



BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

REGULATIONS FOR POST GRADUATE PROGRAMME – M.TECH DEGREE

Applicable for all M.Tech Programmes from Academic year 2016-17

1. SHORT TITLE AND COMMENCEMENT

- 1.1 The regulations listed under this head are common for all postgraduate programmes (M.Tech.) offered.
- 1.2 The regulations are subject to amendments as may be made by the Academic Council of the college from time to time, keeping the recommendations of the Board of Studies in view. Any or all such amendments will be effective from such date and to such batches of candidates including those already undergoing the programme, as may be decided by the Academic Council.

2. DEFINITIONS

- (a) "University" means Visvesvaraya Technological University (VTU)
- (b) "College" means BMS College of Engineering (BMSCE)
- (c) "Commission" means University Grants Commission (UGC)
- (d) "Council" means All India Council for Technical Education (AICTE)
- (e) "Statute" means VTU Autonomous College Statute, 2006
- (f) "Academic Autonomy" means freedom granted by the University to the College in all aspects of conducting its academic programmes for promoting academic excellence
- (g) "Autonomous College" means a college notified as an autonomous college as per the VTU Autonomous College Statute, 2006
- (h) "Regular Students" means students who are admitted to M.Tech.
- (i) "Branch" means specialization in a programme like M.Tech degree programme in Civil Engineering or M.Tech. degree programme in Computer Science etc.
- (j) "Course" means a subject identified by its title and course code. *For example, 16CVTEPCDP*, is offered from Academic year 2016-17 (**16**), by Civil Engineering Department (**CV**), in the Transportation Engineering & Management program (**TE**), of type Program Core (**PC**), titled 'Analysis and Design of Pavements' (**DP**).

3. NOMENCLATURE OF ACADEMIC PROGRAMMES

The nomenclature and the corresponding abbreviations shown below, shall continue to be used for the degree programmes under the University, as required by the Commission and the Council:

Master of Technology (M. Tech.)

Besides, the branch / programme of specialization, if any, shall be indicated in brackets after the abbreviation.

For example, M.Tech. degree in Machine Design programme is abbreviated as M. Tech. (Machine Design) or M.Tech. (MD)



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POSTGRADUATE (PG) DEGREE PROGRAMMES OFFERED BY THE COLLEGE

Table-1

| SNo | Title of the PG programme | Abbreviation | Offering Department |
|-----|---|--------------|---|
| 1 | Machine Design | MD | Mechanical Engineering (ME) |
| 2 | Manufacturing Science & Engineering | MS | |
| 3 | Electronics | EL | Electronics and Communication Engineering (EC) |
| 4 | VLSI Design & Embedded Systems | VE | |
| 5 | Digital Communication Engineering | DC | |
| 6 | Construction Technology | CT | Civil Engineering (CV) |
| 7 | Transportation Engineering & Management | TE | |
| 8 | Environmental Engineering | EN | |
| 9 | Power Electronics | PE | Electrical & Electronics Engineering (EE) |
| 10 | Computer Science & Engineering | CS | Computer Science Engineering (CS) |
| 11 | Computer Network Engineering | CN | Information Science Engineering (IS) |
| 12 | Bio-Medical Signal Processing & Instrumentation | BI | Medical Electronics (ML) |
| 13 | Bio-Chemical Engineering | BC | Chemical Engineering (CH) |

4. DURATION OF THE ACADEMIC PROGRAMMES

As a flexible credit system is followed, it is to be noted that the programme duration shall be dictated by the period in which a student earns the prescribed credits for the award of degree.

4.1. Normal Duration

4.1.1 The normal duration of the M. Tech. programme shall extend over a period of four semesters of total duration of 24 months.

4.2. Maximum Duration

4.2.1 The maximum period which a student can take to complete a full time M.Tech. programme shall be twice the normal duration of the programme, and hence Four years.

4.2.2 The maximum period for a programme shall also be dictated by the fact that a student shall demonstrate the prescribed minimum academic performance by registering for the prescribed minimum number of credits as a regular student in every semester, for continuing the programme.

4.3 Admission Criteria

4.3.1 The admission of students to various PG degree programmes listed under Section 3, shall be made by following the State Government norms and/or Policies/Practices of University/College from time to time.

4.3.2 The eligibility criteria for admission of students to PG degree programmes shall be the same as those prescribed by the University from time to time.



