

SRI VENKATESWARA COLLEGE OF ENGINEERING

(Autonomous)

Karakambadi Road, TIRUPATI – 517507

Mechanical Engineering

Semester – 1 (Theory – 4, Lab – 5, MC – 1)

S.No.	Course No	Course Name	Category	L-T-P	Credits
1.	MA20ABS101	Linear Algebra and Calculus	BS	3-0-0	3
2.	CH20ABS101	Engineering Chemistry	BS	3-0-0	3
3.	CS20AES101	Problem Solving using C	ES	3-0-0	3
4.	EE20AES101	Basic Electrical & Electronics Engineering	ES	3-0-0	3
5.	ME20AES101	Engineering Workshop	ES	0-0-3	1.5
6.	CS20AES103	IT Workshop	ES	0-0-3	1.5
7.	CH20ABS102	Engineering Chemistry Lab	BS	0-0-3	1.5
8.	CS20AES102	Problem Solving using C Lab	ES	0-0-3	1.5
9.	EE20AES102	Basic Electrical & Electronics Engineering Lab	ES	0-0-3	1.5
10.	EG20AMC101	Speech & Oral Communication	MC	2-0-0	0.0
				Total	19.5

SRI VENKATESWARA COLLEGE OF ENGINEERING

(Autonomous)

Karakambadi Road, TIRUPATI – 517507

Mechanical Engineering

Semester – 2 (Theory – 6, Lab – 4, MC – 2)

S.No	Course No	Course Name	Category	L-T-P/D	Credits
1.	MA20ABS201	Differential Equations and Vector Calculus	BS	3-0-0	3
2.	PH20ABS101	Engineering Physics	BS	3-0-0	3
3.	EG20AHS101	Communicative English	HS	3-0-0	3
4.	ME20AES201	Material Science & Engineering	ES	3-0-0	3
5.	ME20AES102	Engineering Drawing	ES	1-0-0/2	2
6.	ME20AES103	Engineering Graphics Lab	ES	0-0-2	1
7.	EG20AHS102	Communicative English Lab	HS	0-0-3	1.5
8.	PH20ABS102	Engineering Physics Lab	BS	0-0-3	1.5
9.	ME20AES202	Material Science & Engineering Lab	ES	0-0-3	1.5
10.	BA20AMC201	Mandatory Noncredit Course Universal Human Values	MC	2-0-0	0
	*BA20AHS201	Universal Human Values	HS	3-0-0	3
11.	MA20AMC101	Logical Skills for Professionals – I	MC	2-0-0	0.0
Total					22.5

***UHV Course is considered from 2021 batch with 3 credits.**

SRI VENKATESWARA COLLEGE OF ENGINEERING

(Autonomous)

Karakambadi Road, TIRUPATI – 517507

Mechanical Engineering

Semester – 3 (Theory – 5, Lab – 3, SC – 1, MC – 2)

S. No	Course No	Course Name	Category	L-T-P/D	Credits
1.	MA20ABS301	Complex Variables, Transforms & Application of Partial Differential Equations	BS	3-0-0	3
2.	ME20AES301	Mechanics of Materials	ES	3-0-0	3
3.	ME20APC301	Engineering Thermodynamics	PC	3-0-0	3
4.	ME20APC302	Manufacturing Processes	PC	3-0-0	3
5.	ME20APC303	Kinematics of Machinery	PC	3-0-0	3
6.	ME20AES302	Mechanics of Materials Lab	ES	0-0-3	1.5
7.	ME20APC304	Manufacturing Process Lab	PC	0-0-3	1.5
8.	ME20APC305	Mechanics of Machines Lab (Virtual Lab)	PC	0-0-3	1.5
9.	EG20ASC301	Skill Oriented Course Soft Skills	SC	1-0-2	2
10.	CH20AMC201	Mandatory Noncredit Course Environmental Science	MC	2-0-0	0
11.	EG20AMC301	Enhancing English Language Skills (Lateral Entry Students only)	MC	2-0-0	0
				Total	21.5
12.	*BA20AHS201	Universal Human Values (Lateral Entry Students only)	HS	3-0-0	3

***UHV Course is considered from 2021 batch with 3 credits.**

SRI VENKATESWARA COLLEGE OF ENGINEERING

(Autonomous)

