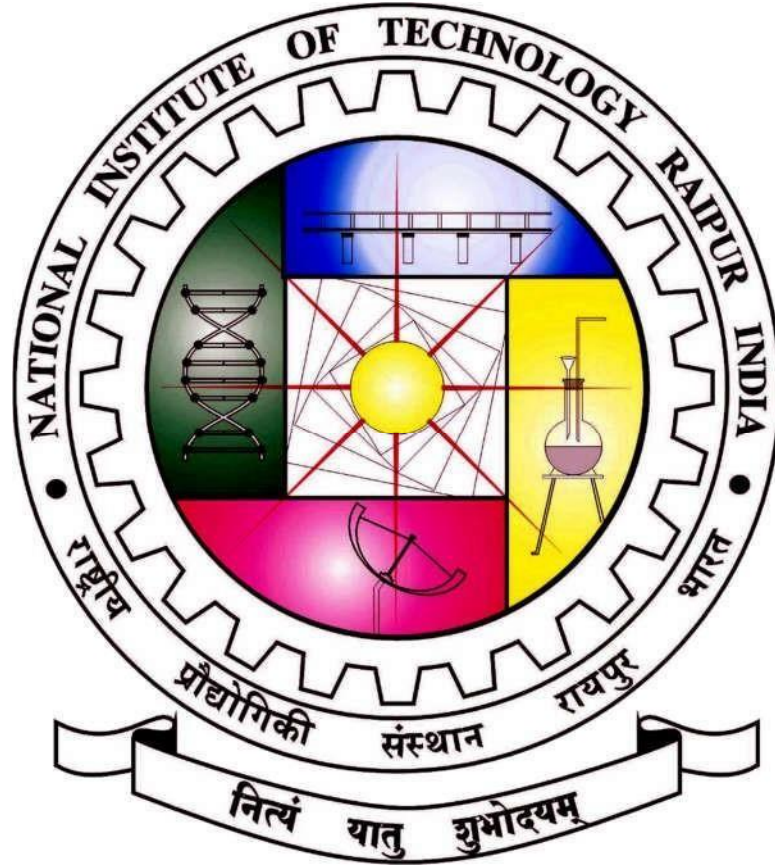# M. Tech. Ordinance, Rules & Regulations

Last updated as on 47th Meeting of Senate with effect from Spring 2022-23

National Institute of Technology Raipur

National Institute of Technology, Raipur
M. Tech. Ordinance, Rules & Regulations
(Applicable w.e.f. Spring 2022)

1. The **degree** "Master of Technology" acronymed as M. Tech. shall be of two years (four semesters) in the branches of Engineering prevalent in the institute at a point of time based on course-credit system.

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2. The **minimum qualification** for admission to the first semester of M. Tech. course shall be the passing of B.E./B.Tech. or equivalent exam with mark-sheet of any recognized university /institute in appropriate branch.

3. **Admission** to the first semester of M. Tech. course shall be as per the seat matrix of the various courses of the Institute and will be through securing a place in merit list of eligible candidates in Graduate Aptitude Test in Engineering (GATE) or competitive examination/interview. Award of scholarship/ fellowship/assistantship will be decided based on merit position of the eligible candidates in competitive examination/interview, presently GATE. The scholarship/fellowship /assistantship will not be offered to the sponsored, non-GATE candidates and to the eligible employees of the institute desirous of pursing M. Tech. courses.

4. One semester EXAMINATION of theory and practical subjects will be generally conducted at the end of each semester called **End Semester Exam (ESE)** in November-December for odd semester and AprilMay for even semester in an academic year along with two more exams called **First Exam (FE)** and **Second Exam (SE)** of only theory subjects during a semester. There will be another component called Teachers' Assessment (TA) in theory and practical subjects. Examination of the backlog subjects will be conducted as supplementary examination as and when required. A candidate will get two attempts to pass subject/semester once in the main examination and other in the next supplementary examination of that semester.