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5. MENTOR SYSTEM

5.1 Introduction

The faculty advisory system (Mentoring system) is to help the students to complete their studies successfully and comfortably. The objective of assigning a mentor to every student is:

- i) To advice the students in their academic requirements
- ii) To guide/mentor the students appropriately from time to time
- iii) To provide supportive care to the students from time to time

The Mentor shall ensure/advice on the following aspects:

- 5.1.1 The student updates the Mentor Diary in all respects from time to time.
- 5.1.2 He/She meets with the students at least twice in a semester and maintains a record of the discussions and produce as and when required.
- 5.1.3 The mentees do not partake in any sort of ragging activity inside and outside of the campus/hostel and they shall not indulge in any anti-social activities and acts unbecoming of a student.
- 5.1.4 The student maintains minimum attendance (85%) in all courses & internal marks (50%) in each of the courses as per the regulations.

6 CURRICULUM FRAMEWORK

6.1 Curriculum framework is well designed taking into account the following:

- o type and quantum of knowledge to be imparted in his/her chosen area of specialization
- o credits for each course are assigned based on content, degree of difficulty, type of activities, etc
- o number of courses to be studied (credits to be earned) and their sequencing leading to fulfillment of professional requirements and conferment of degree.

6.2 Contact Hours: The maximum number of contact hours for the students is about 30 hrs/week. This will be of help to students in getting enough time and opportunity to develop their creative talents and abilities, benefitting from Add-On courses and also those taken for audit, in addition to the ones prescribed for credit under a Programme and preparing them for challenging and exciting careers ahead.

6.3 A typical Curriculum structure for M.Tech. degree programme is shown in Table-2:

Table-2

| SNo | Subject area | Percentage distribution of credits (range) | Typical distribution |
|--------------|--------------------------------|--|----------------------|
| 1 | Core Courses | 25-40 | 30 |
| 2 | Elective Courses | 15-25 | 15 |
| 3 | Humanities and Social Sciences | 02-10 | 05 |
| 4 | Professional internship | 15-25 | 20 |
| 5 | Project(s)/Seminar | 20-30 | 30 |
| Total | | | 100 |



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6.4 The total number of credits required to be earned by a student is as shown in the Table-3:

Table-3

| Programme | Normal duration | | Credits to be earned |
|-----------|-----------------|----------|----------------------|
| | Years | Semester | |
| M.Tech. | 2 | 4 | 100 |

7. CREDIT SYSTEM

7.1 General

7.1.1 The institution follows a Choice Based Credit System (CBCS). This system has advantages over the conventional system of organizing academic programmes; in particular the CBCS for the various programmes will provide a great opportunity to the students in their preparation to meet the challenging opportunities ahead. The students have an option of choosing from a wide range of electives in two levels (programme and institutional) and complete the programme at their own pace. Value added courses are also offered as a part of extended learning in inter-disciplinary and multi-disciplinary domains. Thus the CBCS facilitates continuous learning and assessment.

7.1.2 In the Credit System, the course work of students is unitized and one credit is assigned to each unit after a student completes the teaching-learning process as prescribed for that unit (credit) and is successful in its assessment.

7.1.3 Credit Definition

One unit of course work is assigned one credit in the semester (odd/even) for:

- a) Theory course conducted for one hour/week/semester
- b) Tutorials and practical classes (Laboratory Courses) conducted for Two hours/Week/Semester
- c) Self-study in a course, for four hours/week/semester

Note: Other student activities like study tours, industrial visits, attending guest lectures shall not carry any credits.

7.2 Credit Structure

7.2.1 Components in a course:

Each course may consist of one or more components namely, Lecture (Theory), Tutorial, Practical and Self-study.

7.2.2 A typical Credit Structure for a course in PG Programme is shown in Table 4:

Table- 4

| Course | Credits | | | | |
|----------|---------|---|---|---|-------|
| | L | T | P | S | Total |
| Course-1 | 3 | 0 | 0 | 0 | 3 |
| Course-2 | 2 | 1 | 0 | 0 | 3 |
| Course-3 | 3 | 0 | 1 | 0 | 4 |
| Course-4 | 3 | 0 | 1 | 1 | 5 |
| Course-5 | 3 | 0 | 0 | 1 | 4 |

* Projects, Seminars and Internship are considered as Practical



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8 Course Load in a Semester:

8.1 The course load for a regular student is fixed at 25 credits per semester.

8.2 Course Registration

Every student shall be present and register for courses at the commencement of each semester on the date notified in the academic calendar.

