Miami Dade College

BSC4950 Senior Capstone Research Project

BSC4950 **Senior Capstone Research Project**

Course Description: This course will provide students with a capstone research experience in the biological science discipline. The experience readies the individual for their first position in-field. Special fee. (6 hr. lab)

Course Competency	Learning Outcomes
Competency 1: The student will demonstrate an understanding of the biological research process by:	1. Communication 2. Numbers / Data 3. Critical thinking 4. Information Literacy 7. Ethical Issues 8. Computer / Technology Usage 10. Environmental Responsibility
1. Organizing a scientific literature review of a selected topic in biology 2. Summarizing measures used to ensure accuracy and consistency of data collected in the process of research 3. Using tools and instruments employed for data collection in the process of research 4. Demonstrating procedures used to record and analyze data developed in the process of research 5. Discussing the importance of research design and replication in the biological research process	
Competency 2: The student will demonstrate knowledge of various biological science institutions by:	1. Communication 2. Numbers / Data 3. Critical thinking 4. Information Literacy 7. Ethical Issues 8. Computer / Technology Usage 10. Environmental Responsibility
1. Listing traits of professionals within the biological sciences. 2. Identifying skills necessary for effective work within various biological science institutions. 3. Summarizing the fundamental role of research within various institutions 4. Discussing ethical issues that impact biological science institutions 5. Summarizing the types of research conducted within various institutions/workplaces 6. Summarizing government regulations that impact biological science institutions	
Competency 3: The student will gain practical experience in a biological science field by:	1. Communication 2. Numbers / Data 3. Critical thinking 4. Information Literacy 7. Ethical Issues 8. Computer / Technology Usage 10. Environmental Responsibility

1. Conducting an internship or research project at an institution/workplace 2. Using the scientific method to explain the results of the internship or research project 3. Preparing a research paper, with scientific citations and an abstract, to explain the results of the internship or research project 4. Conducting a Seminar Presentation to explain the results of the internship or research project	