

B.Tech. in Aerospace Engineering

I & II Semesters (Common to all the branches)

Physics Cycle

- Engineering Mathematics –I
- Physics
- Communicative English
- Problem Solving Through Programming
- Engineering Graphics
- Physics Lab
- Problem Solving Through Programming Lab
- Communicative English Lab

Chemistry Cycle

- Engineering Mathematics – II
- Chemistry
- Basics of Electrical Engineering
- Workshop Practice
- Sociology and Elements of Indian History for Engineers
- Chemistry Lab
- Electrical Engineering Lab

III Semester

- Engineering Mathematics - III
- Economic for Engineering
- Measurements and Instrumentation for Aerospace
- Fluid Mechanics
- Thermodynamics
- Engineering Mechanics
- Measurements and Instrumentation Lab

Mandatory Course

- Energy Studies

IV Semester

- Engineering Mathematics for Aerospace Engineers
- Aerospace Vehicles and Systems
- Machine Drawing
- Aerodynamics - I
- Aerospace Structures - I
- Business Communication and Presentation skill / Professional Ethics
- Engineering Materials and Manufacturing Processes
- Aerospace Structures Lab
- Machine Shop and Precision Engineering Lab

V Semester

- Propulsion - I
- Aerodynamics - II
- Aircraft Structures - II
- Introduction to Space Technology
- Heat and Mass Transfer
- Composite Materials
- Aerodynamics Lab
- Propulsion Lab

VI Semester



- Aerospace Design - I
- Flight Mechanics
- Propulsion – II
- Introduction to Finite Element Methods
- Elective - I
- Elective – II
- Flight Lab Course (Mini Project)

Elective -I

- Aerospace Control Systems
- Aerospace Control Systems

Elective -II

- Introduction to Intellectual Property Rights
- Operations Research

VII Semesters



- Elective –III
- Elective –IV
- Elective –V
- Elective –VI
- Open Elective-I
- Open Elective-II
- Project Work –I

Elective – III

- Aircraft Systems
- Boundary Layer Theory

Elective – V

- Helicopter Aerodynamics and Vibrations
- Vibration Control

Open Elective – I

- Computational Fluid Dynamics and Aerodynamics
- Fracture Mechanics

Elective – IV

- Aerospace Avionics
- Non-Destructive Testing and Evaluation

Elective – VI

- Aerospace Design - II
- Vibrations of Elastic System

Open Elective – II

- Aircraft & Systems – Industry Perspective
- Micro Electro Mechanical Systems (MEMS)

VIII Semesters



- Open Elective-III
- Open Elective-IV
- Internship/Project Work –II

Open Elective-III

- Engineering Management and Ethics
- Project Management

Open Elective-IV

- Operation Management
- Basics of Research and Development