

**BIOL6308/5308: Research Funding and Professional Development**  
**CRN: 13551/13552, Fall 2017**  
**Undergraduate Learning Center 340**  
**MW 10:30-11:50**

**Instructors:**

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**Course description:**

This course aims at providing instruction and guidance in the construction and submission of competitive grant proposals and fellowship applications, as well as the development of other professional skills needed by graduate students in the biological sciences.

**Required course materials:**

There is no text book for this class. Handouts on selected topics will be distributed or posted on Blackboard.

**Grading:**

Attendance:	15% of the grade
Participation:	15%
Mock proposal	25%
Presentation:	20%
Peer review:	20%
Short and long term career plan:	5%

Final grades will be assigned as follows: A=90-100, B=80-89, C=70-79, D=60-69, F=0-59

**Cell phones and other electronic devices:**

Common courtesy and appropriate classroom behavior dictate that the use of cell phones (incoming and outgoing) is both rude and inappropriate at any time during class. Your cell phones should be off or on silent mode when you enter the classroom. No exceptions.

**Academic integrity:**

Academic integrity is the pursuit of scholarship free from fraud and deception. Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabrication of information or citations, facilitating acts of dishonesty by others, possessing unauthorized copies of examinations, submitting the work of others claimed as one's own, submitting work used for other classes (without the knowledge of the instructor) or tampering with the work of other students. All work submitted for this class must be original and not the result of discussions with others. Instances of academic dishonesty threaten the atmosphere of trust and free exchange of ideas. Such instances will result in the offending student receiving a failing grade for work discovered to be fraudulent and for egregious cases, the student may be dismissed from the class with a failing grade.

**Accessibility:**

If you have or suspect a disability and need accommodations, you should contact The Disabled Student Services Office (DSSO) at 747-5148. You can also email the office at [dss@utep.edu](mailto:dss@utep.edu) or go by the Union Building East, Room 106. For additional information, visit the DSSO website at [www.utep.edu/dss/](http://www.utep.edu/dss/).

**Course content:**

- a. Introduction – discuss the responsibilities, obligations and rights of graduate students and the expectations of a thesis/dissertation advisor and graduate program.
- b. Funding opportunities – discuss and learn types of fellowship and grant funding opportunities from a range of agencies and foundations.
- c. Grant writing – discuss strategies and review criteria specific to funding agencies, and how to get started with grant writing. Students are expected to develop a mock proposal that includes problem statement and

goal, specific aims, research background, design and approaches, timeline and budget, and to present it to the class. The proposal will be evaluated by peers (classmates) and the instructors.

- d. Authorship and peer review – discuss the factors and processes involved in authorship and the peer review process.
- e. Scientific and professional integrity – discuss scientific and professional ethics in conducting, reporting, and reviewing research, managing a lab, and interacting with an academic or professional community.
- f. Preparing your CV– discuss how to present oneself in a competitive job market.
- g. Career opportunities in academia, governmental agencies, biotech or pharmaceutical companies, and etc. and discuss how to balance career development and personal life.
- h. Skills and strategies involved in transition from a graduate student to a postdoctoral trainee and from a postdoctoral trainee to a professional in academia, governmental agencies, and industry.
- i. Career planning– discuss feasible goals to increase productivity in the academia.

**Lecture outline:**

Week	Date	Lecture Topic	Date	Lecture Topic
1	08/28/17	Class overview, students' introductions, & current facts about the academia (Martinez)	08/30/17	Selecting a mentor: an important decision; The Thesis/Dissertation game (Martinez)
2	<b>09/04/17</b>	<b>Labor day; no classes</b>	09/06/17	Becoming a productive writer; Elements of a grant proposal (Martinez)
3	09/11/17	Grant writing I (Opportunities and strategies relevant to biomedical research) (Almeida)	09/13/17	Grant writing I (Opportunities and strategies relevant to biomedical research) (Almeida)
4	09/18/17	Alternative careers in science (Martinez)	09/20/17	Grant writing III (review criteria, problem and goal statements) (Cushing)
5	09/25/17	Grant writing III (review criteria, problem and goal statements) (Cushing)	09/27/17	Grant writing II (Opportunities and strategies relevant to Ecology and evolutionary biology) (Darrouzet-Nardi)
6	10/02/17	Myers Briggs test (Lougheed) <b>*Students to complete Myers Briggs test as homework</b>	<b>*10/04/17</b>	Time Management, Teamwork, Leadership ( <b>TBD</b> ) <b>*Students to prepare a CV as homework</b> <b>*Last day to withdraw</b>
7	10/09/17	Preparing your CV and application cover letter, the Interview (Spencer)	10/11/17	Preparing your CV and application cover letter, the Interview (Spencer)
8	10/16/17	Authorship and peer review, Scientific and professional integrity (Han)	10/18/17	Authorship and peer review, Scientific and professional integrity (Han)
9	10/23/17	Skills and strategies for career transitions (Ouellet)	10/25/17	Skills and strategies for career transitions (Ouellet)
10	10/30/17	Defining the type of academic institution in which you want to work (Martinez) <b>*Proposals due</b>	11/01/17	Negotiating your Start-up package (Martinez)
11	11/06/17	Proposal presentations and discussion I (Martinez)	11/08/17	Proposal presentations and discussion II (Martinez)
12	11/13/17	Proposal presentations and discussion III (Martinez)	11/15/17	Proposal presentations and discussion IV (Martinez)
13	11/20/17	Proposal presentations and discussion V (Martinez)	11/22/17	Proposal revisions Q&A (Martinez)
14	11/27/17	Early and mid-career panel Q&A – careers, opportunities, life balance, success (Martinez and panel)	11/29/17	Early and mid-career panel Q&A – careers, opportunities, life balance, success (Martinez and panel)
15	12/04/17	<b>*Short and long term career plan due</b>	12/06/17	<b>*Final proposals due</b>