BIOS 4697, Biology Undergraduate Teaching
Sections A/AL, 3 ch
Summer 2026

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Course Description
This course is an introduction to teaching Biology for undergraduate teaching assistants, with a focus on effective teaching, active engagement of students, and development of innovative classroom activities.
A student's efforts in the course are divided among two core areas:

1: *Developing Teaching Skills*
Develop confidence and effectiveness in your teaching style; explore alternate methods in your teaching style to reach diverse audiences.

2: *Contributing to Course Content*
Design of a classroom assignment, exercise, and grading rubric; regular attendance and participation in class; one-on-one tutoring during student office hours.

This course is for new and returning undergraduate teaching assistants in the School of Biological Science. Only students selected to be teaching assistants are eligible to enroll in this course. Biology majors may use a maximum of 6 credit hours of BIOS 4697 as their Biology breadth electives. Remaining credits may be used as free electives. Each semester of BIOS 4697 credit must correspond to a different course TA assignment.

Required Course Materials

None

Pre- &/or Co-Requisites

Prerequisite with concurrency for new TAs: CETL 2000 BIO. Enrollment by permit only.

Course Learning Outcomes

Your experiences and assignments in this course will enable you to:

- Practice quality classroom management skills (e.g., conflict response, creating engaging learning environments);
- Discuss and implement sound pedagogical practices to achieve course objectives (e.g., providing constructive feedback to students; using active learning strategies);

- Locate and understand educational policies (institutional, state, or national) that impact classroom instruction/facilitation.
- Access and make appropriate referrals for institutional student support services; and Integrate peer and colleague feedback toward improving instructional practices

Grading Policy:

The final grade in this course is based on successful advancement of teaching skills and completion of all required TA duties. Specific course requirements include:

80% Fulfilling expectations of TA contract and other duties as assigned by course instructor, including evidence of engagement in your assigned TA role, attending and/or leading TA'ed course as specified by role, grading and returning assignments in a timely manner, holding office hours, responding to student emails and other inquiries, other duties as assigned by course instructor and specific to your individual TA role
10% Attendance in introduction BIOS 4697 meeting
10% Active learning activity: Proposal & Revised Final Product, and Peer Reviews

A: ≥ 90.0%
B: ≥ 80.0% and < 90.0%
C: ≥ 70.0% and < 80.0%
D: ≥ 60.0% and < 70.0%
F: < 60.0

Description of Graded Components

Fulfilling expectations of TA contract and other duties as assigned by course instructor: Carefully review the TA contract and discuss with your course instructor for additional expectations specific to your TA role. At minimum, we expect that you will show evidence of engagement in your TA role, attend and/or lead your TA'd course as specified by your role, grade and return all assignments in a timely manner in alignment with your course instructor's directives (e.g. instructions, rubrics, keys, etc.), as well as maintain regular accessibility to your students via office hours and other meetings. We encourage you to meet regularly with your course instructor and ask for feedback about your performance as a TA. Feedback from your course instructor will be taken into account in assigning final course grades for BIOS 4697.

Proposal for an Active Learning Activity (ALP): This project will give you experience in developing teaching materials, and it will become part of the resources used in your TA'ed course materials. You will be responsible for developing an active learning exercise to be used in the course you are currently TA-ing. This will include developing a brief (1-2 page) proposal to submit to the instructors for feedback. The final project will be submitted at the end of semester and shared with the course instructor and the Biological Sciences TA community at the conclusion of the semester. All components

will be submitted via Canvas. Whenever possible, we encourage you to implement your activity during the current semester.

- **You may NOT use an ALP from a previous TAship.**
- **This is an individual assignment.**
- **Proposal Components**: a learning objective, a description of a 10-15 min activity with students, instructor notes on how to implement, and a method to assess student learning. **A longer activity is permitted if reasonable time allocations are provided in ALP.**
- *The proposal should contain enough detail for another TA to run the activity and assessment from your notes alone*.

