

AIRCRAFT STRUCTURES LAB

DETAILED SYLLABUS

OBJECTIVES

To enable students to locate, identify and demonstrate various aircraft structural Components.

LIST OF GRADED PRACTICAL EXERCISES

The practical/Graded exercises should be properly designed and implemented with an attempt to develop different types of learning outcomes in affective domain and psychomotor domain, so that students are able to acquire the necessary skills. Following is the list of experiments to be carried out.

1. Identification of structural components for typical single engine, propeller driven aircraft
2. Important structural members of an aircraft and their locations
3. Practical aspects of major structural stresses in an aircraft
4. Study of structural components for typical multiengine aircraft
5. Fuselage: Basics and study of types of fuselage and their construction details
6. Fuselage location numbering system and station diagram of an aircraft
7. Study of wing structure, and its parts
8. Study of Nacelles/pods, cowlings, skin and fairing, access and inspection doors.
9. Study and identification of flight control surfaces of an aircraft
10. Study of rivets and riveting and de-riveting procedures for aircraft panels