

| Biology 330 Methods and Applications in Science | |
|---|---|
| Instructor: | Dr. Joel M. Gramling |
| Meeting Times: | Tuesdays 2:00 pm – 5:00 pm in room 215 of Duckett Hall with Introductory Biology Lab class Fridays 9:00 am – 9:50 am in room 216 Duckett Hall with Dr. Gramling |
| Prep Time: | TBD; coordinated with lab section instructor as needed |
| Attendance: | Regular attendance is required of all students. In case of absences due to sickness or other circumstances beyond their control, students should notify the professor. A student who has missed more than 20% of the scheduled meetings may, at the discretion of the professor, be awarded a grade of “F” for excessive absences, unless there are extenuating circumstances. |
| Course Overview: | This course is specifically designed for Biology Majors concentrating on Teaching in Biology. Students will shadow a faculty member instructing a biology lab section. Over the course of the semester, students will assist in preparing for the lab and engage the instructor in discussions regarding safety concerns, proper laboratory techniques and underlying biology content associated with each week’s laboratory activities. Students will actively assist the lab instructor throughout the semester progressively taking on more classroom responsibilities. By the end of the semester students will lead one or more weekly lab sessions. Students will be evaluated based upon their participation, their weekly write-ups, and critiques of their instructional time in the classroom by Citadel faculty members. |
| Assessment: | Students will be assessed based upon their ability to assist the instructor in providing biology content in a safe manner using weekly laboratory or field exercises. Students will submit weekly write-ups in which the student reflects on how learning is linked to the biology content and associated instructional activities that were carried-out that week. A student’s lab instruction activities will be evaluated by Citadel faculty members. |
| Grading | Final grades will be based upon participation, weekly written assignments and faculty evaluations of the student’s instructional activities. A = 90 – 100% B = 80 – 89% C = 70 – 79% D = 60 – 69% F = < 60% |
| | |

| | | |
|---|--|--|
| | | |
| Course Schedule (Will be subject to changes over the semester) | | |
| | | |
| Date | | |
| <i>See Introductory Biology Lab Schedule</i> | | |
| | | |
| <i>Weekly write-ups are due each Friday at 9:00 am.</i> | | |
| | | |

Goals for this Course:

1. Present students with a variety of laboratory and field methods used in the teaching of biology
2. Engage students in the design and implementation of laboratory and field exercises
3. Allow students to assess potential safety concerns in the science lab and conduct hands-on, instructional activities in a safe and supervised environment
4. Provide students an opportunity to study how science instructors link content with laboratory and field activities in a timely and safe manner.
5. Allow students to reflect on how experiential learning reinforces scientific concepts and the scientific method
6. Provide students the opportunity to lead instructional laboratory or field exercises