

**ORDINANCES
AND
REGULATIONS**

**for
M.Tech.**

(Applicable for 2003 Admission Onwards)

(With amendments passed till 26th Meeting of Senate)

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

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**Ordinances and regulations for admission to
and award of M.Tech. (Master of Technology) Degree of the
National Institute of Technology Calicut.**

(Effective from 2003 admission onwards with amendments passed till 20th meeting of the Senate)

ORDINANCES

- 0.1 Admission policy shall be decided from time to time by the Board of Governors of the Institute, following the guidelines issued by MHRD, Government of India.
- 0.2 Candidates who have qualified for the award of the Bachelor's degree in Engineering/Technology and who have a **valid GATE(Graduate Aptitude Test in Engineering)** score with minimum percentile fixed by the Senate from time to time are eligible to apply for admission to the M.Tech. Programme.
- 0.3 Notwithstanding what has been stated in 0.2 above regarding GATE applications from candidates **sponsored** by organizations recognized by the Senate and applications from **foreign nationals** received through proper channel may be considered for admission to the M.Tech. Programme **without qualifying in GATE**. Their admission shall, however, be governed by the regulations prescribed by the Senate.
- 0.4 The exact eligibility criteria for admission to the M.Tech. Programme shall be as approved by the Senate of the Institute from time to time and announced by the Institute for admission each year.
- 0.5 The normal duration of the M.Tech. Programme including project work shall be **four semesters**. Candidates may be permitted to do their project work in industry and other approved organizations as prescribed in the regulations.
- 0.6 The award of the M.Tech. Degree shall be in accordance with the regulations of the Senate of the Institute.

REGULATIONS

R1.0 Admission

R1.1 The admission policy and procedure are as decided from time to time by the Board of Governors (BOG) of the Institute following the guidelines from MHRD, Govt. of India.

R1.2 Candidates who have VALID GATE (Graduate Aptitude Test in Engineering) score are eligible to apply for M.Tech. Programme as full time scholars.

R 1.3 Candidates **sponsored under Quality Improvement Programme** or other similar programmes are also eligible to apply.

R1.4 Candidates **sponsored by the Industries**, established Institutes/R&D Organisations/National laboratories are also eligible to apply.

R1.5 **Foreign nationals** whose applications are received through **Indian Council of Cultural Relations**, Government of India are also eligible to apply.

R1.6 The eligibility criteria for admission including the minimum GATE score required for admission as full time students will be decided by the Senate.

R1.7 Reservation Policy as decided by the BOG following the directives of MHRD will be followed.

R1.8 The Post-graduate Admissions Committee constituted by the Chairman, Senate will decide on the operational aspects of selection of candidates based on the criteria laid down by the Senate.

R1.9 Vacancies, if required to be filled up after the admission date will be decided by the Chairman, Senate and reported to the senate for post-facto approval.

R 1.10 The fee structure is as decided by the Board of Governors from time to time.
The mode of payment is as decided by the Senate from time to time.

R 1.11 Minimum duration of M.Tech. Degree programme is 4 semesters. In any case, a student must complete the programme within a period of 5 years.

R 1.12 Normally, a candidate is allotted a branch of study at the time of admission. However, change of branch is permitted before the closure of admission depending upon the merit of the candidate and availability of vacancies.

R 1.13 Award of degree shall be made by the Institute in accordance with the regulations framed by the Senate of the Institute.

R 2.0 Structure of the M.Tech. programme

R 2.1 The programme of instruction for each stream of specialization will consist of

- i. Core courses (compulsory)**
- ii. Elective courses**
- iii. Laboratory/Seminar/Mini Project/Industrial Training &**
- iv. Project work and dissertation**

The student may be required to give one or more seminars and undergo industrial/practical training during the programme.

R 2.2 The complete programme will be of **4 semester's duration**. The academic programmes in each semester may consist of course work and/or project work as specified by the Senate for each specialization.

R 2.3 Every stream of specialization in the programme will have a curriculum and syllabi for the courses approved by the Senate. The curriculum should be so drawn up that the minimum number of credits for successful completion of the M.Tech. programme of any stream is not less than a minimum which varies

slightly for different departments, from 57 to 63. From 2010 admission onwards the minimum credits for successful completion of the M.Tech. programme for any stream is 60 credits.

R 2.4 Credits will be assigned to the courses based on the following general pattern:

- i. **One credit** for each lecture period
- ii. **One credit** for each tutorial period
- iii. **One credit** for each laboratory or practical session of two periods
- iv. **Two credits** for each laboratory or practical session of more than two periods.
- v. Credit for the seminar, project work and industrial/practical training will be as specified in the curriculum approved by the Senate.

