

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

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

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

B.TECH. AGRICULTURAL ENGINEERING**COURSE STRUCTURE****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
	Fluid Mechanics and Open Channel Hydraulics	4	-	4
	Environmental Studies	4	-	4
	Mathematics – III	4	-	4
	Properties & Strength of Materials	4	-	4
	Electrical Systems	4	-	4
	Surveying	4	-	4
	Fluid Mechanics and Open Channel Hydraulics Lab	-	3	2
	Surveying Lab	-	3	2
	Total	24	6	28

II YEAR II SEMESTER

Code	Subject	L	T/P/D	C
	Principles of Soil Science and Agronomy	4	-	4
	Heat and Mass Transfer	4	-	4
	Theory of Machines	4	-	4
	Soil Mechanics	4	-	4
	Hydrology	4	-	4
	Farm Machinery and Equipment - I	4	-	4
	Soil Science and Agronomy Field Lab	-	3	2
	Machine Drawing and Computer Graphics Lab	-	3	2
	Total	24	6	28

III YEAR I SEMESTER

Code	Subject	L	T/P/D	C
	Thermodynamics and Refrigeration systems	4	-	4
	Soil and Water Conservation Engineering	4	-	4
	Agricultural Process Engineering	4	-	4
	Renewable Energy Sources	4	-	4
	Engineering Properties of Biological Materials and Food Quality	4	-	4
	Agricultural Extension Techniques & Business Management	4	-	4
	Farm Machinery Lab	-	3	2
	Advanced Communications Skills Lab	-	3	2
	Total	24	6	28

III YEAR II SEMESTER

Code	Subject	L	T/P/D	C
	Irrigation and Drainage Engineering	4	-	4
	Tractor Systems and Control	4	-	4
	Design of Soil and Water Conservation Structures	4	-	4
	Dairy and Food Engineering	4	-	4
	Theory of Structures	4	-	4
	Open Elective Human Values and Professional Ethics Disaster Management Intellectual Property Rights	4	-	4
	Agricultural Process Engineering Lab	-	3	2
	Soil and Water Engineering Lab	-	3	2
	Total	24	6	28

IV YEAR I SEMESTER

Code	Subject	L	T/P/D	C
	Micro Irrigation Engineering	4	-	4
	Farm Machinery and Equipments – II	4	-	4
	Post Harvest Engineering for Horticulture Produce	4	-	4
	Agro Industries and Bi-product Utilization	4	-	4
	ELECTIVE – I Operations Research Drying and Storage Engineering Managerial economics & financial Analysis Food Processing Plant Design and Layout	4	-	4
	ELECTIVE – II Watershed Planning and Management Mechanical Measurements and Instrumentation Computational Fluid Dynamics	4	-	4
	Field Operation and Maintenance of Tractors and Farm Machinery Lab	-	3	2
	Dairy and Food Engineering Lab	-	3	2
	Total	24	6	28

IV YEAR II SEMESTER

Code	Subject	L	T/P/D	C
	Design of Agricultural Machinery	4	-	4
	ELECTIVE – III GIS and Remote Sensing Human Engineering and Safety Design of Tractors	4	-	4
	ELECTIVE – IV Agricultural and Farm Structures Hydraulic Devices and Control Principles of Entrepreneurship	4	-	4
	Industry Oriented Mini Project	-	-	2
	Seminar	-	6	2
	Project Work	-	15	10
	Comprehensive Viva	-	-	2
	Total	12	21	28