

JNTU-HYDERABAD

ACADEMIC REGULATIONS FOR M.TECH (REGULAR) DEGREE COURSE

(Effective for the students admitted into first year from the academic year 2009-2010)

The M.Tech Degree of Jawaharlal Nehru Technological University Hyderabad shall be conferred on candidates who are admitted to the program and fulfill all the requirements for the award of the Degree.

1.0 ELIGIBILITY FOR ADMISSIONS:

Admission to the above program shall be made subject to the eligibility, qualifications and specialization prescribed by the University from time to time.

Admissions shall be made on the basis of merit rank obtained by the qualifying candidate at an Entrance Test conducted by the University or on the basis of any other order of merit approved by the University, subject to reservations prescribed by the university from time to time.

2.0 AWARD OF M. TECH. DEGREE:

2.1 A student shall be declared eligible for the award of the M.Tech degree, if he pursues a course of study and completes it successfully for not less than two academic years and not more than four academic years.

2.2 A student, who fails to fulfill all the academic requirements for the award of the degree within four academic years from the year of his admission, shall forfeit his seat in M.Tech course.

2.3 The minimum instruction for each semester 90 clear instruction days.

3.0 A. COURSE OF STUDY:

The following specializations are offered at present for the M.Tech course of

1. Advanced Manufacturing Systems
2. Aerospace Engineering
3. Bio-Technology
4. CAD/CAM "
5. Chemical Engineering
6. Communication Svstems
7. Computer Networks and Information Security
8. Computer Science
9. Computer Science and Engineering
10. Computers and Communication Engineering.
11. Control Svstems
12. Design for Manufacturing/ Design and Manufacturing
13. Digital Electronics and Communication Engineering.
14. Digital Electronics and Communication Svstems
15. Digital Svstems and Computer Electronics
16. Electrical Power Engineering ,
17. Electrical Power Svstems
18. Electronics and Communication Engineering
19. Embedded Svstems
20. Embedded Svstems and VLSI Design
21. Highway Engineering
22. Image Processing

23. Industrial Engineering and Management
24. Information Technology
25. Machine Design
26. Neural Networks
27. Parallel Computing
28. Power and Industrial Drives
29. Power Electronics
30. Power Electronics and Electrical Drives
31. Power Engineering and Energy Systems
32. Power System with Emphasis II. V. Engineering / II.V. Engineering
33. Real Time Systems
34. Software Engineering
35. VLSI
36. VLSI and Embedded Systems
37. VLSI Design
38. VLSI System Design
39. Web Technology
40. Wireless and Mobile Communication

and any other course as approved by the authorities of the University from time to time

3.0 B. Departments officering M.Tech Programmes with specializations mentioned below:

ECE	Communication Systems Computers and Communication Engineering. Digital Electronics and Communication Engineering. Digital Electronics and Communication Systems Digital Systems and Computer Electronics Electronics and Communication Engineering Embedded Systems Embedded Systems and VLSI Design VLSI VLSI and Embedded Systems VLSI Design VLSI System Design Wireless and Mobile Communication
------------	--

CSE	Computer Networks and Information Security Computer Science Computer Science and Engineering Image Processing Information Technology Neural Networks Parallel Computing Real Time Systems Software Engineering Web Technology
ME	Advanced Manufacturing Systems CAD/CAM Design for Manufacturing/ Design and Manufacturing Industrial Engineering and Management / Machine Design
EEE	Control Systems Electrical Power Engineering Electrical Power Systems Power and Industrial Drives Power Electronics Power Electronics and Electrical Drives Power Engineering and Energy Systems Power System with Emphasis H.V. Engineering/ H.V. Engineering
Aeronautical Engg.	Aerospace Engineering
Bio-technology	Bio-Technology
Civil Engg.	Highway Engineering
Chemical Engg.	Chemical Engineering

4.0 ATTENDANCE:

The programs are offered on a unit basis with each subject being considered a unit.

