

Revised M.Tech Programme (Scheme and Syllabus)
Credits of Different Curriculum Components
(with effect from Academic Session 2021-22)

Curricular Components	Revised Credits Track-1	Weight (Approx) Track-1	Revised Credits Track-2 Research Project	Weight (Approx) Track-2	Revised Credits Track-3 Industry Project	Weight (Approx) Track-3
Departmental Core Courses (DCC)	24	30%	24	30%	24	30%
Departmental Elective Courses (DEC)	22	27%	16	20%	16	20%
Research Oriented Courses (ROC)	31*	38%	37*	45%	37*	45%
Generic Open Elective Courses (GEC)	4	05%	4	5%	4	5%
Grand Total	81	100%	81	100%	81	100%

* including credits for Project/Dissertation

(I) M.Tech Programme Template

FIRST SEMESTER

Subject	L-T-P	Credits	Category
Departmental Core Course-1	3-0-2	4	DCC
Departmental Core Course-2	3-0-2	4	DCC
Departmental Core Course-3	3-0-2	4	DCC
Departmental Core Course-4	3-1-0	4	DCC
Generic Open Elective-I	2-0-0/ 1-1-0/ 0-0-4	2	GEC
Departmental Elective Course-1	3-1-0/ 3-0-2	4	DEC
Total Credits:22			

SECOND SEMESTER

Subject	L-T-P	Credits	Category
Departmental Core Course-5	3-0-2	4	DCC
Departmental Core Course-6	3-0-2	4	DCC
Departmental Elective Course-2	3-0-2/ 3-1-0	4	DEC
Departmental Elective Course-3	3-0-2/ 3-1-0	4	DEC
Departmental Elective Course-4	3-0-2/ 3-1-0	4	DEC
Research Methodology & Publication Ethics	3-1-0	4	ROC
Total Credits:24			

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THIRD SEMESTER

Track-1: Course Work Track

Subject	L-T-P	Credits	Category
Departmental Elective Course-5	3-0-0/ 2-0-2	3	DEC
Departmental Elective Course-6	3-0-0/2-0-2	3	DEC
Generic Open Elective-II	2-0-0/1-1-0/0-0-4	2	GEC
Dissertation-I		6	ROC
Summer Industrial Training/Internship		1	ROC
			Total Credits: 15

Track-2 Research Project

Subject	L-T-P	Credits	Category
Generic Open Elective-II	2-0-0/1-1-0/0-0-4	2	GEC
Research Project Work-I		12	ROC
Summer Industrial Training/Internship		1	ROC
			Total Credits: 15

Track -3 Industry Project

Subject	L-T-P	Credits	Category
Generic Open Elective-II	2-0-0/1-1-0/0-0-4	2	GEC
Industry Project Work-I		12	ROC
Summer Industrial Training/Internship		1	ROC
			Total Credits: 15

FOURTH SEMESTER

Subject	L-T-P	Credits	Category
Dissertation-II/Industry Project Work-II/ Research Project Work-II		20	ROC
			Total Credits: 20

(II) Programme Duration and Structure

1. The M.Tech programme will be of two years duration for full time.
2. A student will be awarded the degree of Master of Technology after earning 81 credits at the end of 4th semester.
3. In the first semester of all M.Tech programmes, there will be four 4 credit Departmental Core Courses (DCC), one 2 credit Generic Open Elective-I course (GEC) and one 4 credit Departmental Elective Course-(DEC). Total 22 credits to be earned in first semester.
4. In the second semester of all M.Tech Programmes, there will be two 4 credit Departmental Core Courses (DCC), three 4 credit Departmental Elective Courses-(DEC). Total 24 credits to be earned in second semester.
5. In the second year, the students can choose any one Track from the following:
 - Coursework Track: Track-1
 - Research Project Track: Track-2
 - Industry Project Track: Track -3

Jandeep kumar
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i. **Coursework Track:** In coursework track, the students will be required to take two 3 credit Departmental Elective Courses-(DEC), one 2 credit Generic Open Elective (GEC) and Dissertation-I for 6 credits. The evaluation of Summer Industrial Training/Internship performed during the summers after first year, will earn them 1 credit. Total 15 credits to be earned in third semester, followed by Dissertation-II of 20 credits in fourth semester.

ii. **Research Project Track:** In Research Project Track, the students will be required to publish research papers, in a refereed Scopus/ SCI/ SCIE journal. The publication evidence for the research paper in the form of an acceptance letter / a reprint to be submitted for award of credits. The student will be permitted for this option by Head of the Department, on submission of her request letter, forwarded by her Mentor/Supervisor.

In addition, one 2 credit Generic Open Elective (GEC) and the evaluation of the Open Area Seminar/Presentation after first year, will earn them 1 credit. Total 15 credits to be earned in third semester, and 20 credits in fourth semester.

iii. **Industry Project Track:** In Industry Project Track, the students will be allowed to join the Industry /National or International Research labs through the University Campus Drives/ TNP Activities. The student will be permitted for 6 months /1 year internship offer by the Head of the Department and the Training and Placement Officer on accessing her request letter which details about the skill development during the period applied for.

In addition, one 2 credit Generic Open Elective (GEC) and the evaluation of Summer Industrial Training/Internship performed during the summers after first year, will earn them 1 credit. Total 15 credits to be earned in third semester, and 20 credits in fourth semester.

(III) Evaluation of Track -1 for Dissertation-I/II (Minor Project/Thesis) will be as per prevailing norms notified for CBCS batches.

In addition, it is proposed that the Minor Project (Dissertation I) to be evaluated by a team consisting of One External Examiner, One Internal Examiner and concerned Guide. The External Examiner will be approved by the Competent Authority from the proposed pool of Examiners by the Head of the Department, considering the area of specialization of the candidate.

