ACADEMIC REGULATIONS

1. ACADEMIC PROGRAMMES
   1.1 The institute offers Bachelor of Technology (B.Tech.), Master of Technology (M.Tech.) and Master of Computer Applications (MCA) programmes of Manipal University.
   1.2 Duration of the B.Tech. programme is 8 semesters.
   1.3 Duration of M.Tech. and MCA programme is 4 semesters.
   1.4 The maximum duration for a student for complying with the Degree requirement is twice the duration of the academic programme from the date of joining.

2. ADMISSION PROCEDURE
   2.1 Undergraduate Programme (B.Tech.):
       Eligible students are admitted on the basis of the rank obtained in the All India Manipal University Online Entrance Test. Seats are reserved for NRI/Foreign students.
   2.2 Post Graduate Programmes (M.Tech / MCA):
       Eligible students are admitted on the basis of the rank obtained in the All India Manipal University Online Entrance Test. Seats are reserved for NRI/Foreign students.

3. ELIGIBILITY FOR ADMISSION
   3.1 Undergraduate Programme (B.Tech.):
       3.1.1 Pass in 10+2 or equivalent with Physics, Mathematics and English as compulsory subjects along with Chemistry / Biotechnology / Biology / any technical vocational subjects as optional; with a minimum of 50% marks taken together in Physics and Mathematics and any one of the optional subjects.
       3.1.2 Holders of three years Diploma in Engineering awarded by the Board of Technical Education in Karnataka or equivalent / B.Sc. Degree with Mathematics as one of the subjects; securing an aggregate of at least 50% marks are eligible to join Third semester under lateral entry scheme.
       3.1.3 Eligible NRI / Foreign students are admitted based on their qualifying examination performance.

3.2 Post Graduate Programmes:
   3.2.1 M.Tech.:
       3.2.1.1 BE / B.Tech. / AMIE or equivalent in relevant branch with a minimum of 50% aggregate marks in qualifying examination
       3.2.2 M.Tech. (Part-time):
           3.2.2.1 Faculty/Staff sponsored from Manipal University only are eligible to do part-time M.Tech. programme.
           3.2.2.2 Duration of M.Tech. (Part time) programme is 6 semesters.
   3.2.3 MCA:
       3.2.3.1 A bachelor's degree in Computer Applications / Computer Science / Information Technology with a minimum of 50% aggregate marks in the qualifying examination.
       3.2.3.2 Eligible NRI / Foreign students are admitted based on their qualifying examination performance.

4. ACADEMIC PROCESS
   4.1 Registration:
       4.1.1 Students have to register for the courses with the parent department at the commencement of each semester on the day notified in the academic calendar.
   4.2 Pre-registration:
       4.2.1 Students need to pre-register for elective courses (both program & open electives) with their department for the next semester as notified in the academic calendar.

4.3 Academic Term:
   4.3.1 Semester system of 16 weeks duration with continuous and comprehensive assessment is followed.
   4.3.2 Each semester has a specified course structure.
   4.3.3 The first year B.Tech. course structure is common to all branches of Engineering.
   4.3.4 The medium of instruction for all courses offered is English.
   4.3.5 Eighth semester of B.Tech. programme, fourth semester of MCA programme as well as third & fourth semesters of M.Tech. programme is fully dedicated to project work.

4.4 Course Numbering:
   4.4.1 The courses offered by each Department are coded with 3 letters indicating the department offering the course followed by 4 digits.
   4.4.2 First digit indicates the level, second digit indicates semester offered (1: offered in ODD; 2: offered in EVEN; 0: offered in BOTH) and the last two digits indicate the serial number.

4.4.3 The following codes are used for different departments:

<table>
<thead>
<tr>
<th>DEPARTMENT</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aeronautical and Automobile Engineering</td>
<td>AAE</td>
</tr>
<tr>
<td>Bio-medical Engineering</td>
<td>BME</td>
</tr>
<tr>
<td>Bio-Technology</td>
<td>BIO</td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>CHE</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>CIE</td>
</tr>
<tr>
<td>Computer Science and Engineering</td>
<td>CSE</td>
</tr>
<tr>
<td>Electronics and Communication Engineering</td>
<td>ECE</td>
</tr>
<tr>
<td>Electrical and Electronics Engineering</td>
<td>ELE</td>
</tr>
<tr>
<td>Information and Communication Technology</td>
<td>ICT</td>
</tr>
<tr>
<td>Instrumentation and Control Engineering</td>
<td>ICE</td>
</tr>
<tr>
<td>Mechanical and Manufacturing Engineering</td>
<td>MME</td>
</tr>
<tr>
<td>Mechatronics</td>
<td>MTE</td>
</tr>
<tr>
<td>Print and Media Engineering</td>
<td>PMT</td>
</tr>
<tr>
<td>Physics</td>
<td>PHY</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CHM</td>
</tr>
<tr>
<td>Mathematics</td>
<td>MAT</td>
</tr>
<tr>
<td>Humanities and Management</td>
<td>HUM</td>
</tr>
<tr>
<td>Computer Applications</td>
<td>MCA</td>
</tr>
</tbody>
</table>

