

UG - Regulations 2022

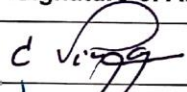




Dr.N.G.P. Institute of Technology, Coimbatore
[An Autonomous Institution]

Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai
Recognized by UGC & Accredited by NAAC with A+ and
NBA [BME, CSE, ECE, EEE & Mechanical Engineering]

UG - REGULATIONS 2022
Choice Based Credit System
(Amendments incorporated 20th December 2024)

UG Regulations 2022 (CBCS)
Amendments Incorporated – 20.12.2024
Approved by Standing Committee – 13.12.2024
Approved by Academic Council – 20.12.2024

Action	Responsibility	Signature of Authorized Signatory
Compiled by	Office of COE	
Verified by	Office of Autonomy	
Approved by	Principal	G. y. Prade 

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Dr.N.G.P. Institute of Technology, Coimbatore - 641048
[An Autonomous Institution]

UG REGULATIONS 2022 - CHOICE BASED CREDIT SYSTEM

DEGREE OF BACHELOR OF ENGINEERING / TECHNOLOGY

(Amendments incorporated on 20th December 2024)

Existing Clause

4.14. B.E. / B.TECH. (HONS) with Specialisation / (Hons) / Minor Specialisation

4.14.1. B.E. / B.TECH. (HONS) Specialisation in the same discipline

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

4.14.2. B.E. / B.TECH. (HONS)

- The students should have taken additional courses from any of the verticals of the same programme of professional electives and earned a minimum of 18 credits.
- Should have passed all the courses prescribed in the curriculum and additional courses in the first attempt.
- Should have earned a minimum CGPA of 7.50 taking into account of all the courses prescribed in the curriculum and additional courses

4.14.2. B.E. / B.TECH. Minor Specialisation

- The student should have earned additionally a minimum of 18 credits in any one of the electives offered from Engineering Disciplines / Science and Humanities / Management.
- Should have passed all the courses prescribed in the curriculum and additional courses.

The students are permitted to register for the additional courses as presented in Table 3 to take up B.E. / B.TECH. (HONOURS) Specialisation / Minor Specialisation from the IV semester onwards.

Table 3: Courses Offered for Honours / Minor Degree

Sl.No.	Programme	Name of the Honours / Minor Degree	Permitted to Offer
1	B.E. – Computer Science and Engineering	Block chain Technology	Specialisation / Minor
2	B.E. – Electronics and Communication Engineering	Internet of Things (IoT)	Specialisation / Minor
3	B.E. – Electrical and Electronics Engineering	Electric Vehicle Technology	Specialisation
4	B.E. – Mechanical Engineering	Electric Vehicle Technology	Specialisation / Minor

Revised Clause

4.14. B.E. / B.TECH. (HONS) with Specialisation / (HONS) / Minor Specialisation

4.14.1. Omitted

4.14.2. B.E. / B.TECH. (HONS)

- The students should have taken additional courses from any of the verticals of the same programme of professional electives and earned a minimum of 18 credits.
- Should have passed all the courses prescribed in the curriculum and additional courses in the first attempt.
- Should have earned a minimum CGPA of 7.50 taking into account of all the courses prescribed in the curriculum and additional courses

4.14.3. B.E. / B.TECH. Minor Specialisation

- The student should have earned additionally a minimum of 18 credits in any one of the electives offered from Engineering Disciplines / Science and Humanities / Management.
- Should have passed all the courses prescribed in the curriculum and additional courses.

Table 3: Courses Offered for Honours / Minor Degree

SI.No.	Programme	Name of the Honours / Minor Degree	Permitted to Offer
1	B.E. – Computer Science and Engineering	Block chain Technology	Honours / Minor
2	B.E. – Electronics and Communication Engineering	Internet of Things (IoT)	Honours / Minor
3	B.E. – Electrical and Electronics Engineering	Electric Vehicle Technology	Honours
4	B.E. – Mechanical Engineering	Electric Vehicle Technology	Minor

Existing Clause**17.2. Classification of the Degree Awarded****17.2.1. First Class with Distinction**

A student who satisfies the following conditions shall be declared to have passed the examination in First class with Distinction:

- Should have passed the examination in all the courses of all the eight semesters (6 semesters in the case of Lateral Entry) in the student's First Appearance within five years (Four years in the case of Lateral Entry). Withdrawal from examination (vide Clause 18) will not be considered as an appearance.
- Should have secured a CGPA of not less than 8.50.
- One year authorized break of study (if availed of) is included in the five years (four years in the case of lateral entry) for award of First class with Distinction.
- Should not have been prevented from writing end semester examination in any of the courses of the Curriculum making up the total credit requirement.
- A student who satisfies norms given in clause 4.14 becomes eligible for classification of the degree with B.E./B.Tech. (Hons), B.E. /B.Tech. (Hons) Specialisation and B.E./B.Tech. minor. Details are provided in Table

Degree	Duration of the Programme	Duration permitted	Additional credits above the requirement of curriculum	CGPA	Pass in (attempt)	Break of Study	Prevention to write End semester examination	Withdrawal from Writing end semester examination
B.E. / B.Tech. (Regular)	4 Years	5 Years	-	8.50	First	One year authorised break of study included in the Duration permitted	Not Permitted	Will not be considered as an attempt
B.E. / B.Tech. (Lateral Entry)	3 Years	4 Years	-	8.50	First			
B.E. / B.Tech. (HONS) Specialisation	3 / 4 Years (Lateral Entry / Regular)	4 / 5 Years (Lateral Entry / Regular)	18 Credits From same Vertical of the same programme	8.50	First			
B.E. / B.Tech. (HONS)	3 / 4 Years (Lateral Entry / Regular)	4 / 5 Years (Lateral Entry / Regular)	18 Credits From more than one Vertical of The same programme	8.50	First			
B.E. / B.Tech. Minor	3 / 4 Years (Lateral Entry / Regular)	4 / 5 Years (Lateral Entry / Regular)	18 Credits From one Vertical of The other programme	8.50	First			

17.2.2 First Class

A student who satisfies the following conditions shall be declared to have passed the examination in First class:

- Should have passed the examination in all the courses of all eight semesters (6 semesters in the case of Lateral Entry) within five years. (Four years in the case of Lateral Entry).
- One year authorized break of study (if availed of) or prevention from writing the End Semester examination due to lack of attendance (if applicable) is included in the duration of five years (four years in the case of lateral entry) for award of First class.

- Should have secured a CGPA of not less than 6.50.
- A student who satisfies norms given in clause 4.14 becomes eligible for classification of the degree with B.E./B.Tech. (Hons), B.E. /B.Tech. (Hons) Specialisation and B.E./B.Tech. minor.

Details are provided in Table

Degree	Duration of the Programme	Duration permitted	Additional credits above the requirement of curriculum	CGPA	Pass in (attempt)	Break of Study	Prevention to write End semester examination	Withdrawal from Writing end semester examination
B.E. / B.Tech. (Regular)	4 Years	5 Years	-	6.50	-	One year authorised break of study included in the Duration Permitted	Included in the Duration Permitted	-
B.E. / B.Tech. (Lateral Entry)	3 Years	4 Years	-	6.50	-			-
B.E. / B.Tech. (HONS) Specialisation	3 / 4 Years (Lateral Entry / Regular)	4 / 5 Years (Lateral Entry / Regular)	18 Credits from same vertical of the same programme	7.50	First		Not Permitted	Will not be considered as an attempt
B.E. / B.Tech. (HONS)	3 / 4 Years (Lateral Entry / Regular)	4 / 5 Years (Lateral Entry / Regular)	18 Credits from more than one Vertical of the same programme	7.50	First		Not Permitted	Will not be considered as an attempt
B.E. / B.Tech. Minor	3 / 4 Years (Lateral Entry / Regular)	4 / 5 Years (Lateral Entry / Regular)	18 Credits from one vertical of the other programme	6.50	-		Included in the Duration Permitted	-

17.2.3. Second Class

Students who pursue B.E./B.Tech. in Regular mode or lateral entry mode or B.E./B.Tech. minor in specialisation of another discipline and who are not covered in clauses 17.2.1 and 17.2.2 and who qualify for the award of the degree (vide Clause 17.1) shall be declared to have passed the examination in Second Class.