Karakambadi Road, TIRUPATI – 517507

Mechanical Engineering

Semester – 4 (Theory – 5, Lab – 3, SC – 1, MC – 3, AC – 1)

S. No	Course No	Course Name	Category	L-T-P/D	Credits
1.	MA20ABS401	Numerical Methods, Probability and Statistics	BS	3-0-0	3
2.	ME20APC401	Dynamics of Machinery	PC	3-0-0	3
3.	ME20APC402	Machine Tools & Measurements	PC	3-0-0	3
4.	ME20APC403	Thermal Engineering – I	PC	3-0-0	3
5.	BA20AHS301	Humanities Elective – I Managerial Economics and Financial Analysis	HS	3-0-0	3
	BA20AHS302	Business Environment			
	BA20AHS303	Organizational Behavior			
6.	ME20APC404	Computer Aided Machine Drawing	PC	0-0-3	1.5
7.	ME20APC405	Thermal Engineering Lab	PC	0-0-3	1.5
8.	ME20APC406	Machine Tools & Measurements Lab	PC	0-0-3	1.5
9.	CS20ASC301	Skill Oriented Course Real-Time Application of Data Structures	SC	1-0-2	2
10.	ME20AMC401	Mandatory Noncredit Course Design Thinking for Innovation	MC	2-1-0	0
11.	SH20AAC401	Extra Academic Activities (NSS/Yoga/Cultural/Games and Sports/Societal Relationship)	AC	0-0-2	0
12.	MA20AMC401	Engineering Mathematics (Lateral Entry Students Only)	MC	2-0-0	0
13.	MA20AMC301	Logical Skills for Professional – II	MC	2-0-0	0
Total					21.5
14.	Industry / Research Internship (Mandatory) for 4 Weeks During Summer Vacation		-	-	0
15.	Honors/Minor Courses (The Hours Distribution can be 3-0-2 or 3-1-0 also)		-	4-0-0	4

SRI VENKATESWARA COLLEGE OF ENGINEERING

(Autonomous)

Karakambadi Road, TIRUPATI – 517507

Mechanical Engineering

Semester – 5 (Theory – 5, Lab – 2, SC – 1, MC – 2)

S. No	Course No	Course Name	Category	L-T-P/D	Credits
1.	ME20APC501	CAD/CAM	PC	3-0-0	3
2.	ME20APC502	Design of Machine Members	PC	3-0-0	3
3.	ME20APC503	Fluid Mechanics & Hydraulic Machines	PC	3-0-0	3
4.	EC20AOE502 CE20AOE502 EE20AOE503 AM20AOE501	Open Elective – I Digital Electronics Principles of Waste Management Renewable Energy Resources Introduction to Operating Systems	OE	3-0-0	3
5.	ME20APE501 ME20APE502 ME20APE503 ME20APE504	Professional Elective – I Automation & Robotics Industrial Engineering Metal Forming Process Product Design and Development	PE	3-0-0	3
6.	ME20APC504	CAD/CAM Lab	PC	0-0-3	1.5
7.	ME20APC505	Fluid Mechanics & Hydraulic Machines Lab	PC	0-0-3	1.5
8.	ME20ASC501	Skill Oriented Course Additive Manufacturing (Virtual Lab)	SC	1-0-2	2
9.	CH20AMC301	Mandatory Noncredit Course Biology for Engineers	MC	2-0-0	0
10.	IT20AMC501	Problem Solving and Programming (Lateral Entry Students Only)	MC	2-0-0	0
11.	ME20ATS501	Technical Seminar Presentation – I	TS	0-0-0	0.5
12.	ME20ACS501	Community Service Project	CS	0-0-0	1.5
				Total	22
13.	Honors/Minor Course (The Hours Distribution can be 3-0-2 or 3-1-0 also)			4-0-0	4
14.	MOOC/NPTEL Course				2

SRI VENKATESWARA COLLEGE OF ENGINEERING

(Autonomous)

Karakambadi Road, TIRUPATI – 517507

Mechanical Engineering

Semester – 6 (Theory – 5, Lab – 3, SC – 1, MC – 3)

