Assignment #5

AE 484 Spring 2022

Assigned: 03/07/2022

Due: Friday 03/11/2022. Submit the report on compass under one of the group members.

**Wing Core Dimensions**

Using the schematic below submit the labeled dimensions. These are the dimensions of the wing core so remember to subtract the thickness of the 1/16” balsa sheeting which will cover the top and bottom of the wing. Also submit the name of the airfoil that you have selected for your aircraft and the \*.dat file of the points nondimensionalized by the chord length. These will be used to order your wing cores so they can be manufactured over spring break.

A screenshot of a computer

Description automatically generated with medium confidence

Root Chord Length (A) = 14.5”

Maximum Thickness of the Airfoil at the root = 1.616”

Tip Chord Length (B) = 7.5”

Maximum Thickness of the Airfoil at the tip = 0.775”

Wing Semi-span (C) = 34.9”

Wing Tip Leading Edge Lay Back Distance (D) = 14.96”

Leading Edge Sweep Angle (𝛬LE) = 23.2 degrees

Airfoil Name: NACA 23012

\*.dat file of the airfoil: NACA23012.dat