17.2.4. Student earned additional 18 credits as per Clause 14.4.1 and 14.4.2 but does not satisfy the conditions mentioned in 17.2.1 or 17.2.2 shall not be awarded B.E. / B.Tech.(Hons.) or B.E. / B.Tech. (Hons.) Specialisation. In such case if the student becomes eligible for First Class, while computing CGPA with the Professional Elective / Open Elective courses with higher grades the student shall be awarded B.E. / B.Tech. in First Class only.

Revised Clause

17.2. Classification of the Degree Awarded

17.2.1 First Class with Distinction

A student who satisfies the following conditions shall be declared to have passed the examination in First class with Distinction:

- Should have passed the examination in all the courses of all the eight semesters (6 semesters in the case of Lateral Entry) in the student's First Appearance within five years (Four years in the case of Lateral Entry). Withdrawal from examination (vide Clause 18) will not be considered as an appearance.
- Should have secured a CGPA of not less than 8.50.
- One year authorized break of study (if availed of) is included in the five years (four years in the case of lateral entry) for award of First class with Distinction.
- Should not have been prevented from writing end semester examination in any of the courses of the Curriculum making up the total credit requirement.
- A student who satisfies norms given in clause 4.14 becomes eligible for classification of the degree with B.E./B.Tech. (Hons), and B.E./B.Tech. minor.

Details are provided in Table

Degree	Duration of the Programme	Duration permitted	Additional credits above the requirement of curriculum	CGPA	Pass in (attempt)	Break of Study	Prevention to write End semester examination	Withdrawal from Writing end Semester examination
B.E. / B.Tech. (Regular)	4 Years	5 Years	-	8.50	First	One year authorised	Not Permitted	Will not be considered
B.E. / B.Tech. (Lateral Entry)	3 Years	4 Years	-	8.50	First			

B.E. / B.Tech. (HONS)	3 / 4 Years (Lateral Entry / Regular)	4 / 5 Years (Lateral Entry / Regular)	18 Credits From more than one Vertical of the same programme	8.50	First	break of study included in the Duration permitted		as an attempt
B.E. / B.Tech. Minor	3 / 4 Years (Lateral Entry / Regular)	4 / 5 Years (Lateral Entry / Regular)	18 Credits From one Vertical of the other programme	8.50	First			

17.2.2 First Class

A student who satisfies the following conditions shall be declared to have passed the examination in First class:

- Should have passed the examination in all the courses of all eight semesters (6 semesters in the case of Lateral Entry) within five years. (Four years in the case of Lateral Entry).

One year authorized break of study (if availed of) or prevention from writing the End Semester examination due to lack of attendance (if applicable) is included in the duration of five years (four years in the case of lateral entry) for award of First class.

- Should have secured a CGPA of not less than 6.50.
- A student who satisfies norms given in clause 4.14 becomes eligible for classification of the degree with B.E./B.Tech. (Hons), and B.E./ B.Tech. minor.

Details are provided in Table

Degree	Duration of the Programme	Duration permitted	Additional credits above the requirement of curriculum	CGPA	Pass in (attempt)	Break of Study	Prevention to write End semester examination	Withdrawal from Writing end semester examination
B.E. / B.Tech. (Regular)	4 Years	5 Years	-	6.50	-	One year authorised break of	Included in the Duration Permitted	-
B.E. / B.Tech. (Lateral Entry)	3 Years	4 Years	-	6.50	-			-

B.E. / B.Tech. (HONS)	3 / 4 Years (Lateral Entry / Regular)	4 / 5 Years (Lateral Entry / Regular)	18 Credits from more than one Vertical of the same programme	7.50	First	study included in the Duration Permitted	Not Permitted	Will not be considered as an attempt
B.E. / B.Tech. Minor	3 / 4 Years (Lateral Entry / Regular)	4 / 5 Years (Lateral Entry / Regular)	18 Credits from one vertical of the other programme	6.50	-		Included in the Duration Permitted	-

17.2.3. Second Class

Students who pursue B.E./B.Tech. in Regular mode or lateral entry mode or B.E./B.Tech. minor in specialisation of another discipline and who are not covered in clauses 17.2.1 and 17.2.2 and who qualify for the award of the degree (vide Clause 17.1) shall be declared to have passed the examination in Second Class.

17.2.4. Student earned additional 18 credits as per Clause 14.4.2 but does not satisfy the conditions mentioned in 17.2.1 or 17.2.2 shall not be awarded B.E. / B.Tech.(Hons.). In such case if the student becomes eligible for First Class, while computing CGPA with the Professional Elective / Open Elective courses with higher grades the student shall be awarded B.E. / B.Tech. in First Class only.

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UG REGULATIONS 2022 - CHOICE BASED CREDIT SYSTEM

DEGREE OF BACHELOR OF ENGINEERING / TECHNOLOGY

(Amendments incorporated on 21st June 2024)

Existing Clause:

6.3. For every individual course, the Head of the department may conduct additional classes for improvement, special coaching, conduct of model test etc., over and above the specified periods. The attendance requirement for appearing for the end semester examination (as per clause 8) by the students, shall be calculated using the following expression,

Percentage of Overall Attendance

$$= \frac{\text{Total no. of periods attended in all the courses per semester}}{\text{No. of periods per week as prescribed in the curriculum for all courses in that semester} \times 15} \times 100$$

Revised Clause:

6.3. For every individual course, the Head of the department may conduct additional classes for improvement, special coaching, conduct of model test etc., over and above the specified periods. The course wise attendance requirement for appearing for the end semester examination (as per clause 8) by the students, shall be calculated using the following expression,

Percentage of Course wise Attendance

$$= \frac{\text{Total no. of periods attended in the courses per semester}}{\text{No. of periods per week as prescribed in the curriculum for that course in concerend semester} \times 15} \times 100$$

Existing Clause:

8.ATTENDANCE REQUIREMENTS FOR COMPLETION OF THE SEMESTER

A student who has fulfilled the following conditions shall be deemed to be eligible to appear for the end semester examination,

8.1. Ideally every student is expected to attend all the classes of all the courses and earn 100% attendance. However, the student shall secure not less than 75% overall attendance. Overall attendance will be calculated by considering all the courses in the curriculum vide clause 6.3.

8.2. If a student secures overall attendance between 65% and 75% in a semester due to medical reasons (hospitalization / accident / specific illness) or due to participation in the College / University / State / National / International level Sports events with prior permission from the Head of Institution, the student may be permitted to appear for the semester examinations subject to the condition that the student submits the medical certificate / sports participation certificate to the Head of Institution. The same shall be forwarded to the Controller of Examinations.

8.3. Students who secure less than 65% overall attendance (vide Clause 8.1. and 8.2) shall not be permitted to appear for the end semester examination and shall not be permitted to move to the next semester. He/she is required to repeat the incomplete semester in the next academic year as per the readmission norms of the affiliating University and Directorate of Technical Education.

8.4. A student shall normally be permitted to appear for the end semester examination, if the student has satisfied the attendance requirements (vide Clause 8.1 & 8.2) and registered for examination in those courses of that semester by paying the prescribed fee.

Revised Clause:

8.ATTENDANCE REQUIREMENTS FOR COMPLETION OF THE SEMESTER

A student who has fulfilled the following conditions shall be deemed to be eligible to appear for the end semester examination,

8.1. Ideally every student is expected to attend all the classes and earn 100% attendance. However the student shall secure not less than 75% attendance course wise, taking into account the number of periods required for that course as specified in the curriculum. Course wise attendance will be calculated by considering the course in the curriculum vide clause 6.3.

8.2. If a student secures **course wise attendance between 65% and 75%** in a semester due to medical reasons (hospitalization / accident / specific illness) or due to participation in the College / University / State / National / International level Sports events with prior permission from the Head of Institution, the student may be permitted to appear for the semester examinations of the particular course subject to the condition that the student submits the medical certificate / sports participation certificate to the Head of Institution through the Head of the Department. The same shall be forwarded to the Controller of Examinations.

