



<b>Course Number</b>	CHEM 3302 Organic Chemistry II
<b>Course Name</b>	
<b>Credit Value (Breakdown of theory and lab credits)</b>	3 Theory
<b>Catalog Course Description</b>	The study of the compounds of carbon and the relationships among molecular structure, chemical reactivity, physical properties, and spectral features, approached by way of the functional group classification of organic compounds.
<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>