4.5 Credit Based System:
   4.5.1 Each course, theory as well as practical, is expressed in terms of a certain number of credits. The credits are determined by the number of contact hours per week. For theory courses, 1 Hour Lecture / Tutorial per week is assigned 1 Credit, where as for practical courses 3 contact hours per week is assigned 1 Credit.
   4.5.2 Course work in each semester is expressed in terms of a specified number of credits. A student successfully completes a particular semester when he/she earns all the credits of that semester. A student earns full credits for a subject registered if he/she secures letter grade E or higher.
   4.5.3 Promotion of a student to higher semesters is based on securing a prescribed minimum number of credits.

4.6 Assessment:
   4.6.1 The academic performance of a student is assessed by the course instructor/s concerned.
4.6.2 The student performance in each theory course is evaluated out of 100 marks, of which 50 marks are for in-semester assessments and 50 marks are for end-semester assessments.

4.6.3 The in-semester assessment in theory courses is based on periodic tests, assignments, quizzes, case presentations, seminars etc. which shall be defined by the course instructor.

4.6.4 The student performance in laboratory courses is also evaluated out of a maximum of 100 marks, and is based on in-semester assessment of 60 marks and examination conducted for 40 marks.

4.6.5 Course Instructors are to give the complete course plan approved by the HoD, at the beginning of the semester. Course plan includes lesson plan & evaluation plan of the course offered.

4.6.6 Course instructors are to give regular feedback on the performance of students.

4.6.7 The performance of a student in a course is reflected in the Letter Grade awarded.

4.7 Attendance Requirements:

4.7.1 All students must attend every lecture, tutorial and practical classes.

4.7.2 A student with less than 75% attendance in individual courses shall not be permitted to write the end semester examination in that course and will be given DT letter grade in the course.

4.7.3 The aggregate percentage of attendance of the student during the semester will be entered in his/her grade sheet of that semester.

4.8 Grading System:

4.8.1 10 point grading system shown is used for awarding letter grade in each course.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>A+</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>AP</th>
<th>F/I/DT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade Points</td>
<td>10</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

AP: Audit Pass    F: Failure    I: Incomplete    DT: Attendance shortage

4.8.2 The overall performance of a student in each semester is indicated by the Grade Point Average (GPA) which is the weighted average of the grade points expressed as

$$\text{GPA} = \frac{\sum_{i=1}^{n} G_i C_i}{\sum_{i=1}^{n} C_i}$$

where

- $n =$ Number of courses registered
- $C_i =$ Course credits
- $G_i =$ Grade points

4.8.3 The overall performance of the student for the entire programme is indicated by the Cumulative Grade Point Average (CGPA) which is the weighted average of the GPA of all semesters expressed as

$$\text{CGPA} = \frac{\sum_{j=1}^{N} \left( \frac{\sum_{i=1}^{n_j} G_i C_i}{\sum_{i=1}^{n_j} C_i} \right)}{\sum_{j=1}^{N} (\sum_{i=1}^{n_j} C_i)}$$

where

- $N =$ Number of Semesters

4.8.4 Evaluation of Project Work Dissertation/ Thesis

4.8.4.1 Eighth Semester B.Tech.:  
4.8.4.1.1 B.Tech. student shall carry out a Project Work for a minimum of 16 weeks duration.

4.8.4.1.2 The Project Work can be carried out in the institution / industry / research laboratory or any other institution where facilities exist with approval of the parent Department.

4.8.4.1.3 There will be a mid-semester evaluation of the work done on the project after 8-10 weeks. This evaluation will be done by the department concerned and will be out of 100 marks.

4.8.4.1.4 The final evaluation and viva voce will be conducted after the completion of the project work and submission of the project report by a panel of examiners including the internal guide.

4.8.4.1.5 In case of external projects, the feedback of the external guide shall be considered during evaluation.

4.8.4.1.6 The end-semester evaluation of the project work is out of 300 marks.

4.8.4.1.7 The grade awarded to the student will be on the basis of the total marks obtained by him / her out of 400 marks.

