

ZOO 4926/6927: Research Scholarship, Fall 2017

Course Description

A variable topics course designed for undergraduate students participating in federally sponsored, research scholarship programs in the biomedical and life sciences. Objectives include development of scientific communication skills, ability to critically evaluate scientific research, scientific rigor and reproducibility, responsible conduct of research, and laboratory safety. 1 credit.

Prerequisites

Scholar or Trainee in UF Bioscience Scholars Program, MARC GatorSTAR Program, or SF2UF Bridge Program

Co-requisites

None

Instructor

David Julian, PhD, Dept. of Biology

Meeting Time and Location

Class meets Fridays, period 7, in 222 Carr Hall

Office hours

By appointment

Course Textbook

There is no required textbook for this course. Weekly reading materials will be accessible online.

Materials and Supplies Fees

There are no additional fees for this course.

Course Assignments

Weekly Research Activity Report

Starting with the second week, you will be expected to submit a research activity report each Friday by 11:59 pm. The report forms are available on the course e-learning site.

Interview Presentation

During the week 1 meeting, you will interview and be interviewed by one of your classmates. During week 2, you will give a two minute presentation about the classmate you interviewed.

Five-Minute Research Presentation

During week 3 or 4, you will give a five-minute PowerPoint presentation on your research. The basic format for any research talk is the following:

- 1) Background and significance (what your research group works on and why it's important)
- 2) Hypothesis or research question (the question or problem your specific research project is intended to address)
- 3) Research approach (the basic design of your experiment and key methods, if necessary)
- 3) Results (what you have found so far -- and of course at this early stage you may not have much yet)
- 4) Conclusion (what your results mean, or if you don't yet have any results yet, what you expect or hope to find)

For short talks like this, you will only have about 30-45 seconds for each part, so you don't need to go into much detail. Focus on making your presentation understandable to a broad audience; don't try to make it sophisticated. Make it a presentation for your peers, not for me.

Before you design and create your presentation, review the 3MT (three-minute thesis) presentations. You can learn more about this here: <http://www.sciencemag.org/careers/2015/06/your-thesis-3-minutes>. Many 3MT videos are here: <https://threeminutethesis.uq.edu.au/>.

Biotech Industry Report

Following the biotechnology industry presentation and tour, you will write a short report (1 page or less) on how you would approach your research project differently if you were working for a company (doing R & D). This might focus on Research and Development, developing product specifications and testing requirements for FDA approval, and the associated documentation. If your current research project focuses on a basic science question, consider how you might translate that research into a clinical, agricultural, or commercial application.

Graduate Programs Plan

Following the presentation on applying to graduate programs, you will write a short plan identifying three graduate programs that you think would be most interesting to you, explain why those three programs are attractive to you, and describe key experiences and skills that you think would make you competitive for admission to those programs.

High School Outreach

On October 6 we will host a visit by 50 students from a high school biotechnology academy. As a class and individually, we will develop and implement a plan for an afternoon of presentations and lab tours for these students.

Individual Development Plan

You will create an individual development plan (IDP) using the resources developed by AAAS (<http://myidp.sciencecareers.org/>).

Poster Presentation/Written Feedback

Each student will develop and present a poster of their research, provide constructive, written feedback on presentations by other students, or both. The presentations will be scheduled at the first class meeting.

Animal Care Training Module

Both the University of Florida and Federal Regulations require training and continuing education of all persons involved with animal care and use. The first level of training is completion of the "Working with the IACUC" course & exam. Each student must pass this exam (a passing score is 85%).

To access the training, go to the [AALAS Website \(https://dotnet.research.ufl.edu:4431/aalas_login/\)](https://dotnet.research.ufl.edu:4431/aalas_login/). Your account will automatically be created once you click on the AALAS Login button. Click on the "Tracks" tab on the left and select "UF Researchers – IACUC Training Modules" to bring up the courses, then select and complete the "Working with the IACUC" training module.

Graduate Student Presentation / Feedback

Each graduate student in the class will give a 40 minute research presentation. Each undergraduate in the class will provide written, constructive feedback on the presentation.

Class Participation

Your participation in each class session will be assessed.