8.3. Students who secure less than 65% attendance in a course(s) (vide Clause 8.1. and 8.2) shall not be permitted to appear for the end semester examination of that course(s) during that semester and shall be permitted to move to the next semester. He / She shall register and attend for the course(s) when offered in the subsequent semester and earn attendance (vide clause 8.1. and 8.2) to complete the course(s). Such condonation for a student is valid for two semesters in their entire duration of study. A student who secures less than 65% attendance in a course(s) for the third time in his/her duration of study, he / she shall not be permitted to move to the next semester. He/she is required to repeat the incomplete semester in the next academic year as per the readmission norms of the affiliating University and Directorate of Technical Education.

8.3.1. A student who secures less than 65% attendance in all courses shall not be permitted to appear for the end semester of all courses and shall not be permitted to move to the next semester. He/she is required to repeat the incomplete semester in the next academic year as per the readmission norms of the affiliating University and Directorate of Technical Education.

8.4. A student shall normally be permitted to appear for the end semester examination, if the student has satisfied the attendance requirements (vide Clause 8.1 & 8.2) and registered for examination in those courses of that semester by paying the prescribed fee.

Existing Clause:

13.1. Theory Courses

Two assessments each carrying 100 marks shall be conducted during the semester by the College. The total marks obtained in all assessments put together out of 200, shall be proportionately reduced for 40 marks and rounded to the nearest integer (This also implies equal weightage to the two assessments).

Assessment I (100 Marks)			Assessment II (100 Marks)			Total Internal Assessment
Internal Test	Assignment	Multiple Choice Questions (MCQ)	Internal Test	Assignment	Multiple Choice Questions (MCQ)	
60	30	10	60	30	10	200*

*The weighted average shall be converted into 40 marks for internal Assessment.

Two internal assessments will be conducted as a part of continuous assessment. Each internal assessment is to be conducted for 100 marks and will have to be distributed in two parts viz., Individual Assignment/Case study/Seminar, MCQ and internal test with each having a weightage of 30%, 10% and 60% respectively. The tests shall be in written mode. The total internal assessment marks of 200 shall be converted into a maximum of 40 marks and rounded to the nearest integer.

Revised Clause:

13.1. Theory Courses

Two assessments each carrying 100 marks shall be conducted during the semester by the College. The total marks obtained in all assessments put together out of 200, shall be proportionately reduced for 40 marks and rounded to the nearest integer (This also implies equal weightage to the two assessments).

Assessment I (100 Marks)		Assessment II (100 Marks)		Total Internal Assessment
Internal Test	Assignment	Internal Test	Assignment	
60	40	60	40	200*

*The weighted average shall be converted into 40 marks for internal Assessment.

Two internal assessments will be conducted as a part of continuous assessment. Each internal assessment is to be conducted for 100 marks and will have to be distributed in two parts viz., Individual Assignment/Case study/Seminar and internal test with each having a weightage of 40% and 60% respectively. The tests shall be in written mode. The total internal assessment marks of 200 shall be converted into a maximum of 40 marks and rounded to the nearest integer.

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[An Autonomous Institution]

UG REGULATIONS 2022 - CHOICE BASED CREDIT SYSTEM

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

[For the students admitted to B.E. / B.Tech. Programme]

Preamble:

Regulations 2022 of Dr.N.G.P. Institute of Technology, has been prepared in accordance with the guidelines given by the University Grants Commission (UGC), All India Council for Technical Education (AICTE) and Affiliating University (Anna University, Chennai) incorporating the features of the Choice Based Credit System (CBCS).

Regulation 2022 is applicable to the students admitted to the Bachelor of Engineering (B.E.) and Bachelor of Technology (B.Tech.) degree programmes offered by Dr.N.G.P. Institute of Technology from the academic year **2022-2023 onwards**.

The regulations hereunder are subjected to amendments as may be decided by the Academic Council of the Institution from time to time. Any or all such amendments will be effective from such date and to such batches of students (including those already in the middle of the Programme) as may be decided by the Academic Council.

1. **PRELIMINARY DEFINITIONS AND NOMENCLATURE**

In this Regulation, unless the context otherwise specifies:

- i) **“NGP ITECH”** is the abbreviation for Dr. N.G.P. Institute of Technology, Coimbatore and wherever the term college is used, it implies Dr. N.G.P. Institute of Technology.
- ii) **“Programme”** means Degree Programme, that is B.E./B.Tech. Degree Programme.
- iii) **“Discipline”** means specialization or branch of B.E./B.Tech. Degree Programmes, such as Biomedical Engineering, Computer Science and Engineering, Electrical and Electronics Engineering, Information Technology, etc.
- iv) **“Course”** means a theory or practical subject that is normally studied in a semester, like Mathematics, Physics, etc.,
- v) **“Head of the Institution”** means the Principal of the College.
- vi) **“Controller of Examination (COE)”** means who is responsible for all the activities of the **Autonomous Examinations concerned**.
- vii) **“Head of the Department (HoD)”** means the Head of the Department concerned.

2. ADMISSION

Students seeking admission to the first semester of B.E. / B.Tech. degree programme as well as lateral entry students seeking admission to the third semester of B.E. / B.Tech. degree programme will be admitted as per the norms prescribed by AICTE and Directorate of Technical Education, Chennai, from time to time.

2.1. Students seeking admission to the first semester of the eight semesters B.E./ B.Tech. Degree Programme

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]

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

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

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

3. PROGRAMMES OFFERED

A student may be offered any one of the branches of study approved by All India Council for Technical Education (AICTE) and Anna University, Chennai and being offered by the institution under two different programmes as mentioned below.

B.E. Degree

- i) Biomedical Engineering
- ii) Civil Engineering
- iii) Computer Science and Engineering
- iv) Computer Science and Engineering (Cyber Security)
- v) Electronics and Communication Engineering
- vi) Electrical and Electronics Engineering
- vii) Mechanical Engineering

B.Tech. Degree

- i) Artificial Intelligence and Data Science
- ii) Computer Science and Business Systems
- iii) Information Technology

4. STRUCTURE OF PROGRAMMES

4.1. Categorization of Courses

Every B.E. / B. Tech. programme will have a distinct curriculum with syllabi consisting of theory, theory cum practical and practical as decided by the respective Board of Studies that shall be categorized as follows:

- i. **Humanities, Social Sciences and Management Courses (HS)** include Professional English, Communication skills etc.
- ii. **Basic Sciences Courses (BS)** include Mathematics, Physics, Chemistry, Biology, Environmental Science etc.
- iii. **Engineering Sciences Courses (ES)** include, Engineering Practices, Engineering Graphics, Basics of Civil / Mechanical / Electrical / Electronics / Instrumentation, Computer Engineering, etc.,
- iv. **Professional Core Courses (PC)** include the core courses relevant to the chosen specialization/branch.
- v. **Professional Elective Courses (PE)** include the elective courses relevant to the chosen specialization/ branch. Professional Elective courses are offered under verticals (specialisation groups).
- vi. **Open Elective Courses (OE)** include the courses offered by a branch to other branches, from the list specified in the respective curriculum of the B.E. / B. Tech. Programmes.
- vii. **Employability Enhancement Courses (EEC)** include Project Work, Internship, STEM Project, Mini Project, Professional Readiness Course, etc.,
- viii. **Mandatory Non-credit Courses (MNC)** includes the courses such as Environmental Science and Engineering, Film Appreciation, etc.,

4.2. Induction Program

Induction Programme is mandatory for the students pursuing the Undergraduate Programme as per the guidelines of AICTE. In the case of students who have got admitted later and those who have not attended the Induction Programme at the time of joining the degree programme, it shall be conducted later.

4.3. Number of Courses per Semester

Each semester curriculum shall normally have a blend of lecture courses not exceeding 7 Theory courses and Laboratory integrated theory courses and 5 Employability Enhancement Course(s) and Laboratory Courses. However, the total number of courses per semester shall not exceed 12. Each Course shall have credits assigned as per clause 4.4

4.4. Credit Assignment

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

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

4.5. Internship

The students may undergo Internship at a Research organization / University/ Industry (after due approval from the Head of the Institution) during the summer / winter vacation.

