

## BIOL 4697: Biology Undergraduate Teaching Syllabus

3 credit hours, enrollment by permit only

Prerequisite with concurrency: CETL 2000 BIO.

### Instructors:

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Office hours: Monday 2-4pm & by appointment

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Office hours: Wednesday 2-4 pm & by appointment

**Section information:** A (all courses except 1510/1520), B (1510 TAs), C (1520 TAs)

### Course objectives:

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. 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.

This course is for new and returning teaching assistants in the School of Biology. Only students selected to be teaching assistants are eligible to enroll in this course.

### Course content:

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.

### Grading:

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:

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| 40% | Attendance and instruction in TA'ed class lecture/laboratory meetings;       |
| 10% | Attendance and participation in Biol 4697 course meetings;                   |
| 10% | Maintaining accessibility to students via office hours and appointments;     |
| 25% | On-time grading of all TA course assignments;                                |
| 15% | Production of an active learning activity (written Proposal & Final Product) |

Each student is expected to meet regularly with his/her course advisor to discuss progress in the course, and any performance concerns that develop will be raised in these meetings. Students may use a maximum of 6 credit hours of BIOL 4697 as their biology technical electives. Each semester should correspond to a different course assignment.

## **Biol 4697 Course Meetings:**

*If you **are** concurrently enrolled in CETL 2000 BIO, your course meetings for Biol 4697 are concurrent with CETL 2000. The instructor(s) for 4697 will also contact you to develop the active learning assignment, and this may involve 1-2 individual meetings with those instructors.*

*If you have previously taken Biol 4697 and are not concurrently enrolled in CETL 2000 BIO, we will meet four times during the semester to discuss your progress and explore new methods for effectiveness in the classroom. One of our meetings will be an opportunity to share your experiences at a prep session for the course you previously TA'ed. Since you have a semester of teaching experience, we expect you to share your knowledge and skills with new Biol 4697 students. We will also meet during the semester to discuss and reflect on your teaching skills, as well as to troubleshoot any classroom issues. The active learning assignment will be incorporated into these meetings.*

## **Evaluation**

Attendance and participation: Attendance and participation are both critical to your development as an undergraduate TA. Anticipated absences from your class for official university activities should be communicated with the instructor at least one week in advance. Unanticipated absences should be discussed as soon as is possible given the circumstances. It is your responsibility as the student to initiate and negotiate the terms of any make-up responsibilities.

Attendance and participation for Biol 4697 will be evaluated in terms of:

- (a) in-class attendance [3 points for each on-time attendance] and
- (b) level of demonstrated engagement within the course, including the completion of any homework assignments [5 points].

Attendance in your TA'ed course meetings includes all lab sessions, TA prep meetings, and lecture classes (where appropriate – please see your course advisor for any questions).

Accessibility and assignment grading: This portion of your grade consists of timely completion of grading assignments as well as maintaining regular accessibility to your students via office hours and other meetings. Infractions in either area will result in loss of 2% of your grade per instance.

Development of an active learning exercise: This project will give you experience in developing teaching materials, and 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 which will be peer-reviewed and then submitted to the instructors. The final project will be submitted near the middle of semester. Whenever possible, we encourage you to implement your activity during the current semester.

**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. **Due Feb 27.**

**Peer Review:** Prepare a formal analysis of the proposal assigned to you, including feedback on aspects that the activity does well, and constructive critique on ways the activity could be improved. **Due Mar 12.**

**Final Product:** You should incorporate feedback from your peer review, as well as 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 listed above. **Due Apr 22.**

## **Academic Integrity:**

Students are reminded of the obligations and expectations associated with the Academic Honor Code and Student Code of Conduct, available online at: [http://www.deanofstudents.gatech.edu/integrity/policies/honor\\_code.php](http://www.deanofstudents.gatech.edu/integrity/policies/honor_code.php)  
<http://www.deanofstudents.gatech.edu/codeofconduct>.

## **Learning Accommodations:**

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If needed, we will make classroom accommodations for students with disabilities. These accommodations should be arranged in advance and in accordance with the Office of Disability Services (<http://disabilityservices.gatech.edu/>).

**Backwards Design Principles:**

In backwards design, developed by Wiggins and McTighe, you follow a three-step process to develop a learning activity:

1. Determine what you want students to know/be able to do (Outcome)
2. Determine what evidence will show that students do know and can do it (Assessment)
3. Determine what learning activity will facilitate student development of that knowledge/skill (Activity)

You will apply these principles to the development of your Active Learning Proposal

**“Adopt and Adapt” Strategies:**

Often a teaching best practice is to start with a published, validated learning activity and "adopt and adapt" it to fit the needs of your particular course and students. This approach is acceptable in this course, but as in any situation where you use ideas which are not originally your own, it is essential to give proper attribution (citation) to the original author.

Representing the work and ideas of someone else as your own in any situation is a violation of the Georgia Tech Honor Code.

This exercise is intended to help you develop effective and innovative classroom practices in your own teaching. If you do choose to adapt an existing activity as you develop your Active Learning Proposal, be sure the adapted exercise reflects and incorporates your own teaching ideas.