



**SRM**  
UNIVERSITY AP  
—————Andhra Pradesh

**SCHOOL OF ENGINEERING AND SCIENCES**

**M.Tech in Thermal Engineering**

**2023-25 Batch**

*Semester Wise Course Credit Distribution Under Various Categories*

Category	S1	S2	S3	S4	Total	%age
Value Added Courses (UG Common) (VAC)	02	-	-	-	02	2.5%
Skill Enhancement Courses (SEC)	2	2	-	-	04	5%
Multidisciplinary / Interdisciplinary / Foundation Core (FIC)	3	3	-	-	06	7.5%
Major Core (CC) + Specialization (SE) + Core Elective (CE)	16	20	-	-	36	45%
Research / Design / Industrial Practice / Project (RDIP)	-	-	17	15	32	40%
Grand Total			17	15	<b>80</b>	<b>100%</b>

VAC- Community Engagement & Social Responsibility

SEC-Problem Solving or Entrepreneurial mindset or Design Thinking

FIC- Mathematics or AIML or Project Management

### M.Tech in Thermal

<b>Semester-1</b>						
Category	Sub-Category	Course Title	L	T/D	P/Pr	Credits
VAC	University AEC	Community Engagement & Social Responsibility	-	-	1	01*
VAC	University AEC	Research Seminar	-	-	1	01*
SEC1	SEC	Design Thinking	1	-	1	02
CC	CORE	Practical CFD and HT	2	1	1	4
CC	CORE	Thermal Measurements in industries	2	1	0	3
CC	CORE	Advanced Fluid Dynamics	2	1	1	4
CC	CORE	Industrial Heat and Mass transfer	2	1	1	4
Multidisciplinary	School (Eng./Sc.)	Advanced Numerical techniques	2	1	1	4
<b>Semester Total</b>						<b>21</b>
<b>Semester-2</b>						
Category	Sub-Category	Course Title	L	T/D	P/Pr	Credits
VAC	University AEC	Community Engagement & Social Responsibility	-	-	1	1
VAC	University AEC	Research Seminar	-	-	1	1
SEC2	SEC	Entrepreneurial mindset	1	-	1	2
CE	Core Elective	Core Elective	2	1	1	4
CE	Core Elective	Core Elective	2	1	1	4
CC	Core	Thermal design of Electronics Equipment	2	1	1	4
CC	Core	Micro and nanoscale heat transfer	3	0	1	4
CC	Core	Computational techniques for electronic cooling	1	1	2	4
Multidisciplinary	University (PSB)	Project Management	-	2	1	3
<b>Semester Total</b>						<b>27</b>

<b>Semester-3</b>						
<b>Category</b>	<b>Sub-Category</b>	<b>Course Title</b>	<b>L</b>	<b>T/D</b>	<b>P/Pr</b>	<b>Credits</b>
RDIP	Research / Design / Industrial Practice / Project	Thesis (Project)	-	-	14	14
RDIP	Research / Design / Industrial Practice / Project	Industrial Practice			3	3
<b>Semester Total</b>						<b>17</b>
<b>Semester-4</b>						
<b>Category</b>	<b>Sub-Category</b>	<b>Course Title</b>	<b>L</b>	<b>T/D</b>	<b>P/Pr</b>	<b>Credits</b>
RDIP	Internship / Research / Thesis	Thesis	-	-	15	15
<b>Semester Total</b>						<b>15</b>

## List of Core Electives

- |   |  |
|---|--|
| 1 | Introduction to Multiphase flows                   |
| 2 | Design of Heat Exchange equipment                  |
| 3 | Compressible Fluid Flow                            |
| 4 | Transport in Porous Media                          |
| 5 | Turbulence and Shear flows                         |
| 6 | High performance computing in CFD                  |
| 7 | Computational methods for fluid flows              |
| 8 | Modern solution techniques for Electronics Cooling |