R 2.5 A student will have to register in all the **core courses** listed in the curriculum of his/her selected area of specialization and successfully complete all of them. However, the Departmental Consultative Committee may grant permission to a student not to register for some of the core courses and substitute them by some other courses depending on the courses successfully completed by the student in the undergraduate programme.

This has to be intimated to and approved by the Dean of Post Graduate Studies & Research.

R 2.6 **Electives** will have to be taken from the courses offered in that particular semester from among the list of approved courses as per the curriculum.

R 2.7 A Student who has acquired the minimum number of total credits for the award of the degree will not be permitted to register for more courses to improve his cumulative grade point average *after completion of the course and project requirements. However, during the third semester, along with the project, a student can register for a maximum of two theory courses in addition to the courses as per curriculum.* These two additional courses permitted will be inclusive of any courses in which he/she has failed in the earlier semesters. This may be for the purpose of improving their CGPA, but

such courses once taken cannot be cancelled if the student failed to improve the CGPA. No additional courses other than failed courses will be allowed in the fourth semester. The total number of credits for such students who take overload will be more than the minimum prescribed by the curriculum. Students who take theory courses in third or fourth semesters will not be permitted to do their project work in industry as per R.22 below.

R 2.8 The medium of instruction, examination, seminar & project reports will be English.

R 3.0 Programme Coordinator

R 3.1 To help the students in planning their courses of study and for getting general advice on academic programme, the concerned Department will assign a Programme Coordinator for each M.Tech. programme. Each Programme Coordinator shall keep a record of the academic activities of students registered for the particular M.Tech. programme. In the case of M.Tech. programmes having more number of students, the Programme Coordinator in consultation with the HOD may avail the services of a few Faculty Advisers (FA). However, the Programme Coordinator will be the overall in charge in all matters concerning the students' work and progress.

R 4.0 Class Committee

R 4.1 For Semester I and II of M.Tech., a Class Committee for each programme will be constituted by the Head of the Department as follows:

Chairman : PG Professor/Programme Coordinator of the concerned
M.Tech. programme nominated by the HOD.

Members :1) All Teachers handling classes for the M.Tech. programme.
2) One student member from the M.Tech. programme.

R 4.2 The term of the Class Committee shall be one Semester

R 4.3 *The basic responsibilities of the class committee are:*

- a) To review periodically the progress of the classes, to discuss problems concerning curricula and syllabi and the conduct of the classes.
- b) The type of assessment for the course will be decided by the teacher in consultation with the class committee and will be announced to the students at the beginning of the semester.
- c) Each class committee will communicate its recommendations to the Head of the Department and the Dean, Academic (PG).
- d) The class committee without the student members will also be responsible for the finalisation of the semester results.

R 4.4 The class committee is required to meet at least twice in a semester once at the beginning of the semester and another after the end-semester examination to finalise the grades.

R 5.0 Registration and Enrolment

R 5.1 For the first semester every student has to enroll and register for the courses he/she intends to undergo on a specified day notified to the student. The concerned Programme Coordinator/Faculty advisers will guide the students in the registration process.

R 5.2 For the subsequent semester registration for the courses will be done by the Programme Coordinators/Faculty Advisers during a specified week before the end semester examination of the previous semester. The Registration card will give details of the core and elective courses, project and seminar to be taken in a semester with the number of credits. The course category should be as approved by the Senate. The student should consult his/her Programme Coordinator/Faculty Adviser for the choice of courses. The registration card is then filled in triplicate and signed by the student and the Programme Coordinator/Faculty Adviser.

R 5.3 A student has to pay the semester fees before the day of registration or as per the schedule announced by the Dean, Academic (PG).

R 5.4 From the second semester onwards, **all students have to enroll on a specified day at the beginning of the semester.** A student will become eligible for enrolment only if he/she satisfies R.7.1 and in addition he/she should have cleared all dues to the Institute, Hostel and the Library upto the end of the previous semester and also he/she should not have been debarred from enrolment by the competent authorities.

If for any compelling reasons a student is unable to register on the day of registration, then he/she can register on or before the late registration day specified in the academic calendar on payment of late registration fee of Rs.250/- together with the usual fees.

R 5.5 **Withdrawal from a course registered** is permitted *within two weeks* from the date of commencement of the semester. Substitution by another course is not permitted. The number of courses remaining registered after withdrawal should enable the student to earn the credits required to continue the studies as indicated under R.7. Courses withdrawn will have to be taken when they are offered next, if they belong to the list of core courses which are compulsory.