- 4.1 A candidate shall be deemed to have eligibility to write end semester examinations in a subject if he has put in at least 75% of attendance in that subject.
- 4.2 Shortage of attendance up to 10% in any subject (i.e. 65% and above and below 75%) may be condoned by the College Academic Committee on genuine and valid reasons on representation by the candidate with supporting evidence.
- 4.3 A candidate shall get minimum required attendance at least in three (3) theory subjects in the present semester to get promoted to the next semester. In order to qualify for the award of the M.Tech. Degree, the candidate shall complete all the academic requirements of the subjects, as per the course structure.
- 4.4 Shortage of attendance below 65% shall **in no case be condoned.**

4.5 A stipulated fee shall be payable towards condonation of shortage of attendance.

5.0 **EVALUATION:**

The performance of the candidate in each semester shall be evaluated subject-wise, with a maximum of 100 marks for theory and 100 marks for practicals, on the basis of Internal Evaluation and End Semester Examination.

- 5.1 For the theory subjects 60 marks shall be awarded based on the performance in the End Semester Examination, 40 marks shall be awarded based on the Internal Evaluation. The internal evaluation shall be made based on the better of the marks secured in the two Mid Term-Examinations conducted one in the middle of the Semester and the other immediately after the completion of instruction. Each mid term examination shall be conducted for a duration of 120 minutes with 4 questions to be answered out of 6 questions.
- 5.2 For practical subjects, 60 marks shall be awarded based on the performance in the End Semester Examinations, 40 marks shall be awarded based on the day-to-day performance as Internal Marks.
- 5.3 There shall be two seminar presentations during I year I semester and II Semesters. For seminar, a student under the supervision of a faculty member, shall collect the literature on a topic and critically review the literature and submit it to the Department in a report form and shall make an oral presentation before the Departmental Committee. The Departmental Committee consists of Head of the Department, supervisor and two other senior faculty members of the department. For each Seminar there will be only internal evaluation of 50 marks. A candidate has to secure a minimum of 50% to be declared successful.
- 5.4 There shall be a Comprehensive Viva-Voce in II year I Semester. The Comprehensive Viva-Voce will be conducted by a Committee consisting of Head of the Department and two Senior Faculty members of the Department. The Comprehensive Viva-Voce is aimed to assess the students' understanding in various subjects he/she studies during the M.Tech course of study. The Comprehensive Viva-Voce is valued for 100 marks by the Committee. There are no internal marks for the Comprehensive viva-Voce
- 5.5 A candidate shall be deemed to have secured the minimum academic requirement in a subject if he secures a minimum of 40% of marks in the End Examination and a minimum aggregate of 50% of the total marks in the End Semester Examination and Internal Evaluation taken together.
- 5.6 In case the candidate does not secure the minimum academic requirement in any subject (as specified in 5.4) he has to reappear for the End Examination in that subject. A candidate shall be given one chance to re-register for each subject provided the internal marks secured by a candidate are less than 50% and he has failed in the end examination. In such case candidate must re-register for the subject(s) and secure required minimum attendance. Attendance in the re-registered subject(s) has to be calculated separately to become eligible to write the end examination in the re-registered subject(s). The attendance of re-registered subject(s) shall be calculated separately to decide upon the eligibility for writing the end examination in those subject(s). In the event of taking another chance, the internal marks and end examination marks obtained in the previous attempt are nullified.

- 5.7 In case the candidate secures less than the required attendance in any subject(s), he shall not be permitted to appear for the End Examination in that subject(s). He shall re-register the subject when next offered.
- 5.8 Laboratory examination for M.Tech courses must be conducted with two Examiners, one of them being Laboratory Class Teacher and second examiner shall be other Laboratory Teacher.

6.0 EVALUATION OF PROJECT / DISSERTATION WORK:

Every candidate shall be required to submit thesis or dissertation after taking up a topic approved by the Project Review Committee.