5. **Eligibility of appearing in an End Semester Exam** shall be:
   5.1. Attending minimum 75% classes of each of theory and practical classes in the semester and a short fall in attendance up to 10% and a further 5% can be condoned by the Dean of Academic Affairs and the Director of the Institute respectively for satisfactory reasons. In truly exceptional circumstances the Director may relax attendance requirements with reduction of grade one or two steps lower as it may be thought appropriate with recommendations of a committee.
   5.2. However, there will be no restriction except regular or approved provisional admission in a semester to appear in First Exam (FE) and Second Exam (SE) of theory subjects in the semester.
   5.3. In Teacher's Assessment (TA) component of a course, a student is supposed to obtain 60% or more marks in each course, failing which s/he will not be permitted to appear in End Semester Examination (ESE) of that semester.

6. The eligibility of admission to higher semester will be that the student must have passed the previous lower semester failing which the candidature of such student will be terminated immediately.

7. A candidate may **provisionally continue** one's studies in higher semester after the exam of the semester one appeared is over. The candidate's eligibility to higher semester will be evaluated only after the result of previous semester is out.

8. Once a candidate has passed a semester examination, one shall **NOT** be permitted to reappear in that examination or part thereof with a purpose of **improvement of performance in exam,** such as, division, marks, grades etc.

9. **Basis of Credits** will be {L+(T+P)/2} where L, T and P are number of Lecture, Tutorial and Practical periods respectively. Credit in a course will be a full number and if it falls to be a fractional one then that will be considered as next higher full number.

10. **Passing examination of a semester** will be governed by the following:
    (i). Minimum 40% marks in each theory ESE.
    (ii). Minimum 50% marks in each practical ESE.
    (iii). No minimum requirement in FE & SE.
        (iv) Minimum pass grade (i.e., average grade 'D') should be obtained in each theory and practical course.
    (v). Overall aggregate be 5.5 SPI or above.
    (vi). If any candidate is getting minimum pass or higher grade in all the subjects but is unable to obtain 5.5 SPI in main exam, then s/he will have to appear in the subsequent supplementary examination of one or two theory papers of her/his choice to secure minimum 5.5 SPI failing which her/his admission in the course will be terminated immediately.
    (vii). Division or class will not be awarded in every semester (except final) results.

(viii). Grade in each theory and each practical course will be awarded separately on the basis of summation of marks obtained by a student in the First Exam (FE)*, Second Exam (SE)*, End Semester Exam (ESE) and Teacher's Assessment (TA) in a theory/practical course [* for only theory courses].

11. **Duration of M. Tech.** course shall be minimum 2 years and maximum 4 years. At any earliest point of time during the entire course, if a student is found that despite clearing the remaining course regularly and clearly, s/he will NOT be able to complete the course within maximum permissible time, then s/he will have to relinquish the course at that point of time itself.

Last date of thesis submission for M. Tech. students should be 30th June. In exceptional case, extension can be accorded for submission of thesis. For the purpose, candidate has to apply with justification. The case is to be examined and recommended by a committee consisting of guides, HOD and Dean (R&C). Approval for extension of submission will be given by Dean (Academics) for a period of maximum three months only. Beyond three months, Director's approval is required under extra-ordinary circumstances. However, candidate has to register himself/ herself in every semester and pay institute fee and other dues till he/ she submit the thesis.

12. **Mode of assessment and evaluation** will be continuous one with components as First Exam (FE), Second Exam (SE), End Semester Exam (ESE) and Teacher's Assessment (TA). TA will depend upon attendance, home assignments, take home exams, tests, quizzes, and viva-voce. Weightages of FE, SE, ESE and TA will be as given in the scheme of examination.

13. **Grading System** of evaluation will be followed in every subject of theory and practical. A candidate will be awarded a letter grade based on one's combined performances of End Semester Exam, FE, SE, TA through a number equivalent called "Grade Point (GP)". Semester Performance Index (SPI) and Cumulative Performance Index (CPI) will be calculated as given in Appendix-1.

