This undergraduate research course is designed to significantly advance the cadet’s knowledge and comprehension of science and/or engineering by answering a real-world scientific question. Course work includes defining a problem, understanding related issues, designing an experimental approach, analyzing data, and drawing conclusions. By applying the scientific method to attempt to solve an actual problem, cadets will expand their critical thinking and intellectual capability. Cadets are supervised by a faculty advisor with expertise in the chosen research area. Cadets conduct research individually but may be part of a larger group working on a project with a broad scope. The minimum requirement for moving onto CH490 is a defined problem and hypothesis, a background in related research, and an experimental design. The Head of the Department will approve cadet projects. Lessons and labs will be established through consultation between cadet and advisor. Requirements include both written and oral progress reports.

**Lessons:** 0 @ 0 min (0.000 Att/wk)  
**Labs:** 0 @ 0 min

**Special Requirements:** LESSONS and LABS: Established by consultation between the cadet and his/her faculty advisor. Cadets are expected to perform an average of 7.5 hours of work per week towards completion of the project.

**Prerequisite(s):**  
CH102  
-Or- CH152