R 5.6 In extraordinary circumstances like medical grounds, a student may be permitted by the Dean, Academic (PG) to withdraw from a semester completely. **Normally a student will be permitted to withdraw from the programme only for a maximum continuous period of two semesters.**

R 6.0 Attendance

R 6.1 Students are required to attend all the classes without fail. For unavoidable reasons, if leave of absence is required, then application for leave should be submitted to the concerned HOD with the recommendation of the Programme Coordinator/Faculty Adviser, within three days of returning from leave or before the last instructional day of the semester whichever is earlier.

- R 6.2 A candidate who has not attended 80% of classes (course wise) is not eligible to appear for the end semester examination of the respective courses. Also, he/she shall be awarded **W** grade for those courses.
- R 6.3 Those who have 80% or more attendance for the period other than their medical leave be considered for condonation of shortage of attendance provided the overall attendance in the course including the period of illness does not fall below 50%. Application for condonation recommended by the Programme Coordinator/Faculty Adviser, concerned Faculty and the HOD is to be submitted to the Dean, Academic (PG) on or before the last instructional day of the Semester. The Dean, Academic (PG), depending up on the merit of the case may permit the student to appear for the end semester examination. A student will be eligible for this concession at the most once during the M.Tech. degree programme.
- R 6.4 The teacher handling the course must finalise the attendance 3 calendar days before the last instruction day of the course in the semester. The teacher himself will announce the particulars of all students who have attendance less than 80% in that course in the class. Copies of the same should also be sent to the Dean, Academic (PG) and Head of the Departments concerned.

R 7.0 Minimum Requirement to Continue the Programme

- R 7.1 A student should have earned not less than **10 successful credits and a CGPA of 4.0 or above** in the first semester, **20 successful credits and a CGPA of 4.0 or above** at the end of second semester and **30 successful credits and a CGPA of 5.0 or above** at the end of third semester, failing to satisfy this requirement, the student will be asked to leave the programme anytime after first, second or third semester. (The minimum CGPA requirement applicable from 2007 admissions onwards).
- R 7.2 The above stipulation can be relaxed if the student has been permitted by the Dean, Academic (PG) to discontinue temporarily any semester on medical reasons.

R 8.0 Maximum Duration of the Programme

R 8.1 A student is ordinarily expected to complete the M.Tech. programme in **four semesters**.

R 8.2 The Maximum Duration within which the M.Tech. programme is to be completed is **five years** from the date of admission.

R 9.0 Discontinuation from the Programme

R 9.1 Students may be permitted to discontinue the programme and take up a job **provided they have completed all the course work** subject to rules and regulations for the award of the financial support in force in the Institute.

The project work can be done during a later period either in the organization where they work if it has R and D facility, or in the **Institute**. **Such students should complete the project within ten semesters from the date of admission to the programme.** Students desirous of discontinuing their programme at any stage with the intention of completing the project work at a later date should seek and obtain the permission of the Dean, Academic (PG) before doing so.

R 10.0 Discipline

R 10.1 Every student is required to observe disciplined and decorous behaviour both inside and outside the campus and should not indulge in any activity which will tend to bring down the prestige of the Institute.

R 11.0 Leave Rules

R 11.1 All M.Tech. students should apply to the Head of the Department/Course Co-ordinator for leave stating the reasons whenever they are not in a position to attend classes/project work.

R 11.2 Students are eligible for a leave of 8 days per semester in addition to vacation, if any, declared by the Institute

R 11.3 Leave on medical grounds duly supported by medical certificate may be granted to a student upto 7 days per semester.

R 12.0 Assessment Procedure : Tests and Examinations

R 12.1 Assessment will be in the form of continuous evaluation during the semester and end semester examination. The continuous evaluation may be in the form of periodical tests, assignments or combination of both whichever suits the subject best. The teacher will announce the assessment details as decided at the class committee to the student's right at the beginning of the semester.

R 12.2 The total weight for continuous evaluation shall not exceed 60%. The marks awarded for continuous evaluation will be announced at the end of the semester before the commencement of the end semester examinations.

R 13.0 End Semester Examination

R 13.1 There will be one end semester examination of **3 hours duration** in each lecture based subject. In the case of laboratory based subjects a final examination may or may not be conducted. In the case of projects, a viva-voce examination will be conducted at the completion of the project work.

R 13.2 The Weight for the End Semester Examination shall not exceed 60%.

R 14.0 Project Evaluation

R 14.1 At the end of the third semester, thesis work done by the students' shall be assessed by a committee constituted by HOD and will be graded as given under R 14.3. The grade allotted is to be intimated to the academic section for recalculating the CGPA at the end of third semester.