14. Registration

14.1. Every student of M. Tech. program is required to be present and register at the commencement of each semester on the date fixed and notified in the Academic calendar. Registration process will have three components.

(i). Physical presence of the student on the first day of semester.

(ii). Payment of semester fees including any unpaid dues of past semesters, and (iii).

Getting enrolled/registered in the department.

14.2. A student who does not register on the day announced for the purpose may be permitted by Dean Academics in consideration of any compelling reasons for late registration within next 5 working days on payment of additional late fee as prescribed by the Institute. For other compelling reasons such as serious medical problem, a family calamity, participation in a national event or those directed/approved by MHRD in 1st semester, etc, late registration may be permitted by the Director on the recommendation of Dean Academics. The percentage of attendance of students registering late will be calculated from the date of their joining if one is NOT admitted provisionally earlier. However, no special allowance may be claimed by the student in the matter of assessment/evaluation or grading.

14.3. On the rare case of transfer from other NITs after the semester commences, such a student must produce one's attendance statement from the concerned institution in each subject at the time of admission.

14.4. Only those students will be permitted to register who have (i) cleared all the institute and hostel dues of the previous semesters, (ii) paid all required fees of the current semester, (iii) not been debarred from registering for a specified period on disciplinary or any other ground (iv) satisfied all the academic requirements and (v) not been struck off from the rolls of the institute.

14.5. A student can register for a full course of 2nd, 3rd and 4th semester provided one has obtained at least minimum required pass grades in 1st, 2nd and lower, 3rd and lower semesters, respectively.

14.6. Except in 1st semester the tuition fees etc will be paid semester wise and not year wise.

14.7. The classes of all semesters will start from the day following the registration or any other day as decided by the senate.

15. Classes and attendance

15.1. Academic program is primarily based on the teaching-learning process. Therefore, attendance in classes, participating in class room discussions and thus in the **continuous evaluation process** are the most essential components of the academic programmes. All teachers and student are to see that the number of classes scheduled for a course under the approved and declared **academic calendar** and time table must be held during the semester and examinations be conducted.

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15.2. If because of personal leave or official duty a teacher is unable to conduct a class on the scheduled time, s/he will conduct the **compensatory classes** at a mutually convenient hour for which a teacher may communicate with his class by announcing in the class, by messages on institute/department/hostel notice boards or by e-mail, attendance in these compensatory classes is mandatory for every student.

15.3. A teacher at his discretion, may conduct **additional classes** beyond originally scheduled, particularly when many classes are lost due to holidays or suspension of classes etc. Attendance in these classes is also mandatory for the students.

15.4. **Attendance** of students in all the classes (lectures, tutorials, laboratories, seminars etc.) is **compulsory** Consequently, a student shall be debarred from appearing in an exam or if s/he has already written an examination, the marks/grades obtained will be rejected on ground of unsatisfactory attendance, if the attendance is below what is prescribed in clause 15.5 or if in the opinion of the course teacher the student has not participated effectively in the class in terms of home assignments, class tests, quizzes etc.

15.5.

(i). Attendance in classes is compulsory. However, to provide for **exigencies,** absence to the extent of 15% of scheduled number of classes in every course will be condoned as a matter of routine.

(ii). In deserving cases, a further **relaxation** of 10% (i.e., 25% of scheduled number of classes) may be given by Dean of Academic Affairs and a further relaxation of 5% (i.e., 30% of total) be given by the Institute Director.

(iii). The Institute will fix a **cut-off date** before every exam to compute the percentage of absence.

(iv). In case there are truly exceptional circumstances, the Director as mentioned in clause 5.1 may further **suitably relax** attendance requirements (with reduction of one or two grade/s) as deemed proper with recommendations of a committee constituted for the purpose.

