

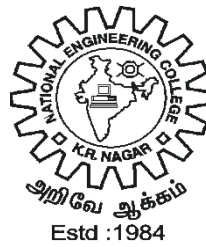
NATIONAL ENGINEERING COLLEGE, K.R.NAGAR, KOVILPATTI
(An Autonomous Institution, Affiliated to Anna University, Chennai)

REGULATIONS – 2023

OUTCOME BASED EDUCATION

&

CHOICE BASED CREDIT SYSTEM



B.E. / B.Tech. DEGREE PROGRAMMES
*(Applicable to students admitted from the Academic year 2023-2024 and subsequently under
Choice based Credit System)*

VISION

- Transforming lives through quality Education and research with human values.

MISSION

- To maintain excellent infrastructure and highly qualified and dedicated faculty.
- To provide a conducive learning environment with an ambience of humanity, wisdom, creativity and team spirit.
- To promote the values of ethical behavior and commitment to the society.
- To partner with academic, industrial and government entities to attain collaborative research.

NATIONAL ENGINEERING COLLEGE, KOVILPATTI – 628 503

(An Autonomous Institution, Affiliated to Anna University, Chennai)

2023 REGULATIONS FOR FOUR YEAR B.E. / B.Tech. DEGREE PROGRAMMES* (for the students admitted in 2023 - 2024 and subsequently under Choice Based Credit System)*

The following Regulations shall be applicable for all the U.G. Degree Programmes offered at National Engineering College, K.R.Nagar, Kovilpatti from the academic year **2023 – 2024** onwards.

1.0 PRELIMINARY DEFINITIONS AND NOMENCLATURE

1. “**Programme**” means under graduate degree programme. i.e., B.E. / B.Tech. Degree Programme.
2. “**Discipline**” means specialization or branch of B.E. / B.Tech. Degree Programme, like Mechanical Engineering, Information Technology, etc.,
3. “**Course**” means a Theory or Practical course that is normally studied in a semester, like Mathematics, Physics, Engineering Graphics, etc.,
4. “**Dean (Academic)**” means the authority of the Institution who is responsible for all academic activities of various programmes and implementation of relevant rules of these Regulations pertaining to the Academic Programmes.
5. “**Head of the Institution**” means the Principal of the College / Institution.
6. “**Head of the Department (HoD)**” means Head of the Department concerned.
7. “**Controller of Examinations**” means the authority of the Institution who is responsible for all the activities of the End Semester Examinations of this Institute.
8. “**University**” means **ANNA UNIVERSITY, CHENNAI**.

2.0 QUALIFICATIONS FOR ADMISSION

2.1 Admission

The candidates seeking admission to the first semester of the four year 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 in Engineering / Technology) as prescribed by the Government of Tamil Nadu.

2.2 Lateral Entry Admission

- i. The candidates who possess the Diploma in Engineering / Technology awarded by the State Board of Technical Education, Tamil Nadu or its equivalent are eligible to apply for Lateral entry admission to the third semester of B.E. / B.Tech., as per the rules fixed by Government of Tamil Nadu.

(OR)

- ii. The candidates who possess the Degree in Science (B.Sc.) (10+2+3 stream) with Mathematics as a subject at the B.Sc. level are eligible to apply for Lateral entry admission to the third semester of B.E. / B.Tech. Such candidates shall undergo two additional engineering courses in the third or fifth and fourth or sixth semesters respectively as prescribed by the respective Chairman of Board of Studies.

- 2.3 The candidate should also satisfy other eligibility rules as prescribed by the Anna University and Director of Technical Education, Government of Tamil Nadu, Chennai, from time to time.

3.0 UG PROGRAMMES OFFERED

1. B.E. - Mechanical Engineering
2. B.E. - Electronics and Communication Engineering
3. B.E. - Computer Science and Engineering
4. B.E. - Electrical and Electronics Engineering
5. B.Tech. - Information Technology
6. B.E. - Civil Engineering
7. B.Tech. – Artificial Intelligence and Data Science

4.0 STRUCTURE OF THE PROGRAMME

The Curriculum and Syllabi under Regulations 2023 are implemented by considering the **guidelines of Anna University, Chennai**, the recommendations of **AICTE, New Delhi** and **UGC, New Delhi** with a view of achieving excellence in the quality of education by keeping the requirements of enhancing the employability Skill and producing capable engineers for the benefit of Industry, Society and Nation as a whole. Further, the structure of the programme is designed by keeping in mind, the Outcome-Based Education (OBE) and Choice Based Credit System (CBCS). The course content of each course is fixed in accordance with the Programme Educational Objectives (PEOs), Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs).

The CBCS enables the students to earn credits across programmes and provides flexibility for slow and fast learners in registering the required number of credits in a semester. The CBCS facilitates the transfer of credits earned in different departments / Centers of other recognized/accredited universities or institutions of higher education in India and abroad either by studying directly or by online method.

The curriculum of every programme is designed with a total number of credits as **167 (119 to 122** for lateral entry) [Refer **Annexure-I**].

4.1 Categorization of Courses

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

- i. **Humanities and Social Sciences (HSMC)** include English, Communication Skill laboratory and Management courses
- ii. **Basic Science Courses (BSC)** include Chemistry, Physics, Biology and Mathematics
- iii. **Engineering Science Courses (ESC)** include Engineering practices, Engineering Graphics, Basics of Electrical / Electronics / Mechanical / Civil/Computer Engineering
- iv. **Programme Core Courses (PCC)** include the core courses relevant to the chosen specialization / branch.
- v. **Programme Elective Courses (PEC)** include the elective courses relevant to the chosen specialization / branch.
- vi. **Open Elective Courses (OEC)** include inter-disciplinary courses which are offered in other Engineering/Technology Programme of study.
- vii. **Employability Enhancement Courses (EEC)** include the courses such as Aptitude Essentials, Aptitude Excellence, Innovation through Design Thinking, Product Formulation and Review, Modeling projects, Simulation Using Modern tool, Product Development Practice, Internship, Mini Project, Capstone Project / Industry Practice.
- viii. **Mandatory courses (MAC)** include courses such as Constitution of India, Environmental Science etc.

4.2 In addition, the students shall enroll, in any one of the one credit Non-CGPA courses in each category listed in **Table-1** and earn a minimum of two credits (one from each category) for the award of the degree. The details for assessing these activities are given in **Annexure– II**.