8.3 Audit/Value Added Courses

In addition to the prescribed courses, a student may register for audit/value added courses, if offered, with a view to supplement his/her knowledge and/or skills. These shall not be taken into account in determining the student's academic performance in the semester; however, on successful completion of the course, the same shall be reflected in the Grade Card.

8.4 Re-Registration

Students who have secured F grade may re-register for such courses as and when offered. This re-registration can be taken in one of the three modes (as applicable) and as recommended by the mentor.

8.4.1 Mode-A: Re-registration for Course (Attendance and Assessment)

In this mode, the student may re-register for a course (being offered), as a regular student and earn the required eligibility (attendance and CIE) to qualify for the SEE.

This mode of re-registration is permitted only when

- The regular student registers III/IV semester, and in addition intends to re-register for a maximum of ONE additional course, provided the regular workload of the III/IV semester is not affected, and is recommended by the mentor.
 - The non-regular student re-registers for available courses
- In this case the grade earned by the student shall be awarded.

8.4.2: Re-registration for Course (only Assessment)

This mode of re-registration is recommended when the student registers for the regular semester workload of the III/IV semester, and in addition intends to re-register for a maximum of TWO additional courses, in either of the two modes mentioned below:

Mode-B: Re-registration for SEE:

This mode of re-registration is recommended when the student has eligibility in CIE, but has secured an F Grade. Hence, the CIE and attendance earned by the student during the previous attempt is carried forward and he/she is permitted to take directly the Semester End Examination (SEE).

*However, in this case, **one grade lower** than the actual grade will be awarded (except for 'D' grade).*

Mode-C: Improvement of CIE:

This mode of re-registration is recommended when the student does not have eligibility in CIE, but has required attendance, and hence awarded an F Grade. Hence the attendance earned by the student during the previous attempt is carried forward and the student shall earn the CIE as required to be eligible to take up the SEE.

*However, in this case, **one grade lower** than the actual grade will be awarded (except for 'D' grade).*



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9 ASSESSMENT

The college has effective examination and assessment system for each activity.

9.1 Achievement Testing

9.1.1 The assessment of student's performance during and/or at the conclusion of a programme has to be done using examinations. In general, an examination may have different objectives, like achievement testing, prediction testing, endurance testing, testing of creativity and testing for ranking.

9.1.2 Typically achievement testing is done in two parts as follows:

- a) **Sessional:** Involving **Continuous Internal Evaluation (CIE)**, to be conducted by the course instructor all through the semester; and, to include mid-term tests, weekly/fortnightly class tests, homework assignments, problem solving, group discussions, quiz, seminar, mini- project and other means.
- b) **Terminal:** Covering **Semester End Examination (SEE)**, to be conducted by the course instructor at the end of a semester, on dates to be fixed at the college level; and to include a written examination for theory courses and practical/design examination with built-in oral part for laboratory/design courses.
- c) Both CIE and SEE have equal (50:50) weightage. Student's performance in a course shall be judged by taking into account the results of CIE and SEE individually and also together.

Table-5
Typical distribution of weightage for CIE & SEE

| Component | | Range of Marks | Total Marks |
|-------------|--|----------------|-------------|
| CIE | Internals-I | 15-20 | 50 |
| | Internals-II | 15-20 | |
| | For courses with Lab/SS: Self-Study Component/ Lab-component | 10-20 | |
| | Flexible Component: Tutorial Component / Quiz/ Seminars/ Mini-Project/ Video submission/ Assignment/ any other | 0-10 | |
| SEE | Semester End Exam | 50 | 50 |
| Total Marks | | | 100 |

In case a student is not able to take an internal, due to valid reasons (illness or other contingencies), the course instructor can conduct ONLY ONE compensatory internal, on a suitable date, after the second internals, and before the last working day of the semester.

The course instructors shall define the flexible assessment component, and communicate the same to students and competent authority (nominated



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faculty/HoD), within the first week of the semester. This component shall reflect suitable Course Outcomes (COs).

9.2 Question Papers

9.2.1 **Achievement Testing:** For an effective achievement testing of the students in a course, the question paper may include different difficulty levels. This makes it necessary for the question papers used at CIE and SEE to:

- Cover all sections of the course syllabus uniformly
- Be unambiguous and free from any defects/errors
- Emphasize knowledge testing, problem solving & quantitative methods
- Contain adequate data / other information on the problems assigned
- Have clear and complete instructions to the candidates

9.2.2 **Question Paper Planning:** Question Paper to cover the entire syllabus, with a provision for the students to answer questions from the full syllabus. Students may be given some choice in the questions included in the paper, both in CIE and SEE, as per the discretion of the faculty. This factor shall be taken note of by the Board of Examiners (BOE), while planning for the question papers.

