Academic Regulations (R25)
COURSE STRUCTURE & DETAILED SYLLABUS

(CHOICE BASED CREDIT SYSTEM (CBCS))

MASTER OF TECHNOLOGY

(M.Tech.)

For

ACADEMIC REGULATIONS (R25) FOR M.Tech. REGULAR STUDENTS WITH EFFECT FROM THE ACADEMIC YEAR 2025-26

BITS
AUTONOMOUS

Balaji Institute of Technology & Science

(UGC - Autonomous)

Approved by AICTE, New Delhi, Affiliated to JNTUH
Accredited by NAAC with A+ Grade and NBA
Laknepally (V), Narsampet (M), Warangal District - 506331, Telangana

E-mail: principal@bitswgl.ac.in **Web:** www.bitswgl.ac.in

BALAJI INSTITUTE OF TECHNOLOGY & SCIENCE

Vision

To be a center for excellence in preparing the graduates professionally committed, intellectually adept and ethically balanced with high standards by imparting quality education with international standards to excel in their career to meet the challenges of the modern world and adapt to the technologically changing environment.

Mission

M1: To strive hard to produce technically trained human resources to serve the present and future global needs by providing quality education

M2: To provide value-based training in technological advancements and employment opportunities to students by strengthening institute's interaction with industries.

M3: To disseminate knowledge of need based technical education, innovative learning and research & development with holistic approach.

Quality Policy:

We are committed to excellence in everything we do and strive to deliver value to the college community. We adhere to ethical standards. By our work, we demonstrate a commitment to high quality for academic, co-curricular and extracurricular areas.

Academic Regulations of M.Tech (Regular/Full Time) Programmes, 2025-26 (R-25) (Effective for the students admitted from the Academic Year 2025-26 and onwards)

1.0 Balaji Institute of Technology & Science (BITS) offers Two Years (Four Semesters) full-time Master of Technology (M.Tech.) Degree programmes, under Choice Based Credit System (CBCS) at its autonomous college in different branches of Engineering and Technology with different specializations.

2.0 Eligibility for Admissions

2.1 Admission to the M.Tech. programme shall be made subject to eligibility, qualification and specializations prescribed by the College from time to time, for each specialization under each M.Tech. programme.

2.2 Admission to the post graduate programme shall be made on the basis of either the merit rank or Percentile obtained by the qualified student in the GATE Examination/ the merit rank obtained by the qualified student in an entrance test conducted by Telangana Government (PGECET) for M.Tech. programmes on the basis of any other exams approved by the University, subject to reservations as laid down by the Govt. from time to time.

2.3 The medium of instructions for all PG Programmes will be ENGLISH only.

3.0 M.Tech. Programme Structure

3.1 The M.Tech. Programs of BITS are of Semester pattern, consisting of Two academic years, each academic year having Two Semesters (Odd and Even Semesters).

3.2 The two-year M. Tech. program consists of 68 credits and the student has to register for all 68 credits and earn all 68 credits for the award of M. Tech. degree.

3.3 The student shall not take more than four academic years to fulfill all the academic requirements for the award of M. Tech. degree from the date of commencement of first year first semester, failing which the student shall forfeit the seat in M. Tech. programme.

3.4 UGC/AICTE specified definitions/descriptions are adopted appropriately for various terms and abbreviations used in these PG academic regulations, as listed below:

3.4.1 Semester Scheme

There shall be a minimum of 15 weeks of instruction, excluding the mid-term and semester-end exams. Around 15 instruction hours, 30 instruction hours and 45 hours of learning need to be followed per one credit of theory course, practical course and project/field-based learning respectively. In each semester, there shall be 'Continuous Internal Evaluation (CIE)' and 'Semester End Examination (SEE)' under Choice Based Credit System (CBCS). The curriculum/course structure suggested by AICTE is followed as a reference document.

3.4.2 Credit Courses

All courses are to be registered by the student in a semester to earn credits which shall be assigned to each course in an L: T: P: C (Lecture Periods: Tutorial Periods: Practical Periods: Credits) structure based on the following general pattern:

- One credit for one hour/week/semester for theory/lecture (L) courses or tutorials (T)

- One credit for two hours/ week/semester for laboratory/ practical (P) courses
- One credit is allocated for three hours per week in a semester for Project/Mini-Project session.