To promote the entrepreneur skills in the students the Institution Innovation Cell of NEC has designed a one credit course and this course may be added in the **Table-1** under the Allied Skills / Value Added Courses category in addition to the existing courses listed in the table. The details for assessing this course are described in Table-2 and this table shall be added in Annexure-2 of Regulation 2023

TABLE-1 CATEGORY OF ONE CREDIT NON-CGPA COURSES

Category	Code	Courses	Credit
Personality and Character Development	NCG11	Sports	1
	NCG12	Yoga for Youth Empowerment	
	NCG13	National Cadet Corps	
	NCG14	National Service Scheme	
	NCG15	Extra Curricular Activities	
Allied Skills / Value Added Courses	NCG21	Co Curricular Activities	1
	NCG22	English Proficiency Certification	
	NCG23	NPTEL online courses related to Allied Skills	
	NCG24	Foreign / Vernacular Languages	
	NCG25	Aptitude Proficiency Certification	
	NCG26	Globally accepted Certification Courses	
NCG27	Entrepreneurial skill development Course		

4.3 Number of Courses per Semester

Each semester curriculum shall normally have a blend of Theory courses, Laboratory courses, Integrated courses and Employability Enhancement Course(s). However, the total number of courses per semester shall not exceed 10. Each Course shall have credits assigned as per clause 4.4.

4.4 Credit System

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

TABLE – 2 CREDIT SYSTEM

Contact period per week	Credits
One Lecture(L) Period	1
One Tutorial (T) period	1
1 Laboratory (P / E) Period (also for EEC courses like Simulation Using Modern tool / Project etc)	0.5

4.5 Inplant Training / Internship

4.5.1 The students may undergo Industrial training for a period as specified in the Curriculum during the summer / winter vacation. In this case, the training has to be undergone continuously for a period of at least two weeks in an organization. The students may undergo Internship at a Research organization / University/ Industry (after due approval from the Head of the Institution) for the period prescribed in the curriculum during the summer / winter vacation, in lieu of Industrial training. Attendance Certificate mentioning the period of Industrial Training / Internship and signed by the competent authority of the industry, as per the format provided by the Dean (Academic) shall be submitted to the Head of the Institution. The attendance certificate shall be forwarded to the COE section by the Head of the department through Dean (Academic) for processing results.

4.5.2 Live-in-Lab

It is an experiential learning programme for the students to understand the problems of the population living in villages and to identify projects to address the problems, develop solutions, put into practice, assess results and ultimately reveal innovative multidisciplinary solutions for the betterment of rural people and rural economy. The interested students shall go to the village adopted by the institution from the third year onwards, and they have to stay at least for two weeks

continuously in that village. During the stay, they can interact with the village population and identify the problem. Further, they have to provide a solution to the problems identified at the end of the period of study to consider the same as an internship. The Principal and Head of the department should ensure that all the necessary arrangements are made in this regard.

4.6 Online Courses / Self Study Courses

Students may be permitted to earn credit through online courses (which are provided with certificate) with the approval of Head of the Department and Dean (Academic) subject to a maximum of 15 credits. The credit may be transferred with the due approval for either programme core, elective, one credit or open elective course. However, for core courses, before course registration for the corresponding semester in which the course is offered, the student has to submit the certificate with valid score to Dean (Academic) Office. Suitable online courses shall be chosen from the SWAYAM platform, Udemy, Coursera etc.

4.7 One credit courses

One credit elective course shall be offered by the department in collaboration with the industry/research organizations / higher learning institutions. A student shall be permitted to register for the one-credit courses offered by other departments with approval of both the Heads of the departments. A student shall replace a three credit programme elective / open elective course if he / she registered for three one credit courses and appear for the end semester examination of the courses and got qualified in the examination. Three elective courses of 1 credit shall replace a 3 credit elective course as given in **Table - 3**.

TABLE – 3 REPLACEMENT OF ONE CREDIT COURSES

Number of one credit earned		Eligible to replace	
Core electives	Interdisciplinary electives	PEC	OEC
3	0	1	-
2	1	1	-
1	2	-	1
0	3	-	1

4.8 Project Work / Industry Practice

4.8.1 Project work

Project work is one of the employability enhancement courses in the curriculum. Under the supervision of a faculty member, final year student is required to do some innovative work for a societal problem with the knowledge gained after undergoing various theory and laboratory courses during their study. A single student or group of students (not exceeding 4 per group) shall exhibit both analytical and practical skills through their project work.

Mini Project carries 3 credits, and shall be registered in the 7th semester. Capstone Project / Industry practice carries 6 credits and shall be registered in 8th semester.

4.8.2 Industry Practice

Industry practice is a skill development /employability enhancement course in the curriculum, wherein the student has to undergo industrial training under the industry mentor in a specific domain for one semester continuously. The students shall register for industry practice during 8th semester instead of Capstone Project with the proper approval from Industry, Placement cell and concerned Head of the Department. This is eligible only for the students who have got internship offer in a company for duration of 10 to 15 weeks. They have to register the course within one week after the commencement of 8th semester.

4.9 Medium of Instruction

The medium of instruction and examinations shall be English for all the courses except the two courses தமிழர் மரபு / Heritage of Tamils and தமிழரும் தொழில்நுட்பமும் / Tamils &

Technology. For these two courses the medium of instruction and examination shall be in Tamil. However, if a student wishes to write the examination in English for these two courses it shall be permitted.

4.10 Verticals

Elective courses are listed in groups called verticals that represent a particular area of specialization / domain. Students are permitted to choose all the Elective courses from a particular vertical or from different verticals.

4.10.1 Eligibility Criteria for registration of Honors and Minor Degree

The students, who opt for Honors or Minor degree, have **to earn additional 18 credits** apart from the mandatory credits prescribed in the curriculum for the particular programme.

- For **Honors with Specialization**, the students will be permitted to register the courses in the same discipline in any one of the vertical from V semester onwards provided the marks earned by the students until III semester should be of 7.50 CGPA & above and cleared all the courses in the first attempt.
- For **Honors**, the students will be permitted to register the courses in the same discipline from more than one vertical from V semester onwards provided the marks earned by the students until III semester should be of 7.50 CGPA & above and cleared all the courses in the first attempt.
- For **Minor**, the students will be permitted to register the courses, in any one of the verticals from other discipline from V semester onwards provided the marks earned by the students until Semester III is CGPA 7.50 and above.
- Students can earn maximum of 6 credits in online mode (SWAYAM platform), out of these 18 credits
- **If a student decides not to opt for Honours**, after completing certain number of additional courses, the additional courses studied shall be considered instead of the Professional Elective courses which are part of the curriculum. If the student has studied more number of such courses than the number of Professional Elective courses required as per the curriculum, the courses with higher grades shall be considered for the calculation of CGPA. Remaining courses shall be printed in the mark sheet, however, they will not be considered for calculation of CGPA.
- **If a student decides not to opt for Minor**, after completing certain number of courses, the additional courses studied shall be considered instead of Open Elective courses which are part of the curriculum. If the student has studied more number of such courses than the number of open electives required as per the curriculum, the courses with higher grades shall be considered for calculation of CGPA. Remaining courses shall be printed in the mark sheet, however, they will not be considered for calculation of CGPA.