The internship has to be undergone continuously from an organization at least for a period of 2 weeks. The student is allowed to undergo a maximum of 4 weeks of internship during the entire duration of study. Two weeks internship duration is equivalent to one credit.

The student should submit the internship report along with the certificate from competent authority and attendance from the organization where he / she underwent the internship.

Internship will be evaluated by a committee constituted by the Head of the Department with the approval of Head of Institution.

4.6. Industrial Visit

Every student is required to go for at least one Industrial Visit during his / her four years of study. The Heads of Departments shall ensure that necessary arrangements are made in this regard.

4.7. One Credit Courses

One credit course(s) shall be offered by the department with prior approval of Board of Studies and Academic Council.

All students can opt for industry offered one credit course for a minimum duration of 15 lecture hours in a semester (starting from Semester 4) which will be handled by experts from industry / other reputed institution on specialized topics.

Students are permitted to credit a maximum of three credits in lieu of one professional elective course and complete the requirements before Semester 7.

If a student wants to avail exemption of one professional elective course, he / she can do so by exercising his / her option in writing to the respective HoD at the end of sixth semester or at the beginning of seventh semester.

Based on the recommendations by a team of faculty members appointed by the Head of the Department with the approval of Head of the Institution, the students will be recommended to avail exemption from one professional elective course in lieu of three one credit courses.

4.8. Value Added Courses

Students may optionally undergo Value Added Courses (VAC) over and above the topics covered in the curriculum to obtain practical and industry specific knowledge, all VAC are non-credit courses.

4.9. Online Courses

All students may be permitted to credit a maximum of one online course [**two online courses for course advancement students**], subject to a maximum of three credits [**six credits for course advancement students**], registered through SWAYAM / NPTEL in lieu of a professional elective or open elective course with 3 credits [**in lieu of two professional elective course with 6 credits for course advancement students**] and prior approval of the Head of the Institution through the Head of the Department.

The online courses shall be identified by a committee constituted by the Head of the Department with the approval of Head of the Institution.

Upon successful completion of the online course(s) student shall submit the copy of score card to the department faculty in-charge.

Based on the recommendations by the committee appointed by the Head of the Department with the approval of Head of the Institution, the student will be awarded grades equivalent to the marks obtained by the student in the online certification programme as per our regulations.

The number of credits and transfer of credits are based on the procedure explained in Table 1 – Duration of the course and number of credits and the Mapping of the marks with the grades as presented in Table 2. The mapping of marks with grades is applicable, only if the student passes the course as per the guidelines of NPTEL.

Table 1 - Duration of the course and Number of Credits

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

Table 2 - Mapping of Marks scored in NPTEL course and Credits earned

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

4.10. Self-Study Course

A student, who does not have any standing arrears and with a CGPA greater than 7.5 can opt for TWO Professional Elective Courses of his / her programme, as a self-study course after his / her third semester of study.

Student can register two professional elective courses of his/her programme as a self-study course with the approval of a committee constituted by the Head of the Department approved by Head of the Institution.

One faculty member assigned by the Head of the Department with the approval of Head of the Institution shall be responsible for the periodic monitoring and evaluation of the student(s) who has/have registered for the self-study of the professional elective course(s).

Though student need not attend the classes, he/she shall appear for the internal tests, submit assignments and appear for the end semester examinations.

4.11. Course Advancement

Student can avail course exemption in professional electives during their seventh semester of study if he/she has completed required number of online NPTEL-SWAYAM course, industry offered One Credit course and Self-study course during fourth, fifth and sixth semester of their study, provided they do not have any standing arrears and have a CGPA of >7.50 at the end of Semester III and in the subsequent semesters.

The students who completed their final year courses (except project work) in advance [at the end of semester 6], shall be permitted to carry out their Internship / Project Work during their final year in an industry / research organization.

Students shall submit his/her request in writing to the respective Head of the Department at the end of sixth semester or at the beginning of seventh semester for availing course exemption in professional electives during their seventh semester of study.

The respective Heads of the Departments shall submit a certificate stating that the students have satisfied the prerequisite as per our regulations for exemption of professional electives to the Controller of Examinations at the beginning of seventh semester in the respective academic year.

4.12. Professional Readiness Courses

Professional Readiness Course includes internship, innovative project, case study and seminar. Professional Readiness courses will be offered during fifth or sixth semester.

4.13. Mandatory Non-Credit Courses

The student shall study the mandatory non-credit courses prescribed in the curriculum and it will be mentioned in the Grade Sheet as COMPLETED. However, it will not be considered for computation of CGPA.

4.14. B.E. / B.TECH. (HONS) with Specialisation / (Hons) / Minor Specialisation

4.14.1. B.E. / B.TECH. (HONS) Specialisation in the same discipline

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

4.14.2. B.E. / B.TECH. (HONS)

- The students should have taken additional courses from any of the verticals of the same programme of professional electives and earned a minimum of 18 credits.
- Should have passed all the courses prescribed in the curriculum and additional courses in the first attempt.
- Should have earned a minimum CGPA of 7.50 taking into account of all the courses prescribed in the curriculum and additional courses

4.14.2. B.E. / B.TECH. Minor Specialisation

- The student should have earned additionally a minimum of 18 credits in any one of the electives offered from Engineering Disciplines / Science and Humanities / Management.
- Should have passed all the courses prescribed in the curriculum and additional courses.

The students are permitted to register for the additional courses as presented in Table 3 to take up B.E. / B.TECH. (HONOURS) Specialisation / Minor Specialisation from the IV semester onwards.

Table 3: Courses Offered for Honours / Minor Degree

SI.No.	Programme	Name of the Honours / Minor Degree	Permitted to Offer
1	B.E. – Computer Science and Engineering	Block chain Technology	Specialisation / Minor
2	B.E. – Electronics and Communication Engineering	Internet of Things (IoT)	Specialisation / Minor
3	B.E. – Electrical and Electronics Engineering	Electric Vehicle Technology	Specialisation
4	B.E. – Mechanical Engineering	Electric Vehicle Technology	Specialisation / Minor

4.15.3. If a student decides not to opt for Honours, after completing certain number of additional courses, such additional courses studied shall be considered in lieu of their Professional Elective courses which are part of the curriculum.

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

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

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

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

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

5. MEDIUM OF INSTRUCTION

The medium of instruction is English for all the courses, examinations, seminar presentations, and project / thesis / dissertation reports and other than the courses like Heritage of Tamil, Tamils and Technology or any other foreign languages.

6. DURATION OF THE PROGRAMME

- 6.1. A student is ordinarily expected to complete the B.E. / B.Tech. Programme in 8 semesters (for HSC students) and six semesters (for Lateral Entry students) but in any case, not more than 14 Semesters for HSC (or equivalent) students and not more than 12 semesters for Lateral Entry students.
- 6.2. Each semester shall normally consist of 90 working days including internal test duration. The Head of the Department 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.
- 6.3. For every individual course, the Head of the department may conduct additional classes for improvement, special coaching, conduct of model test etc., over and above the specified periods. The attendance requirement for appearing for the end semester examination (as per clause 8) by the students, shall be calculated using the following expression

Percentage of Overall Attendance

$$= \frac{\text{Total no. of periods attended in all the courses per semester}}{\text{No. of periods per week as prescribed in the curriculum for all courses in that semester} \times 15} \times 100$$

- 6.4. The total period for completion of the programme reckoned from the commencement of the first semester to which the student was admitted shall not exceed the maximum period specified in clause 6.1 irrespective of the period of break of study (vide clause 19) in order that he/she may be eligible for the award of the degree (vide clause 17).

7. COURSE ENROLLMENT AND REGISTRATION

7.1. Each student, on admission shall be assigned to a Class Advisor (vide clause 9) who shall advise and counsel the student about the details of the academic programme and the choice of courses, considering the student's academic background and career objectives.