- 6.1 A Project Review Committee (PRC) shall be constituted with Principal as chair person Heads of all the Departments which are offering the M.Tech programs and two other senior faculty members.
- 6.2 Registration of Project Work: A candidate is permitted to register for the project work after satisfying the attendance requirement of all the subjects (theory and practical subjects).
- 6.3 After satisfying 6.2, a candidate has to submit, in consultation with his project supervisor, the title, objective and plan of action of his project work to the Departmental Committee for its approval. Only after obtaining the approval of Departmental Committee the student can initiate the Project work.
- 6.4 If a candidate wishes to change his supervisor or topic of the project he can do so with approval of Departmental Committee. However, the Departmental Committee shall examine whether the change of topic/supervisor leads to a major change of his initial plans of project proposal. If so, his date of registration for the project work starts from the date of change of Supervisor or topic as the case may be.
- 6.5 A candidate shall submit status report (in a bound-form) in two stages at least with a gap of 3 months between them.
- 6.6 The work on the project shall be initiated in the beginning of the second year and the duration of the project is for two semesters. A candidate is permitted to submit Project Thesis only after successful completion of theory and practical course with the approval of PRC not earlier than 40 weeks from the date of registration of the project work. For the approval of PRC the candidate shall submit the draft copy of thesis to the Principal (through I lead of the Department) and shall make an oral presentation before the PRC.
- 6.7 Three copies of the Project Thesis certified by the supervisor shall be submitted to the College / School / Institute.
- 6.8 The thesis shall be adjudicated by one examiner selected by the University. For this. Principal of the College shall submit a panel of 5 examiners, who are eminent in that field with the help of the concerned guide and head of the department.
- 6.9 If the report of the examiner is not favorable, the candidate shall revise and resubmit the Thesis, in the time frame as described by PRC. If the report of the examiner is unfavorable again, the thesis shall be summarily rejected.

6.10 If the report of the examiner is favorable, viva-voce examination shall be conducted by a board consisting of the supervisor, Head of the Department and the examiner who adjudicated the Thesis. The Board shall jointly report candidates work as:

- A. Excellent
- B. Good
- C. Satisfactory
- D. Unsatisfactory

Head of the Department shall coordinate and make arrangements for the conduct of viva-voce examination.

If the report of the viva-voce is unsatisfactory, the candidate will retake the viva-voce examination after three months.

If he fails to get a satisfactory report at the second viva-voce examination, he will not be eligible for the award of the degree.

7.0 AWARD OF DEGREE AND CLASS:

After a student has satisfied the requirements prescribed for the completion of the program and is eligible for the award of M. Tech. Degree he shall be placed in one of the following four classes:

Class Awarded	% of marks to be secured
First Class with Distinction	70% and above
First Class	Below 70% but not less than 60%
Second Class	Below 60% but not less than 50%
Pass Class	Below 50% but not less than 40%

(The marks in internal evaluation and end examination shall be shown separately in the marks memorandum)

8.0 WITH HOLDING OF RESULTS:

If the candidate has not paid any dues to the university or if any case of in-discipline is pending against him, the result of the candidate will be withheld and he will not be allowed into the next higher semester. The issue of the degree is liable to be withheld in such cases.

9.0 TRANSITORY REGULATIONS:

Candidate who have discontinued or have been detained for want of attendance or who have failed after having undergone the course are eligible for admission to the same or equivalent subjects as and when subjects are offered, subject to 5.5 and 2.0

10.0 GENERAL:

10.1 The academic regulations should be read as a whole for purpose of any interpretation.

10.2 In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Vice- Chancellor is final.

10.3 The University may change or amend the academic regulations and syllabus at any time and the changes and amendments made shall be applicable to all the students with effect from the date notified by the University.

10.4 Wherever the word he, him or his occur, it will also include she, her and hers.

There shall be no transfers within the constituent colleges of Jawaharlal Nehru Technological University.