5.0 DURATION OF THE PROGRAMME

- 5.1** A student is ordinarily expected to complete the B.E. / B.Tech. programme in eight semesters (for HSC or equivalent students) and six semesters (for Lateral Entry students) but in any case, not more than 14 Semesters for HSC (or equivalent) students and not more than 12 semesters for Lateral Entry students.
- 5.2** Each semester shall normally consist of 75 working days or 540 periods of 50 minutes each. The Head of the Institution shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus and that the teacher teaches the full content of the specified syllabus for the course being taught.
- 5.3** The Head of the Institution may conduct additional classes for improvement, special coaching, conduct of model test etc., over and above the specified periods.

5.4 For regulations, the academic year has been divided into two semesters, the Odd semester normally spanning from June to November and the Even semester from December to May. The First semester of B.E. / B.Tech. Degree Programme normally spans from August to December and Second semester from January to May.

5.5 The total period for completion of the programme reckoned from the commencement of the first semester to which the student was admitted, shall not exceed the maximum period specified in **clause 5.1** irrespective of the period of break of study (**vide clause 20.1**) or prevention (**vide clause 7.4**) in order that the student may be eligible for the award of the degree (**vide clause 17.0**)

6.0 COURSE REGISTRATION

6.1 The information on the list of all the courses offered in every department specifying the credits, the prerequisites, a brief description of syllabus or list of topics, the instructor who is offering the course shall be made available in the college website.

6.2 Each student, on admission shall be assigned to a Tutor/Mentor (**vide clause 8.0**) who shall advise her/him about the academic programs and counsel on the choice of courses considering the academic background and student's career objectives. With the advice and consent of the Tutor / mentor, the student shall register for a set of courses he/she plans to take up for the Semester.

6.3 Every student shall enroll for the courses of the succeeding semester during the last week of the current semester. However, the student shall confirm the enrollment by registering for the courses within first five working days after the commencement of the concerned semester. Further, the student has to register for the end semester examination by paying the prescribed fee for that particular course. If he/she has not registered for the end semester examination in the semester concerned, then he/she has to re-register for the courses in the subsequent semesters and satisfy the requirements as per **clauses 7.0 & 6.10.2**

6.4 If a student is prevented from writing End Semester Examination (ESE) of a course due to lack of attendance, the student has to register for that course again, when offered next, attend the classes and fulfill the attendance requirements as per **clause 7.0**.

6.5 If the theory course in which the student has been prevented from writing end semester examination due to lack of attendance is a programme elective course or an open elective, then the student may register for the same or any other Programme elective or open elective course respectively in the subsequent semesters during the minimum period of study. However, if the students are unable to complete the courses within the minimum said duration, they shall register their courses in the subsequent academic year irrespective of Odd or Even semester.

6.6 The maximum number of credits that can be registered in a semester is 36. However, this does not include the number of Re-appearance (RA) and Withdrawal (W) courses registered by the student for the appearance of Examination.

6.7 In any department, the preference for registration shall be given to the students of that department for whom the course is a programme core course or programme elective course.

6.8 The registration for any course shall be on first come first served basis, provided the student fulfills prerequisites for that course if any. Every effort shall be made by the Department/Centre to accommodate as many students as possible.

6.9 No course shall be offered by a department unless a minimum of **5** students are registered for that course. However, this restriction is not applicable for the students who register for a course after 4 years duration.

6.10 Flexibility to Add or Drop Courses

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

- 6.10.1** From the second to eighth semesters, the student has the option of registering for additional courses or dropping existing courses. 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. However, the student shall register for a **maximum of 36 credits** and a minimum of 12 credits (except in seventh and eighth semesters).
- 6.10.2** If a student earns more than the total credit as specified in the curriculum of the programme by using this add on flexibility, the courses with higher grades shall be considered for the calculation of CGPA. Remaining courses shall be printed in the mark sheet, however, they will not be considered for calculation of CGPA.
- 6.10.3** A student can register a maximum of 2 one-credit courses per semester for the replacement of programme elective and open elective courses.
- 6.10.4** The student shall register for the Capstone project / Industry Practice in the VIII semester only.
- 6.10.5** The student shall register for the Product Development practice in the VI semester.
- 6.10.6** The student shall register and complete their courses within the minimum duration of the degree programme as per **clause 5.1**. However, if a student is unable to register the courses within the said duration, they shall register their courses in the subsequent academic year irrespective of Odd or Even semester.

7.0 REQUIREMENTS FOR APPEARING FOR THE END SEMESTER EXAMINATION OF A COURSE

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

- 7.1** Ideally every student is expected to attend all classes of all the courses and secure 100% attendance for all the courses. 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.
- 7.2** However, a student who secures overall attendance between 65% and 74% in the current semester due to medical reasons (prolonged hospitalization / accident / specific illness) / participation in sports events may be permitted to appear for the current semester examinations, subject to the condition that the student shall submit the medical certificate / sports participation certificate attested by the Head of the Institution. The same shall be forwarded to the Controller of Examinations for record purposes.
- 7.3** A candidate shall normally be permitted to appear for the End Semester Examination of the course if he/she has satisfied the attendance requirements (**subject to clause 7.1 - 7.2**) and has registered for examination in those courses of that semester. A candidate 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.
- 7.4** Those students who have not satisfied the conditions specified in **clauses 7.1 - 7.2** and who secure **less than 65%** attendance in a course will not be permitted to write the End Semester Examination of that course. The student has to register and repeat this course in a subsequent semester when it is offered subject to the provisions under **clause 6.9.2**
- 7.5** Students who have not satisfied the attendance requirements as per **clauses 7.1 & 7.2** and registration requirements as per the **clause 6.2** in all the courses in a particular semester have to re-

do the courses in the corresponding semester in the subsequent academic year, subject to **clause 20.1**. Also, such students are not eligible to register for the subsequent semester.

7.6 Those students who missed their End Semester Examinations owing to their participation in national and international level Sports, NCC & NSS events shall be permitted with due approval of Head of the Institution to appear for special examinations.

