

Multidisciplinary Studies (MDA) 593: Training and Practice in Teaching Molecular and Computational Biology (BISC-593)

OVERVIEW

This is a 2-credit TA training course designed specifically for graduate students in the Molecular and Computational sections of the Department of Biological Sciences, USC Dana and David Dornsife College of Letters, Arts and Sciences. One of the main goals of the course is to help students to become thoughtful and inspiring teacher, encouraging not just their immediate success in the classroom, but their long-term development as teachers. In addition to the basic teaching skills, the course will also focus on specific challenges and strategies in teaching Molecular Biology and Computational Biology.

SYLLABUS

Multidisciplinary Studies (MDA) 593: Training and Practice in Teaching Molecular and Computational Biology (BISC-593)

Fall 2017

INSTRUCTOR

Professor Frank Alber

Office: RRI Room 413E

Office hours: Tuesday 3:00-4:00pm and by appointment

MEETINGS

Tuesday, 12:30-2:00pm

RRI 301

This course is a practical training designed for first-semester teaching assistants in Molecular and Computational Biology. Concurrent registration or prior completion of this course is a condition of being assigned a first Teaching Assistantship in Molecular and Computational Biology.

LEARNING OBJECTIVES

By the end of the semester, enrolled students will 1) be comfortable with basic techniques for relating successfully to undergraduate students, and give effective and clear presentations, 2) have learned basic principles of lesson plan design and execution, 3) be familiar with basic principles of assignment design and grading techniques, 4) develop a repertoire of techniques for leading and advancing classroom discussion, and 5) formulate and adopt a strategy for further development as a teacher and have begun to assemble a portfolio of teaching materials.

GRADE

This course will be taught Credit/No Credit. To pass the course, you must successfully complete every component assignment and participate fully in class. A major component of the course is classroom presentation and critique. Each student will be assigned to give more than one presentation (specific number depends on the students enrolled in the class) that will be critiqued by the discussed and critiqued by the rest of the class. The instructor will lead and coordinate the critique discussion. At the end of discussion, an evaluation form will be filled up to give the presenter feed back on the strength of the and weakness of the presentation and suggestions of improvement. Grade will be based quality of presentation and class participation.

TEXTS

A number of required and optional readings will come from the following text, which is available used for under \$8 from Amazon:

Curzan, Anne, and Lisa Damour. *First Day to Final Grade: A Graduate Student's Guide to Teaching, Second Edition*. Ann Arbor: The University of Michigan Press, 2006.

Additional readings, both required and optional, will be available on course reserves on Blackboard.

USC Center of Excellence in Teaching: TA resources <http://cet.usc.edu/resources/teaching-assistant-resources/>

Statement for Observance of Religious Holidays:

The university's policy grants students excused absences from class to observe religious holidays (<http://orl.usc.edu/religiouslife/holydays/absences.html>). In this case, please contact your instructor in advance to agree on alternative course requirements.

Statement for Students with Disabilities:

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved

accommodations can be obtained from DSP. Please be sure the letter is delivered to your instructor as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

Statement on Academic Integrity:

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles. SCampus, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A:

<http://www.usc.edu/dept/publications/SCAMPUS/gov/>. Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at:

<http://www.usc.edu/student-affairs/SJACS/>.

Schedule of Topics and Readings

- Week 1- -Introduction: Course introduction Prof. Frank Alber
- Week 2- -Leading Discussion - Teaching Computational Biology
- Week 3- - Student presentations, followed by class discussion
- Week 4- -Student presentations, followed by class discussion
- Week 5 - Student presentations, followed by class discussion
- Week 6 - Student presentations, followed by class discussion
- Week 7 – Student presentations, followed by class discussion
- Week 8 - Student presentations, followed by class discussion
- Week 9 - Student presentations, followed by class discussion
- Week 10 - Student presentations, followed by class discussion
- Week 11 - Student presentations, followed by class discussion
- Week 12 – Course review and Summary