

**AE8613 AIRCRAFT DESIGN PROJECT – I**

DETAILED SYLLABUS

**OBJECTIVE:**

- To make the student work in groups and understand the Concepts involved in Aerodynamic design, Performance analysis and stability aspects of different types of airplanes
1. Comparative studies of different types of airplanes and their specifications and performance details with reference to the design work under taken.
  2. Preliminary weight estimation, Selection of design parameters, power plant selection, aerofoil selection, fixing the geometry of Wing, tail, control surfaces Landing gear selection.
  3. Preparation of layout drawing, construction of balance and three view diagrams of the airplane under consideration.
  4. Drag estimation, Performance calculations, Stability analysis and V-n diagram.