9.2.3 Besides, it is also necessary for the course syllabi to be well drafted, be defect-free and be properly framed to enable the setting of standard question papers covering the whole syllabus. These aspects have to be taken into account, in particular, by the Board of Studies (BOS).

9.3 Examinations/Assessment

9.3.1 **Continuous Internal Evaluation (CIE):** The CIE shall be conducted by the faculty/teacher handling the Course. It is the responsibility of the faculty handling a course to spell out the teaching/assessment pattern of the CIE such as test, quiz, assignment, seminar, term paper, open ended experiments, mini-projects, two minute videos, MOOCs etc. and also the necessary rubrics to students well in advance. The faculty shall maintain transparency, announce the CIE results well in time.

9.4. **Semester End Examination (SEE):** The SEE question paper is set by the course instructor. The controller of examinations, facilitates the conduction of the SEE.

9.4.1 **SEE Answer Scripts:** The answer scripts of SEE are evaluated first by the course instructor/teacher; and may include a second evaluation or an external review of SEE conducted depending on the recommendations of the Grade Evaluation Committee (GEC), before declaring the results. All students shall have the opportunity to observe the evaluated scripts, together with scheme of evaluation. Through an established procedure, the students can submit their observations (if any), and the same shall be addressed. In view of the transparency in the evaluation process, there shall be no revaluation/challenge valuation/retotaling etc. In addition, there shall be no supplementary/fast track semester for M.Tech programs.

9.4.2 **External Review/Audit of SEE:** An external review shall be conducted under the aegis of the Board of Examiners (BOE) of the College by appointing a panel of subject experts from outside the college for this purpose and aiming at totality in the review of SEE operation and covering steps such as, question paper review, checking random samples of answer scripts, analysis of results/grades awarded, etc. This step is necessary for gaining the confidence of the University and also of the society at large, on the fairness and transparency in the system.



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9.5 Passing Standards: High standards are maintained in all aspects of the examination. The absolute grading method is followed. The minimum standard of passing in respect of CIE and SEE for each course is shown in Table-6.

Table-6
Passing Standards using **Absolute Grading**

| Evaluation Method | Passing Standard |
|--------------------------|-------------------------|
| Sessional (CIE) | Score: $\geq 50\%$ |
| Terminal (SEE) | Score: $\geq 40\%$ |
| Sum Total | Score: $\geq 50\%$ |

9.6 Project Work Evaluation:

The Major Project spreads over TWO semesters, normally during III and IV semesters. The progress of the Project Work shall be monitored by the Project Guide. The evaluation of **CIE** of the project work shall be based on the progress of the student in the work assigned by the project supervisor /guide, through presentations, demonstrations, project report and viva-voce. In addition to the continuous evaluation by the guide, there shall be two evaluations conducted jointly by the Project Evaluation Committee (**PEC**) and the Project Guide.

The evaluation of **SEE** of the project work shall be jointly conducted by the Project Guide and an External examiner.

9.6.1 Project Evaluation Committee (PEC):

PEC comprises two faculty of the department (programme-wise) and one faculty supervisor/Project guide (as assigned by the department for every student).

All project reports shall go through the plagiarism check and the plagiarism index has to be $\leq 25\%$.

The title of the Project Report shall be indicated in the Grade Card.

9.7 INTERNSHIP EVALUATION:

The student shall undergo Internship for **16 weeks** during the III semester to gain experience in an industry (or institute) and carry out work related to the domain.

9.7.1 Internship Evaluation Committee: Internship Evaluation Committee (IEC) comprises two senior faculty of the department (programme-wise) and one faculty supervisor/Internship guide (as assigned by the department for every student).

9.7.2 Evaluation of Internship - To be carried out by the Internship Evaluation Committee (IEC) constituted by the department, at various stages (minimum TWO per semester).

9.7.3 Report on Internship: The IEC shall facilitate and monitor the student internship program. The internship report of each student shall be submitted to the Internship Guide.

9.7.4 Viva-Voce on Internship Report- To be conducted internally by the IEC/Internship Guide and the External Guide under whose supervision the student has carried out the internship.

