

**COMPOSITES MATERIALS AND STRUCTURES LAB**

<b>II Semester: AEROSPACE ENGINEERING</b>								
<b>Course Code</b>	<b>Category</b>	<b>Hours / Week</b>			<b>Credits</b>	<b>Maximum Marks</b>		
		<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>CIE</b>	<b>SEE</b>	<b>Total</b>
<b>B27609</b>	<b>CC</b>	-	-	4	2	30	70	100
<b>Contact Classes: Nil</b>	<b>Tutorial Classes: Nil</b>	<b>Practical Classes: 36</b>			<b>Total Classes:36</b>			
<b>COURSE OUTCOMES:</b>								
<ul style="list-style-type: none"> <li>a) Able to prepare composite materials.</li> <li>b) Able to identify mechanical properties of composites.</li> <li>c) Able to analyze surface and internal defects of composite materials.</li> </ul>								
<b>LIST OF EXPERIMENTS</b>								
<ul style="list-style-type: none"> <li>1. Buckling of columns</li> <li>2. Shear Centre Location for Open Section</li> <li>3. Shear Centre Location for Closed Section</li> <li>4. Free and forced Vibration testing</li> <li>5. NDT testing.</li> <li>6. Fabrication of Polymer based composite using Hand Layup technique.</li> <li>7. Tensile test of polymer based composite</li> <li>8. Determine the hardness of fibre reinforced polymers</li> <li>9. Impact test study of polymer based composite materials</li> <li>10. Identifying location of voids and flaws in polymer composites using Ultrasonic Machine</li> </ul>								