

**Spokane Falls Community College**  
**COURSE LEARNING OUTCOMES**

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<b>Prefix and Course Number:</b>	<b>CHEM&amp;253</b>
<b>Course Title:</b>	<b>Organic Chemistry Lab III</b>
<b>Version Date: mm/dd/yyyy</b>	<b>01.21.2021</b>

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**Course Learning Outcomes**

Upon successful completion of the course, the student will be able to:

1. Demonstrate technical mastery of fundamental wet laboratory skills, use proper laboratory safety protocols, follow and apply safety and chemical hygiene regulations and practices.
2. Engage in safe laboratory practices handling laboratory glassware, equipment, and chemical reagents to synthesize, isolate, and purify samples, and assess the purity and yield of final products.
3. Analyze laboratory data and compare to data from scientific literature.
4. Effectively use laboratory techniques and follow published procedures to synthesize compounds obtained from reactions of the carbonyl containing organic molecules with nucleophiles and from condensation reactions at the alpha carbon of the carbonyl compounds.
5. Critically evaluate data collected to determine the identity, purity, and calculate a limiting reagent, yield, and percent yield of products
6. Construct a detailed scientific notebook
7. Summarize findings in writing in a clear concise scientific manner