8.0 MENTOR / TUTOR

To facilitate the students in choosing their courses of study and to advise them on the academic matters, the Head of the Department shall allocate a fixed number of students to a teaching faculty of the department who shall function as Mentor for them throughout their period of study. Mentors shall advise the students in registering of courses, monitor their attendance and progress and counsel them periodically. If necessary, the Mentor may also discuss with or inform the parents about the progress of the students through concerned Head of the Department.

8.1 The responsibilities for the faculty advisor shall be

- To act as the channel of communication between the HOD and the students of the respective class.
- To collect and maintain various statistical details of students in the student records.
- To help the chairperson of the class committee in planning and conduct of the class committee meetings.
- To monitor the academic performance of the students including attendance and to inform the class committee.
- To monitor the students' welfare activities like awards, medals, scholarships and industrial visits.

9.0 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:

- Solving problems experienced by students in the class room and in the laboratories.
- Clarifying the regulations of the degree programme and the details of rules therein particularly.
- Informing the student representatives, the academic schedule including the dates of assessments and the syllabus coverage for each assessment.
- Informing the student representatives the details of Regulations regarding weightage used for each assessment. In the case of practical courses (laboratory / drawing / project work / seminar etc.) the breakup of marks for each experiment / exercise / module of work, should be clearly discussed in the class committee meeting and informed to the students.
- Analyzing the performance of the students of the class after each test and finding the ways and means of solving problems, if any.
- Identifying the slow-learners, if any, and requesting the teachers concerned to provide some additional help or guidance or coaching to such students.

9.2 The class committee for a class under a particular programme is normally constituted by the Head of the department. However, if the students of different programmes are mixed in a class (like the first semester which is generally common to all programmes), the class committee shall be constituted by the Head of the department / Head of the Institution.

9.3 The class committee shall be constituted in the first week of commencement of any semester.

9.4 For a class of single intake department, at least 6 student representatives (preferably 3 boys and 3 girls) shall be included in the class committee. For a class of double intake department, at least 12 student representatives (preferably 6 boys and 6 girls) shall be included in the class committee.

9.5 The chairperson of the class committee may invite the Mentor(s) and the Head of the Department to the meeting of the class committee.

- 9.6** The Principal may participate in any class committee meeting.
- 9.7** The chairperson is required to prepare the minutes of every meeting, submit the same to HOD within two working days after the meeting and arrange to circulate among the concerned students and teachers. 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 class committee shall meet three times in a semester:
- The first meeting, two weeks after commencement of the classes.
 - The second meeting, a week after the first internal assessment results.
 - The third meeting, after the second internal assessment results.
- 9.9** During these meetings, the student members representing the entire class, shall meaningfully interact and express the opinions and suggestions of other students of the class to improve the effectiveness of the teaching-learning process.

10.0 COURSE COMMITTEE FOR COMMON COURSES

Each common theory course offered to more than one discipline or one batch of students shall have a "Course Committee" comprising of all the teachers teaching the common course with one of them nominated as 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 several departments. The 'Course committee' shall meet at least three times and ensure uniform evaluation of the tests and arrive at a common scheme of evaluation for the tests. Wherever it is feasible, the course committee may also prepare a common question paper for the assessment test(s). Guidelines for the evaluation of CO attainment and continuous assessment shall be finalized in the first course committee meeting.

11.0 SYSTEM OF EXAMINATION AND ASSESSMENT PROCEDURE

- 11.1** Performance in each course of study shall be evaluated based on (i) continuous assessment throughout the semester and (ii) End Semester Examinations (ESE) at the end of the semester.
- 11.2** Each course, both theory and practical (including project work & viva voce examinations) shall be evaluated for a maximum of 100 marks.
- 11.2.1** For all theory courses, the continuous internal assessment will carry **40 marks** while the End Semester examination will carry **60 marks**.
- 11.2.2** For all theory courses with laboratory / project component, the continuous assessment will carry **50 marks** while the End Semester examination will carry **50 marks**.
- 11.2.3** For all laboratory courses, the continuous assessment will carry **60 marks** while the End Semester examination will carry **40 marks**.
- 11.2.4** The continuous assessment for the project work will carry **40 marks** while the End Semester examination will carry **60 marks**.
- 11.3** The End semester examination (for theory, practical and integrated courses) shall be of 3 hours duration. For integrated courses with Laboratory (L) and Experiential Learning (E) component, the end semester evaluation shall be conducted for the theory component and laboratory component. The project / experiential learning component shall be evaluated during the end semester examination by viva voce and presentation at the time of evaluating the laboratory component. The end semester examination shall ordinarily be conducted between October and December during the odd semesters and between April and June during the even semesters.
- 11.4 Internship / Industrial Training**
- The Internship / Industrial Training shall carry 100 marks. At the end of Internship / Industrial Training, the candidate shall submit a certificate from the organization where he/she has undergone training and a brief report. The evaluation will be made based on the report and a viva-voce examination conducted internally by a three member Departmental Committee constituted by the **Head of the Department**. The certificate (issued by the organization) submitted by the students shall be attached to the mark list and sent to the Controller of Examinations. The details for assessing those courses are given in **Annexure – III**.

11.5 The End semester examination for Mini Project and Capstone Project shall consist of evaluation of the final report submitted by the student or students of the project group (of not exceeding 4 students) by an external examiner and an internal examiner, followed by a viva-voce examination conducted separately for each student by a committee consisting of the external examiner, the guide / supervisor of the project group and an internal examiner.

11.6 Product Development Practice and Innovation through Design Thinking

The End Semester Examination for these courses shall consist of an evaluation of the final report submitted by the student or students of the group (of not exceeding 4 students) by the panel of examiners consisting of faculty coordinator, Guide and a common examiner from other programme nominated by the COE.

11.7 One-Credit Courses

For one-credit courses, the End Semester Examination of 1-hour duration shall be conducted as and when the course is completed (if necessary). If an industry expert conducts a course, then a committee consisting of the head of the department, subject expert and industrial expert handling the course may be constituted to normalize the evaluation. The grades of the students completing the one-credit courses will be finalized based on the grading patterns. The grades earned by the students for the one-credit courses which do not opt for conversion into elective, will not be included in the computation of CGPA.

11.8 Industry Practice

After the completion of the industry practice, the student shall submit a completion certificate endorsed by the industry mentor. The industry mentor shall submit a feedback / confidential report to the concerned HODs. The course shall carry 100 marks and shall be evaluated through End Semester Examination (ESE) only. The ESE shall be conducted by the two member committee consisting of internal faculty member and external expert (preferably from industry) nominated by the COE in consultation with HOD.