4.8.4.2 Second year M.Tech. / Fourth Semester MCA:

4.8.4.2.1 A student of M.Tech. shall carry out a Project Work for a minimum of 36 weeks during the second year of the programme, in the institution/ industry/ research laboratory or any other institution where facilities exist with approval of the parent Department.

4.8.4.2.2 There will be a mid-term evaluation of the work after about 18 weeks by the department concerned. This evaluation will be out of 100 marks.

4.8.4.2.3 In case of the Fourth Semester MCA students, the minimum project duration is 16 weeks and there will be a mid-term evaluation by the department concerned after about 8 weeks.

4.8.4.2.4 The final evaluation will be conducted after the completion of the project work and submission of the dissertation by a panel of examiners consisting of an internal guide.

4.8.4.2.5 In case of external projects, the feedback of the external guide shall be considered during evaluation.

4.8.4.2.6 The end-semester evaluation of the project work is out of 300 marks.

4.8.4.2.7 The grade awarded to the student will be on the basis of the total marks obtained by him / her out of 400 marks.

4.9 Class Committee:

4.9.1 A class committee headed by the Associate Director (Academics) is formed for the first year B.Tech. programme. The section coordinators, course coordinators and student representatives of all sections will be members of this committee.

For III to VIII Semester of B.Tech. programme and for every semester of M.Tech. & M.C.A. programme, separate class committees are constituted by the Heads of the respective departments. The committee is formed with a senior faculty of the Department as Chairman & Course Coordinators/Course Instructors of all courses & student representatives as members.

Course Coordinator: If there is more than one section, one of the senior faculty member is nominated by the HOD as Course Coordinator.

Functions of the Class Committee:

The class committee will meet thrice in a semester.

The first meeting will be held within two weeks from the commencement of the semester in which the course plan, evaluation plan etc. are discussed.

The second meeting will be held two weeks after the first test to collect feedback and improve the effectiveness of the teaching learning process. Performance of the students in the tests may also be analyzed.

The Chairman of the class committee should send the minutes of the class committee meeting to the Associate Director (Academics) through the Head of the Department after each class committee meeting.
4.12.1 Promotion to Higher Semesters:

4.12.1.1 Promotion of a student from an even semester to the next higher (odd) semester is subject to securing the minimum academic performance specified.

4.12.1.2 To be eligible for promotion to the third semester, a student should have earned a minimum of 25 credits at the end of the second semester.

4.12.1.3 To be eligible for promotion to the fifth semester, a student should have earned a minimum of 70 credits at the end of the fourth semester.

4.12.1.4 To be eligible for promotion to seventh semester, a student should have earned a minimum of 115 credits at the end of the sixth semester.

4.12.2 M.Tech. Courses:

4.12.2.1 A student can start the project work at the beginning of the third semester only if she/he has acquired 40 credits at the end of the second semester, and he/she has to earn all the credits of the first and second semesters, before he/she is permitted to submit the project thesis.

4.12.2.2 A part-time M.Tech student can start the project work at the beginning of the third year, but he/she has to earn all the credits of course work, before he/she is permitted to submit the project thesis.

4.12.3 M.C.A. Course:

4.12.3.1 Promotion of a student from second semester to third semester is subject to securing a minimum of 30 credits at the end of the second semester.

4.13 Academic Probation and Termination of the registration to the programme:

4.13.1 A student who is not eligible for promotion from an even semester to the next higher semester for reasons of not having earned the prescribed minimum number of credits will be required to discontinue the academic programme temporarily. In such case he/she will be put on academic probation for the next academic year and a warning letter shall be issued.

4.13.2 If a student is repeating a semester/s due to poor academic performance, he/she will also be put on academic probation.

4.13.3 The student put on academic probation shall be periodically monitored and mentored by the faculty advisor. He/she can rejoin the academic programme after fulfilling the academic requirements as in 4.11 at the end of the academic probation.

4.13.4 At the end of the academic probation year, if a student fails to acquire the minimum credits to get promoted to next higher semester, his/her registration for the academic programme shall be terminated.

4.14 Rejoining a Programme:

A student who discontinues the academic programme for any reason and rejoins the programme at a later date shall be governed by the rules, regulations, courses of study and syllabi in force at the time of his/her rejoining the programme.

4.15 End-Semester Examination:

4.15.1 The end semester examination will be conducted only in the courses offered in the current semester.

4.15.2 A student should have appeared for the end-semester examination of the prescribed course of study to be eligible for the award of a passing grade in the course.

4.15.3 Only students with attendance ≥ 75% will be permitted to appear for the end semester examination.

4.15.4 A separate minimum of 35% of marks in the end semester examination is essential to be awarded a passing grade in a theory course.

