

Course code	Course Name	L-T-P-Credits	Year of Introduction
AO333	AIRCRAFT STRUCTURAL ANALYSIS LAB	0-0-3-1	2016
<b>Prerequisite:</b>			
<b>Course Objectives</b>			
<ul style="list-style-type: none"> <li>To impart practical experience on static and dynamic analysis of aircraft structural components</li> </ul>			
<b>List of Experiments</b>			
<ol style="list-style-type: none"> <li>1. Constant strength Beams</li> <li>2. Buckling of columns</li> <li>3. Unsymmetrical Bending of Beams</li> <li>4. Shear Center Location for Open Section</li> <li>5. Shear Center Location for Closed Section</li> <li>6. Flexibility Matrix for Cantilever Beam</li> <li>7. Combined Loading</li> <li>8. Wagner beam</li> <li>9. Stress / Strain Measurement on pressurized thin walled tubes of various materials using strain gauges.</li> <li>10. Stress / Strain Measurement on flat plate and cylindrical rod with axial loads using strain gauges.</li> <li>11. Stress / Strain Measurement on hollow cylindrical rod with torsional load using strain gauges.</li> <li>12. Vibration damping test – Longitudinal</li> <li>13. Vibration damping test – Torsional</li> <li>14. Stress / Strain Measurement using strain rosette – Star and Delta Connected</li> <li>15. Verification of stress optic law using photo elasticity.</li> </ol>			
<b>Expected Outcome</b>			
<ul style="list-style-type: none"> <li>The students will be able to do experiments to analyse static and dynamic behaviour of aircraft structural components</li> </ul>			
<b>END SEMESTER EXAM</b>			