Point Distribution

Assignment	Quantity	Points	Subtotal
Weekly Research Activity Reports	14	5	70
Interview Presentation	1	5	5
Five-Minute Research Presentation	1	20	20
Biotech Industry Report	1	10	10
Graduate Programs Plan	1	10	10
High School Outreach	1	20	20
Individual Development Plan, Part 1	1	5	5
Individual Development Plan, Part 2	1	15	15
Poster Presentation/Written Feedback	1	60	60
Animal Care Training Module	1	10	10
Graduate Student Presentation Feedback	1	15	15
Class Participation	12	5	60
Total			300

Grade Distribution

Point Range (%)	Letter Grade	Point Range (%)	Letter Grade
93.33 or higher	A	73.33-76.65	C
90-93.32	A-	70-73.32	C-
86.66-89.99	B+	66.66-69.99	D+
83.33-86.65	B	63.33-66.65	D
80-83.32	B-	60-63.32	D-
76.66-79.99	C+	< 60	E

- More information on grades and grading policies is here:
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Calendar

Wk	Date	Activity
1	Aug 25	Introduction and interviews
2	Sep 01	Interview presentations (2 minutes each)
3	Sep 08	Five-Minute Research Presentations: Allison, Darlin, Elizabeth, Frantzie, Marco, Oscheeca, Paula, Tabor, Zion
4	Sep 15	Five-Minute Research Presentations: Bryan, Julia, Alexis, Seanna, Rayann, Emily, Vera, Olivia, Jessica, Jacob
5	Sep 22	<i>Employment in the Biotechnology Industry</i> Tamara Mandell, MS, Assistant Director for the Education and Training Programs, UF CERHB [at CERHB, Progress Park, Alachua]
6	Sep 29	<i>Applying to Biomedical Graduate Programs</i> Thomas Rowe, PhD, Associate Dean for Graduate Education, College of Medicine
7	Oct 06	High School Outreach
8	Oct 13	<i>Individual Development Plans</i> Stephanie Wohlgemuth, PhD, Assistant Professor, Animal Sciences
9	Oct 20	Practice Poster Presentations: Paula, Yasmin, Zion, Olivia, Osheeca, Jessica
10	Oct 27	Practice Poster Presentations: Paula, Yasmin, Zion, Olivia, Osheeca, Jessica
11	Nov 3	No class meeting (ABRCMS): Complete "Working with the IACUC" training module
12	Nov 10	<i>Animal Care at UF</i> Karl A. Andrutis DVM, MS, Director of Animal Care Services [at ACS facility]
13	Nov 17	Graduate Student Presentation: Elizabeth Gordon
14	Nov 24	[Holiday]
15	Dec 01	Last Class Meeting

Class Policies

Extra Credit

- There will be no opportunities for extra credit.

Time Commitment

- The UF College of Liberal Arts and Sciences assumes that you will devote a total of 45 hours per credit to each course.

Class Attendance, Make-Up, and Late Work

- Class attendance is expected and students are expected to arrive on time. Excused absences are consistent with [university policies in the undergraduate catalog](#) and require appropriate documentation. Each *unexcused* absence will result in a 10% reduction of the total possible points in the final grade. Each late arrival will result in a 5% reduction of the total possible points in the final grade.
- If you must miss class, or miss an assignment or exam due to an allowable, scheduled absence (for example, to participate in a sanctioned university function), you must notify the instructor during the first week of classes or immediately after the event is scheduled.
- If you miss a class, an assignment or exam due to an allowable but *unscheduled* and *unpredictable* absence (e.g., illness), you must contact the instructor as soon as possible. In the case of illness, you must provide a signed note from your primary care provider indicating that you were *unable to attend class or complete the assignment* on the day(s) in question.
- Late work will not be accepted unless it is the direct result of an allowable but unscheduled and unpredictable absence, as defined above, at the discretion of the instructor.
- Makeup assignments and exams will be provided for students who miss an assignment or exam as the direct result of an allowable but unscheduled and unpredictable absence, as defined above. The composition and structure of the makeup assignment or exam will be at the discretion of the instructor.

Using Electronic Devices in Class

- As a courtesy to your classmates, you are prohibited from making video or audio recordings of class discussions or presentations made by fellow students.
- You may bring a laptop or tablet computer to class to take notes or access electronic course material, and there is no course policy against using such devices in class for other purposes. However, if the instructor perceives your activities to be a distraction to any other members of the class, you will be warned that you are being disruptive. Multiple disruptions will be grounds for the assignment of a failing grade.

Students Requiring Accommodations

- Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/ ([links to an external site.](#)) by providing appropriate documentation. Once registered, students will receive an accommodation letter, which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Course Evaluation

- Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times

when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

Class Demeanor

- Students are expected to arrive to behave in class in a manner that is respectful to the instructor and to fellow students. Opinions held by other students should be respected in discussions. Students who behavior in a manner that is disrespectful or otherwise disruptive will be asked to leave the class. Multiple occurrences will result in the assignment of failing grade.

University Honesty Policy

- UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Counseling and Wellness Center

- Contact information for the Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc/Default.aspx>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.