

## **B-Tech Degree- Aeronautical Engineering**

### **Semester I**

- 1 Engineering Mathematics
- 2 Engineering Physics
- 3 Engineering Chemistry
- 4 Engineering Graphics
- 5 Engineering Mechanics

### **Semester II**

- 1 Basic Civil Engineering
- 2 Basic Mechanical Engineering
- 3 Basic Electrical and Electronics Engineering
- 4 Basic Communication and Information Engineering
- 5 Engineering Workshops

### **Semester III**

- 1 Engineering Mathematics-II
- 2 Economics and Communication
- 3 Fluid Mechanics
- 4 Basic Thermodynamics
- 5 Elements of Aeronautics
- 6 Basic Strength of Materials
- 7 Basic Strength of Material Lab
- 8 Fluid Mechanics Lab

### **Semester IV**

- 1 Engineering Mathematics-III
- 2 Gas Dynamics
- 3 Propulsion-I
- 4 Aerodynamics-I
- 5 Aircraft Structures –I
- 6 Electrical Technology & Machines
- 7 Structures Lab
- 8 Propulsion Lab-I

## **Semester V**

1	Engineering Mathematics IV
2	Principles of Management
3	Computer Programming
4	Flight Dynamics-I
5	Aerodynamics-II
6	Propulsion-II
7	Wind Tunnel Lab
8	Propulsion Lab-II

## **Semester VI**

1	Avionics
2	Experimental Aerodynamics
3	Aircraft Structures-II
4	Heat Transfer
5	Theory of Vibration
6	Elective-I
7	Heat Engines Lab
8	Aero Engines Lab

## **Elective I**

1	Composite Structures
2	Fatigue and Fracture
3	Finite Elements Analysis
4	Operation Research
5	Ecology & Environment
6	Non Destructive Testing

## **Semester VII**

- 1 Computational Fluid Dynamics
- 2 Experimental Stress analysis
- 3 Aircraft Design
- 4 Flight Dynamics-II
- 5 Aircraft Systems and Instrumentation
- 6 Elective –II
- 7 Experimental Stress Analysis Lab
- 8 Vibration Lab
- 9 Seminar
- 10 Project

## **Elective II**

- 1 Theory of plates and shells
- 2 Advanced Materials in Aircraft Manufacturing
- 3 Failure analysis
- 4 Helicopter Aerodynamics
- 5 Optimization Methods in Design
- 6 Rotor Dynamics

## **Semester VIII**

- 1 Rockets & Missiles
- 2 Introduction to space Technology
- 3 Air Transportation & Aircraft Maintains
- 4 Elective III
- 5 Elective IV
- 6 Aerodynamics Lab
- 7 Project
- 8 Viva voce

### **Elective III**

- 1 Project Management & TOM
- 2 Air Navigation
- 3 Aircraft rules & Regulations
- 4 Industrial Aerodynamics
- 5 Acoustics & Noise Control
- 6 Transport Process in Reacting Flows

### **Elective IV**

- 1 Boundary Layer Theory
- 2 Disaster Management
- 3 Cryogenics
- 4 Advanced Strength of Materials
- 5 High Temperature Gas Dynamics
- 6 Turbo Machines