

BIOLOGY 8250 PROFESSIONAL SKILLS FOR THE LIFE SCIENCES II

Spring 2023

Instructor

Tracy A. Larson (larson.tracy@virginia.edu, tracyalarson.org)

No formal office hours. Email to arrange a meeting if needed.

Meeting time and location

Thursdays 4:30–6:00 pm. By Zoom, using [this link](#) or in-person in Gilmer Hall 245.

Course site

<https://www.tracyalarson.org/professionalskillssp23>

Course description

The second of a two semester-long two-credit courses that provides training in essential skills for first year graduate students in the Department of Biology. Topics include: creating a mentoring network, developing a career training plan, building visibility, science communication to professional and lay audiences, conflict avoidance and resolution, and managing people and time, among others. This course includes some material relevant to ethics and best practices but does not fulfill NIH requirements for training in the responsible conduct of research.

Course format

The course will be a combination of readings, lectures, and discussions. Guest panels will occur via Zoom when panelists are from beyond the University of Virginia. All other classes will occur in-person. If in the event distance learning might become useful or necessary to prevent transmission of viruses, etc., classes may become hybrid or occur entirely via Zoom. Because each class will include active discussion, all classes will be synchronous, regardless of in-person or online.

Objectives

- understand expectations for professional students in the Department of Biology
- enhance skills for time management and planning
- improve scientific communication
- improve scientific writing skills
- integrate with one another and build connections across the Department of Biology
- familiarity with resources and skills relevant to work-life balance, mental health, and conflict resolution

Meeting the objectives

To meet these objectives, students are expected to attend and actively participate in each class. Students are to complete assignments in a thoughtful and timely manner. Letter grade point assignments for the course can be found in the table below. Credit will be granted for the course for all scores 80 points total or higher.

Attendance and participation

Active participation is mandatory. Attendance and participation will be recorded each class by students filling out the following Google Poll (name, automatic date/timestamp, one sentence on what learned this class: <https://forms.gle/AuUoPBz28y62zGEo8>) and will contribute to 40% of the course grade. Form to be completed in class or by the end of the day (11:59pm).

BIOLOGY 8250 PROFESSIONAL SKILLS FOR THE LIFE SCIENCES II	
Attendance and Participation	
Full Name *	Short answer text
One (or more) sentence(s) reflecting on what learned in class today. *	Long answer text

Evaluation of assignments

A range of techniques to assess your progress toward these goals. Feedback on progress will be derived from variety of sources, including the instructor, guest panelists, your peers, and your mentors. Assignments are each worth 100 points and will be averaged for a final "Assignment" score, making up 60% of final grade.

Attendance	20 pts	A+	97 - 100 pts	
Participation	20 pts	A	94 - 96 pts	
(including day of assignments)		A-	90 - 93 pts	
Assignments	60 pts	B+	87 - 89 pts	
(average score)		B	84 - 86 pts	
Mentor Map		B-	80 - 83 pts	Credit ↑
IDP		C+	77 - 79 pts	No Credit ↓
Website		C	74 - 76 pts	
Summary of Organization Efforts		C-	70 - 73 pts	
Story Board		D+	67 - 69 pts	
Bio Sketch		D	64 - 66 pts	
Research Poster Draft		D-	60 - 63 pts	
Final Research Poster		F	<60 pts	
Lay Audience Article				

Late policy

Late assignments will be penalized 10 points the first late day (starting 12:00am the day after due date) and 5 points per day thereafter, including weekends. No exceptions. The due dates (as dates and time projections, if schedule changes) are provided in the table below.

