester examinations for a course or courses, he/she must register for the same in the subsequent semester and take the end semester examination(s).
- vi. If a student applies for withdrawal from Project Work, permission will be granted only if the project report has been submitted 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 this will not be considered as a reappearance.
- vii. Withdrawal from the end semester examinations in the final semester is permitted, the student concerned does not exceed 5 years as per Clause 26.2.1

29 PROVISION FOR AUTHORISED BREAK OF STUDY

- i. A student is permitted to take an authorized break of study for a maximum period of one year in a single spell.

- ii. A break of study shall be granted only once for valid reasons, for a maximum of one year, during the entire period of study of the degree programme. However, in extraordinary situations, a student may apply for an additional break of study not exceeding another year. If a student intends to temporarily discontinue the programme in the middle of the semester for valid reasons and rejoin in a subsequent year, permission may be granted based on the merits of the case. The student must apply to the Head of the Institution in advance, but no later than the last date for registering for the end semester examination with the approval of the Head of the Institution, stating the reasons thereof and the probable date of rejoining the programme.
- iii. Candidates permitted to rejoin the programme after a break of study or due to prevention from lack of attendance shall be governed by the Curriculum and Regulations in force at the time of rejoining. Students rejoining under new regulations must apply to the Head of the institution at the beginning of the readmitted semester itself. They must apply in the prescribed format to prescribe additional courses, if required, from any semester of the regulations in force, to bridge the curriculum of the current regulations with the old curriculum.
- iv. The total number of credits that a student must earn shall be equal to or greater than the total number of credits prescribed in the current curriculum. If there are differences in the credits assigned for Lecture (L), Tutorial (T), and Practical (P) components of courses between two sets of regulations being considered, equivalence shall be determined based on the credit assignment method specified in the regulations currently in force.
- v. The authorized break of study is considered as part of the duration specified for passing all the courses for classification, as stated in Clause 26.2.
- vi. The total period for completion of the programme, reckoned from the commencement of the first semester to which the candidate was admitted, shall not exceed the maximum period specified in Clause 4.1, regardless of any break of study, to ensure eligibility for the award of the degree.
- vii. If a student is prevented from attending due to insufficient required attendance, this period shall not be considered an authorized "Break of Study" as per Clause 29.1.
- viii. If a student in Full-Time mode wishes to pursue a job, start-up, or entrepreneurship during the study period, they must apply for an authorized break of study for one

year. The student may commence a job, start-up, or entrepreneurship only after receiving approval from the Head of the Institution, along with providing appropriate proof of approval.

30 DISCIPLINE

- i. Every student is required to maintain disciplined and decorous behaviour both within and outside the college premises, refraining from any activities that may tarnish the reputation of the Institution. The Head of the Institution will form a disciplinary committee, comprising the Head of the Institution and two Heads of Department, with one from the faculty of the student in question. This committee investigates acts of indiscipline and appropriate disciplinary actions will be taken.
- ii. In cases of serious disciplinary issues that result in suspension or dismissal, a committee will be formed that includes a representative from Anna University, Chennai. In this regard, the Head of the Institution will request the University to nominate a member.
- iii. If a student engages in malpractice during any End semester examination or internal examination, they will be subject to punitive action as prescribed by Anna University.

31 REVISION OF REGULATIONS, CURRICULUM AND SYLLABI

- The College may revise, amend, or change the Regulations, Curriculum, Syllabus, and Scheme of Examinations from time to time after due approval of the Academic Council.