


JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

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

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

B.TECH. AERONAUTICAL 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
	Mathematics – II	4	-	4
	Thermodynamics	4	-	4
	Mechanics of Solids	4	-	4
	Mechanics of Fluids	4	-	4
	Introduction of Aerospace Engg	4	-	4
	Environmental Studies	4	-	4
	Aircraft Engineering Drawing Lab	-	3	2
	Mechanics of Solids and Mechanics of Fluids Lab	-	3	2
	Total	24	6	28

II YEAR II SEMESTER

Code	Subject	L	T/P/D	C
	Aerodynamics-I	4	-	4
	Aircraft Production Technology	4	-	4
	Electrical and Electronics Engineering	4	-	4
	Aerospace Vehicle Structures -I	4	-	4
	Introduction to Space Technology	4	-	4
	Flight Mechanics –I	4	-	4
	Aircraft Production Technology Lab	-	3	2
	Electrical and Electronics Engineering Lab	-	3	2
	Total	24	6	28

III YEAR I SEMESTER

Code	Subject	L	T/P/D	C
	Management Science	4	-	4
	Flight Mechanics- II	4	-	4
	Aerodynamics– II	4	-	4
	Aerospace Vehicle Structures– II	4	-	4
	Aerospace Propulsion- I	4	-	4
	Air Transportation Systems	4	-	4
	Aerospace Structures Lab	-	3	2
	Aerodynamics and Propulsion Lab	-	3	2
	Total	24	6	28

III YEAR II SEMESTER

Code	Subject	L	T/P/D	C
	Computational aerodynamics	4	-	4
	Conceptual Design of Flight Vehicles	4	-	4
	Aerospace Propulsion- II	4	-	4
	Aircraft Systems	4	-	4
	Finite Element Methods	4	-	4
	Open Elective Disaster Management Intellectual Property Rights Human Values and Professional Ethics	4	-	4
	Advanced Communication Skills Lab	-	3	2
	Flight Vehicle Design & Instrumentation Lab	-	3	2
	Total	24	6	28

IV YEAR I SEMESTER

Code	Subject	L	T/P/D	C
	Airframe Structural Design	4	-	4
	Mechanical Vibrations and Structural Dynamics	4	-	4
	CAD/CAM	4	-	4
	Control Theory – Application to Flight Control Systems	4	-	4
	Elective – I Advanced Computational Aerodynamics Flight Scheduling and Operations Mechanisms and Mechanical Design Theory of Elasticity Probability and Statistics	4	-	4
	Elective - II Space Mechanics Experimental Aerodynamics Operations Research Aircraft Maintenance Engineering	4	-	4
	Computational Structures Lab	-	3	2
	Computational Aerodynamics Lab	-	3	2
	Total	24	6	28

IV YEAR II SEMESTER

Code	Subject	L	T/P/D	C
	Avionics & Instrument Systems	4	-	4
	Elective –III Airport Planning and Operations Analysis of Composite Structures Helicopter Engineering Hypersonic Aerodynamics	4	-	4
	Elective – IV Heat Transfer Launch Vehicle and Missile Technology Wind Engineering and Industrial Aerodynamics Aero elasticity	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