

ZOO 6927: Biology Laboratory Instructional Methods
Fall 2015 (1-credit)

Instructor Information

William Spencer, Ph.D.
Office: 214 BAR
Email: wespencer@ufl.edu
Office: 352-273-0115

Meeting Details

Time: Wednesday 6:15PM-7:05PM
Location: 222 Carr

Course Goals

This course will help you; 1) begin teaching with confidence, 2) understand the expectations required of a laboratory instructor, 3) identify the goals of laboratory instruction, 4) practice science teaching in the lab, 5) understand the importance of diversity in the sciences and how it can be supported in the lab, 6) deal with discipline issues in the lab, 7) motivate your students toward independent, responsible learning, 8) understand the development of inquiry-based curricula and activities.

Course Format

During each class meeting we will discuss various topics related to teaching in the laboratory setting. You will lead discussions on assigned reading during the semester. You will video-record two samples of your teaching for evaluation. The first occurs early in the semester, while the second occurs later. You will also write several short reflective reports. Detailed instructions for all these activities will be provided through Sakai. Attendance is mandatory. Please contact the instructor prior to an absence. For each unexcused absence 2% of the total points will be deducted from your final course score. The policies for allowable absences and make-up work follow the university attendance policies:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>. The student will remain responsible for scheduling any make-up work with the instructor.

Course Activities

Active Teaching Practice: You will practice four active learning tools.

Video of Teaching: You will conduct two videos of your teaching.

Teaching Philosophy: You will write three iterations of a statement of your teaching philosophy.

Discussion Moderation: You will moderate and participate in discussions of assigned reading material.

Reading List

Textbook

Handelsman, J, Miller, S, and Pfund, C. 2007. Scientific Teaching. WH Freeman and Company, NY, NY.

Please refer to Resources section of the course on Sakai for additional readings.

Graded Assignments	Points
Participation/ Quizzes/ Class Activities	30
Teaching Philosophy	10
Teaching Philosophy	10
Teaching Video 1	10
Reflective Assessment of Video 1	10
Teaching Video 2	10
Reflective Statement on Video 2	10
Teaching Philosophy	10
Total	100

Grading Scale

Point Range (%)	Letter Grade	GPA equivalent
≥ 90.00	A	4.0
86.7 – 89.9	A-	3.67
83.3 – 86.6	B+	3.33
80.0 – 83.2	B	3.0
76.7 – 79.9	B-	2.67
73.3 – 76.6	C+	2.33
70.0 – 73.2	C	2.0
66.7 – 69.9	C-	1.67
63.3 – 66.6	D+	1.33
60.0 – 63.2	D	1.0
56.7 – 59.9	D-	0.67
< 56.7	E	0

Semester Schedule

Class Date	Topic	Reading Assignment
	Introductions	None
Week 1	Workshop 1: Scientific Teaching Being a Mentoring Instructor	Chapter 1 in textbook Prieto and Altmaier (1994)
Week 2	Workshop 2: Active Learning (Part 1) Video-Recording of Class Instruction (1) Discussion of Assigned Reading Questionnaire	Chapter 2 in textbook Prieto and Altmaier (1994)
Week 3	Workshop 2: Active Learning (Part 2) Workshop: Active Learning & Interactive Teaching Tools	Chapter 2 in textbook
Week 4	Workshop 3: Assessment Discussion of Assigned Reading Workshop: Active Learning & Interactive Teaching Tools	Chapter 3 in textbook Allen and Tanner (2005)
Week 5	Workshop 4: Diversity (Part 1) Conduct In-Lab Video Recording No class meeting.	Chapter 4 in textbook
Week 6	Workshop 4: Diversity (Part 2) Discussion of Assigned Reading Workshop: Active Learning & Interactive Teaching Tools	Chapter 4 in textbook Gormally, et al. (2011)
Week 7	Workshop 5: Institutional Transformation Homecoming No class meeting	Chapter 6 in textbook
Week 8	Workshop: Assessment	Ch. 3 in Handelsman et al. (2007)
Week 9	Workshop: Nurturing Diversity	Ch. 4 in Handelsman et al. (2007)
Week 10	Workshop: Nurturing Diversity	Saunders and Karida (2012)
Week 11	Workshop: Academic Motivation Instructions for Video-Recording of Class Instruction (2)	Ryan and Deci (2000)
Week 12	Workshop: Scientific Teaching	Ch. 1 in Handelsman et al. (2007)
Week 13	Thanksgiving Holiday	
Week 14	Workshop: Scientific Teaching Conduct In-Lab Video Taping	Ch. 1 in Handelsman et al. (2007)

UF Counseling Services

Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- UF Counseling & Wellness Center, 3190 Radio Rd, 392-1575, psychological and psychiatric services.
- Career Resource Center, Reitz Union, 392-1601, career and job search services.

Many students experience test anxiety and other stress related problems. "A Self Help Guide for Students" is available through the Counseling Center (301 Peabody Hall, 392-1575) and at their web site:

<http://www.counsel.ufl.edu/>.

Honesty Policy

All students registered at the University of Florida have agreed to comply with the following statement: "I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."

In addition, on all work submitted for credit the following pledge is either required or implied: "*On my honor I have neither given nor received unauthorized aid in doing this assignment.*"

If you witness any instances of academic dishonesty in this class, please notify the instructor or contact the Student Honor Court (392-1631) or Cheating Hotline (392-6999). For additional information on Academic Honesty, please refer to the University of Florida Academic Honesty Guidelines at:

<http://www.dso.ufl.edu/judicial/procedures/academicguide.html>.

Accommodation for Students with Disabilities

Students who will require a classroom accommodation for a disability must contact the Dean of Students Office of Disability Resources, in Peabody 202 (phone: 352-392-1261). Please see the University of Florida Disability Resources website for more information at: <http://www.dso.ufl.edu/drp/services/>.

It is the policy of the University of Florida that the student, not the instructor, is responsible for arranging accommodations when needed. Once notification is complete, the Dean of Students Office of Disability Resources will work with the instructor to accommodate the student.

Software Use

All faculty, staff and student of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.