

Syllabus of Aeronautical Engineering

| Course Code | Title of the Course |
|-------------|--|
| A1 | Applied Mathematics |
| A2 | Fluid Mechanics |
| A3 | Basic Electronics |
| A4 | Strength of Materials |
| A5 | Engineering Thermodynamics |
| A6 | Electrical Engineering 8 |
| A7 | Microprocessors & Software Engineering |
| A8 | Introduction to Aeronautics |
| A9 | Engineering Drawing & Design |
| A10 | Workshop Technology |
| 6. | <i>Syllabus of Section B</i> |
| (a) | <i>Aero-mechanical Stream</i> |
| AS1 | Applied Mathematics - II |
| AS2 | Aerodynamics |
| AS3 | Aircraft Structures - 1 |
| AS4 | Propulsion - 1 |
| AS5 | Aircraft Structures - II |
| AS6 | Airplane Performance, Stability & Control |
| AS7 | Aircraft Design |
| AS8 | Propulsion - II |
| AS9 | Management of Systems |
| (b) | <i>Avionics Stream</i> |
| LS1 | Applied Mathematics - II (Same as AS-1) |
| LS2 | Aircraft General Systems |
| LS3 | Avionics - 1 |
| LS4 | Control theory & Practice |
| LS5 | Avionics - II |
| LS6 | Airplane Performance Stability & Control (Same as AS-6) |
| LS7 | Maintenance of Radio & Communication Systems |
| LS8 | Aircraft Instruments |
| LS9 | Management of Systems (Same as AS-9) |
| (C) | <i>Maintenance & Production Streams (Mechanical & Electrical)</i> |
| PS1 | Airworthiness & Air Regulations |
| PS2 | Aircraft Materials |
| PS3 | Control theory & Practice (same as LS-4) |
| PS4 | Aircraft Production |

- PS5 Production Planning & Control
PS6 Airplane Performance Stability & Control (Same as AS-6)
PS7 Management of Systems (Same as AS-9)
(C.1) Maintenance & Production Stream (Mechanical)
PSM1 Maintenance of Powerplant & Systems (for Mech. Stream)
PSM2 Maintenance of Airframe & Systems
(C.2) Maintenance & Production Stream (Electrical)
PSL1 Maintenance of Electrical Instruments & Systems
PSL2 Maintenance of Radio & Communication Systems
(Same as LS-7)

Electives

- OS1 Principles of Helicopter Engineering
OS2 Gas Dynamics
OS3 Wind Tunnel Testing
OS4 Vibration & Aeroelasticity
OS5 CAD-CAM
OS6 Industrial Engineering
OS7 Tool Design & Fabrication
OS8 Statistics & Quality Control
OS9 Air Navigation
OS10 Aircraft Evaluation
OS11 Rockets & Missiles
OS12 Introduction to the Finite Element Methods
OS13 Computational Fluid Dynamics
OS14 Optimization Methods in Engineering Design
OS15 Non Destructive Evaluation
OS16 Ground Handling & Support Systems
OS17 Introduction to Automatic Flight Control Systems
OS18 Introduction to Wind Engineering
OS19 Composite Materials