

**These six seminars on College Biology Teaching repeat after three years, the tentative schedule is noted. Doctor of Arts students are required to take four seminars, but all six are highly recommended. These seminars are also encouraged for Ph.D. and Master's students.**

**1. Seminar in College Biology Teaching (Bios 693) Fall 2002**

**Theories of Teaching and Learning**

An investigation into the major Theories of Teaching and Learning, with an emphasis on historical roots, major proponents, and application to the contemporary college classroom. Discussion of selected readings from texts and primary literature, followed by practical applications of theories in the biology classroom.

**2. Advanced Studies in College Biology Teaching (Bios 694) Spring 2003**

**Assessment Techniques**

An introduction to assessment techniques and strategies- from the classroom to the University program level. The course focuses on exploring a diversity of both formative and summative classroom assessment techniques and reviewing faculty and course evaluation tools. Students will gain practical experience in implementing these techniques. Additionally, students will learn the processes associated with assessment at the program-level by reviewing the departmental assessment plan, changes in the departmental major curriculum, and the university-wide assessment of General Education goals.

**3. Seminar in College Biology Teaching (Bios 693) Fall 2003**

**Course Development**

Students learn the theoretical underpinnings of the elements of course design, through readings and discussion. Students demonstrate their competency by designing their own college-level biology course, preferably one that they plan to teach as an internship. Students participate in readings, evaluating written work, and discussion.

**4. Advanced Studies in College Biology Teaching (Bios 694) Spring 2004**

**Current topics in science education research**

Students locate relevant journals, read and critique research articles, and identify national trends in educational research. An emphasis on classifying journal contents based on experimental design, theories, and practical applications. Students select readings, write critiques of the research literature, discuss, and collaborate on the preparation of a guide to the educational research literature.

**5. Seminar in College Biology Teaching (Bios 693) Fall 2004**

**Professional Development: An Academic Career**

An introduction to academic life- what does it mean to be a faculty member of a college or university? How do two-year and four-year schools differ? What is the structure of an academic career? What is scholarship? How can you continually improve your teaching? Students will prepare for an academic job search by writing statements of teaching and research, a complete CV, and a cover letter for a specific job located through a job search. Mock interviews and negotiation strategies with faculty and Deans. Readings and discussions of the first year on the job, the importance of scholarship and professional networks, preparing for the tenure process, and changing jobs.

**6. Advanced Studies in College Biology Teaching (Bios 694) Spring 2005**

**Educational Research**

An introduction to the methods of Educational Research. Emphasis on the nature of research in education, types of experimental design (quantitative, qualitative, quasi-experimental, survey), types of sampling, measurement and data collection, and data analysis. Students will design a research project, submit their proposal to the university Human Subjects Committee for approval, conduct the research, and analyze, interpret, and present the results.