(v). Attendance in every course (theory or practical) of a student will be maintained by the teacher concerned in the following or similar format

Format of Attendance

Attendance	Category
≥85%	"G" Good,
≥70% & <85%	"F" Fair,
≥60% & <70%	"S" Satisfactory,
≥45% & <60%	"P" Poor,
<45%	"V" Very Poor

16. Leave of Absence

It is possible for a student to get leave of absence from classes in deserving cases and such a leave up-to maximum of 10 working days total per semester on recommendation of Professor-in-charge or Head of Department on one of the following grounds:

(i). Participation in inter-NIT or other national level student competitions inside or outside the institute provided a student is selected by competent selection committee to represent the Institute through a process of open selection. A copy of appropriate office order must be enclosed with application along with recommendation of Head of Department (limited to 5 working days per semester). Such a leave will be marked by the teacher as "L" in attendance register.

(ii). For officially arranged placement programmes on recommendation of Professor Training and Placement (limited to 5 working days per semester).

(iii). For academic work or presentation of papers related to final year project, if project involves visit to industry or other institutes or to participate in a conference. The application must be duly recommended by the project guide and relevant document to be enclosed and should be approved by Head of Department (limited to maximum of 5 working days per semester)

(iv). Family functions (social or religious), illness of family members, participation in student activities such as organizing functions, raising money, preparing for or appearing in other examinations including competitive ones, searching for jobs etc are NOT adequate grounds for leave of absence.

(v). Normally, a student is supposed to get his leave of absence sanctioned from Head of Department prior to proceeding on leave. After this after coming back from leave s/he will give a list of missed classes (course wise) along with HoD's letter of leave approval to the teachers concerned and the student will be deemed to be present in the classes during those many periods (subject to maximum 5 days) for the purpose of computing unauthorized absence from classes.

17. In case a regular student, who has completed the required course credits of theory and practical subjects, gets a job and wants to join the job while continue to work towards his/her M. Tech. dissertation can be allowed to do so under following provisions:

1. Such student can be converted to sponsored category on the production of sponsorship certificate and shall continue to study as a regular sponsored student.

2. If such student is NOT able to get the sponsorship from his/her employer, then

    i. The said student must produce a NoC from the competent authority (Employer) stating that the organization has no objection if such a student continues to work towards his/her M. Tech. dissertation. Also, that he/she shall be permitted to visit the Institute (NIT Raipur) for progress seminar and other evaluation/monitoring processes as and when scheduled by the Institute. ii. Such a student needs to mandatorily take a person working in his/her organization, who possesses at least M. Tech. degree in the relevant field and who is willing to guide the student as a co-supervisor. This co-supervisor will then be coopted by the DAC of the department. Such a student will continue working under this co-supervisor, in consultation with his/her supervisor in the Institute, at his/her place of work. iii. Such a student needs to deliver his/her progress seminar/presentation, comprehensive examination, and other evaluation processes alongwith other regular students in the department as per the academic calendar and as and when scheduled by the supervisor/department.

    iv. Such a student needs to inform the department well before (at least four weeks before) their date of joining the job and must obtain permission to do so. Registration of a student who joins a job without obtaining prior permission from the department will be terminated on the recommendation of the DAC/Head.

    v. Such student can be allowed a withdrawal for a period not more than one year at a time, if required, by the approval of Chairperson, Senate on the recommendation of the DAC. However, this withdrawal will be COUNTED towards calculation of maximum duration of the program as per clause 11 of the existing M. Tech. ordinance.

    vi. Scholarship/Assistantship shall not be payable to such student. The student must register and pay required fee in every semester as per the existing ordinance. In case a student fails to register and pay fee for a semester then his/her registration shall be automatically cancelled.

    vii. Notwithstanding any of the above, a student is expected to keep him/herself abreast of the schedule of the monitoring/evaluation processes and to mandatorily undergo these. If a student, who has not been granted withdrawal, fails to appear in monitoring and evaluation processes for a complete semester, despite having been informed by the department, then his/her registration can be terminated on the recommendation of the supervisor and the DAC.