3.4.3 Course Classification

All courses offered for the Post-Graduate M.Tech. Degree program are broadly classified as follows. The College has followed in general the guidelines issued by AICTE/UGC.

S. No.	Broad Course Classification	Course Group/ Category	Course Description
1	Core Courses (CoC)	PC- Professional Core	Includes courses related to the parent discipline/department/ branch of Engineering
		Dissertation	M.Tech. Projector PG Project or Major Project
		Mini Project with Seminar	Seminar based on core contents related to Parent Discipline/Department/Branch of Engineering
2	Elective Courses (EtE)	PE - Professional Electives	Includes elective courses related to the parent discipline/department/branch of Engineering
		OE - Open Electives	Elective courses which include inter-disciplinary courses or courses in an area outside the parent discipline/department/branch of Engineering
3	Audit Courses	--	Non-Credit Audit Courses

4.0 Course Registration

4.1 A Faculty Advisor or Counselor shall be assigned to each specialization, who will advise on the Post Graduate Programme, its Course Structure and Curriculum, Choices/Options for Courses, based on his competence, progress, pre-requisites and interest.

4.2 The on-line Registration Requests for any current semester shall be completed before the commencement of SEEs (Semester End Examinations) of the preceding semester.

4.3 A Student can apply for on-line Registration, only after obtaining the written approval from his Faculty Advisor, which should be submitted to the College Academic Section through the Head of Department (a copy of it being retained with Head of Department, Faculty Advisor and the Student).

4.4 If the Student submits ambiguous choices or multiple options or erroneous entries during on-line Registration for the Course(s) under a given/ specified Course Group/ Category as listed in the Course Structure, only the first mentioned Course in that Category will be taken into consideration.

4.5 Course Options exercised through on-line Registration are final and cannot be changed. further, alternate choices will not be considered. However, if the Course that has already been listed for Registration by the Head of the Department in a Semester could not be offered due to unforeseen or unexpected reasons, then the Student will be allowed to have alternate choice either for a new Course, if it is offered, or for another existing Course (subject to

availability of seats). Such alternate arrangements will be made by the Head of Department, with due notification and time-framed schedule, within the first week from the commencement of Class-work for that Semester.

5.0 Attendance Requirements

Attendance is calculated separately for each course.

5.1 Attendance in all classes (Lectures/Laboratories) is compulsory. The minimum required attendance in each theory course (also Audit Courses) including the attendance of mid-term examination / Laboratory etc. is 75%. Two periods of attendance for each theory course shall be considered, if the student appears for the mid-term examination of that course. This attendance should also be included in the attendance uploaded every fortnight in the College Website. The attendance of Audit Courses should be uploaded separately to the College. A student shall not be permitted to appear for the Semester End Examinations (SEE), if his attendance is less than 75%.

5.2 A student's Seminar report and presentation on Mini Project shall be eligible for evaluation, only if he ensures a minimum of 75% of his attendance in Seminar presentation classes on Mini Project during that Semester.

5.3 Condoning of shortage of attendance up to a maximum of 10% (considering the days of attendance in sports, games, NCC, NSS activities and Medical grounds) in each course (Theory/Lab/Mini Project with Seminar) of a semester shall be granted by the College Academic Committee on genuine reasons.

5.4 A prescribed fee per course shall be payable for condoning shortage of attendance after getting the approval of College Academic Committee for the same. The College Academic Committee shall maintain relevant documents along with the request from the student.

5.5 Shortage of Attendance below 65% in any course shall in no case be condoned.

5.6 A Student, whose shortage of attendance is not condoned in any course(s) (Theory/Lab/Mini Project with Seminar) in any Semester, is considered as 'Detained in that course(s), and is not eligible to write Semester End Examination(s) of such course(s), in that Semester; and he/she has to seek re-registration for those course(s) in subsequent Semesters, and attend the same as and when offered.

5.7 A student fulfills the attendance requirement in the present semester, shall not be eligible for readmission into the same class.

5.8 a) A student shall put in a minimum required attendance in at least three theory courses (excluding Audit course) in first Year I semester for promotion to first Year II Semester.

b) A student shall put in a minimum required attendance in at least three theory courses (excluding Audit course) in first Year II semester for promotion to second Year I Semester.