4.15.5 A student who earns a minimum of 5 grade points (E grade) in a course is declared to have successfully completed the course, and earned the credits assigned to that course.

4.15.6 A course successfully completed cannot be repeated for grade improvement. However in special cases students may be allowed to reject and repeat the entire semester with the consent of HoD/Associate Director (Academics).

4.15.7 If a student is eligible for but fails to appear in the end-semester examination due to valid reasons, he/she will be awarded an 'I' grade (incomplete) on the grade sheet. However, it needs approval of Associate Director (Academics).

4.16 Make-up examinations:

4.16.1 Make-up examinations will be held at the end of the semester break to help the students who have got F/I grade in the courses offered during the semester.

4.16.2 The cut-off marks for grades in the make-up examination will be same as those in the regular end-semester examination.

4.16.3 However, for students who have once failed (F grade) in any course, a maximum of C grade only will be awarded in subsequent examinations irrespective of their performance.

4.16.4 Those who miss regular examinations due to valid reasons (I grade) will be allowed to retain whatever grade they secure in make-up examinations.
4.17 Re-registration of courses:
4.17.1 Students with F/I/DT Grade are allowed to re-register for subjects of lower semester along with their regular term subjects by paying the prescribed fees.
4.17.2 Students may not be permitted to re-register in courses if there are clashes in the time table.
4.17.3 Students are allowed to register for a maximum of 36 credits in a given semester.
4.17.4 Students are eligible to get actual grades in re-registered courses.

4.19 Withholding of Results:
Results will be withheld when a student has not paid his/her dues or there is a case of disciplinary action pending against him/her.

4.20 Eligibility for the Award of Degree:
4.20.1 A student will be eligible for the award of the degree if:
4.20.1.1 He/she earns the required number of credits specified for all semesters.
4.20.1.2 He/she has paid all dues to the Institute.
4.20.1.3 No case of disciplinary action is pending against him/her.
4.20.2 Total number of credits required for obtaining:
4.20.2.1 B.Tech. - 170
4.20.2.2 M.Tech. - 75
4.20.2.3 MCA - 80
4.20.3 Minimum CGPA for Graduation is 5.0 and the Maximum that can be earned is 10.

4.21 Audit Courses:
4.21.1 Students have the option of Auditing additional courses with the consent of the course instructor.
4.21.2 On successful completion, the student will be given 'AP' letter grade.
4.21.3 The grade obtained in an audit course will not be used for computation of CGPA.

4.22 Minor Specialization:
4.22.1 Students have the choice of getting a minor specialization along with their degrees by earning 12 credits in the prescribed set of subjects offered as electives.
4.22.2 Minor specialization shall be mentioned in the VIII semester marks card/Transcript along with CGPA.

5. CHANGE OF BRANCH
5.1 Change of branch is allowed on request against vacancies before commencement of the third semester based on academic performance of first year B.Tech.
5.2 Applications for change of branch shall be submitted to the Associate Director (Academics), at the end of the second semester.

6. TRANSFER OF CREDITS
The courses credited elsewhere, in Indian/Foreign University/Institutions/Colleges/certified MOOC by students during their study period at MIT Manipal may count towards the credit requirements for the award of degree. The credit transferred will reduce the number of courses to be registered by the student at MIT. The guidelines of such transfer of credits are as follows:

B.Tech student with consistent academic performance and CGPA \( \geq 7 \) can credit the courses approved by the concerned Department Curriculum Committee (DCC) and ratified by Board of Studies (BoS) in Engineering of Manipal University, in other institutions during 3rd and 4th year and during semester breaks.

Credit transferred will not be used for GPA/CGPA computation. However credit transferred will be considered for the overall credit requirements of the program.

Students can earn external credits only from Indian/Foreign Universities/Institutions with which MU/MIT has a MoU for the above purpose.

Credit transfer can be considered only for the courses at same level or above.

Student must provide all details for the course which he is requesting for credit transfer along with the acceptance letter for the scrutiny of the concerned DCC.

Maximum number of credits that can be transferred by a student shall be limited to 20.

Student has to get minimum passing grades/marks for such courses for which credits transfer is to be made.

Credit transfer availed by a student shall be properly recorded on the academic record(s) of the student.

7. TERMINATION FROM THE PROGRAMME
A student shall be required to leave the institute without the award of the degree, under the following circumstances.

If a student fails to acquire minimum number of credits required to get promoted to next higher semester at the end of academic probation year.

If a student fails to acquire the requirements for the completion of the degree within the maximum permissible period.

If a student is absent for more than 6 weeks at a stretch in a semester without sanctioned leave.

Based on disciplinary action, on recommendation of an appropriate committee and approved by the vice chancellor.