In case a regular student, who has NOT completed the required course credits of theory and practical subjects, gets a job and wants to join the job while continuing to work towards his/her M. Tech. degree can also be allowed to do so under above mentioned clauses. However, such a student will have to complete the remaining required course credits as a regular student by attending the classes of the remaining subjects with the regular students. Sponsorship certificate, etc., as applicable, must be produced by such a student to attend the classes as a regular student.

18. This provision is meant for eligible regular non-teaching employees working in the Institute who wish to upgrade their educational qualification (from B. Tech. or equivalent to M. Tech) while discharging their duty in the Institute. The desirous Institute Employee, henceforth, referred to as 'I.E. candidate' can upgrade his/her educational qualification in accordance with the following rules.

For Admission

i. The I.E. candidate should have passed B.E./B. Tech. degree securing minimum 6.5 CPI/CGPA (on a 10point scale) or min. 60% marks for GEN/GEN-EWS/OBC. SC/ST/PWD IE candidates should have secured minimum 6 CPI/CGPA (on a 10-point scale) or min. 55% marks.

ii. The branch/discipline of the qualifying degree of I.E. candidate must exist in the latest approved list of eligible degrees for the department in which admission is sought.

iii. The desirous eligible I.E. candidate must have completed his/her probation period successfully. He/she must have obtained NOC from the Director of the Institute through proper channel to pursue the course.

iv. Admission shall be offered as per the performance in the exam/interview conducted by the department where the admission is sought.

v. The seats for such selected institute employees shall be over and above the approved intake in the course (Specialization).

Academics

a) An institute employee can opt for maximum 16 credits in a semester in the current scheme of studies. The choice of the subjects must be made so that pre-requisites of the next semester are covered as far as possible. The choice of the subjects (credits) once made in a semester shall not be allowed to be changed later.

b) I.E. candidates must complete the remaining credits as per the present scheme when they would be offered to the regular students next (i.e., in the next academic session).

c) The provisions of clauses 6, 7, 8, 10 and 14th shall be applicable to such an I.E. candidates for the opted (chosen) number of credits only (i.e. for opted theory and / or practical subject only).

d) Such I.E. candidates shall thus be completing the credits of first two/three semesters, whichever is applicable of the current scheme (theory and practical classes) in four consecutive semesters attending the classes with the regular M. Tech. Students.

e) If such an I.E. candidate gets her/his admission terminated as per clause no. 6 and 10 (vi), then such a candidate will not be allowed to get re-admitted for a period of three subsequent years.

f) Such I.E. candidate shall have to complete their dissertation work in their 5_{th} and 6_{th} semester under the guidance of allotted supervisor(s).

g) The department shall encourage such I.E. candidate to start preliminary work for dissertation early from 3rd /4th semesters so that they can complete it by the end of 6th semester. The supervisor(s) to such candidate should be allotted in the beginning of third semester of such candidate.

h) For such I.E. candidates the minimum duration of M. Tech. course shall be 3 years and maximum 4 year. Other provision(s) of clause 11 of the ordinance shall remain unchanged.

i) The grade sheet / mark sheet of a semester to such I.E. candidates shall be provided to them once they complete the credits required for that semester as per current scheme of studies.

All other clauses of the M. Tech. Ordinance in force shall remain applicable and binding to such an I.E. candidates similar to the regular M. Tech. students. Semester Fee at par with the regular M. Tech. students shall be applicable to such I.E. candidates.

19. **Classification:** After successful completion of the programme, degree will be awarded as per the following classifications based on the CPI.

1. Candidates who successfully complete the program in first attempt in all semester and within the stipulated duration of the program, scoring a CPI of 8.00 and above will be declared to have passed in Honours.