6.0 Academic Requirements

The following academic requirements must be satisfied, in addition to the attendance requirements mentioned in clause no. 5. The performance of the candidate in each semester shall be evaluated course-wise, with a maximum of 100 marks per course (theory / practical), based on Continuous Internal Evaluation and Semester End Examination.

6.1 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each course, if he secures not less than:

- 40% of Marks (24 out of 60 marks) in the Semester End Examination;

- A minimum of 50% of marks in the sum total of CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together; in terms of Letter Grades this implies securing 'B' Grade or above in a course.

6.2 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to Mini Project with seminar, if student secures not less than 50% marks (i.e. 50 out of 100 allotted marks). The student would be treated as failed, if student (i) does not submit a seminar report on Mini Project or does not make a presentation of the same before the evaluation committee as per schedule or (ii) secures less than 50% marks in Mini Project with seminar evaluation. The failed student shall reappear for the above evaluation when the notification for supplementary examination is issued.

6.3 A student shall register for all courses for total of 68 credits as specified and listed in the course structure for the chosen specialization, put in the required attendance and fulfill the academic requirements for securing 68 credits obtaining a minimum of 'B' Grade or above in each course, and shall pass all the Audit Courses to complete the M.Tech. Programme successfully.

Note: (1) The SGPA will be computed and printed on the marks memo only if the candidate passes in all the courses offered and gets minimum B grade in all the courses.

(2) CGPA is calculated only when the candidate passes in all the courses offered in all the semesters

6.4 Letter Grades obtained in all those courses covering the above specified 68 credits alone shall be considered for the calculation of final CGPA, which will be indicated in the consolidated grade memo.

6.5 When a student is detained due to shortage of attendance in any course(s) in any semester, shall not be permitted to write the Semester End Examinations. However, he is eligible for re-registration of such course(s) in the subsequent semester(s), as and when next offered, with the academic regulations of the batch into which he is re-registered, by paying the prescribed fees per course. In all these re-registration cases, the student shall have to secure a fresh set of internal marks and Semester End Examination marks for performance evaluation in such course(s), and SGPA/CGPA calculations.

6.6 A student eligible to appear for the Semester End Examination in any course, but absent from it or failed (failing to secure 'B' Grade or above), may reappear for that course at the supplementary examination as and when conducted. In such cases, his Internal Marks assessed earlier for that course will be carried over, and added to the marks secured in the supplementary semester end examination, for the purpose of evaluating his performance in that course.

6.7 A Student who fails to earn 68 credits as per the specified course structure, and as indicated above, within four academic years from the date of commencement of his first year first semester, shall forfeit his seat in M. Tech. programme and his admission shall stand cancelled.

7.0 Evaluation - Distribution and Weightage of Marks

The performance of a student in each semester shall be evaluated course- wise (irrespective of credits assigned) for a maximum of 100 marks.

7.1 The performance of a student in every course (including practicals and Project) will be evaluated for 100 marks each, with 40 marks allotted for CIE (Continuous Internal Evaluation) and 60 marks for SEE (Semester End-Examination). The Continuous Internal Evaluation for theory courses shall be made based on the average of the marks secured in the two Mid-Term Examinations conducted, first Mid- Term examinations in the middle of the Semester and second Mid-Term examinations during the last week of instruction.

7.2 In CIE, for theory courses, during a semester, there shall be two mid-term examinations. Each Mid-Term examination consists of two parts i) Part – A for 10 marks, ii) Part – B for 20 marks with a total duration of two hours as follows:

1. Mid-Term Examination for 30 marks:
   a. Part - A: Objective/quiz paper for 10 marks.

   b. Part – B: Descriptive paper for 20 marks.

The objective/quiz paper is set with multiple choice, fill-in the blanks and match the following type of questions for a total of 10 marks. The descriptive paper shall contain 6 full questions out of which, the student has to answer 4 questions, each carrying 5 marks. The average of the two Mid Term Examinations shall be taken as the final marks for Mid Term Examination for 30 marks.

The remaining 10 marks of Continuous Internal Assessment (out of 40) are distributed as:

2. 5 marks for Assignment. (Average of 2 Assignments each for 5 marks)
3. Course Viva-Voce/PPT/Poster Presentation/ Case Study on a topic in the concerned course for 5 marks.

While the first mid-term examination shall be conducted on 50% of the syllabus, the second mid-term examination shall be conducted on the remaining 50% of the syllabus.