9.8 There shall be **RE-EXAMINATION / MAKE-UP EXAMINATION** for a Course in the credit system to take care of such students who have:

- Absented from SEE with valid reasons and awarded 'I' grade
- Attended the SEE but secured 'X' grade due to poor performance



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10. ATTENDANCE REQUIREMENT

- 10.1** All students shall maintain a minimum attendance of 85% in each course registered. In case of shortfall, the concerned Head of the Department shall consider and may condone deficiency up to a limit of 10% in special cases (medical emergencies and other legitimate grounds) and details submitted to the office of COE. The relevant documents pertaining to condonation of attendance shall be maintained by the respective departmental head and produced as and when required by competent authorities.
- 10.2** Any student failing to meet the above standard of attendance in any course(s) registered, shall not be allowed to appear for SEE of such course(s) and is deemed to have been awarded "F" grade in that course. In such a case, the student has to re-register for the said course.
- 10.3** Any student against whom any disciplinary action by the College is pending shall not be permitted to attend any SEE in that Semester.
- 10.4** The basis for the calculation of the attendance shall be the period prescribed by the College by its calendar of events. For the first semester students, the same is reckoned from the date of admission to the course.
- 10.5** The students shall take note of his/her attendance status periodically from the respective faculty and strive to make up the shortage. However, the departments shall periodically announce the attendance status of the students. Non-receipt of such information from the college will not be considered as valid reason for exemption from the attendance requirements.

11. GRADING

General

- 11.1** As in recent years, the grading system has replaced the evaluation of student's performance in a Course based on absolute marks. This is to ensure uniformity in the grading practice at different autonomous colleges to facilitate the migration of students or transfer of credits among Autonomous Colleges under the University.
- 11.2 Letter Grades:** A letter grade is basically a qualitative measure (an alphabet/letter) giving the performance of a student, such as, Outstanding (S), Excellent (A), Very Good (B), Good (C), Average (D) and Unsatisfactory/Fail (F), based on the raw score (marks, as in conventional practice) obtained by the student. This is usually arrived at after the student's performance in a Course, which includes both CIE and SEE, is assessed and raw score (marks) for the total are awarded to begin with, followed by grouping of all the students in a Course under different grading levels, as above.

11.3 Grade Points

- 11.3.1** Depending on the letter grades assigned, a student earns certain grade points. As the grading system can have different grade points, like 5, 8 and 10, more number of points in the scale, will be necessary to provide a better resolution in the performance assessment.

The Colleges follow the 10-point grading system, as given in the Table-7:



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Table-7
Grade Points Scale (Absolute Grading)

| Level | Out-standing | Excellent | Very Good | Good | Average | Fail |
|----------------------------|--------------|-----------|-----------|----------|----------|------|
| Grade | S | A | B | C | D | F |
| Grade Points | 10 | 09 | 08 | 07 | 05 | 00 |
| Score (Marks) Range (%) | 90 to 100 | 80 to 89 | 70 to 79 | 56 to 69 | 50 to 55 | < 50 |

11.3.2 The grade points given in above table help in the evaluation of credit points earned by the student in a Course as the credit points are equal to the number of credits assigned to the Course multiplied by the grade points awarded to the student in that Course. This shall be used in arriving at the credit index of the student for that semester, as it is the sum total of all the credit points earned by the student for all the Courses registered in that semester.

11.3.3 **Earning of Credit:** A student shall be considered to have completed a course successfully and earned the credits if he/she secures an acceptable letter grade in the range S to D. Letter grade 'F' in any Course implies failure of the student in that Course and no *credits* earned.

11.3.4 **Transitional Grades:** The transitional grades, such as, 'I' and 'X' shall be awarded to a student in the following cases. These transitional grades shall be converted into any one of the letter grades (S to F) after the student completes his/her Course requirements, including examination.

11.3.4.1 **Grade 'I':** Awarded to a student having satisfactory attendance at classes and meeting the passing standard at CIE in a course, but remained absent from SEE for valid and convincing reasons acceptable to the college, like:

- (i) Accident or severe illness leading to hospitalization, which disables the student from attending Semester End Examination (SEE);
- (ii) A calamity in the family at the time of SEE, which required the student to be away from the college;
- (iii) In the event of (i) and (ii) above, it is the responsibility of the student/parent/guardian to inform the college authorities (Mentor/HOD) immediately (before commencement of exam). The information may be in the form of either written communication, personal communication by parent/ guardian /peer or an e-mail or mobile message. Intimation is mandatory. Any intimation after the conduct of examination will not be entertained.
- (iv) The candidate needs to submit all the relevant evidences (hospital reports/police reports/certificates from competent authorities, etc.,) within two days of SEE of the said course.
- (v) The candidate will be permitted to take up the make-up examination; however, there shall be no reduction in grade.

