

Grams: "TECHNOLOGY"
E Mail: dapjntuh@gmail.com



Phone: Off: +91-40-23156115
Fax: +91-40-23158665

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

(Established by Andhra Pradesh Act No.30 of 2008)

Kukatpally, Hyderabad – 500 085, Andhra Pradesh (India)

B.TECH. MECHANICAL ENGINEERING (NANOTECHNOLOGY)

I YEAR

Code	Subject	L	T/P/D	Credits
	English	2	-	4
	Mathematics – I	3	1	6
	Engineering Mechanics	3	-	6
	Engineering Physics	3	-	6
	Engineering Chemistry	3	-	6
	Computer Programming	3	-	6
	Engineering Drawing	2	3	6
	Computer Programming Lab.	-	3	4
	Engineering Physics & Engineering Chemistry Lab	-	3	4
	English Language Communication Skills Lab.	-	3	4
	Engineering Workshop / IT Workshop	-	3	4
	Total	19	16	56

II YEAR I SEMESTER

Code	Subject	L	T/P/D	C
	Environmental Studies	4	-	4
	Probability and Statistics	4	-	4
	Electrical and Electronics Engineering	4	-	4
	Mechanics of Solids	4	-	4
	Thermodynamics	4	-	4
	Metallurgy and Materials Engineering	4	-	4
	Electrical and electronics engineering lab	-	3	2
	Mechanics of solids & Metallurgy lab	-	3	2
	Total	24	6	28

II YEAR II SEMESTER

Code	Subject	L	T/P/D	C
	Production Technology	4	-	4
	Kinematics of Machinery	4	-	4
	Concepts of Nano Science & Technology	4	-	4
	Mechanics of Fluids and Hydraulic Machines	4	-	4
	Machine Drawing	-	6	4
	Mathematics-II	4	-	4
	Production Technology lab	-	3	2
	Mechanics of Fluid & Hydraulic Machine lab	-	3	2
	Total	20	12	28

III YEAR I SEMESTER

Code	Subject	L	T/P/D	C
	Managerial Economics and Financial Analysis	4	-	4
	Properties of Nano Materials	4	-	4
	Dynamics of Machinery	4	-	4
	Machine Tools	4	-	4
	Machine Design	4	-	4
	Thermal Engineering	4	-	4
	Metrology & Machine Tools Lab	-	3	2
	Advance Communication Skills lab	-	3	2
	Total	24	6	28

III YEAR II SEMESTER

Code	Subject	L	T/P/D	C
	Industrial Management	4	-	4
	Finite Element Method	4	-	4
	Synthesis of Nanomaterials	4	-	4
	Characterization of nano materials	4	-	4
	Heat Transfer	4	-	4
	Open Elective Human Values and Professional Ethics Intellectual Property Rights Disaster Management	4	-	4
	Thermal Engineering & Heat Transfer lab	-	3	2
	Synthesis of nano materials lab	-	3	2
	Total	24	6	28

IV YEAR I SEMESTER

Code	Subject	L	T/P/D	C
	Operations Research	4	-	4
	Carbon Nano Tubes and their Applications	4	-	4
	CAD/CAM	4	-	4
	Metrology, Instrumentation and Control Systems	4	-	4
	ELECTIVE – I Robotics Mechanical Vibrations CNC Technology Composite Materials Automobile Engineering	4	-	4
	ELECTIVE – II Mechanical behaviour of Nano Materials Nano Sensors and Actuators MEMS/NEMS Design and Applications Surface Engineering	4	-	4
	Computer aided design & manufacturing lab	-	3	2
	Characterization of Nano materials lab	-	3	2
	Total	24	6	28

IV YEAR II SEMESTER

Code	Subject	L	T/P/D	C
	Nano Composites	4	-	4
	ELECTIVE – III Artificial Neural Networks Maintenance and Safety Engineering Renewable Energy Sources Computational fluid dynamics	4	-	4
	ELECTIVE – IV Nanotoxicology Biomedical application of Nanotechnology Nanotechnologies for Water and Environment Applications Nanotechnology for Energy Systems	4	-	4
	Industry Oriented Mini Project	-	-	2
	Seminar	-	6	2
	Project Work	-	15	10
	Comprehensive Viva	-	-	2
	Total	12	21	28

Note: All End Examinations (Theory and Practical) are of three hours duration.

T-Tutorial L – Theory P – Practical/Drawing C – Credits