



## SCI 290: Natural Sciences Directed Research

This is a hands-on practical course designed to train students in a specific area of Natural Sciences. The course will consist of individual research that will be supervised by a faculty member, who will define the area of study with each student in concert with mentors from the particular field of study. Some examples of these fields include: Microbiology, Food Sciences and Nutrition, Marine Biology, Ecology, Biotechnology, Immunology, Cell Biology, Structural Biology, Evolutionary Biology, Animal Behavior/Animal Sciences, Biochemistry, Agriculture, Physics and Astronomy. The instruction will be conducted both on campus and at selected field sites. Predetermined outcomes and assessment procedures must be identified prior to the training. Students will present their research at the end of the semester in the form of oral and/or written reports, which could include presenting their findings at national scientific conferences. Prerequisite(s): Students must have completed at least one of the following courses with a minimum grade of C or better: AGR 115, ANS 205, BIO 122, BIO 234, BIO 235; BIO 239, BIO 240, BIO 241, BIO 250, CHM 114, CHM 116, CHM 225, CHM 236. Instructional Support Fee applies. 10-15 laboratory hours per week.

### Course Student Learning Outcomes

Upon completion of this course, students will: 1. Implement the Scientific Method 2. Design and carry out a research project 3. Present findings in a comprehensive report and/or oral presentation 4. Demonstrate communication skills/scientific communication skills 5. Demonstrate critical thinking skills 6. Demonstrated proficiency of applicable laboratory or computational techniques 7. Perform data analysis

**Credits:** 3

**Program:** Science