  The proposal should be organized as follows:
  - TA name, course name/number, and semester
  - 1-2 Learning objective(s); LOs must use a verb that you can *measure* (eg, 'list,' 'explain,' 'identify,' 'predict', etc.); **'understand' is not a measurable verb**. *See the Bloom's taxonomy list on the last page of this syllabus for more information on LO verbs.*
  - A brief, 1-paragraph description of the activity (like an abstract). Include the modality (eg, online, face-to-face.)
  - Instructor notes: detailed notes to the instructor including pre-activity preparation and step-by-step instructions for the instructor with timing for the activity
  - Student materials: collection of all materials distributed or presented to students, including handouts, PowerPoints, instructions, etc. Cookie-cutter labs/procedural steps are not suitable for this. The student materials should clearly align with the Learning Objectives (by the end of the activity, students should be able to accomplish the LOs) and be ORIGINAL. Borrowed content, if any, should be credited appropriately to distinguish what is your own work.
  - An assessment plan: a list of questions or other assessment for measuring how well students achieve the learning objective(s) after the activity; the assessment should be a separate, individual assignment that would be completed after the activity, not as part of the activity. The assessment should clearly match the Learning Objectives (should measure the same thing as the LOs)
  - An answer key: Provide, for any assessment, an answer key and/or rubric that defines what satisfying the assessment would look like.
  - References: This section should cite, in a format of your own choosing, the origins of any source material used.

- **Peer Review:** Use the **provided Peer Review Feedback Form** to prepare a formal analysis of the proposals assigned to you, including quality, level of detail included, and alignment between the learning objective, the activity, and the assessment, as well as feedback on aspects that the activity does well and constructive critique on ways the activity could be improved.

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- **Instructor Review and Revision:** You will be given written feedback on the quality and alignment between the learning objective, the activity, and the assessment plan, as well as feedback on aspects that the activity does well and constructive critique on ways the activity could be improved. I may invite you to a meeting to discuss how to improve the work; if a meeting is necessary, you will be given ample notice to schedule a meeting at a mutually-agreeable time.

- **Final Product**: You should incorporate feedback from your peer review, instructor feedback, and reflections from implementing the activity (if you were able to do so in the current semester), to produce a final product that includes all proposal components and organizational structure described above. The final product should contain enough detail for another TA to run the activity and assessment from your notes alone.

Attendance and/or Participation

Class meetings:

BIOS 4697 does not have a regularly scheduled meeting time. The contact time for this course comprises attending your teaching assignment, prep, and grading for that assignment. As needed, individual meetings may be scheduled with your instructor to provide feedback on your Active Learning Proposal (ALP) for revision.

Canvas Resources

An example ALP is provided to assist you in the development of your ALP. ALP (preliminary and final) and peer reviews will be submitted in Canvas course site. Submission instructions are provided in each Canvas assignment

Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review Georgia Tech's Honor Code and the student Code of Conduct.

Any student suspected of cheating or plagiarism on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services (404-894-2563) as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also email me as soon as possible in order to set up a time to discuss your learning needs.

Student-Faculty Expectations Agreement

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. The Student-Faculty Expectations articulate some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

TA-ship Progress:

We are committed to providing a quality learning and developmental experience for each of our TAs, as well as course instructors and the students in our classes. As we welcome your feedback on how we can improve the experience, we may periodically check-in with both you and your course instructor during the duration of your TAship, and encourage you to do so with your students.

As there may be occasions where you or your course instructor may feel the need to reach out to us, we want to offer tips on how to make the experience as smooth as possible. ***It is important to recognize that we all work as a team and establishing a positive, cordial and professional relationship is very important in helping avoid major issues that lead to major grievances.***

First, set expectations, and where you have questions, always ask. Being clear on your duties and how you are meeting them, as well as upfront with your instructor about any areas for which you'd like more support, can be key to developing a good working relationship. Keep this an open conversation, and deliberately discuss how you will inform one another regularly, including the frequency (e.g. as needed, after exams, at weekly meetings, after each class, etc.).