11.9 The End Semester Examinations of Engineering Graphics course shall be evaluated as a practical course.

11.10 The End Semester Examinations of practical courses and practical/project component of integrated course shall be evaluated by Internal and Co-Examiners appointed by COE with recommendation of concerned HOD.

11.11 Scribes may be appointed for conducting examination for a student with disabilities on request to Principal through Head of the department concerned with necessary documents. Based on the request and genuinely, the Principal may appoint the scribe for the disabled student as per the norms.

11.12 Preservation of assessed answer books

All answer books shall be preserved for four years in the strong room of Examination Cell.

12.0 PROCEDURE FOR AWARDING MARKS FOR CONTINUOUS ASSESSMENT

12.1 Theory Courses

For all the theory courses, the Continuous Assessment (CA) shall be made through Course Outcome (CO) attainment of the individual student. Each course shall have a set of Course Outcomes. Continuous assessment for each theory course shall be evaluated through tests (minimum two Continuous Assessment Tests) and other appropriate assessment tools like Quiz, Presentation, Open book test, Viva-Voce, etc., as per the discretion of the course Instructor. The guidelines for the evaluation of continuous assessment marks in theory courses is given in **Table - 4**.

TABLE 4 – EVALUATION OF CONTINUOUS ASSESSMENT FOR THEORY COURSE

CO	Continuous Assessment Test (CAT)	MCQT / ASMT / Tutorial	Viva / Seminar / Presentation	CES	Total Attainment for CO (100%)	Wtg. of CO for Continuous Assessment

	Marks	wtg	Marks	Wtg.	Marks	Wtg.	Marks	Wtg.	Marks	
1.										
2.										
:										
N.										
Weighted average attainment of CO										

Wtg. – weightage; MCQT – Multiple Choice Question Type; ASMT – Assignment; CES – CO End Survey

Note: The procedure for the calculation for each CO attainment should be finalized by the course coordinator during the first course committee meeting with justifications for tools used and weightages before the commencement of the semester, and it should be approved in the first class committee meeting.

- The weighted average attainment of CO shall be converted to 40 marks for Continuous Assessment for theory courses.

12.2 Laboratory Courses

Continuous assessment for laboratory courses shall be evaluated through CO attainment of the student by assessing the student performance during the laboratory class, model examination and oral examination. For evaluating the Viva-voce, the class committee has to frame rubrics. The weightages shall be given to each assessment as given in **Table – 5** to evaluate attainment of COs.

TABLE 5 – EVALUATION OF CONTINUOUS ASSESSMENT FOR PRACTICAL COURSES

CO	Laboratory practice		Model Exam		Viva-Voce		CES		Total Attainment for CO	Wtg. of CO for Continuous Assessment
	Marks	Wtg.	Marks	Wtg.	Marks	Wtg.	Marks	Wtg.	Marks	
1.										
2.										
:										
N.										
Weighted average attainment of CO										

Wtg. – weightage

* The CO attainment average shall be converted to 60 marks for Continuous Assessment for Laboratory courses.

12.3 Theory Courses with Laboratory Component / Laboratory Courses with Theory Component

These type of courses shall have different set of Course Outcomes for theory component, practical component, project component and soft skills. The CO attainment average of theory component (12.1, Table No.4) shall be converted to 25% and CO attainment average of practical component (12.2, Table No.5) shall be converted to 25% for continuous assessment. CO attainment of soft skill component shall be considered only for PO attainment.

TABLE - 6

L	T	P	C	Continuous Assessment (CA)		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%)

Note: Experiential learning (E) hours prescribed in the curriculum structure, to be treated as equivalent to Practical hours (P).

For end semester examination, the assessment shall be laboratory only or assessment of both theory and laboratory component with proper weightage for each component as given in Table 6.

12.4 Project Work

The student shall register for Mini Project in pre-final semester and Capstone Project / Industry Practice in final semester. Project work may be assigned to a single / group of students not exceeding 4 per group.

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

12.4.2 The Head of the department shall constitute a review committee for Project Work for each programme. The review committee consists of 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.

12.4.3 There shall be three reviews for the project work and the reviews will be conducted by a committee. The student shall make presentation on the progress made by him / her before the committee. Based on the COs of the project work, the rubrics shall be designed by the review committee, approved by concerned HOD shall be used for evaluation. The procedure for the evaluation of CO through three reviews shall be used to calculate the weighted average attainment of CO. The weighted average attainment of CO shall be converted to 40 marks.

12.4.4 The project report shall carry a maximum of 20 marks. The project report shall be submitted as per the approved guidelines as given by the Dean (Academic). Same marks shall be awarded to every student within the project group for the project report. The Oral viva-voce examination shall carry 40 marks. Marks are awarded to each student of the project group is based on the individual's performance in the viva-voce examination.

TABLE - 7

End Semester Examinations				
Project Report		Viva-Voce Examination		
Internal	External	Internal	External	Supervisor
10	10	10	20	10

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

12.5 Live-in-Lab

- At the end of the study, the students have to submit a report as a group consisting of maximum of 6 numbers to the department about the visit which includes the date of visit, questionnaires prepared for the identification of problem, justification and the suggestions/solutions given for the identified problem. Photo proof is essential for all activities.
- The report will be evaluated by a committee constituted by the controller with the approval of the Principal as per the procedure formulated for the evaluation of the project.
- All such projects will be considered as Internship.
- The best solution will be rewarded suitably.

12.6 Monitoring Committee for Continuous Assessment

The monitoring committee is constituted by the HOD, which consists of two senior faculty members from the department to ensure quality in continuous assessment (CA) process and assessment

outcomes. The roles and responsibilities of the committee in evaluating the academic process are as follows:

1. To verify the teaching learning process carried out as per Course plan.
2. To audit CAT question paper and other assessments.
3. To ensure the consistency and unbiased mark allocation.
4. To suggest the corrective measures, if needed.
5. Submit the committee report to the Head of the Department.

13.0 ACADEMIC AUDIT

An Academic Audit Committee shall be constituted by the Principal and this committee may inspect the records of attendance, content delivery methods, activity based learning, innovations in TLP, slow learners improvement, fast learners initiatives and CO assessment details of all the departments for every semester in an academic year.

Each faculty member shall maintain an "ATTENDANCE AND ASSESSMENT RECORD" for every semester which consists of attendance marked in each Lecture / Practical / Project work class, the assessment marks and the record of class work (topic covered), separately for each course. The attendance and assessment record should be submitted to the Head of the Department periodically (at least three times in a semester). The Head of the Department will verify the details given by the faculty member. At the end of the semester, the records shall be verified by the Principal and shall be maintained in safe custody for four years.