R 14.2 At the end of the 4th Semester all the M.Tech. students shall present his/her thesis work before an evaluation committee constituted by the HOD, which will evaluate the work and decide whether the student may be allowed to submit the thesis or whether he/she needs to carry out additional work. This shall be an open presentation. The Committee will be consisting of Programme Coordinator or his nominee as Chairman, the Guide (as Internal Examiner) and an External Examiner from outside the Department, in a related field, shall conduct the final viva-voce examination. The Department may also opt to invite an external member from outside the Institute if desires so. (*This change will be effective from 2009-10 onwards*). In case the thesis is not acceptable, the candidate shall be asked to carry out additional work and resubmit after a period fixed by the Evaluation Committee, but not less than three months. If the thesis is not accepted again, the matter will be referred to the Senate and the Senate can allow one more chance for submission of thesis if considered necessary.

R 14.3 Letter Grades will be awarded for the Project by the Project Evaluation Committee at the end of Third and Fourth semesters (8 credits for 3rd semester and 12 credits for 4th semester). Further, the continuous internal evaluation for the project conducted by a panel constituted by the Department will award a maximum of 70% of the total and the external examiner appointed for thesis evaluation in the fourth semester will award a maximum of 30% out of the total marks on evaluation.

The Grades allotted for the project during 3rd and 4th semesters will be counted for calculation of CGPA at the end of 3rd and 4th semesters and for the Class awarded for M.Tech. Degree as per R21.0 Class/Division.

A thesis will be accepted only if the grades secured in the 3rd Semester is E or higher and the combined Grade Point Average in 3rd and 4th Semesters for the thesis is not less than 6. In case the GPA secured is less than 6, the candidate will have to repeat the project on the same topic or another topic and the Departmental Project Evaluation Committee will decide the duration.

R 14.4 Final evaluation of Project work will be taken up only after the student completes all the core as well as elective course requirements satisfactorily.

R 15.0 Make-up Examination

R 15.1 Students **who have missed tests on valid reasons** should apply to the concerned teacher indicating the reasons for the absence and teacher shall consider these requests suitably.

R 15.2 Students, **who have missed the end semester examinations on valid reasons**, should make an application to the Dean, Academic (PG) within ten days from the date of the examination missed. Permission to sit for a make-up examination in the subject/s is given under exceptional circumstances like hospitalization or accident to the student etc.

A student who misses this make-up examination will not be normally given another make-up examination.

However, in exceptional cases of illness resulting in the students missing a make-up examination, the Dean, Academic (PG) in consultation with the Chairman of the Senate may permit the student to appear for a second make-up examination.

R 15.3 **For application on medical grounds**, students residing in the hostels should produce a Medical Certificate issued by an Institute Medical Officer only. Students staying outside the campus permanently/temporarily should produce medical certificates from registered medical practitioners and the same should be forwarded by the parents/guardians for the purpose of make-up examinations.

The Dean, Academic (PG) can use his discretion in giving permission to a student to take a make-up examination, recording the reasons for his decision.

R 16.0 Subject - wise Grading of Students into Categories

R 16.1 Letter Grades

The weighted total marks secured by the candidate in each course will be converted into letter grades. The letter grades and the respective grade points are given in the following table:

Letter Grade	S	A	B	C	D	E	F	W	I
Grade Points	10	9	8	7	6	5	0	0	0

A candidate who has registered for a course, but was not permitted to appear for the end semester examination due to reasons including the shortage of attendance will be awarded W grade with grade point 0 for the course. A candidate whose result on any course is pending decision by appropriate body will be awarded I grade for such courses. All I Grades will be converted to actual grades, normally within a week after publication of results of the regular end semester examination. Any I grade which is not converted to regular grade within the stipulated time will be treated as F grade.

R 16.2 A Student is deemed to have completed a subject successfully and earned the credit if he/she secures any letter grade *other than* F, W or I.

A letter grade F in any subject implies failure in that subject.

A subject successfully completed cannot be repeated.

R 17.0 Methods of Awarding Grades

R 17.1 A final meeting of the class committee without the student members will be convened **within fifteen days after the last day of the end semester examination**. The letter grades to be awarded to the students for different subjects will be finalized at this meeting.

R 17.2 **Two copies** of the result sheets for each subject containing the final grade and two copies with absolute marks and the final grade should be submitted by the teacher to the concerned Class Committee Chairman. After finalization of the grades at the Class Committee Meeting; one copy with the absolute marks and one without the absolute marks but having only the grades will be forwarded by the Class Committee Chairman to the Dean, Academic (PG). One copy with absolute marks and the final grade will be sent to the Head of the Department in which the course is offered.

