Flight Vehicle Structures I

AEROENG 3542

Credit Hours (Minimum if “Range” selected):
3.00

Max Credit Hours:
3.00

Representative Textbooks and Other Course Materials:

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanics of Aircraft Structures</td>
<td>C.T. Sun</td>
<td></td>
</tr>
</tbody>
</table>

Course Description:
Introduction to aerospace structures: Basic structural components; fundamental elements of linear elastic boundary value problems; composites; bending, torsion and shear of thin-walled sections; laboratory demonstrations.

Prerequisites and Co-requisites:
Prereq: 2200 and MechEng 2030 and 2040, or 2200 and MechEng 2010 and 2020 and 2030; and enrollment as AeroEng-BS student.

Designation:
Required

Course Goals / Objectives:
Introduce the concepts of structural mechanics in the context of aerospace vehicles: governing equations of 2-D and 3-D linear elasticity; analysis of thin-walled structures; and an introduction to composite structures and materials.