7.2. The department is responsible for registration of the courses that each student is proposing to undergo in the ensuing semester. Each student has to register for all courses to be undergone as per curriculum of a particular semester (with the facility to drop courses to a maximum of 6 credits (vide clause 7.4)). The courses dropped in earlier semesters can be registered in the subsequent semesters when offered.

The registration details of the student shall be approved by the Head of the Department and forwarded to the Controller of Examinations. This registration is for undergoing the course as well as for writing the End Semester Examinations.

The courses that a student registers in a particular semester may include

- i. Courses of the current semester.
- ii. Courses dropped in the lower semesters

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 and the Courses advanced to Semester IV to VI from Semester VII registered by the student for the appearance of Examination.

7.3. The enrollment for the course(s) of the Semesters II to VIII will commence ten working days prior to the last working day of the preceding semester. Student shall enroll for the courses with the guidance of the students' Class Advisor.

7.4. Flexibility to Drop Courses

7.4.1. A student has to earn the total number of credits specified in the curriculum of the respective Programme of study in order to be eligible to obtain the degree.

7.4.2. From the second to final semesters, the student has the option of dropping existing courses in a semester during registration. 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.

7.4.3. From the IV to VI semesters, the student has the option of registering for additional courses in a semester, with regard to enrolling for B.E. / B. Tech. (Hons) or B.E. / B.Tech. (Hons) with Specialisation or B.E. / B. Tech. Minor. The total number of credits that a student can add in a semester is limited to 6, subject to a maximum of 2 courses. The maximum number of credits enrolled in a semester (Honours and Minor) shall not exceed 36. The online courses registered for B.E. / B. Tech. (Hons.) or B.E. / B.Tech. (Hons) with Specialisation or B.E. / B. Tech. minor shall be over and above this 36 credits.

8. ATTENDANCE REQUIREMENTS FOR COMPLETION OF THE SEMESTER

A student who has fulfilled the following conditions shall be deemed to be eligible to appear for the end semester examination,

- 8.1.** Ideally every student is expected to attend all the classes of all the courses and earn 100% attendance. However, the student shall secure not less than 75% overall attendance. Overall attendance will be calculated by considering all the courses in the curriculum vide clause 6.3.
- 8.2.** If a student secures overall attendance between 65% and 75% in a semester due to medical reasons (hospitalization / accident / specific illness) or due to participation in the College / University / State / National / International level Sports events with prior permission from the Head of Institution, the student may be permitted to appear for the semester examinations subject to the condition that the student submits the medical certificate / sports participation certificate to the Head of Institution. The same shall be forwarded to the Controller of Examinations.
- 8.3.** Students who secure less than 65% overall attendance (vide Clause 8.1. and 8.2) shall not be permitted to appear for the end semester examination and shall not be permitted to move to the next semester. He/she is required to repeat the incomplete semester in the next academic year as per the readmission norms of the affiliating University and Directorate of Technical Education.
- 8.4.** A student shall normally be permitted to appear for the end semester examination, if the student has satisfied the attendance requirements (vide Clause 8.1 & 8.2) and registered for examination in those courses of that semester by paying the prescribed fee.

9. CLASS ADVISOR

There shall be a class advisor for each class. The class advisor will be one among the course-instructors of the class. He / She will be appointed by the HOD of the department concerned. The class advisor is the ex-officio member and the Convener of the class committee. The responsibilities for the class 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.
- 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 attend to the students' welfare activities like awards, medals, scholarships and industrial visits.

10. CLASS COMMITTEE

10.1. 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 classroom and in the laboratories.
- Clarifying the regulations of the degree programme and the details of rules therein particularly (clause 6 and 8).
- 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.
- 10.2.** The class committee for a class under a particular branch is normally constituted by the Head of the respective Department.
- 10.3.** The class committee shall be constituted within the first week of each semester.
- 10.4.** At least 4 student representatives (usually 2 boys and 2 girls) shall be included in the class committee, covering all the elective courses.
- 10.5.** The chairperson of the class committee may invite the class adviser(s) and the Head of the Department to the class committee meeting.
- 10.6.** The Head of the Institution may participate in any class committee meeting of the institution.
- 10.7.** 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 it among the students and teachers concerned. If there are some points in the minutes requiring action by the management, the same shall be brought to the notice of the Management by the Head of the Institution.
- 10.8.** The first meeting of the class committee shall be held within one week from the date of commencement of the semester, in order to inform the students about the nature and weightage of assessments within the framework of the Regulations. Two or three subsequent meetings may be held in a semester at suitable intervals. The Class Committee 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 the clause 8 of this Regulation. During these meetings the student members representing the entire class, shall meaningfully interact and express the opinions and suggestions of the other students of the class in order to improve the effectiveness of the teaching-learning process.

11. COURSE COMMITTEE FOR COMMON COURSES

Each common theory course offered to more than one discipline or group, shall have a "Course Committee" comprising all the teachers teaching the common course with one of them nominated as the course coordinator. The nomination of the course coordinator shall be made by the Head of the Department / Head of the Institution depending upon whether all the teachers teaching the common course belong to a single department or to several departments. The 'Course Committee' shall meet in order to arrive at a common scheme of evaluation for the test and shall ensure a uniform evaluation of the tests. Wherever feasible, the Course Committee may also prepare a common question paper for the internal assessment test(s).

12. SYSTEM OF EXAMINATION

- 12.1. Performance in each course of study shall be evaluated based on (i) continuous internal assessment (CIA) throughout the semester and (ii) Autonomous End Semester Examination (ESE) at the end of the semester.
- 12.2. Each course, both theory and practical (including project work & viva voce examinations) shall be evaluated for a maximum of **100 marks**.
- 12.2.1. For all theory courses, the continuous internal assessment will carry **40 Marks** while the End Semester Examination will carry **60 Marks**.
- 12.2.2. For all theory courses with laboratory components, the continuous internal assessment will carry **50 Marks** while the End Semester Examination will carry **50 Marks**.
- 12.2.3. For all laboratory courses, the continuous internal assessment will carry **60 Marks** while the End Semester Examination will carry **40 Marks**.
- 12.2.4. The continuous internal assessment for the Project work / Mini project /STEM project will carry **60 Marks** while the End Semester Examination will carry **40 Marks**.
- 12.3. Industrial Training and Seminar shall carry **100 marks** and shall be evaluated through internal assessment only.
- 12.4. The Autonomous End Semester Examination (theory / practical) of 3 hours duration shall ordinarily be conducted between October and December during the odd semesters and between April and June during the even semesters.

- 12.5.** The Autonomous End Semester Examination for Project Work / Mini Project / STEM 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 supervisor of the project group and an internal examiner.
- 12.6.** For the End Semester Examination of practical courses including Project Work / Mini Project / STEM Project, the internal and external examiners shall be appointed by the Controller of Examinations.
- 12.7.** For the mandatory One-credit courses offered by the Institution, the assessment is in internal mode. There will be only one End Semester Examination for Mandatory One Credit Courses in Multiple Choice Question format for **50 marks**.
- 12.8.** The assessment for the One Credit Courses, offered through Industries, will be done by the respective industries and the results are sent to CoE office before the commencement of regular end semester examinations, for further processing, with the approval of respective Head of the Department and Head of the Institution.

13. PROCEDURE FOR AWARDING MARKS FOR INTERNAL ASSESSMENT

For all theory, laboratory courses, theory courses with laboratory component and project work the continuous assessment shall be awarded as per the procedure given below:

13.1. Theory Courses

Two assessments each carrying 100 marks shall be conducted during the semester by the College. The total marks obtained in all assessments put together out of 200, shall be proportionately reduced for 40 marks and rounded to the nearest integer (This also implies equal weightage to the two assessments).

Assessment I (100 Marks)			Assessment II (100 Marks)			Total Internal Assessment
Internal Test	Assignment	Multiple Choice Questions (MCQ)	Internal Test	Assignment	Multiple Choice Questions (MCQ)	
60	30	10	60	30	10	200*

*The weighted average shall be converted into 40 marks for internal Assessment.