Five (5) marks are allocated for assignments (as specified by the course teacher concerned). The first assignment should be submitted before the conduct of the first mid-term examination, and the second assignment should be submitted before the conduct of the second mid-term examination. The average of the two assignments shall be taken as the final marks for assignment. Course Viva-Voce/PPT/Poster Presentation/ Case Study on a topic in the concerned course for five marks before II Mid-Term Examination.

The details of the end semester question paper pattern are explained in the next clause:

7.3 The Semester End Examinations (SEE), for theory courses, will be conducted for 60 marks consisting of two parts viz. i) Part- A for 10 marks, ii) Part - B for 50 marks.

- Part-A is a compulsory question which consists of ten sub-questions with uniform coverage from all units carrying equal marks.
- Part-B consists of five questions (numbered from 2 to 6) carrying 10 marks each. Each of these questions is from each unit and may contain sub-questions. For each question there will be an "either" "or" choice, which means that there will be two questions from each unit and the student should answer either of the two questions.
- The duration of Semester End Examination is three hours.

7.4 For practical courses there shall be a Continuous Internal Evaluation (CIE) during the semester for 40 marks and 60 marks for semester end examination. Out of the 40 marks for internal evaluation:

1. A write-up on day-to-day experiment in the laboratory (in terms of aim, components/procedure, expected outcome) which shall be evaluated for 10 marks
2. 10 marks for viva-voce (or) tutorial (or) case study (or) application (or) poster presentation of the course concerned.
3. Internal practical examination conducted by the laboratory teacher concerned shall be evaluated for 10 marks.
4. The remaining 10 marks are for Laboratory Project, which consists of the Design (or) Software / Hardware Model Presentation (or) App Development (or) Prototype Presentation submission which shall be evaluated after completion of laboratory course and before semester end practical examination.

In the Semester End Examination, held for three hours, total 60 marks are divided and allocated as shown below:

1. 10 marks for write-up
2. 15 for experiment/program
3. 15 for evaluation of results
4. 10 marks for presentation on another experiment/program in the same laboratory course and
5. 10 marks for viva-voce on concerned laboratory course.

- The Student, in each course, shall have to earn 40% of marks (i.e. 24 marks out of 60) in SEE and Overall 50% of marks (i.e. 50 marks out of 100 marks) both CIE and SEE marks taking together.

7.5 For conducting laboratory end examinations of all PG Programmes, one internal examiner and one external examiner are to be appointed by the Principal of the College. The external examiner should be selected from outside the College concerned but within the cluster. No external examiner should be appointed from any other College in the same cluster/any other cluster which is run by the same Management.

7.6 There shall be Mini Project with Seminar during I year II semester for internal evaluation of 100 marks. The Departmental Academic Committee (DAC) will review the progress of the mini project during the seminar presentations and evaluate the same for 50 marks. Mini Project Viva Voce will be evaluated by the DAC for another 50 marks before the semester end examinations. Student shall carryout the mini project in consultation with the mini

project supervisor which may include critically reviewing the literature, project implementation and submit it to the department in the form of a report and shall make an oral presentation before the DAC consisting of Head of the Department, Mini Project supervisor and two other senior faculty members of the department. The student has to secure a minimum of 50% of marks in i) seminar presentation and ii) mini project viva voce, to be declared successful. If he fails to obtain the minimum marks, he has to reappear for the same as and when scheduled.

7.7 Every candidate shall be required to submit a dissertation on a topic approved by the Dissertation Review Committee.

7.8 The M.Tech. Dissertation shall be prepared in the structure prescribed by the College, adhering to the style files and formatting guidelines. To facilitate this process, each institution will organize a brief orientation session for the entire class/section at the beginning of the final semester, guiding the students on the required structure and formatting of the dissertation.

7.9 A Dissertation Review Committee (DRC) shall be constituted with the Head of the Department as Chairperson, Dissertation Supervisor and one senior faculty member of the Department offering the M.Tech. programme.

7.10 Registration of Dissertation Work: A candidate is permitted to register for the Dissertation Work after satisfying the attendance requirement in all the courses, both theory and laboratory.

7.11 After satisfying the previous clause, a candidate must present in *Dissertation Work Review - I*, in consultation with his Dissertation Supervisor, the title, objective and plan of action of his Dissertation work to the Dissertation Review Committee (DRC) for approval within four weeks from the commencement of Second year First Semester. Only after obtaining the approval of the DRC can the student initiate the Dissertation work.