11.3.4.2 **Grade 'X':** Awarded to a student who takes the SEE but the SEE performance observed to be poor, which could result in an overall 'X' grade in the course. The candidate can take make-up examination, and will be awarded one grade lower than the actual grade except for the lowest passing grade: 'D'



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- 11.3.5 **Make-up Examination:** The Make-up Examination facility shall be available to students who may have missed to attend the SEE of one or more courses in a semester for valid reasons and given the 'I' grade; Students having the 'X' grade shall also be eligible to take advantage of this facility. The standard of the make-up examination shall be the same as that of regular SEE for the Courses. The Make-up Examination shall be held as per dates notified in the academic calendar. However, it will be possible for the institution to modify the academic calendar with the permission of the Academic Council.
- 11.3.6 **Grade Card:** Each student shall be issued a grade card (or transcript) at the end of each semester. This will have a list of all courses registered by a student in the semester along with the credits. In addition to the letter grades with grade points, the grade card will not contain transitional grades 'I' and 'X' which do not carry any grade points. Hence, only the courses registered for credit and having grade points shall be included in the computation of student's performance i.e., SGPA and CGPA. However, the Courses taken for audit will not form part of this computation.
- 11.3.7 In the event a student does not complete the Project work within the stipulated time, the student shall be given '**I**' grade. In such a case, the concerned Chairperson of BOE may grant the student extra time not exceeding 12 weeks for completing the course with due concurrence of the faculty and Head of the Department.
- 11.3.8 All the transitional grades ('I' and 'X') awarded to a student shall have to be converted to an appropriate letter grade after the make-up examination. Any outstanding 'I' and 'X' grades two days after the last scheduled Make-up Examinations shall be automatically converted to 'F' grade.
- 11.3.9 Gracing Policy:
- A candidate shall be eligible to a maximum of **4** grace marks in a course: theory/integrated/laboratory provided, he/she has CIE 50% (eligible to take up the SEE) and SEE 40% (Minimum passing percentage) in a course and SGPA/CGPA ≥ 5 up to the said semester and has failed only in one course in the semester, if the candidate after gracing gets minimum prescribed marks in the said course and passes the same.
- Grace Marks shall be awarded for declaration of classes also. For obtaining a higher class a candidate is eligible for getting a maximum of **4** grace marks, which will be added to the total aggregate marks of the candidate and will declare the candidate to have passed the examination in First class or First class with distinction (FWD).
- A candidate is entitled for a total of **4** grace marks only once during the program.

11.4 Grade Point Averages

- 11.4.1 **SGPA and CGPA:** The credit index can be used further for calculating the Semester Grade Point Average (SGPA) and the Cumulative Grade Point Average (CGPA), both of which are important performance indices of the student. While SGPA is equal to the credit index for a semester divided by the total number of credits registered by the student in that semester, CGPA gives the sum total of credit indices of all the previous semesters divided by the total number of credits registered in all these semesters.
- The SGPA and CGPA will be computed as shown below:



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Semester Grade Point Average (SGPA)

$$SGPA = \frac{\sum[(\text{Course Credits})(\text{Grade Points})]}{\sum[(\text{Course Credits})]}$$

considering all courses registered in that semester (including those with F Grade)

Cumulative Grade Point Average (CGPA)

$$CGPA = \frac{\sum[(\text{Course Credits})(\text{Grade Points})]}{\sum[(\text{Course Credits})]}$$

for all courses registered until that semester (excluding those with F Grade)

Both SGPA and CGPA facilitate the declaration of academic performance of a student, at the end of a semester and at the end of successive semesters respectively. Both SGPA and CGPA shall be normally calculated up to the second decimal position, so that the CGPA, in particular, can be made use of in ranking the students in a class. If two students get the same CGPA, the tie should be resolved by considering the number of times a student has obtained higher SGPA; but, if it is not resolved even at this stage, the number of times a student has obtained higher grades like S, A, B etc., shall be taken into account in ranking the students in a class.