Two internal assessments will be conducted as a part of continuous assessment. Each internal assessment is to be conducted for 100 marks and will have to be distributed in two parts viz., Individual Assignment/Case study/Seminar, MCQ and internal test with each having a weightage of 30%, 10% and 60% respectively. The tests shall be in written mode. The total internal assessment marks of 200 shall be converted into a maximum of 40 marks and rounded to the nearest integer.

13.2. Laboratory Courses

The maximum marks for Internal Assessment shall be 60 marks in case of practical courses. Every practical exercise / experiment shall be evaluated based on conduct of experiment / exercise and records to be maintained. There shall be at least one model test. The criteria for arriving at the Internal Assessment marks of 60 is as follows: 75 marks shall be awarded for successful completion of all the prescribed experiments done in the Laboratory and 25 marks for the model test. The total mark shall be converted into a maximum of 60 marks and rounded to the nearest integer.

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

* Internal assessment marks shall be converted into 60 marks

13.3. Theory Courses with Laboratory Component / Laboratory Courses with Theory Component

The Weightage of internal assessment and end semester examination marks will be 50% each.

The internal assessment for theory component is similar to the assessment of regular theory course vide clause 13.1. and for practical component vide clause 13.2. The distribution of marks for the theory and laboratory components in the internal assessments and end semester examination for different types of courses are provided in the following table.

L	T	P	C	Internal Assessment (50 Marks)		End Semester Examination (50 Marks)
				Laboratory (25%)	Theory (25%)	Laboratory Only (50%)
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%)

The Weightage of internal assessment and end semester examination marks will be 50% each.

13.4. Project Work

The student shall register for Project Work in final semester. Project work may be allotted to a single student or to a group of students not exceeding 4 per group.

13.4.1. Project Work shall be carried out under the supervision of a faculty member.

13.4.2. The Project Work carried out in industry/academic/research institutions shall be jointly supervised by a supervisor of the department and an expert as a joint supervisor from the organization and the student shall be instructed to meet the supervisor periodically and to attend the review committee meetings for evaluating the progress. The review meetings, if necessary, may also be arranged in online mode with prior approval from the Head of the Institution and suitable record of the meetings shall be maintained.

13.4.3. The Head of the Department shall constitute a review committee for Project Work. The review committee consists of a 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. In the case of the Industrial Project, the review committee shall have the supervisor, the coordinator from industry and the project coordinator from the Department.

There shall be three reviews during the semester VIII by the review committee. The student shall make presentation on the progress made by him / her before the committee.

The total marks obtained in the three reviews shall be reduced for 60 Marks and rounded to the nearest integer (as per the scheme given in 13.4.4).

13.4.4. The project report shall carry a maximum of 10 marks. The project report shall be submitted as per the approved guidelines as given by the Controller of Examinations. Same marks shall be awarded to every student within the project group for the project report. The viva-voce examination shall carry 30 marks. Marks are awarded to each student of the project group based on the individual performance in the viva- voce examination.

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

In the case of industrial projects, the marks allotted for supervisor will be shared equally by the supervisor from the Department and coordinator from Industry.

13.4.5. The last date for submission of the project report is on 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 fail in the Project Work and the student shall re-register for the same in the subsequent semester.

13.4.6. Students shall also undertake a start-up activity for the development of products as part of project work. If the outcome of a start-up is a fully developed product and whose concept is tested and validated, then it shall be considered in lieu of the project work. Such students shall submit a start-up report, which includes the concepts and process flow of the developed product, publications and patents, if any. The evaluation of the start-up report is as per clause 13.4.4.

13.5. Other Employability Enhancement Courses

13.5.1. The assessment for the EEC courses STEM Project, Mini Project and Innovative Project are similar to the assessment of Project Works as per clause 13.4.4.

- 13.5.2.** The Seminar / Case Study course is to be considered as purely INTERNAL (with 100% internal marks only). Every student is expected to present a minimum of 2 seminars per semester before the evaluation committee and for each seminar, marks can be equally apportioned. The three member committee appointed by the Head of the Institution, consisting of the course coordinator and two experts from the Department, will evaluate the seminar and at the end of the semester, the marks shall be consolidated and taken as the final mark. The evaluation shall be based on the seminar paper (40%), presentation (40%) and response to the questions asked during presentation (20%).
- 13.5.3.** The Internship shall carry 100 marks and shall be evaluated through internal assessment only. At the end of Internship, the student shall submit an attendance certificate from the organization where he / she has undergone training with a brief report. The evaluation will be made based on this report and a viva-voce Examination, conducted internally by a three member Departmental Committee constituted by the Head of the Institution consisting of the course coordinator and two experts from the Department. The certificates (issued by the organization) submitted by the students shall be attached to the mark list sent by the Head of the Institution to the Controller of Examinations.
- 13.5.4.** For all the courses under Employability Enhancement Courses Category, except the Project Work, the evaluation shall be done with 100% internal marks and as per the procedure described in clause 13.5.1, 13.5.2 & 13.5.3.
- 13.6. Assessment for Value Added Courses**
As the Value-Added Courses are offered to enhance their practical and industry specific exposure, there will be no assessment for these courses.
- 13.7. Assessment for Online Courses**
Assessment for Online Courses shall be done as per the guidelines prescribed vide clause 4.9.
- 13.8. Assessment for Mandatory Courses**
Assessment for Mandatory courses shall be done at the end of the semester and attendance is compulsory to complete the course.
- 13.9. Assessment for One Credit Courses**
For the mandatory One-credit courses the assessment is only through internal mode for 50 marks in Multiple Choice pattern. For the industry offered one-credit courses the offering industry is empowered to assess the students with the method suitable for them.

13.10. Attendance Record

Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD', which consists of attendance marked in each lecture or practical or project work class, the test marks and the record of class work (topic covered), separately for each course. This should be submitted to the Head of the Department periodically (at least three times in a semester) for checking the syllabus coverage and the records of test marks and attendance. The Head of the Department will put his/her signature and date after due verification. At the end of the semester, the record should be verified and signed by the Head of the Institution. The record will be maintained by the Head of the Department in safe custody (for five years). The audit team appointed by the Head of the Institution verify the records of attendance and assessment.

13.11. Conduct of Academic Audit

NGP iTECH strives for a better performance of the students by conducting the internal assessments as mentioned in Clause 13.

In order to ensure the above, Academic Audit is to be done for every course taught during the semester. For the internal assessments conducted for each course as per details provided in Clause 13, the academic records shall be maintained in the form of documentation for the individual assignments / case study report / report of mini project submitted by each student and assessment test question paper and answer script. For laboratory courses students' records shall be maintained. Further, the attendance of all students shall be maintained as a record. For the internal assessment conducted for Employability Enhancement Courses as per details provided in Clause 13, the academic records shall be maintained in the form of project review reports and presentations made by individual student or as a team. The Head of the Institution shall arrange to conduct the Academic Audit for every course in a semester by forming the respective committees.

14. REQUIREMENTS FOR APPEARING FOR UNIVERSITY EXAMINATIONS

A student shall normally be permitted to appear for the Autonomous end semester examinations for all the courses registered in the current semester (vide clause 7) if he/she has satisfied the semester completion requirements (as per clause 8).

Further, examination registration by a student is mandatory for all the courses in the current semester and all arrear(s) course(s) for the Autonomous end semester examinations, failing which, the student will not be permitted to move to the higher semester.

A student who has already appeared for any course in a semester and passed the examination is not entitled to reappear in the same course for improvement of grades.