Readings, resources and assignments

All necessary materials will be provided through: <https://www.tracyal arson.org/professionalskillssp23>

Access and accommodations

Your experience in this class is important. If you have established accommodations with Student Disability Access Center (SDAC), please communicate your approved accommodations at your earliest convenience so we can discuss your needs in this course and complete any necessary forms. If you have a condition that may result in unexpected absences, please make me aware of this possibility before missing any coursework. If you have a temporary health condition or permanent disability that requires accommodations (conditions include but not limited to: mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact SDAC and to let me know so we can work suitable arrangements. Finally, although UVa policy states that masks are optional for in-person discussions, we cannot provide an equitable and just atmosphere for learning if we are not protecting one another. Participants are requested to use masks for in-class interactions to protect those of us with compromised immune systems, those of us with high-risk family members, those of us who do not want to transmit Covid-19 to others, and those of us who wish to avoid infection or reinfection.

Schedule

All lecture topics, assignment descriptions and due dates are shown in the table below. Assignment details are below or can be found at <https://www.tracyalarson.org/professionalskillssp23>. This schedule may change to reflect our progress and your needs through the course.

Class date	Topic	Brief Description	Notes	Assignment	Due Date
1/19	Building a network and establishing a professional identity	organizing a dissertation committee; unofficial mentors; making the most of professional meetings and other opportunities	Discussion lead by Tracy	Mentor Map: Identify 3 faculty in Biology, 2 faculty in other departments, and 2 faculty or non-faculty outside of UVA who could serve as official or unofficial mentors for your career. <i>(One week)</i>	1/26
1/26	Individual Development Plans and career trajectories	strategic thinking and getting the most from yourself and your mentors; re-visit mentor map	Discussion lead by Tracy	Fill out a draft IDP and discuss it with a rotation advisor or another faculty member. Email your IDP with an indication of who you consulted. Email an updated Mentor Map after IDP development) <i>(Two weeks)</i>	2/9
2/2	Professional websites	developing your own website; best practices for seeing and being seen	Discussion lead by Tracy	Prepare a basic website to represent yourself and your research interests. <i>(Two weeks)</i>	2/16
2/9	Working with undergraduate student (in class and in the lab)	tips for managing students (and professors), leading discussions, designing activities, balancing with other demands	Dr. Jess Manson on TAing and time management; Tracy on managing undergrads in the lab	3 Questions to ask (send to Tracy AND ask in meeting) <i>(Day of)</i>	2/9
2/16 (Zoom)	Career paths: policy, industry, journalism, business, data science, and more	panel discussion: why chosen, what worked, what might have been done differently	Guest panel: Sandy Larson, GlaxoSmithKlein	3 Questions to ask (send to Tracy AND ask in meeting) <i>(Day of)</i>	2/16
2/23	Managing programs beyond research	Planning and executing programs beyond research; how to create "staying power"; time allocation, etc.	15 min BOIP; 30 min by Tracy on planning and executing programs; 30-60 min "meeting" to plan symposium	Group schedule and assignments; set up google form for solicitation for presenters <i>(One week)</i>	3/2
3/2	Story boarding research	Development of hypotheses vs. predictions; basic layouts of grants; basic layout of research manuscripts		Story board a grant or paper using folder and stick-it notes <i>(Two weeks)</i>	3/16
3/9	<i>Spring break — no class</i>				
3/16	Career Panelist - non-R1 university; Designing and presenting a scientific poster	developing a narrative, style points, challenges specific to posters	Guest: Dr. Rachel Cohen, Minnesota State Mankato	3 Questions to ask (send to Tracy AND ask in meeting) <i>(Day of)</i> ; Final solicitation for presenters, compiling abstracts; Prepare poster on second rotation <i>(Two weeks)</i>	3/30
3/23	Seeking and obtaining funding	organization and process at NIH (NIH Reporter) and NSF (NSF Award); types of funding mechanism; internal awards	Guest: Dr. David Parichy	Write an NIH BioSketch <i>(One week)</i> ; Finalizing schedule for presenters, compiling abstracts	3/30
3/30	In-class peer review of posters presentations (ideally additional career panelists)	some essential do's and don'ts of providing feedback; in-class feedback on poster	Come prepared to project and walk us through your poster; be prepared for feedback	Send to PI for comments (cc' Tracy); send for printing; confirming plans/presenters for symposium (forward confirmation to Tracy) <i>(One week)</i>	4/6
4/6	Career Panelist - Tech and Start-up; Reviews of grants and manuscripts	landscape of reviews - the good, bad, and ugly and how to process these into useful feedback	Guest: Dr. Daril Vilhena, Cedarai	Read through one set of reviews and rebuttal from current mentor and provide a one paragraph summary of your take on the review <i>(One week)</i>	4/13
4/13	Last preparations for public poster session and research symposium - set up				
>> April 14 <<	<i>Public poster session and research symposium</i>			Email summary of efforts to Tracy <i>(Six days)</i>	4/20
4/20	Operation of department, resolving issues, chain of command, Q&A with Chair of Biology	protecting yourself and those around you; requirements and ethical considerations when working with people and other vertebrates	Dr. Doug Taylor (chair of biology) to provide opportunity to meet with chair	3 Questions to ask (send to Tracy AND ask in meeting) <i>(Day of)</i>	4/20
4/27	Communicating science to non-experts; Course evaluations; Expand evaluations	knowing your target audiences; maximizing comprehension while maintaining scientific accuracy	Guest: Nivretta Thatra (5:15 - 5:45) & Elizabeth Svoboda (4:30 - 5:15)	Write summary of recent paper or preprint for a lay audience. Obtain review on lay article from mentor map. Email to Tracy, indicate reviewer. <i>(One week)</i>	5/4
5/4	<i>No class</i>			Last day to submit all work! No Exceptions.	

