



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY - GURAJADA - VIZIANAGARAM
VIZIANAGARAM – 535 003 Andhra Pradesh (India)
 (Established by Andhra Pradesh Act No.22 of 2021)

B.Tech. – III Year I Semester

B.Tech. – III Year I Semester

S.No.	Category	Title	L	T	P	Credits
1	PC	Machine Tools and Metrology	3	0	0	3
2	PC	Thermal Engineering	3	0	0	3
3	PC	Theory of Machines	3	1	0	3
4	PCE-1	Professional Elective – I	3	0	0	3
5	OE-1	1. Sustainable Energy Technologies 2. Applied operation Research 3. Industrial safety 4. Energy Conservation Management	3	0	0	3
6	PC Lab-1	Thermal Engineering Lab	0	0	3	1.5
7	PC Lab-2	Theory of Machines Lab	0	0	3	1.5
8	SEC	Machine Tools & Metrology Lab Mechatronics Lab	0	0	4	2
9	ES	Computational Fluid Dynamics Lab	0	0	2	1.0
10	Evaluation of Community Service Internship	Community Service Internship	-	-	-	2
Total			15	0	12	23

Professional Elective - I

1. Instrumentation & Control Systems
2. Nano Technology
3. Design for manufacturing
4. Thermal management of Electronic Systems
5. Joining Processes



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B.Tech. III Year II Semester

Mandatory Industry Internship of 08 weeks duration during summer vacation

1. Industrial robotics
2. Supply chain management
3. Additive manufacturing
4. UnConventional Machining Processes
5. Refrigeration and Air conditioning

1. Automobile Engineering
2. Computer Integrated Manufacturing
3. Smart manufacturing
4. Mechanical Vibrations
5. Composite materials



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B.Tech. – IV Year I Semester

S.No.	Category	Title	L	T	P	Credits
1	PC	CAD/CAM	3	0	0	3
2	Management Course- II	Operations Research	2	0	0	2
3	PE – IV	Professional Elective-IV	3	0	0	3
4	PE - V	Professional Elective-V	3	0	0	3
5	OE - III	1. Digital marketing management 2. Product design and development 3. Introduction to Mechatronics 4. Condition Monitoring 5. Operations Management	3	0	0	3
6	OE - IV	1. Statistical Quality Control 2. Nano Materials 3. Entrepreneurship 4. Product Design & Development 5. Optimization Techniques	3	0	0	3
7	Skill Enhancement Course	Renewable Energy Simulation Lab Instrumentation and control systems lab	0	1	2	2
8	Audit Course	Constitution of India	2	0	0	-
9	Internship	Evaluation of Industry Internship	-	-	-	2
Total			19	01	02	21

Professional Elective-IV

1. Production Planning & Control
2. Nondestructive evaluation
3. Smart materials
4. Hydrogen and fuel cell technology
5. Power Plant Engineering

Professional Elective-V

1. Electric and Hybrid vehicles
2. Cryogenics
3. Automation in Manufacturing
4. Industrial Hydraulics and Pneumatics
5. Noise Control