14.0 PASSING REQUIREMENTS

(A) Theory, Laboratory Courses and Project work

A student who secures not less than 50% of total marks prescribed for the course [Continuous Assessment + End Semester Examination] with a minimum of 45% of the marks prescribed for the End Semester Examination, shall be declared to have passed the course and acquired the relevant number of credits.

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 pass marks (CA + ESE), 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 Examination alone.

(B) Integrated Courses

For the first two category of integrated courses as specified in **Table – 6** of Regulation 2023, A student who secures not less than 50% of total marks prescribed for the course [Continuous Assessment + End Semester Examination] with a minimum of 45% of the marks prescribed for the End Semester Examination, shall be declared to have passed the course and acquired the relevant number of credits.

For 3rd, 4th and 5th category of integrated courses as specified in Table – 6 of Regulation 2023, A student shall be declared to pass the course if he/she secures a minimum of 45% in the theory component of the End semester Examination. However, he/she has to secure not less than 50% marks in the End semester Examination after including the End semester Examination marks of practical component.

If a student fails to secure a pass in the integrated 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 pass marks (CA + ESE), 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 Examination alone.

14.1 ASSESSMENT FOR ONLINE COURSES

Students may be permitted to credit five online courses (which are provided with certificate), subject to a maximum of 15 credits. These online courses shall be chosen from the SWAYAM platform, provided the offering organisation conducts regular examination and provides marks. The credits earned shall be transferred and the marks earned shall be converted into grades and transferred, provided the student has passed in the examination. The details regarding online courses taken up by the student, marks/credits earned and the approval for the course from Dean (Academic) office shall be sent to the Controller of Examinations office in the subsequent semester(s).

The Credit Equivalence shall be as follows:

The online course with minimum of 15 contact hours or 4 weeks duration may be considered as equivalent to one credit, with minimum of 30 contact hours or 8 weeks duration may be considered as equivalent to 2 credits and with minimum of 45 contact hours or 12 weeks duration may be considered as equivalent to 3 credits.

14.2 Other platform online courses

The student should submit the course completion certificate provided by the competent authority to the concerned HOD. Based on the HOD recommendation, the student shall register for the particular course in the Dean (Academic) office. He / she has to pay the exam fees for attending the End Semester Examination (ESE).

The Institution will conduct the ESE for 100 marks and evaluation of the course will be done by the subject expert and the result will be declared. The grade will be fixed in the class committee based on the marks obtained by the student in the ESE and the credit will be transferred based on the student acceptance.

15.0 AWARD OF LETTER GRADES

15.1 The award of letter grades will be decided based on relative grading principle. The relative grading is applicable to ONLY those students who have passed the examination as per the passing requirements as per clause 14.0. For those students who have not passed the examination, Reappearance (U) shall be awarded as shown in the Table - 8.

For those students who have passed the course, 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. For a given course, if the students' strength is greater than 30, the relative grading method shall be adopted. **However, if the students' strength is less than or equal to 30 then the fixed grading shall be followed with the grade range as specified below.**

TABLE - 8

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

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

TABLE - 9

Letter Grade	Grade Points*
O (Outstanding)	10
A+ (Excellent)	9
A (Very Good)	8
B+ (Good)	7
B (Average)	6
C (Satisfactory)	5

U (Re-appearance)	-
SA (Shortage of Attendance)	-
WD (Withdrawal)	-

A student is deemed to have passed and acquired the corresponding credits in a particular course if he / she obtain 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.

"U" denotes that the student has failed to pass in that course. "WD" denotes withdrawal from the exam for the particular 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 re-appear for the End Semester Examinations.

If the grade U is given to Theory Courses / Laboratory Courses it is not required to satisfy the attendance requirements, but has to appear for the end semester examination and fulfill the passing requirements to declare as pass in the respective courses.

If the grade U is given to EEC (Employability Enhancement Course) (except Project Work), which are evaluated only through internal assessment, the student shall register for the course again in the subsequent semester and fulfill the passing requirements to declare as pass in that course. However, attendance requirement need not be satisfied.

15.2 Grade Sheet

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

- The College Name and Affiliated University.
- The list of courses enrolled during the semester, and the grades scored.
- The Grade Point Average (GPA) for the semester
- The Cumulative Grade Point Average (CGPA) of all courses enrolled from the first semester onwards.

GPA for a semester is the ratio of the sum of the products of the credits assigned to each course and the grade point obtained for that course to the sum of the total number of credits acquired in the semester.

CGPA will be calculated similarly, considering all the courses enrolled from the first semester to last semester rounded up to 2 decimal points. "U," "SA" and "AB" grades will be excluded for calculating GPA and CGPA.

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

where C_i - is the Credits assigned to the course

GP_i - is the point corresponding to the grade obtained for each Course

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

16.0 TRANSPARENCY IN EVALUATION

Before the publication of End Semester results, the students are allowed to verify the answer scripts of all the courses, he / she has registered and appeared for the End Semester Examination. Consequently, the application for revaluation of the answer scripts for those subjects is not permitted.

The verification of answer scripts is not allowed for laboratory courses and employability enhancement courses.

17.0 ELIGIBILITY FOR THE AWARD OF THE DEGREE

A student shall be declared to be eligible for the award of the Degree only when he/she has

- i. Successfully gained the required number of total credits 167 (119 to 122 credits for Lateral entry) as specified in the curriculum corresponding to his/her Programme within the stipulated time.
- ii. Successfully completed the B.E./B.Tech. Degree programme within 7 (SEVEN) years (FOURTEEN consecutive semesters) from the date of admission to the first semester of the programme and 6 (SIX) years (TWELVE consecutive semesters) for the lateral entry candidates from the date of admission to the third semester of the programme.
- iii. Successfully completed any additional courses prescribed by the Dean (Academic), whenever any candidate is readmitted under Regulations other than R – 2023 and transferred from other college.
- iv. Successfully undergone Non-CGPA courses specified in clause 4.2 of Regulations 2023 and Curriculum of the programme concerned.
- v. No disciplinary action is pending against him/her.
- vi. The award of the Degree must have been approved by the syndicate of the University.