7.12 If a candidate wishes to change his supervisor or topic of the Dissertation, he can do so with the approval of the DRC. However, the DRC shall examine whether or not the change of topic/supervisor leads to a major change of his initial plans of Dissertation proposal. If yes, his date of registration for the project work starts from the date of change of Supervisor or topic as the case may be.

7.13 A candidate shall submit his Dissertation progress report in two stages at least with a gap of three months between them.

7.14 The work on the Dissertation shall be initiated at the beginning of the II year and the duration of the Dissertation is two semesters. A candidate is permitted to submit Dissertation Thesis only after successful completion of all theory and practical courses with the approval of DRC not earlier than 40 weeks from the date of approval of the Dissertation work. For the approval of DRC, the candidate shall submit the draft copy of thesis to the Head of the Department and make an oral presentation before the DRC.

7.15 **The Dissertation Work Review - II** in II Year I Semester carries 100 internal marks. Evaluation should be done by the DRC for 50 marks and the Supervisor will evaluate the work for the other 50 marks. The Supervisor and DRC will examine the Problem Definition, Objectives, Scope of Work, Literature Survey in the same domain and progress of the Dissertation Work. A candidate has to secure a minimum of 50% of marks to be declared successful in Dissertation Work Review - II. If he fails to obtain the minimum required marks, he has to reappear for Dissertation Work Review - II as and when conducted.

7.16 **The Dissertation Work Review - III** in II Year II Sem. carries 100 internal marks. Evaluation should be done by the DRC for 50 marks and the Supervisor will evaluate it for the other 50 marks. The DRC will examine the overall progress of the Dissertation Work and decide whether or not the Dissertation is eligible for final submission. A candidate has to secure a minimum of 50% of marks to be declared successful in Dissertation Work Review - III. If he fails to obtain the required minimum marks, he has to reappear for Dissertation Work Review - III as and when conducted. For Dissertation Evaluation (Viva Voce) in II Year II Semester there are external marks of 100 and it is evaluated by the external examiner. The candidate has to secure a minimum of 50% marks in Dissertation Evaluation (Viva-Voce) examination.

7.17 Dissertation Work Reviews - II and III shall be conducted in phase I (Regular) and Phase II (Supplementary). Phase II will be conducted only for unsuccessful students in Phase I. The unsuccessful students in Dissertation Work Review - II (Phase II) shall reappear for it at the time of Dissertation Work Review - III (Phase I). These students shall reappear for Dissertation Work Review - III in the next academic year at the time of Dissertation Work Review - II only after completion of Dissertation Work Review - II, and then Dissertation Work Review - III follows. The unsuccessful students in Dissertation Work Review - III (Phase II) shall reappear for Dissertation Work Review – III in the next academic year only at the time of Dissertation Work Review - II (Phase I).

7.18 After approval from the DRC, a soft copy of the thesis should be submitted for Anti-Plagiarism check and the plagiarism report should be submitted to the College and be included in the final thesis. The Thesis will be accepted for submission, if the similarity index is less than 30%. If the similarity index is more than the required percentage, the student is advised to revise the thesis and re-submit the soft copy of the thesis after one month. The maximum number of re-submissions of thesis after plagiarism check is limited to TWO. The candidate has to register for the Dissertation work and work for two semesters. After three attempts, the admission is liable to be cancelled.

7.19 Three copies of the Dissertation Thesis certified by the supervisor shall be submitted to the College.

7.20 The thesis shall be adjudicated by an external examiner selected by the Principal. For this, the Head of the Department shall submit a panel of three examiners from among the list of experts in the relevant specialization as submitted by the supervisor.

7.21 If the report of the external examiner is unsatisfactory, the candidate shall revise and resubmit the Thesis. If the report of the examiner is unsatisfactory again, the thesis shall be summarily rejected. Subsequent actions for such dissertations may be considered, only on the specific recommendations of the external examiner and /or Dissertation Review Committee. No further correspondence in this matter will be entertained, if there is no specific recommendation for resubmission.

7.22 If the report of the examiner is satisfactory, the Head of the Department shall coordinate and decide for the conduct of Dissertation Viva-Voce examination. The Dissertation Viva-Voce examination shall be conducted by a board consisting of the Supervisor, Head of the Department and the external examiner who adjudicated the Thesis. The candidate has to secure a minimum of 50% of marks in Dissertation Evaluation (Viva-Voce) examination.

