

SYLLABUS
Mentoring in the Sciences
STO 6XX (2 credits)

Instructor: Dr. Mary Beth Leigh

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Class time and locations

MW 10:30-11:30

Course overview

Effective mentoring skills are extremely valuable for success as scientists and teachers, yet are rarely taught. This course provides a forum for graduate students to develop their mentoring philosophy and build effective mentoring skills. This course seeks to provide a discussion and learning environment for accelerating the process of learning to be a successful mentor. Through discussion of case studies, activities, writing projects, and readings provided in course materials, students will consider mentoring philosophy, articulate it, anticipate challenges and practice effective solutions to a variety of mentoring issues.

Prerequisites

There are no required prerequisites for this course, and no prior experience in mentoring is required. The course targets graduate students in all scientific fields, and is particularly geared toward graduate students in the Scientific Teaching graduate certificate program. Other early career participants (e.g. postdocs, new faculty) are welcomed, space permitting.

Course materials

- Required Textbook - Entering Mentoring: A Seminar to Train a New Generation of Scientists. J Handelsman, SM Lauuffer, CM Pribbenow, C Pfund. Howard Hughes Medical Institute. Itchy Cat Press. 2008.
- Other readings from texts, primary literature, and the press will be assigned on an ad hoc basis for background and discussion, and will be provided electronically by the instructor.

Course goals and Student Learning Objectives

- Design and evaluate various approaches to mentoring
- Develop a mentoring philosophy and articulate it in written form
- Build a personal step-by-step guide for initiating and maintaining a healthy mentoring relationship
- Develop a proposed project for a mentee
- Learn to communicate more effectively with mentees
- Prepare to work well with students of diverse learning styles, personal styles, experiences, ethnicities, nationalities and gender
- Prepare to resolve an array of mentoring issues through case studies, discussion, role playing and/or written projects.

Course format: Assigned readings and case studies will be the springboard for discussions. Regular short readings and case studies will be assigned from the required text, and additional readings (listed on the schedule) will be provided by instructor in electronic form. A variety of scientifically supported active learning teaching techniques will be incorporated into the class to engage students with a diversity of learning styles and to promote active engagement. Writing skills will be developed through peer and instructor feedback to written work, with opportunities for revision in major assignments.

Assessment:

Students will be given a pass/fail grade based on evaluation by the instructor on their attendance (20 pts), participation (15 pts) and leadership (15 pts) in discussion, completion (15 pts) and quality (20 pts) of assignments, and comprehension (15 pts) of the material as evidenced in assignments, discussion, and presentations. Students are expected to attend all class meetings. Absences may be excused with permission in advance or afterward for valid reasons (e.g. family medical).

Pass >70% of points earned

Fail < 70% of points earned

Late policy:

Assignments turned in after the deadline will have 5% of the total possible points deducted per day it is late. Exceptions may be made in the case of excused absences due to documented family/medical or other reasons or when arrangements have been made with instructor in advance. In general, when an absence is anticipated due to travel or other conflicts, work should be turned in ahead of time.

Support Services

Instructor is happy to meet individually with students during office hours or by appointment. For additional guidance with writing, you are encouraged to work with your peers and/or consult the UAF Writing Center.

Students with disabilities

UAF is committed to equal opportunity for all students. Students with even minor disabilities, students who are the first in their families to attempt a four-year college degree, or students whose incomes are low, have opportunities for tutorial and other forms of support from the office of Disability Services or the office of Student Support Services. If you need classroom accommodations or other support, please meet with me during office hours as soon as possible to let me know; and please make an appointment with the Office of Disability Services and Student Support Services, to enlist the appropriate support. I will collaborate to provide the appropriate accommodations and supports or services to assist you in meeting the goals of the course.

Schedule (Subject to Change)

Week	Day	Topics	Assignments	Reading
1	M	No Class - Labor Day		
1	W	Getting Started. Course Introduction, Syllabus, Learning objectives and Discussion of desired outcomes for students. Confidentiality.		"Teaching Scientists to Teach"; J. Handelsman "Scientific Teaching"; J. Handelsman et al.
2	M	Getting Started. The elements of a good research project.		
2	W	Getting Started. Establishing a good relationship with your mentee.	Project proposal for a potential mentee	
3	M	Learning to communicate. Case study: Projects. Mentees and their projects.	Written mentoring philosophy	"What is a mentor?" In Advisor, Teacher, Role Model, Friend: NAS.
3	W	Learning to communicate. Case study: Projects.		
4	M	Learning to communicate. Establishing expectations - the mentor's and the mentee's.		
4	W	Goals and Expectations. Mentoring philosophies.	Summary of your expectations as mentee and mentor from past experience.	"Mentoring learned, Not taught". J. Handelsman.
5	M	Goals and Expectations. Case study: trust.		
5	W	Goals and Expectations. How do you know that they understand what you are saying?		
6	M	Identifying Challenges and Issues. Case studies from past experiences as mentor/mentee- challenges and suggestions.		
6	W	Identifying Challenges and Issues. How do you know if there are problems?		
7	M	Resolving Challenges and Issues. Proposed solutions to the issues raised in case studies.	A written proposal of a possible solution to one of the challenges described during a previous mentoring discussion	"Benefits and Challenges of Diversity", WISELI
7	W	Resolving Challenges and Issues. Case studies: diversity.		
8	M	Resolving Challenges and Issues. Midcourse process check and informal course evaluations.		
8	W	Evaluating our Progress as Mentors. Mentoring challenges and suggestions.	Thoughts about how a mentee/mentor pair differ from your past experience in either role.	"Righting Writing", J. Handelsman.

Week	Day	Topics	Assignments	Reading
9	M	The Elements of Good Mentoring. What can we learn from other mentors?		
9	W	The Elements of Good Mentoring. What can we learn from other mentors?		
10	M	The Elements of Good Mentoring. What has proven effective in your mentoring experiences?	Present a mentoring challenge to your PI or another mentor you respect and ask how they would handle the situation. Submit a summary of their response and what you thought about it.	
10	W	The Elements of Good Mentoring. Presentations on learning from other mentors assignment.		
11	M	Life as a Mentor. Securing funding for mentee projects.		
11	W	Life as a Mentor. Time management.		"Time Management" from <i>Managing Your Mind</i> , Butler and Hope.
12	M	Life as a Mentor. Work/life balance.		"Time Management" from <i>Managing Your Mind</i> , Butler and Hope.
12	W	Managing a lab. Organizational structures.		
13	M	Managing a lab. Building a sense of community. Promoting teamwork.		
13	W	Managing a lab. Large or small?	Written thoughts about the your experiences in large and/or small labs, pros and cons.	
14	M	Managing a lab. Juggling multiple projects and finding synergy.		
14	W	Developing a Mentoring Philosophy. Revised mentoring philosophies after this course.	Rewritten mentoring philosophy	
15	M	Developing a Mentoring Philosophy. Revised mentoring philosophies after this course.	Peer review/response to another students's mentoring philosophy	
15	W	Closing discussion		