

**Department: Biological and Health Sciences**  
**Program: B.S. in Biology with Teacher Certification**

Skill Set	Professional Application	Delivery of Skill Set Courses, extracurricular activities, etc. in which the skill set is introduced (I), reinforced (R), or mastered (M)
Core Skill: Critical Thinking and Problem Solving Skills	<ul style="list-style-type: none"> <li>-Use of logic and reasoning to interpret scientific results</li> <li>-Identify proper controls to use for experiments</li> <li>-Identify non-factual and psueoscientific arguments</li> <li>-Design methods for testing hypotheses</li> </ul>	<ul style="list-style-type: none"> <li>-BIOL 1306/1307: General Biology I/II (I)</li> <li>-BIOL 2421: General Microbiology (R)</li> <li>-BIOL 3408: Animal Physiology (M)</li> <li>-BIOL 3402: Genetics (M)</li> </ul>
Communicate Effectively	<ul style="list-style-type: none"> <li>-Ability to make effective oral presentations</li> <li>-Ability to communicate scientific ideas and concepts in writing</li> <li>-Ability to listen to and interpret scientific presentations</li> <li>-Ability to read, interpet and summarize scientific articles</li> </ul>	<ul style="list-style-type: none"> <li>-BIOL 4102: Seminar (M)</li> <li>-BIOL 3407: Ecology (M)</li> </ul>
Work collaboratively	<ul style="list-style-type: none"> <li>-Ability to work in teams to perform scientific experiments</li> <li>-Ability to work in teams to develop presentations</li> <li>-Ability to understand and follow oral/verbal instructions and protocols developed by others</li> <li>-Ability to lead team projects and motivate others</li> </ul>	<ul style="list-style-type: none"> <li>-BIOL 1306/1307: General Biology I/II (I)</li> <li>-BIOL 2421: General Microbiology (R)</li> <li>-BIOL 3407: Ecology (M)</li> <li>-BIOL 3408: Animal Physiology (M)</li> <li>-BIOL 4401: Molecular Biology (M)</li> <li>-BIOL 4426: Cellular Physiology (M)</li> </ul>
Discipline-Based Skill: Laboratory/Field Techniques	<ul style="list-style-type: none"> <li>-Ability to utilize scientific equipment to perform experiments</li> <li>-Ability to conduct course-specific experiments using established techniques</li> <li>-Ability to conduct field-based experiments</li> <li>-Ability to conduct</li> </ul>	<ul style="list-style-type: none"> <li>-BIOL 3407: Ecology (M)</li> <li>-BIOL 3408: Animal Physiology (M)</li> <li>-BIOL 3409: Field Biology I (M)</li> <li>-BIOL 4304: Research Projects in Biology</li> <li>-BIOL 4401: Molecular Biology (M)</li> <li>-BIOL 4410: Topics in Biology</li> <li>-BIOL 4425: Ornithology (M)</li> <li>-BIOL 4426: Cellular Physiology (M)</li> <li>-BIOL 4427: Herpetology (M)</li> <li>-BIOL 4429: Mammalogy (M)</li> <li>-BIOL 4434: Biology of Forensic Science I (M)</li> <li>-BIOL 4435: Biology of Forensic Science II (M)</li> </ul>