7.23 If he fails to fulfill the requirements as specified in the above clause, he will reappear for the Dissertation Viva-Voce examination only after three months. In the reappeared examination also, if he fails to fulfill the requirements, he will not be eligible for award of the degree, unless he is asked to revise and resubmit his Dissertation Work by the board within a specified time period.

7.24 The Dissertation Viva-Voce External examination marks must be submitted to the College on the same day of the examination.

7.25 For Audit courses, a student has to secure 40 marks out of 100 marks (i.e. 40% of the marks allotted) in the continuous internal evaluation for passing the course.

7.26 No marks or letter grades shall be allotted for Audit Courses. Only Pass/Fail shall be indicated in Grade Card.

8.0 Re-Admission/Re-Registration

8.1 Re-Admission for Discontinued Student

A student, who has discontinued the M. Tech. degree programme due to any reason whatsoever, may be considered for 'readmission' into the same degree programme (with the same specialization) with the academic regulations of the batch into which he gets readmitted, with prior permission from the authorities concerned.

8.2 If a student is detained in a course (s) due to shortage of attendance in any semester, he may be permitted to re-register for the same course(s) or the student may register in an equivalent course, If the same course is not available, as suggested by the Board of Studies of that department, in the subsequent semester(s), with the academic regulations of the batch into which he seeks re-registration, with prior permission from the authorities concerned.

8.3 A candidate shall be given chance to re-register any number of courses, if the candidate failed in these courses due to securing less than 40% marks in CIE. A candidate must re-register for failed courses within four weeks of commencement of the class work, in the next academic year and secure the required minimum attendance. In the event of the student taking this chance, his Continuous Internal Evaluation (internal) marks and Semester End Examination marks obtained in the current semester only will be accepted, if he secures pass grade.

9.0 Examinations and Assessment - The Grading System

9.1 Grades will be awarded to indicate the performance of each student in each Theory Course, or Lab/Practicals, or Mini Project with Seminar, Dissertation, etc., based on the percentage of marks obtained in CIE + SEE (Continuous Internal Evaluation + Semester End Examination, both taken together), and a corresponding Letter Grade shall be given.

9.2 As a measure of the student's performance, a 10-point Absolute Grading System using the following Letter Grades (UGC Guidelines) and corresponding percentage of marks shall be followed:

% of Marks Secured in a Course(Class Intervals)	**Letter Grade(UGC Guidelines)**	**Grade Points**
90% and above (≥90%, ≤100%)	O(Outstanding)	10
Below 90% but not less than80% (≥80%,<90%)	A^+(Excellent)	9
Below 80% but not less than70% (≥70%,<80%)	A(Very Good)	8
Below 70% but not less than60% (≥60%,<70%)	B^+(Good)	7
Below 60% but not less than50% (≥50%,<60%)	B(above Average)	6
Below 50% (<50%)	F(FAIL)	0
Absent	**Ab**	**0**

9.3 A student obtaining 'F' Grade in any Course is deemed to have 'failed' and is required to reappear as 'Supplementary Candidate' for the Semester End Examination (SEE), as and when conducted. In such cases, his Internal Marks (CIE Marks) in those courses will remain as obtained earlier.

9.4 If a student has not appeared for the examinations, 'Ab' Grade will be allocated to him for any course and shall be considered 'failed' and will be required to reappear as 'Supplementary Candidate' for the Semester End Examination (SEE), as and when conducted.

9.5 A Letter Grade does not imply any specific marks percentage; it is only the range of percentage of marks.

9.6 In general, a student shall not be permitted to repeat any Course (s) only for the sake of 'Grade Improvement' or 'SGPA/ CGPA Improvement'.

9.7 A student earns Grade Point (GP) in each Course, on the basis of the Letter Grade obtained by him in that Course. The corresponding 'Credit Points' (CP) are computed by multiplying the Grade Point with Credits for that particular Course.