18.0 CLASSIFICATION OF THE DEGREE AWARDED

All eligible candidates shall be awarded degree based on the classification mentioned in tables given below

18.1 First Class with Distinction

TABLE - 10

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

18.2 First Class

TABLE - 11

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
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)		(viii)
B.E. / B.Tech. (Regular)	4 years	5 years	-	6.50	-	One year authorised break of study included in the duration permitted (iii)	Included in the duration permitted	-
B.E. / B.Tech. (Lateral Entry)	3 years	4 years	-	6.50	-	One year authorised break of study included in the duration permitted (iii)	Included in the duration permitted	-
B.E. / B.Tech. (Honours) with Specialization in the same discipline	3/4 years (Lateral Entry, Regular respectively)	4/5 years (Lateral Entry, Regular respectively)	18 credits from any one vertical of the same programme	7.50	First attempt	One year authorised break of study included in the duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E. / B.Tech. (Honours)	3/4 years (Lateral Entry, Regular respectively)	4/5 years (Lateral Entry, Regular respectively)	18 credits from more than one verticals of the same programme	7.50	First attempt	One year authorised break of study included in the duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E. / B.Tech. (Minor in other Specialization)	3/4 years (Lateral Entry, Regular respectively)	4/5 years (Lateral Entry, Regular respectively)	18 credits from any one vertical of the other programme	6.50	-	One year authorised break of study included in the duration permitted (iii)	Included in the duration permitted	-

18.3 Second Class

B.E. / B.Tech. Regular and lateral entry and B.E. / B.Tech. minor in other specialisation degree students (not covered in clauses 18.1 and 18.2) who qualify for the award of the degree (vide Clause 17.0) shall be declared to have passed the examination in Second Class.

19.0 PROVISION FOR WITHDRAWAL FROM END-SEMESTER EXAMINATION

- 19.1** A candidate may be granted permission to withdraw from appearing for the examination of any one course or consecutive examinations of more than one course in a semester examination for valid reasons and on the prior application.
- 19.2** Such withdrawal shall be permitted only once during the entire period of study.
- 19.3** Withdrawal application is valid only if the student is eligible to write the examination (**clause 7**) and if it is made within 10 working days before the commencement of the End semester examination in that course or courses and also recommended by the HOD and approved by the Principal.
- 19.4** Notwithstanding the requirement of mandatory 10 working days notice applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.
- 19.5** Withdrawal shall not be construed as an appearance for the eligibility of a candidate for First Class with Distinction.
- 19.6** Withdrawal from the End semester examination is NOT applicable to arrear courses of previous semesters.

19.7 The candidate shall appear for the End semester examination to be conducted in the subsequent semester.

19.8 Withdrawal is permitted for the End semester examination in the final semester, only if, the period of study of the student concerned does not exceed five years as per **clause 18.1**.

20.0 PROVISION FOR AUTHORISED BREAK OF STUDY

20.1 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 the extraordinary situation, the candidate may apply for an additional break of study not exceeding another one year by paying the prescribed fee for a break of study. If a candidate intends to temporarily discontinue the programme in the middle of the semester for valid reasons, and to rejoin the programme in a subsequent year, permission may be granted based on the merits of the case provided he/she applies to the Director, Academic Courses, Anna University, Chennai, in advance, but not later than the last date for registering for the End semester examination of the semester in question, through the Principal stating the reasons therefore and the probable date of rejoining the programme.

20.2 The student is permitted to rejoin the programme after the break of study shall be governed by the Curriculum and Regulations in force at the time of rejoining. If the Regulation is changed, then, those candidates may have to do additional courses as prescribed by the Dean (Academic).

20.3 The authorized break of study (for a maximum of one year) will not be counted for the duration specified for passing all the courses for the purpose of classification. However, an additional break of study granted will be counted for the purpose of classification.

20.4 The total period for completion of the programme reckoned from the commencement of the first semester to which the candidate was admitted shall not exceed the maximum period specified in **clause 5.1** irrespective of the period of break of study so that he/she may be eligible for the award of the degree.

20.5 If any student is detained for want of requisite attendance, progress and good conduct, the period spent in that semester shall not be considered as permitted "Break of Study" or "Withdrawal" is not applicable for this case.

21.0 DISCIPLINE

Every student is required to decently dress to observe discipline and decorum both inside and outside the college and not to indulge in any activity which affects the prestige of the college/university.

If a student indulges in malpractice in any of the end semester examinations, he / she has to appear before the enquiry committee, and he / she shall be liable for punitive action based on the recommendations of the committee.

22.0 REVISION OF REGULATIONS AND CURRICULUM

The curriculum and syllabi under this regulation will be for **four years**. However, the Academic Council of the College reserves the right to revise or change or amend the regulations, the scheme of examinations, the curriculum and the syllabi from time to time if found necessary.

23.0 SPECIAL CASES

In the event of any clarification in the interpretation of the above rules and regulations, they shall be referred to the Standing Committee. The Standing Committee will offer suitable interpretations/clarifications/amendments required for the special case on such references and get them ratified in the next meeting of the Academic Council. The decision of the Academic Council will be final.

ANNEXURE - I

Total Credits for B.E./ B.Tech. Degree Programmes offered in the Institution

Sl.No.	Name of the Programme	Total Credits* (4 year regular students)	Total Credits* (3 year Lateral Entry students)
1.	B.E. Mechanical Engineering	167	120
2.	B.E. Electronics and Communication Engineering	167	121
3.	B.E. Computer Science and Engineering	167	122
4.	B.E. Electrical and Electronics Engineering	167	121
5.	B.Tech. Information Technology	167	119
6.	B.E. Civil Engineering	167	120
7.	B.Tech. Artificial Intelligence and Data Science	167	119

* Minimum Total Credits to be earned by the Lateral entry student admitted to the particular UG degree Programme to become eligible for the award of Degree under **Clause 4.0** of Regulations 2023 (UG).

ANNEXURE – II

NCG11

SPORTS

1.	Pre – requisites / Eligibility Conditions	-
2.	Detail of Course Content / Syllabus	As prescribed by the Physical Education department
3.	Duration of the Course	50 Hours per Year Minimum contact hours required – 38 Hours per Year
4.	Assessment Procedure	As decided by the Physical Education department
5.	Criteria for allocation of credit	Participation in Ties /Zone/Inter Zone / Open Tournament or representation in intramural Sports & Games with 75% attendance in ground practice / Pass on Examination conducted by Physical Education department.
6.	In case of failure	(If the student score less than 50 marks in the above criteria) Repeat the course

NCG12

YOGA FOR YOUTH EMPOWERMENT

1.	Pre – requisites / Eligibility Conditions	As prescribed by Yoga class practitioners
2.	Detail of Course Content / Syllabus	
3.	Duration of the Course	60 Hours per Year. Minimum contact hours required – 45 Hours per Year
4.	Assessment Procedure	-
5.	Criteria for allocation of credit	Completion certificate issued by the NEC Yoga Club / Yoga class practitioners

NCG13

NATIONAL CADET CORPS (NCC)

