

Master of Technology in Advanced Manufacturing Technology

Department of Mechanical Engineering

(w. e. f. Session: 2022 - 23)

SEMESTER - III

Sr. No.	Course No.	Course Name	L : T : P	Hrs. / Week	Credits	Examination Schedule (Marks)				Duration of Exam (Hrs.)
						Major Test	Minor Test	Practical	Total	
1		Program Elective – V	3 : 0 : 0	3	3	60	40	–	100	3
2		Open Elective	3 : 0 : 0	3	3	60	40	–	100	3
3	MTAMT-201	Dissertation Phase - I	0 : 0 : 20	20	10	–	100	–	100	–
Total				26	16	120	180	–	300	

List of Program Electives-V	
MTIP-201 A	Enterprise Resource Planning
MTIP-203 A	Design of Experiments
MTIP-205 A	Strategic Entrepreneurship

List of Open Electives		
1.	MTAMT-201	Artificial Intelligence
2.	MTAMT-203	Condition Monitoring
3.	MTAMT-205	Machine Vision

SEMESTER - IV

Sr. No.	Course No.	Course Name	L : T : P	Hrs. / Week	Credits	Examination Schedule (Marks)				Duration of Exam (Hrs.)
						Major Test	Minor Test	Practical	Total	
1	MTAMT-202	Dissertation Phase - II	0 : 0 : 32	32	16	–	100	200	300	–
Total				32	16	–	100	200	300	–

Note 1: At the end of the second semester each student is required to do his/her Dissertation work in the identified area in consent of the Guide/Supervisor. Broad area for the Dissertation Part-I is to be specified/submitted within three weeks of the beginning of the Third Semester.

Note 2: Each admitted student is required to submit the report of his/her Dissertation Part-I as per the schedule mentioned in Academic calendar for the corresponding academic session otherwise the Dissertation Part-II cannot be continued at any level.

Fourth Semester

MASTER OF TECHNOLOGY IN ADVANCED MANUFACTURING TECHNOLOGY

Semester - IV

MTAMT-202	DISSERTATION PHASE -II							
Lecture	Tutorial	Practical	Credits	Major Test	Minor Test	Practical	Total	Time (Hrs.)
0	0	32	16	-	100	200	300	-
Objective	The main objective of the course is to make the students able to do some good research in the field of their interests related to advanced manufacturing/Industrial and Production Engineering or interrelated fields of applications.							
Course Outcomes								
CO 1	Students will be able to design solutions for engineering problems that meet the specified needs with appropriate considerations.							
CO 2	Students will be able to conduct investigations of engineering problems using research-based knowledge and experimental/research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.							
CO 3	Students will be able to apply resources and modern engineering tools and techniques with an understanding of the limitations.							
CO 4	Students will be able to either work in a research environment or in an industrial environment.							
CO 5	Students will be conversant with technical report writing, professional ethics, responsibilities and norms of the engineering practice.							
CO 6	Students will be able to present and convince their topic of study to the engineering community.							

The students are required to continue Analytical/Experimental/Computational/Industrial Problems or Case studies investigations in the field of Manufacturing/Industrial and Production Engineering or other related fields which have been finalized in the third semester. They would be working under the supervision of a faculty member.

The students will be required to submit a progress report duly signed by their respective supervisors to the department, related to their dissertation work in the last week of March. The progress report will cover the following:

- The goal set for the period.
- Research papers studied.
- Methodology used in achieving the goal.
- The extent of fulfillment of the goal.
- References

The progress report must be of at least of 3-4 pages and the cover page should include the tentative topic, name of the candidate, name of the supervisor, period of progress report, signature of candidate and supervisor.

The candidate has to prepare a detailed dissertation report consisting of introduction of the problem, problem statement, literature review, objectives of the work, methodology (experimental set up/numerical details/industrial case study etc. as the case may be) of solution and results and discussion. The report must bring out the conclusions of the work and future scope for the study.

The final dissertation will be submitted in the end of semester as per academic calendar for the session, which will be evaluated by internal as well as external examiners based upon his/her research work. At least one publication is expected before final submission of the dissertation from every student in peer reviewed referred journals or reputed conference from the work done by them in their dissertation. The dissertation should be presented in standard format as provided by the department.

The work has to be presented in front of the examiners panel consisting of an approved external examiner, an internal examiner and a supervisor, co- supervisor etc. as decided by the Head and PG coordinator. The candidate has to be in regular contact with his supervisor.