R 18.0 Declaration of Results

R 18.1 The letter grades awarded to the students in each subject will be put up on the departmental notice boards soon after the final class committee meeting. In case a student feels aggrieved, he/she can contact the concerned teacher for a second look at his/her performance but **not later than two weeks** from the commencement of the semester following the announcement of the results. Such student shall have access to his/her answer paper/s in the end semester examination which may be shown to him/her by the teacher/s concerned. If the teacher feels that the case is genuine he/she may re-examine and forward the revised grade, if any, to the Dean, Academic (PG) through the Chairman of the Class Committee with justification for the revision and with intimation to the Head of the Department.

R 18.2 The F grade once awarded stays in the record of the student and is deleted when he/she completes the subject later, indicating also the numbers of attempts made in that course. The CGPA will be accordingly revised deleting the “F” in the earlier attempts in that course. The grade acquired by the student later will be indicated in the grade card of the appropriate semester.

R 19.0 Course Repetition

R 19.1 A student securing ‘F’ or ‘W’ grade in any subject has to repeat it compulsorily when offered next, if the subject is listed as a core subject.

R 19.2 If it is an elective subject, the student has option either to repeat it in order to get a successful grade or take another elective course.

R 20.0 Grade Card

R 20.1 The grade card issued at the end of the semester to each student will contain the following:

- a. the credits for each course registered for that semester
- b. the performance in each subject by the letter grade obtained vide R.17.1

- c. the total number of credits earned by the student upto the end of the semester
- d. GPA of the semester
- e. the Cumulative Grade Point Average (CGPA) of all the courses taken up to and including the semester .

R 20.2 The Grade Point Average (GPA) will be calculated by the formula.

$$\text{GPA} = \frac{\Sigma(\text{C X GP})}{\Sigma \text{C}}$$

Where C = number of credit for a course, GP = the grade point obtained for this course and the sum is over all the courses taken in that semester, including those in which the student has secured F and W grades.

For the Cumulative Grade Point Average (CGPA) a similar formula is used except that the sum is over all the courses taken in all the semesters completed upto the point in time, including those in which the student has secured F & W grades.

R 21.0 Class/Division

Classification is based on CGPA and is as follows:

CGPA	: 8 and above	: First class with distinction
CGPA	: 6.5 and above, but less than 8	: First class
CGPA	: 5 and above, but less than 6.5	: Second Class

R 22. Project work in Industry or other Organisation

R 22.1 Sponsored candidates from Research and Development Organizations which have facilities for research work in the area proposed and those students who get employment in such organization after completion of the course work may be permitted to carry out their project work in such organizations during the third and fourth semesters under the following conditions. Candidates admitted under Quality Improvement Programme and under sponsored

category from academic institutions will not be allowed to do their project work in their parent institutions.

R 22.2 Departmental committee shall examine the requests from such students, and
fix in advance

- i. an internal guide (a faculty member of the Institute)
- ii. area of project work and
- iii. the name and designation of an external guide (Scientists or Engineer in Industry)

R 22.3 Regular candidates can also be permitted to carry out their project work in reputed Research and Development units and other reputed Organizations by fixing an Internal Guide and a competent External Guide from that Organisation.

R 22.4 Students who are allowed to do their project work in Industry under R22.1 after getting employment in the Industry can be allowed to do the project over an extended period if they so desire, for a period not less than three semesters on the employer giving a written permission to do the project in the industry along with their work under a qualified guide from the same industry.

R.22.5 The above details should be submitted to the Dean, Academic (PG) through the Head of the Department and the Dean's approval should be obtained before the commencement of the project.

R 22.6 The students who are permitted to do the project work in an industry as per R.22.1 – R22.4 will have to pay the tuition and other fees to the Institute for the third and fourth semester as well. They will not be eligible to receive any stipend from the Institute if they are receiving any financial support from the industry/institution in which they are doing the project work.

R 23.0 Eligibility for the award of M.Tech. Degree

R 23.1 A student shall be declared to be eligible for the award of M.Tech. degree if he/she has:

- a. registered and successfully completed all the core courses and the project.

- b. Successfully acquired the minimum number of credits prescribed in the curriculum of the given stream within the stipulated time vide R.8.1
- c. No dues to the Departments, Institute, Library, Hostels and
- d. No disciplinary action is pending against him/her.

The award of the degree must be recommended by the Senate and approved by the Board of Governors of the Institute.

R 24.0 Power to Modify

Notwithstanding all that has been stated above the Senate has the right to modify any of the regulations from time to time.