15. PASSING REQUIREMENTS

- 15.1.** A student who secures not less than 50% of total marks prescribed for the course [Internal Assessment + Autonomous End semester Examinations] with a minimum of 45% of the marks prescribed for the Autonomous End semester Examination, shall be declared to have passed the course and acquired the relevant number of credits. This is applicable for both theory and laboratory courses (including project work).
- 15.2.** If a student fails to secure a pass in a theory course / laboratory course (except electives), the student shall register and appear only for the end semester examination in the subsequent semester. In such case, the internal assessment marks obtained by the 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 (Internal Assessment + Autonomous End Semester Examination) as per clause 15.1, then the student shall be declared to have passed the examination if he/she secures a minimum of 50% marks prescribed for the Autonomous End semester Examinations alone.
- 15.3.** If the course, in which the student has failed, is a Professional Elective or an Open Elective course, the student may be permitted to complete the same course. In such a 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 candidate secures a pass. However, from the third attempt onwards if a candidate fails to obtain pass marks (Internal Assessment + Autonomous End Semester Examination) as per clause 15.1, then the candidate shall be declared to have passed the examination if he/she secures a minimum of 50% marks prescribed for the Autonomous End semester Examinations alone.
If any other Professional Elective or Open Elective course is opted by the student, the previous registration stands cancelled and henceforth it is to be considered as a new Professional Elective or Open Elective course. The student has to register and attend the classes, earn the continuous assessment marks, fulfil the attendance requirements as per clause 8 and appear for the autonomous end semester examination.
- 15.4.** If a student has submitted the project report but absent in the end semester examination of project work, the student is deemed to be failed. In this case and also if a student attends and fails in the End semester examination of Project work of B.E. / B.Tech, he/she shall attend end semester examination again within 60 days from the date of declaration of the results. The subsequent viva-voce examination will be considered as reappearance with payment of exam fee. In case, the student fails in the subsequent viva-voce examination also, the student shall redo the course again, when offered next.

- 15.5.** 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 internal assessment (continuous assessment) marks only.
- 15.6.** A student can apply for revaluation of the student's semester examination answer paper in a theory course, as per the guidelines of the COE on payment of a prescribed fee along with prescribed application to the COE through the Head of the Institution. The COE will arrange for the revaluation and the results will be intimated to the student concerned through the Head of the Institution. Revaluation is not permitted for laboratory courses and EEC courses. Student can apply for review vide clause 17.5.

16. AWARD OF LETTER GRADES

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

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

A student is deemed to have passed and acquired the corresponding credits in a particular course if he/she obtains any one of the following grades: "O", "A+", "A", "B+", "B", "C".

"SA" denotes shortage of attendance (as per clause 8.3) and hence, prevented from writing the end semester examinations. 'SA' will appear only in the Grade Sheet.

"U" denotes that the student has failed to pass in that course. "W" denotes withdrawal from the exam for the particular course. The grades U and W will figure both in the Grade Sheet as well as in the Result Sheet. In both cases, the student has to appear for the Autonomous End Semester Examinations as per the Regulations.

If the grade U is given to Theory Courses/ Laboratory Courses it is not required to satisfy the attendance requirements (vide clause 8), but has to appear for the end semester examination and fulfil the norms specified in clause 15 to earn a pass in the respective courses.

If the grade U is given to EEC course (except Project Work), which are evaluated only through internal assessment, the student shall register for the course again in the subsequent semester, fulfil the norms as specified in clause 15 to earn pass in the course. However, attendance requirement need not be satisfied.

16.2. Relative Grading

For those students who have passed the course (theory course / laboratory integrated courses / theory integrated courses / all other EEC except laboratory course / Project Work Courses), the relative grading shall be done. The marks of those students who have passed only shall be inputted in the software developed by Anna University for relative grading. The evolved relative grading method normalizes the results data using the BOX-COX transformation method and computes the grade range for each course separately and awards the grade to each student. (theory course / laboratory integrated courses / theory integrated courses and all other EEC Courses). Only if the students' strength is greater than 30, the relative grading method shall be adopted.

16.3. Absolute Grading

In all the courses, if the number of students who have passed the course is less than or equal to 30 then absolute grading shall be followed with the grade range as specified in the Table.

In all the courses, if the number of students who have passed the course is less than or equal to 30 then absolute grading shall be followed with the grade range as specified in the Table.

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

16.4. The students shall complete all the Mandatory Non-Credit courses prescribed in the curriculum to fulfill the Degree requirements. For the students who complete the Mandatory Non-Credit Course satisfying attendance requirement, the title of the Mandatory Non-Credit Course will be mentioned in the Grade Sheet.as "COMPLETED"

16.5. Grade Sheet

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

- The list of courses registered during the semester and the grade scored.
- List of courses studied for Hons., minor and any other additional courses in which the student has passed with the grades under the title additional courses.
- The Grade Point Average (GPA) for the semester considering only the courses of curriculum (not the additional courses) and
- The Cumulative Grade Point Average (CGPA) of all courses registered from first semester onwards considering only the courses of curriculum (not the additional courses). However, for the students who have successfully completed the requirements of B.E. / B. Tech. (Hons) and B.E. / B.Tech. Minor vide Clause 4.15, grades scored in the six additional courses shall be taken into account for the computation of CGPA.

During each semester, the list of curricular courses (not the additional courses) registered and the grades scored in each course are used to compute the Grade Point Average (GPA). GPA is the ratio of the sum of the products of the number of credits of curricular courses (not the additional courses) registered and the grade points corresponding to the grades scored in those courses, taken for all the courses, to the sum of the number of credits of all the courses in the semester. U grades will be excluded for calculating GPA and CGPA.

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

Where,

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

- 16.6.** If a student successfully completes all the requirements of the programme and also meets the requirements of B.E. / B. Tech. (Hons) or B.E. / B. Tech. Minor but desires not to opt for the additional qualification, then he/she has to submit a declaration with regard to the same 30 days before the completion of VIII semester.

- 16.7. In the consolidated grade sheet the CGPA earned shall be converted into percentage of marks as follows:

$$\text{Percentage of Marks} = \text{CGPA} \times 10$$

17. ELIGIBILITY FOR THE AWARD OF THE DEGREE

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

- Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time.
- Successfully completed the course requirements, appeared for the End Semester examinations and passed all the subjects within the period as prescribed in clause 6.1.
- Successfully passed any additional courses prescribed by the Course Equivalency Committee constituted by the Head of the Institution whenever re-admitted under any other regulations.
- Successfully completed Mandatory Non-Credit courses
- No disciplinary action is pending against him / her.
- The award of Degree must have been approved by the Syndicate of the University.

17.2. Classification of the Degree Awarded

17.2.1. First Class with Distinction

A student who satisfies the following conditions shall be declared to have passed the examination in First class with Distinction:

- Should have passed the examination in all the courses of all the eight semesters (6 semesters in the case of Lateral Entry) in the student's First Appearance within five years (Four years in the case of Lateral Entry). Withdrawal from examination (vide Clause 18) will not be considered as an appearance.
- Should have secured a CGPA of not less than 8.50.
- One year authorized break of study (if availed of) is included in the five years (four years in the case of lateral entry) for award of First class with Distinction.
- Should not have been prevented from writing end semester examination in any of the courses of the Curriculum making up the total credit requirement.

- A student who satisfies norms given in clause 4.14 becomes eligible for classification of the degree with B.E./B.Tech. (Hons), B.E. /B.Tech. (Hons) Specialisation and B.E./B.Tech. minor.

Details are provided in Table

Degree	Duration of the Programme	Duration permitted	Additional credits above the requirement of curriculum	CGPA	Pass in (attempt)	Break of Study	Prevention to write End semester examination	Withdrawal from Writing end semester examination
B.E. / B.Tech. (Regular)	4 Years	5 Years	-	8.50	First	One year authorised break of study included in the Duration permitted	Not Permitted	Will not be considered as an attempt
B.E. / B.Tech. (Lateral Entry)	3 Years	4 Years	-	8.50	First			
B.E. / B.Tech. (HONS) Specialisation	3 / 4 Years (Lateral Entry / Regular)	4 / 5 Years (Lateral Entry / Regular)	18 Credits From same Vertical of the same programme	8.50	First			
B.E. / B.Tech. (HONS)	3 / 4 Years (Lateral Entry / Regular)	4 / 5 Years (Lateral Entry / Regular)	18 Credits From more than one Vertical of The same programme	8.50	First			
B.E. / B.Tech. Minor	3 / 4 Years (Lateral Entry / Regular)	4 / 5 Years (Lateral Entry / Regular)	18 Credits From one Vertical of The other programme	8.50	First			

17.2.2. First Class

A student who satisfies the following conditions shall be declared to have passed the examination in First class:

- Should have passed the examination in all the courses of all eight semesters (6 semesters in the case of Lateral Entry) within five years. (Four years in the case of Lateral Entry).
- One year authorized break of study (if availed of) or prevention from writing the End Semester examination due to lack of attendance (if applicable) is included

in the duration of five years (four years in the case of lateral entry) for award of First class.

