



<b>Course Number</b>	CHEM 3302L Organic Chemistry II Lab
<b>Course Name</b>	
<b>Credit Value (Breakdown of theory and lab credits)</b>	1 Lab
<b>Catalog Course Description</b>	Application of more advanced techniques in the preparation, isolation, purification, and characterization of organ compounds, with special emphasis on the use of spectroscopic techniques to elucidate structure. Co-requisite: CHEM 3302.
<b>Course Student Learning Outcomes/Objectives /Competencies</b>	<p>Course Objectives - course content upon which a student's level of mastery will be assessed includes the ability to...</p> <ul style="list-style-type: none"> <li>• Analyze relationships among molecular structure, chemical reactivity, physical and spectral properties</li> <li>• Understand chemical reactivity and reaction mechanisms relating to dienes, arenes, alcohols, ethers, amines, phenols, and carbonyl compounds, i.e. aldehydes, ketones, carboxylic acids and derivatives.</li> <li>• Recognize and understand the structures, properties, functions and reactivity of both natural and synthetic macromolecules.</li> <li>• Show how mechanisms are investigated including use of spectroscopy, kinetics, and stereochemistry</li> <li>• Relate structures to spectral properties - interpreting IR, <sup>13</sup>C and <sup>1</sup>H NMR</li> </ul>
<b>College-Wide Student Learning Outcomes measured (General education courses only)</b>	
<b>Program Student Learning Outcomes measured</b>	<ol style="list-style-type: none"> <li>1. The student should be able to communicate effectively using oral and written reports containing technical data.</li> </ol>