



**SREENIVASA INSTITUTE OF TECHNOLOGY AND MANAGEMENT STUDIES**  
(Autonomous)  
**DEPARTMENT OF MECHANICAL ENGINEERING**

**B.Tech R20::HONOR COURSE STRUCTURE AND SYLLABI**

- 1.Student shall earn 20 additional credits to be eligible for the award of B. Tech (Honors) degree (16 credits shall be earned by undergoing specified courses listed as pools, with four courses, each carrying 4 credits, the remaining 4 credits must be acquired through two MOOCs, which shall be domain specific, each with 2 credits and with a minimum duration of 8/12 weeks as recommended by the Board of studies).
- 2.The subjects opted for Honors should be Advanced type which are not covered in regular curriculum
- 3.Students has to acquire 16 credits with minimum one subject from each pool

**POOL-1(Material Science Engineering)**

S.No	Course Code	Course Title	Scheme of Instructions Hours per Week				Scheme of Examination Maximum Marks		
			L	T	P	C	I	E	Total
1	20MECHR1A	Material Testing and Characterization	3	1	-	4	30	70	100
2	20MECHR1B	Composite Materials and Mechanics	3	1	-	4	30	70	100
3	20MECHR1C	Corrosion and Surface Engineering	3	1	-	4	30	70	100
4	20MECHR1D	Processing of Iron and Steel	3	1	-	4	30	70	100

**POOL-2(Manufacturing Engineering)**

S.No	Course Code	Course Title	Scheme of Instructions Hours per Week				Scheme of Examination Maximum Marks		
			L	T	P	C	I	E	Total
1	20MECHR2A	Theory of Metal Cutting and Forming	3	1	-	4	30	70	100
2	20MECHR2B	Advances in Casting and Welding	3	1	-	4	30	70	100
3	20MECHR2C	Micro and Nano Manufacturing	3	1	-	4	30	70	100
4	20MECHR2D	Computer Integrated Manufacturing	3	1	-	4	30	70	100

**POOL-3 (Engineering Design)**

S.No	Course Code	Course Title	Scheme of Instructions Hours per Week				Scheme of Examination Maximum Marks		
			L	T	P	C	I	E	Total
1	20MECHR3A	Creativity and Innovation in Design	3	1	-	4	30	70	100
2	20MECHR3B	Advanced Mechanisms in Design	3	1	-	4	30	70	100
3	20MECHR3C	Vibration Analysis and Control	3	1	-	4	30	70	100
4	20MECHR3D	Design of Pressure Vessels and Piping	3	1	-	4	30	70	100

**POOL-4 (Thermal Engineering)**

S.No	Course Code	Course Title	Scheme of Instructions Hours per Week				Scheme of Examination Maximum Marks		
			L	T	P	C	I	E	Total
1	20MECHR4A	Advanced Thermodynamics	3	1	-	4	30	70	100
2	20MECHR4B	Advanced Heat Power Engineering	3	1	-	4	30	70	100
3	20MECHR4C	Design of Thermal Power Equipment's	3	1	-	4	30	70	100
4	20MECHR4D	Advanced Internal Combustion Engine	3	1	-	4	30	70	100

**BOS-Chairman**

**Principal**