- Should have secured a CGPA of not less than 6.50.
- A student who satisfies norms given in clause 4.14 becomes eligible for classification of the degree with B.E./B.Tech. (Hons), B.E. /B.Tech. (Hons) Specialisation and B.E./B.Tech. minor.

Details are provided in Table

Degree	Duration of the Programme	Duration permitted	Additional credits above the requirement of curriculum	CGPA	Pass in (attempt)	Break of Study	Prevention to write End semester examination	Withdrawal from Writing end semester examination
B.E. / B.Tech. (Regular)	4 Years	5 Years	-	6.50	-	One year authorised break of study included in the Duration Permitted	Included in the Duration Permitted	-
B.E. / B.Tech. (Lateral Entry)	3 Years	4 Years	-	6.50	-		Included in the Duration Permitted	-
B.E. / B.Tech. (HONS) Specialisation	3 / 4 Years (Lateral Entry / Regular)	4 / 5 Years (Lateral Entry / Regular)	18 Credits from same vertical of the same programme	7.50	First		Not Permitted	Will not be considered as an attempt
B.E. / B.Tech. (HONS)	3 / 4 Years (Lateral Entry / Regular)	4 / 5 Years (Lateral Entry / Regular)	18 Credits from more than one Vertical of the same programme	7.50	First		Not Permitted	Will not be considered as an attempt
B.E. / B.Tech. Minor	3 / 4 Years (Lateral Entry / Regular)	4 / 5 Years (Lateral Entry / Regular)	18 Credits from one vertical of the other programme	6.50	-		Included in the Duration Permitted	-

17.2.3. Second Class

Students who pursue B.E./B.Tech. in Regular mode or lateral entry mode or B.E./B.Tech. minor in specialisation of another discipline and who are not covered in clauses 17.2.1 and 17.2.2 and who qualify for the award of the degree (vide Clause 17.1) shall be declared to have passed the examination in Second Class.

17.2.4. Student earned additional 18 credits as per Clause 14.4.1 and 14.4.2 but does not satisfy the conditions mentioned in 17.2.1 or 17.2.2 shall not be awarded B.E. / B.Tech.(Hons.) or B.E. / B.Tech. (Hons.) Specialisation. In such case if the student becomes eligible for First Class, while computing CGPA with the Professional Elective / Open Elective courses with higher grades the student shall be awarded B.E. / B.Tech. in First Class only.

17.3. A student who is absent in end semester examination in a course / project work after having registered for the same shall be considered to have appeared in that examination for the purpose of classification. (subject to clause 18).

17.4 Photocopy / Revaluation

A student can apply for photocopy of his/her semester examination answer paper in a theory course, as per the guidelines of the COE, on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of the Department. The answer script is to be valued and justified by a faculty member, who has handled the subject and recommend for revaluation with the breakup of marks for each question. Based on the recommendation, the student can register for the revaluation through proper application to the Controller of Examinations. The Controller of Examinations will arrange for the revaluation and the results will be intimated to the student concerned through the Head of the Institutions. Revaluation is not permitted for practical courses and EEC courses.

A student can apply for revaluation of answer scripts for not exceeding 5 subjects at a time.

17.5. Students not satisfied with Revaluation can apply for Review of his/ her examination answer paper in a theory course, within the prescribed date on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of the Department.

Students applying for Revaluation only are eligible to apply for Review.

18. PROVISION FOR WITHDRAWAL FROM END-SEMESTER EXAMINATION

- 18.1.** A student may, for valid reasons, (medically unfit / unexpected family situations / sports approved by the Chairman, Sports Board and the HOD) be granted permission to withdraw from appearing for the end semester examination in any course or courses in ANY ONE of the semester examinations during the entire duration of the degree programme. The application shall be sent to the COE with the approval of the Head of the Department through the Head of the Institutions with required documents.
- 18.2.** Withdrawal application is valid if the student is otherwise eligible to write the examination (Clause 8) and if it is made within TEN days after the date of the examination(s) in that course or courses and recommended by the Head of the Department through the Head of the Institution and approved by the Controller of Examinations. For a student to withdraw from a course / courses, he/she should have registered for the course, fulfilled the attendance requirements (vide clause 8) and earned continuous assessment marks.
- 18.2.1.** Notwithstanding the requirement of mandatory 10 days, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.
- 18.3.** In case of withdrawal from a course / courses, the courses will figure both in the Grade Sheet as well as in the Result Sheet. However, withdrawal shall not be considered as an appearance for the eligibility of a student for First Class with Distinction.
- 18.4.** If a student withdraws from writing end semester examinations for a course or courses, he/she shall register for the same in the subsequent semester and write the end semester examination(s).
- 18.5.** If a student applies for withdrawal from Project Work, he/she will be permitted for the withdrawal only if the student has submitted the project report before the deadline. However, the student may appear for the viva-voce examination within 60 days after the declaration of results for Project Work and the same shall not be considered as reappearance.
- 18.6.** Withdrawal is not permitted in the final semester by the student.

19. PROVISION FOR AUTHORISED BREAK OF STUDY / GAP YEAR CONCEPT

- 19.1.** A student is permitted to go on authorised break of study for a maximum period of one year as a single spell.
- 19.2.** 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 situation the student may apply for additional break of study not exceeding another one year.

- 19.3.** The student permitted to rejoin the programme after break of study / prevention due to lack of attendance, shall be governed by the Curriculum and Regulations in force at the time of rejoining. The students rejoining in new Regulations shall apply to the Controller of Examinations in the prescribed format through Head of the Department and approval from the Head of the Institution at the beginning of the readmitted semester itself for prescribing additional courses, if any, from any semester of the regulations in-force, so as to bridge the curriculum in-force and the old curriculum.
- 19.3.1.** Total number of credits to be earned by the student shall be more than or equal to the total number of credits prescribed in the curriculum in force. If the credit assigned for L T P of the courses are not same in two Regulations under consideration, then equivalence shall be arrived as per the credit assignment followed in the Regulations in force.
- 19.4.** The authorized break of study is included in the duration specified for passing all the courses for the purpose of classification (vide Clause 17.2)
- 19.5.** 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 6.1 irrespective of the period of break of study in order that he/she may be eligible for the award of the degree.
- 19.6.** If any student is prevented for want of required attendance, the period of prevention shall not be considered as authorized 'Break of Study' (Clause 19.1).
- 19.7.** If a student in Full Time mode wants to take up a job / start-up / entrepreneurship during the period of study he/she shall apply for authorised break of study for one year. The student shall join the job / start-up / entrepreneurship only after getting approval for the same from the Head of the Institution through the Head of the Department with due proof to that effect and submit the same to the Controller of Examinations.
- 19.8.** No fee is applicable to students during the Break of Study period.

20. Discipline

Every student is required to observe disciplined and decorous behaviour both inside and outside the college and not to indulge in any activity which will tend to bring down the prestige of the institution. The Head of the Institution shall constitute a disciplinary committee to enquire into acts of indiscipline and notify the University about the disciplinary action recommended. In case of any serious disciplinary action which leads to suspension or dismissal, then a committee shall be constituted including one representative from Anna University, Chennai. In this regard, the member will be nominated by the University on getting information from the Head of the Institution.

20.2. If a student indulges in malpractice in any of the examinations he / she shall be liable for punitive action as prescribed by the Controller of Examinations from time to time.

21. REVISION OF REGULATIONS, CURRICULUM AND SYLLABI

The institution may from time to time revise, amend or change the Regulations in line with the affiliating University, curriculum, syllabus and scheme of examinations through the Academic Council with the approval of the Governing Council.

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