S. No	Course No	Course Name	Category	L-T-P/D	Credits
1.	ME20APC601	Finite Element Methods	PC	3-0-0	3
2.	ME20APC602	Heat Transfer	PC	3-0-0	3
3.	ME20APC603	Thermal Engineering – II	PC	3-0-0	3
4.	ME20APE601	Professional Elective – II Composite Materials	PE	3-0-0	3
	ME20APE602	Design of Transmission Elements			
	ME20APE603	Product Life-Cycle Management			
	ME20APE604	Supply Chain Management			
5.	CS20AOE501	Open Elective – II Computer Applications using programming Tools	OE	3-0-0	3
	CE20AOE601	Disaster Management			
	EE20AOE602	Energy Auditing & Conservation			
	EC20AOE602	Signal Processing			
6.	ME20APC604	Computer Aided Engineering Lab	PC	0-0-3	1.5
7.	ME20APC605	Heat Transfer Lab	PC	0-0-3	1.5
8.	ME20APC606	Instrumentation & Composite Materials	PC	0-0-3	1.5
9.	IT20ASC301	Skill Oriented Course Application Development using Python	SC	1-0-2	2
10.	ME20ATS601	Technical Seminar Presentation – II	TS	0-0-0	0.5
11.	BA20AMC501	Mandatory Course Constitution of India	MC	2-0-0	0
12.	BA20AMC502	Mandatory Noncredit Course Intellectual Property Rights & Patents	MC	2-0-0	0
13.	AM20AMC601	AI Tools Techniques & Applications (Lateral Entry Students only)	MC	2-0-0	0
14.		Industrial/Research Mini Project (Mandatory) 4 weeks during summer vacation.			0
Total					22
15.	Honors/Minor Course (The Hours Distribution can be 3-0-2 or 3-1-0 also)			4-0-0	4
16.	MOOC/NPTEL Course				2
17.	*BA20AMC201	Mandatory Noncredit Course Universal Human Values	MC	2-0-0	0

***UHV Course is considered from 2021 LE batch with 0 credits.**

SRI VENKATESWARA COLLEGE OF ENGINEERING

(Autonomous)
Karakambadi Road, TIRUPATI – 517507

Mechanical Engineering Semester – 7 (Theory – 6, SC – 1)

S. No	Course No	Course Name	Category	L-T-P/D	Credits
1.	ME20APE701 ME20APE702 ME20APE703 ME20APE704	Professional Elective – III Automobile Engineering Power Plant Engineering Refrigeration & Air Conditioning Solar and Wind Energy Systems	PE	3-0-0	3
2.	ME20APE705 ME20APE706 ME20APE707 ME20APE708	Professional Elective – IV Design for Manufacturing Design of Oil Hydraulics and Pneumatics Mechanical Behavior of Materials Mechanical Vibrations	PE	3-0-0	3
3.	ME20APE709 ME20APE710 ME20APE711 ME20APE712	Professional Elective – V Additive Manufacturing Modern Manufacturing Methods Product Marketing Total Quality Management	PE	3-0-0	3
4.	CE20AOE701 EE20AOE702 EC20AOE702 AM20AOE502	Open Elective – III Air Pollution and Quality Control Energy Storage Systems Principles of Communication Engineering Web Technologies	OE	3-0-0	3
5.	AM20AOE601 CE20AOE704 EC20AOE705 EE20AOE705	Open Elective – IV Machine Learning Tools & Techniques Environmental Impact Analysis & Management Introduction to Image Processing Utilization of Energy in Electrical Utilities	OE	3-0-0	3
6.	BA20AHS701 BA20AHS705 BA20AHS706	Humanities Elective – II Business Ethics & Corporate Governance Management Science Strategic Management	HS	3-0-0	3
7.	ME20ASC701	Skill Oriented Course Mechanism and Robotics (Virtual Lab)	SC	1-0-2	2
8.	ME20AIP701	Industrial / Research Mini Project (Mandatory) 04 Weeks during summer vacation.	IP	0-0-0	3
9.	ME20ATS701	Technical Seminar Presentation – III	TS	0-0-0	0.5
10.	ME20APW701	Project Work Stage – I	PW	0-0-0	2
Total					25.5
11.	Honors/Minor Course (The Hours Distribution can be 3-0-2 or 3-1-0 also)			4-0-0	4

SRI VENKATESWARA COLLEGE OF ENGINEERING

(Autonomous)

Karakambadi Road, TIRUPATI – 517507

Mechanical Engineering

Semester – 8

S. No	Course No	Course Name	Category	L-T-P/D	Credits
1.	ME20APW801	Project Work Stage – II / Full Internship in Industry	PW	0-0-0	8.5
				Total	8.5