Zoom link (full invitation)

Topic: BIOLOGY 8250 PROFESSIONAL SKILLS FOR THE LIFE SCIENCES II

Time: This is a recurring meeting Meet anytime

Join Zoom Meeting

<https://virginia.zoom.us/j/98352813814?pwd=OFF6NXcrZnZvdUIUUE5DNVA1d2lldz09>

Meeting ID: 983 5281 3814

Passcode: 079770

One tap mobile

+13126266799,,98352813814#,,,,*079770# US (Chicago)

+14702509358,,98352813814#,,,,*079770# US (Atlanta)

Dial by your location

+1 312 626 6799 US (Chicago)

+1 470 250 9358 US (Atlanta)

+1 470 381 2552 US (Atlanta)

+1 646 518 9805 US (New York)

+1 646 558 8656 US (New York)

+1 651 372 8299 US (Minnesota)

+1 786 635 1003 US (Miami)

+1 267 831 0333 US (Philadelphia)

+1 301 715 8592 US (Washington DC)

+1 346 248 7799 US (Houston)

+1 602 753 0140 US (Phoenix)

+1 669 219 2599 US (San Jose)

+1 669 900 6833 US (San Jose)

+1 720 928 9299 US (Denver)

+1 971 247 1195 US (Portland)

+1 213 338 8477 US (Los Angeles)

+1 253 215 8782 US (Tacoma)

Meeting ID: 983 5281 3814

Passcode: 079770

Find your local number: <https://virginia.zoom.us/j/98352813814>

Join by SIP

98352813814@zoomcrc.com

Join by H.323

162.255.37.11 (US West)

162.255.36.11 (US East)

221.122.88.195 (China)

115.114.131.7 (India Mumbai)

115.114.115.7 (India Hyderabad)

213.19.144.110 (Amsterdam Netherlands)

213.244.140.110 (Germany)

103.122.166.55 (Australia Sydney)

103.122.167.55 (Australia Melbourne)

209.9.211.110 (Hong Kong SAR)

64.211.144.160 (Brazil)

69.174.57.160 (Canada Toronto)

65.39.152.160 (Canada Vancouver)

207.226.132.110 (Japan Tokyo)

149.137.24.110 (Japan Osaka)

Meeting ID: 983 5281 3814

Passcode: 079770