For evaluation of Thesis (Dissertation-II), in addition to the Dissertation Report, if the student provides the publication evidence for the research paper in the form of an acceptance letter / a reprint then she maybe considered for evaluation as per Table 1.

Table-1

Publication Category	Marks Range
Excellent/Good/Satisfactory Dissertation Report-II and One Journal paper published in Emerging SCI	93 to 100
Excellent/Good/Satisfactory Dissertation Report-II and one paper published in Scopus indexed Journal/Conference.	85 to 92
Excellent/Good/Satisfactory Dissertation Report-II and two papers published in National/ International Conference/ UGC Care	77 to 84
Excellent/Good/Satisfactory Dissertation Report-II	69 to 76

Indeep kumar
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(IV) Evaluation and Assessment of Track -2 and Track 3

(a) Research Project Track: Track-2

- i. In second year (i.e. III and IV Semester) Track 2 option is for "Research Project". The course will be offered to the students in the III semester. M.Tech Coordinator for each department will monitor/coordinate the progress of all students who have opted for Track 2, in coordination with the Head of the Department and the Mentor/Supervisor for the concerned student.
- ii. At the beginning of III Semester, the student is expected to identify the Research Problem under the mentorship/guidance of her Mentor and present the outcome based report to the Internal Departmental committee, duly constituted by the Head of the Department, during the Mid-Term Evaluations. The final Progress Report Presentation for Research Project Work-I to be evaluated by a team consisting of One External Examiner, One Internal Examiner/M.Tech Coordinator and concerned Guide.

The External Examiner will be approved by the Competent Authority from the proposed pool of Examiners by the Head of the Department, considering the area of specialization of the candidate. The committee will evaluate for award of 12 credits considering the progress of the research, in addition to considering the marking as per Table -2, for her publication/acceptance (if any).

Table-2

Category	Marks Range
Excellent/Good/Satisfactory Progress of Research Project-I and publication in one Scopus Conference	93 to 100
Excellent/Good/Satisfactory Progress of Research Project-I and publication in one National/ International Conference/ Premier Institute/ Research organization/ Technical Club/ committee/ Firm/ UGC Care Journal	85 to 92
Excellent/Good/Satisfactory Progress of Research Project-I and communicated in one National/ International Conference/ Premier Institute/ Research organization/ Technical Club/ committee/ Firm/ UGC Care Journal	77 to 84

- iii. At the end of IV semester, the final presentation will be carried out for the award of 20 credits, as per the M.Tech Evaluation guidelines of the University. The student will request for her final evaluation with evidence for her publication/ acceptance. The publications for which evaluation/credits have been awarded in III Semester will not be considered for IV Semester. She will be evaluated as per Table 3.

Table-3

Publication Category	Marks Range
One Journal paper of impact factor at least 1.0 indexed in SCI/ SCI Expanded	93 to 100
One Journal paper of impact factor less than 1.0 indexed in SCI/ SCI Expanded	85 to 92
One Journal paper indexed in Emerging SCI / Two papers in Scopus indexed Journal	77 to 84
02 UGC Care	69 to 76

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(b) Industry Project Track: Track-3

- i. In second year (i.e. III and IV Semester) Track 3 option is for "Industry Project". The course will be offered to the students in the III semester. M.Tech Coordinator for each department will monitor/coordinate the progress of all students who have opted for Track 3, in coordination with the Head of the Department and the Industry Mentor for the concerned student.
- ii. At the end of III semester, the student who has opted for Industry Project-I will submit the Final Project Report-I for evaluation by the team consisting of One External Examiner preferably Industry Mentor/ Industry Expert and Internal Examiner/M.Tech Coordinator .

The External Examiner will be approved by the Competent Authority from the pool of proposed Examiners by the Head of the Department, considering the area of specialization of the candidate. The committee will evaluate for award of 12 credits considering the progress of the industry project and in addition to the marking as per Table -4, for her publication/acceptance (if any).

Table-4

Category	Marks Range
Excellent/Good/Satisfactory Progress of Industry Project-I and publication in 01 Premier Institute/Industry/ Research organization	93 to 100
Excellent/Good/Satisfactory Progress of Industry Project-I and publication in 01 National/ International Conference/Technical Clubs/ Committee/UGC Care Journal	85 to 92
Excellent/Good/Satisfactory Progress of Industry Project-I	77 to 84

- iii. The Evaluation Committee on Excellent/Good/Satisfactory evaluation report will permit the student to continue for Track 3 in IV semester.
 - a. In an eventuality of slow progress/performance report by the committee the student will not be allowed to proceed further on the Track 3 in IV semester. She will be assigned the Department faculty mentor for completing the Dissertation II on campus and earn 20 credits.
 - b. If the internship is for 6 months duration for III semester, the M.Tech Coordinator in agreement with HOD or the student herself may propose/request for the department faculty mentor for completing her Dissertation II on campus and earn 20 credits.
- iv. At the end of IV semester, the final presentation will be carried out for the award of 20 credits as per the M.Tech evaluation guidelines of the University. The student will request for her final evaluation with submission of Industry Project Report-II duly forwarded by her Industry Mentor with evidence of publication/ acceptance (if any). She will be evaluated as per Table 5.

Jasdeep Kaur
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Table-5

Category	Marks Range
Excellent/Good/Satisfactory Progress of Industry Project-II and publication/filing of patent	93 to 100
Excellent/Good/Satisfactory Progress of Industry Project-II and publication in 01 Premier Institute/Industry/ Research organization	85 to 92
Excellent/Good/Satisfactory Progress of Industry Project-II and publication in 01 National/ International Conference/Technical Clubs/ Committee/UGC Care Journal	77 to 84
Excellent/Good/Satisfactory Progress of Industry Project-II	69 to 76

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