2. Candidates passing all subjects with CPI of 7.0 or above but less than 8.0 and those candidates passing all subjects obtaining CPI of 7.0 and above but NOT passing all semesters in first attempt nor within the stipulated duration of the program will be declared to have passes in first class.

3. Candidates who get a CPI of below 7.0 but 5.5 or above and who complete the course within the maximum prescribed period after joining the Institute will be declared to have passed in second class.

[Updated on 47th Senate, dated 10.10.2022]

20. **Eligibility for the degree:** A candidate shall be eligible for the award of the degree of the Master of Technology (M. Tech.) only if the candidate:

(i) has undergone the prescribed programme of study by earning the minimum total number of credits specified in the curriculum of the relevant programme of study within a maximum permissible duration.

(ii) has no dues to the Institution, Library, Hostels, etc.

(iii) has no disciplinary action pending against him/her.

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GRADING SYSTEM

1. As a measure of student's performance, a 7-scale grading system using the following letter grades and corresponding grade points per credit shall be followed

Performance	Letter Grade	Grade point per credit
Outstanding	O	10
Excellent	E	9
Very Good	A	8
Good	B	7
Fair	C	6
Average	D	5
Fail	F	0

2. Calculation of SPI and CPI

Semester Performance Index (SPI) of every student in each semester will be calculated as

$$SPI = \sum_{i=1}^{n} C_i g_i / \sum_{i=1}^{n} C_i = N_i/D_i$$

Where "n" is a number of subjects registered for in a semester, "ci" is the credits allotted to a particular subject and "g", is the grade points carried by the letter corresponding to the grade awarded to a student in a subject, SPI will be recorded upto second place of decimal without rounding off.

Second semester onwards, at the end of each semester, a Cumulative Performance Index (CPI) will be computed for every student as follows

$$CPI_K = \sum_K N_K / \sum_K D_K$$

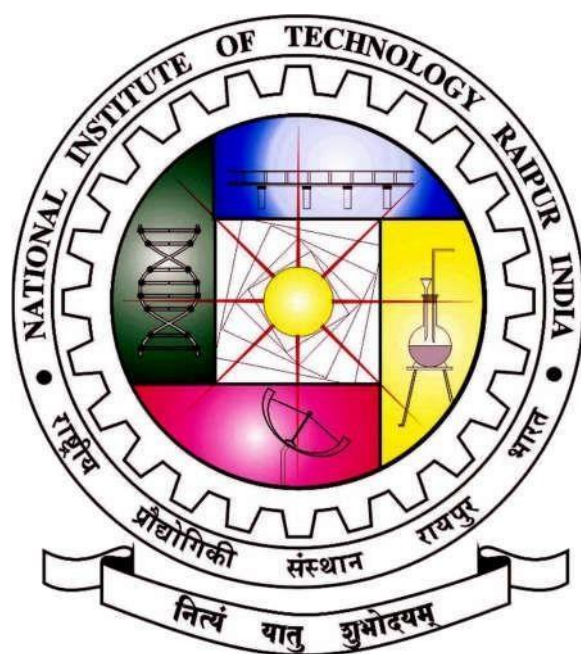## 3. GUIDELINES FOR AWARD OF LETTER GRADES.

Conversion from marks to grade be done using the following table of absolute grading out of maximum 100 marks.

Range of marks for theory	For practical	Grade	Grade Point
$90 \leq M \leq 100$	$92 \leq M \leq 100$	O	10
$80 \leq M < 90$	$84 \leq M < 92$	E	9
$70 \leq M < 80$	$76 \leq M < 84$	A	8
$60 \leq M < 70$	$67 \leq M < 76$	B	7
$50 \leq M < 60$	$59 \leq M < 67$	C	6
$40 \leq M < 50$	$50 \leq M < 59$	D	5
Below 40	Below 50	F	0

4. Conversion formula to convert CPI in to Marks ;

$(CPI – 0.5) x10 = \%$ Marks

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