1.	Pre – requisites / Eligibility Conditions	Student should be a citizen of India. He / She should have the minimum physical fitness as per NCC wing requirement
2.	Detail of Course Content / Syllabus	Norms as prescribed by NCC wing
3.	Duration of the Course	
4.	Assessment Procedure	
5.	Criteria for allocation of credit	80% parade attendance in both I & II year NCC training period

NCG14

NATIONAL SERVICE SCHEME (NSS)

1.	Pre – requisites / Eligibility Conditions	-
2.	Detail of Course Content / Syllabus	
3.	Duration of the Course	2 years
4.	Assessment Procedure	-
5.	Criteria for allocation of credit	Attend one orientation programme and active participation certificate for 120 contact hours / year or active participation certificate in 5 activities

NCG15

EXTRA-CURRICULAR ACTIVITIES

1.	Pre – requisites / Eligibility Conditions	-
2.	Detail of Course Content / Syllabus	Periodical meetings, Blood Donation Camp, Orphanage visit, Awareness Programmes, Test related to YRC (Multiple Choice Questions)
3.	Duration of the Course	One year
4.	Assessment Procedure	Evaluation will be based on attending periodical meetings (Attendance) / Camp / Orphanage visit / Test / Awareness Programmes
5.	Criteria for allocation of credit	Active participation certificate with good conduct in YRC club activities

NCG21

CO CURRICULAR ACTIVITIES

1.	Pre – requisites / Eligibility Conditions	-
2.	Detail of Course Content / Syllabus	Activities as decided by the respective professional chapters Convener / Coordinator
3.	Duration of the Course	20 contact hours on specific programme organized by the respective clubs.
4.	Assessment Procedure	Based on attendance and assessment of learning as per the objective of the programme.
5.	Criteria for allocation of credit	Successful completion of specific allied skills training like presentation skills, organization skills, technical skills etc conducted by professional chapters IEEE / ISTE / IE(I) / CSI and all other approved chapters and department associations, with a minimum of 20 contact hours and being ensured by the concerned staff coordinators.

NCG22

ENGLISH PROFICIENCY CERTIFICATION

1.	Pre – requisites / Eligibility Conditions	As prescribed by the certifying authority
2.	Detail of Course Content / Syllabus	
3.	Duration of the Course	
4.	Assessment Procedure	
5.	Criteria for allocation of credit	A certificate for attending BEC course / Minimum score in TOFEL iBT / GRE / IELTS
6.	In case of failure	Repeat the course

NCG23

NPTEL ONLINE COURSES RELATED TO ALLIED SKILLS

1.	Pre – requisites / Eligibility Conditions	
2.	Detail of Course Content / Syllabus	As prescribed by NPTEL
3.	Duration of the Course	4 weeks
4.	Assessment Procedure	As prescribed by NPTEL
5.	Criteria for allocation of credit	Successful completion of the course

NCG24 FOREIGN / VERNACULAR LANGUAGES

1.	Pre – requisites / Eligibility Conditions	-
2.	Detail of Course Content / Syllabus	As prescribed by the course conducting Universities / Schools
3.	Duration of the Course	
4.	Assessment Procedure	
5.	Criteria for allocation of credit	Pass certificate issued by the competing authority
6.	In case of failure	Repeat the course

NCG25 APTITUDE PROFICIENCY CERTIFICATION

1.	Pre – requisites / Eligibility Conditions	As prescribed by the course coordinator
2.	Detail of Course Content / Syllabus	
3.	Duration of the Course	40 periods with minimum 70% of attendance
4.	Assessment Procedure	As prescribed by the course coordinator
5.	Criteria for allocation of credit	Pass in End Examination / Minimum score in GMAT / CAT / NAC / MAT
6.	In case of failure	Repeat the course

NCG26 GLOBALLY ACCEPTED CERTIFICATION COURSES

1.	Pre – requisites / Eligibility Conditions	Prior permission from the HOD is must
2.	Detail of Course Content / Syllabus	As prescribed by the certifying authority
3.	Duration of the Course	
4.	Assessment Procedure	
5.	Criteria for allocation of credit	Proof for the successful completion of the course provided by the globally accepted certifying agencies like HPATA / Microsoft / National Instruments (Lab View) / Oracle / IBM / CISCO Networking Academy / ADOBE / REDHAT / Sun Micro systems / JAVA / Softwares related to Mechanical and Civil Engineering

NCG27 ENTREPRENEURIAL SKILL DEVELOPMENT COURSE

1	Pre – requisites / Eligibility Conditions	As prescribed by the course coordinator
2	Detail of Course Content / Syllabus	
3	Duration of the Course	60 periods with minimum 70% of attendance
4	Assessment Procedure	As prescribed by the course coordinator
5	Criteria for allocation of credit	<ul style="list-style-type: none"> ▪ Minimum one participation in intra institute innovation challenge / hackathon / idea presentation ▪ Minimum one participation in inter institute innovation challenge / hackathon / idea presentation
6	In case of failure	Repeat the course

ANNEXURE – III

INDUSTRIAL TRAINING

CREDIT: 2

1.	Pre – requisites / Eligibility Conditions	After completion of the third semester. The student may undergo Industrial training in reputed organization after getting prior permission from HOD
2.	Detail of Course Content / Syllabus	Inplant training in any organization like BSNL, TTPS, BHEL, NLC etc related to their programmes
3.	Duration of the Course	Minimum of Four weeks
4.	Assessment Procedure	<ol style="list-style-type: none"> 1. Student has to submit a report. 2. Evaluation Committee will be constituted by the respective department HOD to assess the report based on the following criteria's. <ul style="list-style-type: none"> • Evaluation of report given by the student (40%) • Student's presentation (40%) • Oral Examination (20%)
5.	Criteria for allocation of credit	Satisfactory completion certificate issued by the respective department HOD based on the performance of the student and a certificate from the organization concerned.

INTERNSHIP

CREDIT: 2

1.	Pre – requisites / Eligibility Conditions	After completion of the third semester. The student may undergo intensive training after getting prior permission from HOD
2.	Detail of Course Content / Syllabus	Internship Training in R & D organization like CSIR, DRDO, IITs and IISC etc related to their programmes
3.	Duration of the Course	Minimum of four weeks
4.	Assessment Procedure	<ol style="list-style-type: none"> 1. Student has to submit a report for Internship 2. Evaluation Committee will be constituted by the respective department HOD to assess the report based on the following criteria's. <ul style="list-style-type: none"> • Internship Report (40%) • Student's presentation (40%) • Oral Examination (20%)
5.	Criteria for allocation of credit	Satisfactory completion certificate issued by respective department HOD based on the performance of the student and a certificate obtained from the organization concerned.