

Biology 2979: Introduction to Biological Research
Seattle Pacific University
Spring 2016

Instructor: Jenny Tenlen, Ph.D.

Office hours:

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Lab: Eaton 205

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MWF, 10:00 am - 12:00 pm, or by
appointment, or feel free to stop by at
any time

*“Seattle Pacific University seeks to change the world and engage the
culture by graduating students of competence and character,
cultivating people of wisdom, and modeling a grace-filled community.”
[SPU Mission Statement]*

Course Description

In Bio 2979, you will perform research on a project related to Dr. Tenlen’s research and write a report about your findings. For each credit, you are expected to work a minimum of 40 hours over the quarter (averaging about 4 - 5 hours/week).

Goals and Objectives

Biology Department: The objectives of the Biology Department can be found online at: <http://www.spu.edu/depts/biology/goals.asp>. Specific objectives for these courses are:

1. To design a research project.
2. To become better acquainted with research techniques in the field of developmental biology and the evolution of development (evo-devo).
3. To use statistical analyses to interpret findings.
4. To improve your ability to critically analyze the scientific literature.

University Objectives: The mission statement and goals of Seattle Pacific University can be found online at: <http://spu.edu/about-spu/mission-and-signatures>.

Course Outcomes & Expectations

1. Undergo necessary lab safety training, and observe lab safety rules at all times.
2. Use and maintain all lab equipment properly, keep lab space neat and tidy, and inform Dr. Tenlen of any issues (ordering needs, broken equipment, etc.) as soon as they come up.
3. Keep an accurate and detailed lab notebook. Dr. Tenlen reserves the right to check your notebooks at any time.
4. Attend weekly lab meeting with Dr. Tenlen at a time to be arranged.
5. Read and discuss 3 research papers throughout the quarter.

6. Write a progress report, due by the last day of finals week, **5pm on Thursday, June 9, 2016** (email is acceptable). Your report should be typed, 12-pt font, double-space, no longer than 3 pages, and should include the following:
- title of your project
 - background information
 - the goals of your project (big-picture question and specific goals to address that question)
 - summary of methods and results - you don't need to provide step-by-step protocols, but you should describe the general methods, the rationale for each method (i.e. why did you do it), and the outcome of the experiments (whether it was successful or not)
 - an overall summary of where you are in your project as it relates to your long-term goals, and description of future goals - what do you hope to accomplish, why, and how?

Course Policies

Plagiarism and Academic Integrity: Plagiarism is the representation of someone else's work as your own. Neglecting to properly cite references is the most common example of this. Plagiarism and other breaches of academic integrity (e.g. cheating or copying another student's work) will not be tolerated and will be dealt with severely. The first offense will result in a failing grade for the assignment in question. The second offense will result in a failing grade for the course and your actions will be reported to the University registrar. Please ask questions IN ADVANCE if you are not sure about what constitutes plagiarism, at this stage it is simply a learning exercise (i.e., not a breach of academic integrity) and you will be able to rectify the situation. *Once a paper is submitted, however, you will be held to the above guidelines.* Since a significant part of your grade in this course will involve written responses, it is a critical that you fully understand this policy.

Any instance of cheating or interfering with another student's ability to learn will not be tolerated. In either case, the guidelines from the Academic Integrity section of the Undergraduate Catalog will be followed. See the SPU undergraduate catalog for more information on academic integrity (<http://spu.edu/catalog/undergraduate/20156/academic-policies-procedures/integrity>).

Lab safety: Please observe all lab safety procedures. Goggles and appropriate footwear must be worn at all times in the lab. If you have concerns about handling or disposing of specific chemicals and reagents, please let Dr. Tenlen know. Material Safety Data Sheets for all harmful substances are available in the Safety Manual notebook in Eaton 205.

Inclement weather: The University maintains an Emergency Closure Hotline (206-281-2800). In the event of inclement weather or an emergency that might close the university, please call the Hotline for the most up-to-date closure information or check the SPU website. Both will be updated before 6:00 a.m.

Emergencies: If there is an emergency while working in Eaton 205, please exit the lab in a calm and orderly fashion and assemble in Tiffany Loop. Please report to Dr. Tenlen, or to appropriate personnel (usually, Emily Rose or Sue Martin).

Disabilities statement: In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, students with specific disabilities that qualify for academic accommodations should contact Disabled Student Services (DSS) in the Center for Learning (<http://www.spu.edu/depts/cfl/dss/index.asp>). DSS in turn will send a Disability Verification Letter to the course instructor indicating what accommodations have been approved.