Note: Students who have passed a course in make-up examination will not be considered for ranking.

11.4.2 **An illustrative example:** An illustrative example given in Table-8 indicates the use of the above two equations in calculating SGPA& CGPA:

Table-8
 Typical example for calculation of SGPA/CGPA

| Semester | Course No. | Credits | Grade | Grade Points | Credit Points | SGPA | CGPA |
|----------|---------------|----------|-------|--------------|---------------|------------------|-------------------|
| I | AA 101 | 3:0:0:1 | B | 8 | 32 | 5.64 (141/25) | 6.71 (141/21) |
| I | AA 102 | 3:1:0:0 | C | 7 | 28 | | |
| I | AA 103 | 3:0:0:1 | A | 9 | 36 | | |
| I | AA 105 | 3:0:1:1 | D | 5 | 25 | | |
| I | AA 106 | 3:1:0:0 | F | 0 | 00 | | |
| I | AA 107 | 3:0:1:0 | D | 5 | 20 | | |
| Total | | 25 | | | 141 | | |
| II | AA 201 | 3:0:1:1 | F | 0 | 00 | 6.24 (156/25) | 7.24 (297/41) |
| II | AA 202 | 3:1:0:0 | D | 5 | 20 | | |
| II | AA 203 | 3:0:1:0 | C | 7 | 28 | | |
| II | AA 205 | 3:0:0:1 | S | 10 | 40 | | |
| II | AA 206 | 3:1:0:0 | A | 8 | 32 | | |
| II | AA 207 | 3:0:0:1 | B | 9 | 36 | | |
| Total | | 25 | | | 156 | | |
| III | AA 301 | 0:0:21:0 | A | 9 | 189 | 8.31 (241/29) | 6.81 (538/79) |
| III | AA 301 | 0:0:4:0 | B | 8 | 32 | | |
| I | AA 106 | 3:1:0:0 | D | 5 | 20 | | |
| Total | | 25 + 4 | | | 241 | | |
| IV | AA 401 | 0:0:23:0 | A | 9 | 207 | 8.73 (262/30) | 8.00 (800/100) |
| IV | AA 401 | 0:0:2:0 | S | 10 | 20 | | |
| II | AA 201 | 3:0:1:1 | C | 7 | 35 | | |
| Total | | 25 + 5 | | | 262 | | |

11.4.3 **Vertical Progression:** Minimum standards for SGPA and CGPA together with the minimum number of credits are laid down for the vertical progression of students. This facilitates the mobility of students from one College to another



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and also avoids confusion among the students. The vertical progression of students is applied between two academic years only.

Maximum number of 'F' grades that can be carried at the end of any academic year is **two only**

- 11.4.4 **Award of Class:** The class will be awarded after students earn a total of 100 credits. The Table-9 shows the conversion of CGPA into percentage of marks and the award of class thereon.

Table-9

| Range of Grade Point Average (CGPA) | Percentage of Marks | Class |
|-------------------------------------|----------------------|------------------------------|
| ≥ 5.75 and < 6.75 | ≥ 50 and < 60 | Second Class |
| ≥ 6.75 and < 7.75 | ≥ 60 and < 70 | First Class |
| ≥ 7.75 | ≥ 70 | First Class with Distinction |

Please Note: The percentage of marks for a given SGPA/CGPA, can be computed using the formula: % MARKS SCORED = [CGPA - 0.75] x 10

12. OTHER ACADEMIC MATTERS

Time Schedules

- 12.1 Academic schedules:** An Academic calendar is published before the commencement of every academic year to assist the students and faculty. The calendar includes, dates for registration of courses, CIE and SEE time frames etc. This enables the students to be well prepared, minimize their chances of failure in CIE and / or SEE and take full advantage of the flexibility provided by the credit system.

- 12.2 Registration of courses:** Each student shall have to register for course work at the beginning of a semester. The student has to compulsorily register for all the stipulated credits in the first year of the programme. A period of 2-3 days is assigned for this event to facilitate the students to seek faculty advice and discuss with the Mentor/faculty prior to registering for courses.