Credit Points (CP) = Grade Point (GP) x Credits …. For a Course

9.8 The student passes the Course only when he gets GP ≥ 6 (B Grade or above).

9.9 The Semester Grade Point Average (SGPA) is calculated by dividing the Sum of Credit Points secured from all Courses registered in a Semester, by the total number of credits offered in that Semester. SGPA is rounded off to two decimal places. SGPA is thus computed as

$$\text{SGPA}=\left\{\sum_{i=1}^{N} C_i G_i\right\} \Big/ \left\{\sum_{i=1}^{N} C_i\right\} \text{....For each Semester}$$

where 'i' is the Course indicator index (taking into account all Courses in a Semester), 'N' is the no. of Courses offered in the Semester (as specifically required and listed under the Course Structure of the parent Department) C_i , is the no. of Credits allotted to the ith Course, and G_i represents the Grade Points corresponding to the Letter Grade awarded for that i^{th} Course.

9.10 The Cumulative Grade Point Average (CGPA) is a measure of the overall cumulative performance of a student over all Semesters considered for registration. The CGPA is the ratio of the Total Credit Points secured by a student in all registered Courses in all Semesters, and the Total Number of Credits registered in all the Semesters. CGPA is rounded off to two decimal places. CGPA is thus computed from the I Year Second Semester onwards, at the end of each Semester, as per the formula

$$CGPA=\{\sum_{j=1}^{M} C_j G_j\} \Big/ \{\sum_{j=1}^{M} C_j\}$$

(ie., up to and inclusive of S Semesters, S ≥ 2),

where 'M' is the total no. of Courses (as specifically required and listed under the Course Structure of the parent Department) the Student has 'registered'. C_j is the no. of Credits allotted to the jth Course, and represents the Grade Points (GP) corresponding to the Letter Grade awarded for that j^{th} Course. After registration and completion of I Year I Semester however, the SGPA of that Semester itself may be taken as the CGPA, as there are no cumulative effects.

Illustration of calculation of SGPA

Course	Credits	Letter Grade	Grade points	Credit Points
Course1	4	A	8	4*8=32
Course2	4	O	10	4*10=40
Course3	4	B	6	4*6=24
Course4	3	B	6	3*6=18
Course5	3	A+	9	3*9=27
Course6	3	B	6	3*6=18
	21			159

SGPA = 159/21 = 7.57

Illustration of calculation of CGPA from SGPA

Semester	Credits	SGPA	Credits*SGPA
Semester I	24	7	24*7=168
Semester II	24	6	24*6=144
Semester III	24	6.5	24*6.5=156
Semester IV	24	6	24*6=144
	96		612

CGPA = 612/96 = 6.37

10.0 Award of Degree and Class

10.1 If a student who registers for all the specified Courses as listed in the Course Structure, satisfies all the Course Requirements, and passes the examinations prescribed in the entire PG Programme, and secures the required number of 68 Credits (with CGPA ≥6.0), shall be declared to have 'qualified' for the award of the M.Tech. Degree in the chosen Branch of Engineering/Technology with the specialization that he was admitted into.

10.2 **Award of Class**

After a student has earned the requirements prescribed for the completion of the programme and is eligible for the award of M.Tech. Degree, he shall be placed in one of the following three classes based on the CGPA:

Class Awarded	CGPA
First Class with Distinction	≥7.50
First Class	6.50≤CGPA<7.50
Second Class	6.00≤CGPA<6.50

A student with final CGPA (at the end of the PGP) < 6.00 shall not be eligible for the Award of Degree.

11.0 Withholding of Results

If the student has not paid the dues, if any, to the University or if any case of indiscipline is pending against him, the result and degree of the student will be withheld and he will not be allowed into the next semester.

12.0 Conversion of CGPA into equivalent Percentage of Marks

The following formula shall be used for the conversion of CGPA into equivalent marks, whenever it is necessary

Percentage (%) of Marks = (Final CGPA – 0.5) x 10

13.0 Mapping with the Sustainable Development Goals

All the courses specified in the course structure of every programme are mapped with the one or more sustainable development goals.

14.0 General

14.1 **Credit: A** unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week.

14.2 Credit Point: It is the product of grade point and number of credits for a course.

14.3 Wherever the words “he”, “him”, “his”, occur in the regulations, they shall include “she”, her”.

14.4 The academic regulation should be read as a whole for the purpose of any interpretation.

14.5 In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Principal is final.

14.6 The Principal may change or amend the academic regulations or syllabi at any time and the changes or amendments made shall be applicable to all the students with effect from the dates notified by the College.