



**School of Engineering and Applied Sciences**  
**Mechanical Engineering Department**  
**MTech in Materials and Manufacturing Technology**  
**Curriculum and Syllabus**

**AY: 2022-2024**

(For students admitted in 2022)

**Department of Mechanical Engineering**  
**SRM University-Andhra Pradesh.**

<b>Semester-I</b>					
<b>Course Code</b>	<b>Course Name</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
MMT561	MECHANICS OF COMPOSITE MATERIALS	3	0	0	3
MMT552	SURFACE ENGINEERING	3	0	0	3
MMT581	NUMERICAL METHODS	3	0	0	3
MMT581L	NUMERICAL METHODS LAB	0	0	2	1
MMT554	ADVANCED MANUFACTURING METHODS	3	0	0	3
MMT554 L	ADVANCED MANUFACTURING METHODS LAB	0	0	2	1
ME MMT562	ME ELECTIVE MECHANICAL BEHAVIOR OF MATERIALS	3	0	0	3
MMT570	SEMINAR	1	0	0	1
<b>Total</b>		<b>16</b>	<b>0</b>	<b>4</b>	<b>18</b>

<b>Semester-II</b>					
<b>Course Code</b>	<b>Course Name</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
MMT556	MATERIALS PROCESSING	3	0	0	3
MMT557	FRACTURE MECHANICS	3	0	0	3
ME MMT560	ME ELECTIVE SMART MATERIALS AND STRUCTURES	3	0	0	3
ME MMT558	ME ELECTIVE ADDITIVE MANUFACTURING	3	0	0	3
ME MMT558L	ME ELECTIVE ADDITIVE MANUFACTURING LAB	0	0	2	1
MMT559	MATERIAL CHARACTERIZATION	3	0	0	3
MMT559 L	MATERIAL CHARACTERIZATION LAB	0	0	2	1
MMT571	SEMINAR	1	0	0	1

RM 101	RESEARCH METHODOLOGY AND IPR	2	0	0	2
<b>Total</b>		<b>18</b>	<b>0</b>	<b>4</b>	<b>20</b>

<b>Semester-III</b>					
<b>Course Code</b>	<b>Course Name</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
MMT ELECTIVE	TBD	3	0	0	3
MMT ELECTIVE	TBD	3	0	0	3
MMT575	PROJECT PHASE 1	0	0	18	9
EGL501 (PC)	ENGLISH FOR RESEARCH PAPER WRITING	1	0	0	1
		7	0	18	16

<b>Semester-IV</b>					
<b>Course Code</b>	<b>Course Name</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
MMT575	PROJECT PHASE 2	0	0	30	15
<b>Total</b>		<b>0</b>	<b>0</b>	<b>30</b>	<b>15</b>

Total 69 hrs

#### ME Electives

1. MMT 562 - MECHANICAL BEHAVIOR OF MATERIALS
2. MMT 558 - ADDITIVE MANUFACTURING
3. MMT 560 – SMART MATERIALS AND STRUCTURES
4. MMT 576 - DESIGN OF EXPERIMENTS
5. MMT 577 - ANALYSIS OF MACHINING PROCESSES
6. MMT 578 - LEAN MANUFACTURING
7. MMT 579 - FINITE ELEMENT METHODS
8. MMT 580 - PROCESSING OF COMPOSITE MATERIALS
9. MMT 582 - RELIABILITY ENGINEERING
10. MMT 583 - QUALITY ENGINEERING
11. MMT 584 - FRACTURE MECHANICS
12. MMT 585 - PRODUCTION AND OPERATION MANAGEMENT
13. MMT 586 - LOGISTICS AND SUPPLY CHAIN MANAGEMENT
14. MMT 587 - TOOL DESIGN
15. MMT 588 - NANOTECHNOLOGY
16. MMT 589 - BIOMATERIALS
17. MMT 590 - RUBBER TECHNOLOGY
18. MMT 591 - COMPUTATIONAL MATERIAL SCIENCE
19. MMT 592 - FUNDAMENTALS OF POLYMER SCIENCE
20. MMT 593- MULTIBODY DYNAMICS