SRI VASAVI INSTITUTE OF ENGINEERING & TECHNOLOGY(A)

DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES

Academic year: 2024-2025 **Year/sem- III-I (R20)**

CO Number	Course Outcome(CO) Statement- At the end of the Course, the students will be able to	Blooms Taxonomy
	Thermal Engineering-II(C311)	
C311.1	Understand the basic concepts of thermal engineering and boilers.	Understand
C311.2	Gain knowledge about the concepts of steam nozzles and steam turbines.	Analyze
C311.3	Gain knowledge about the concepts of reaction turbine and steam condensers.	Apply
C311.4	Understand the concepts of reciprocating and rotary type of compressors.	Understand
C311.5	Acquire knowledge about the centrifugal and axial flow compressors.	Understand
	Design of Machine Members-I(C312)	
C312.1	Understand the materials and their properties along with manufacturing considerations.	Understand
C312.2	Gain knowledge about the strength of machine elements	Understand
C312.3	Understand and apply the knowledge in designing the riveted and welded joints, keys, cotters and knuckle joints	Analyze
C312.4	Understand and apply the knowledge in designing the shafts and shaft couplings..	Analyze
C312.5	Understand and apply the knowledge in designing the mechanical springs.	Analyze
	Machining_Machine Tools & Metrology(C313)	
C313.1	Discuss the concepts of machining processes	Analyze
C313.2	Apply the principles of lathe, shaping, slotting and planning machines	Apply
C313.3	Apply the principles of drilling, milling and boring processes.	Apply
C313.4	Analyze the concepts of finishing processes and the system of limits and fits.	Analyze
C313.5	Learn the concepts of surface roughness and optical measuring instruments.	Understand
	Renewable Energy Sources (C314)	
C314.1	Analyze solar radiation data, extra-terrestrial radiation, radiation on earth's surface and solar Energy Storage.	Analyze
C314.2	Explain the wind turbines	Understand
C314.3	Explain the biomass and geothermal energy.	Understand

C314.4	Explain the principle of Energy production from OTEC, Tidal and Waves.	Understand
C314.5	Evaluate the concept and working of Fuel cells & MHD power generation.	Evaluate
Advanced Materials (C315)		
C315.1	Super Alloys	Understand
C315.2	Illustrate the polymer composites	Understand
C315.3	Describe the basic consepts of composite materials	Analyze
C315.4	Classify FGM and shape memory alloys	Understand
C315.5	Distinguish the nano materials	Analyze
Machine Tools Lab(C316)		
C316.1	Discuss the concepts of machining processes	Analyze
C316.2	Apply the principles of lathe, shaping, slotting and planning machines	Apply
C316.3	Apply the principles of drilling, milling and boring processes.	Apply
C316.4	Analyze the concepts of finishing processes and the system of limits and fits.	Analyze
C316.5	Learn the concepts of surface roughness and optical measuring instruments.	Understand
Thermal Engineering Lab(C317)		
C317.1	Determine flash point, fire point, calorific value of different fuels using various apparatus.	Apply
C317.2	Determine engine friction, heat balance test, volumetric efficiency, load test of petrol and diesel engines.	Analyze
C317.3	Demonstrate speed test, performance test and cooling temperature on petrol and diesel engines.	Apply
C317.4	Demonstrate performance test and determine efficiency of air compressor.	Apply
C317.5	Understand the principles through assembly and disassembly of 2/3 wheelers, 2/4 stroke engines,tractor, heavy duty engines and boilers and their mountings and accessories	Understand
Advanced Communication Skills Lab(C318)		
C318.1	Improve the students fluency and develop their vocabulary.	Understand.
C318.2	Listen and speak effectively	Understand.

C318.3	Develop proficiency in academic reading and writing	Apply
C318.4	Apply to different ways of communication skills	Apply
C318.5	Make students industry ready	Apply
Professional Ethics and Human Values(C319)		
C319.1	Explain the concept of Human values	Understand.
C319.2	Explain the knowledge about the principles of engineering ethics	Understand.
C319.3	Explain the concept of engineering as social experimentation.	Understand.
C319.4	Explain the concept of engineers' responsibility for safety and risk	Understand.
C319.5	Explain the knowledge about the engineers' rights and responsibilities	Understand.

COORDINATOR

HOD