12.3 Temporary withdrawal from programme:

- 12.3.1 A student may withdraw temporarily from the programme on grounds like, prolonged illness, grave calamity in the family or any other genuine reason. The withdrawal shall be for periods which are integral multiples of a semester, provided that:
- The student applies to the college within 6 weeks of the commencement of the semester or from the date he/she last attended the classes, whichever is later, stating fully the reasons for such a withdrawal, together with supporting documents and endorsement of his/her parent/guardian.
 - The college is satisfied of the genuineness of the case and that, even by taking into account the expected period of withdrawal, the student has the possibility to complete the programme requirements within the time limits specified by the university.
 - The student does not have any dues or demands at the college/university including tuition and other fees as well as library material.
- 12.3.2 A student availing of temporary withdrawal from the college under the above provision shall be required to pay such fees and/or charges as may be fixed by the College until such time as his/her name appears on the students' roll list. **However, it may be noted that the fees/charges once paid shall**



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not be refunded.

- 12.3.3 Normally, a student will be entitled to avail **the temporary withdrawal facility only once during his/her studentship of the programme.** However, any other concession for the concerned student shall have to be approved by the Academic Council of the college. Hence, the students shall be advised by the Principal to use this provision only in exceptional cases.

12.4 Termination from the Programme

A student shall be required to withdraw from the programme and leave the College on the following grounds:

- 12.4.1 Failure (getting 'F' grade) and not passing a course to earn credits for the same, in spite of **five attempts.**
- 12.4.2 Absence from classes for more than **one regular semester** at a time **without leave of absence** being granted by competent authorities.
- 12.4.3 Failure to meet the **standards of discipline** as prescribed by the College from time to time.
- 12.4.4 **Successive Failures:** A student who has not been able to obtain eligibility for third semester even after **three academic years** will be terminated from the programme. However, such a student can re-join another M.Tech Programme in the College as a fresh student to the First Year, as governed by Section 4.3.

12.5 Student's Feedback

- 12.5.1 The college obtains feedback from students on their course work and various academic activities conducted. The feedback is obtained on-line from the students at regular intervals maintaining confidentiality.
- 12.5.2 The feedback received from the students is reviewed/discussed by a committee constituted for the purpose and necessary corrective measures shall be taken.

12.6 Graduation Ceremony

- 12.6.1 The college conducts annual Graduation Day ceremony for the award of degrees to students completing the prescribed academic requirements. The Graduation Day is conducted after the university convocation.
- 12.6.2 The college awards ranks and medals to the meritorious students during the Graduation Day Ceremony to encourage the students to strive for excellence.

13. INTERPRETATION

Any question as to the interpretation of these rules and regulations shall be decided by the college, whose decision shall be final and binding on the student in the matter. The college shall also have the power to issue clarifications to remove any doubt, difficulty or anomaly, which may arise in regard to the implementation of these regulations.

:: NOTE ::

These rules and regulations may be altered/changed from time to time by the academic council. Failure to read and understand is not an excuse



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EVENTS FOR THE ACADEMIC YEAR 2016-17
M.TECH. PROGRAMMES

| SEM | SNo | EVENT | DATES (S) |
|----------------------|------------|--|------------------------------------|
| ODD SEMESTER | 1 | Course registration and Commencement of for First Semester | 08.09.2016 |
| | 2 | Induction program for fresher's | 05.10.2016 |
| | 3 | CIE: Test#1 | 3 rd week of October |
| | 4 | CIE: Test#2 | 4 th week of November |
| | 5 | CIE: Flexible assessment component | 3 rd week of December |
| | 6 | CIE : Lab Tests | 09.12.2016 to 15.12.2016 |
| | 7 | Last working day | 30.12.2016 |
| | 8 | SEE (Semester End Examination) | 04.01.2017 to 16.01.2017 |
| | 9 | Make up examination | 01.02.2017 to 08.02.2017 |
| | 10 | Vacation for students | 17.01.2017 to 11.02.2017 |
| EVEN SEMESTER | 11 | Course registration for even semester | 13.02.2017 & 14.02.2017 |
| | 12 | Commencement of even semester classes | 15.02.2017 |
| | 13 | CIE: Test#1 | 4 th week of March 2017 |
| | 14 | CIE: Flexible assessment component | April 2017 |
| | 15 | CIE: Test#2 | 4 th week of May 2017 |
| | 16 | CIE : Lab Tests/Self-study assessment | 01.06.2017 to 10.06.2017 |
| | 17 | Last working day | 12.06.2017 |
| | 18 | SEE (Semester End Examination) | 18.06.2017 to 30.06.2017 |
| | 19 | Make up examination | 15.07.2017 to 22.07.2017 |
| | 20 | Vacation for students | 01.07.2017 to 31.07.2017 |