

**BIO 6082: Research Proposal and Pilot Study (1 unit)**

**Biology Department**

**Dr. Dianne Anderson**

**Spring 2023**

**PLNU Mission: To Teach ~ To Shape ~ To Send**

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service becomes an expression of faith. Being of Wesleyan heritage, we aspire to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

***Course description for BIO6082***

Students identify a biology-related research problem, then prepare a brief literature review, research question, and research design, then carry out the pilot study with abbreviated analysis. For students planning to complete a thesis, the pilot study provides a chance to do important ground work before launching into the actual thesis work. For students choosing the non-thesis option, the pilot study provides a glimpse into the research process used to generate knowledge.

***Course learning outcomes***

1. Develop a research question, and construct a methodology to answer the question (continuation of BIO 6043).
2. Carry out the research by collecting and analyzing the data to answer the question.
3. Create and present both a written report and an oral presentation of the research study.

***Course credit hour information***

It is expected that the completion of the independent research and presentation required for this course will take approximately 38 hours, therefore, this class meets the PLNU credit hour policy for a 1-unit class.

***Instructor and contact information***

Due to the independent nature of this course, it will be important to contact me on an individual basis, either by e-mail, phone, zoom, or in person. I have standing office hours Mondays 1:30-3:00PM and 3:00-4:30PM, but am also happy to set up appointments.

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***Class sessions and attendance***

This course will only have 1 in-person meeting for student presentations of the pilot studies. However, regular communication with me by e-mail, phone or in-person is highly recommended so that feedback can be given in time for modification before due dates.

***Assignments and grading***

Grading scale:    A 90%    B 80%    C 70%    D 60%    F 50%

Final course grades will be recorded with – added to the lowest 2% and + added to the highest 2% within each range. For example, 91% = A- and 88% = B+

All assignments must be submitted to Canvas by midnight on the due date in order to earn full credit. Let me know if there are serious extenuating circumstances that would warrant an extension on deadlines.

Last day to add course: January 20, 2023

Last day to drop course: March 24, 2023

## Spring 2023 BIO 6082 Course schedule and assignments

(in addition to the assignments below, students will complete a 5 pts. Syllabus verification and a 20 pt. review of other students' PPT slides – see Canvas for details)

| Assignment                                    | Description  | Due date   |
|---|--|--|
| <i>Methodology</i><br>75 points               | <p><u>Based on feedback from BIO 6043</u>, revise and submit your introduction, literature review, methodology (including all documents needed to collect your data such interview questions, tests, etc.), and references. The methodology section must be written in paragraph form with these four subheadings:</p> <ul style="list-style-type: none"> <li>- Research design and justification (quantitative or qualitative)</li> <li>- Study setting and participants</li> <li>- Data collection (include descriptions of any instruments or tasks)</li> <li>- Data analysis (what analysis you plan to do).</li> </ul> <p>It is essential that you collect enough data to answer your question. To do this, you must have sufficient data to work with and to show that you can analyze and summarize it effectively. Surveys must have at least 10 questions with at least 2 open ended questions. A pilot study cannot be based on a survey with only yes or no questions. It is strongly suggested that you collect some written answers or conduct interviews.</p> <p>Data collection minimums:<br/>6+ interviews approximately 20 minutes long or 20+ survey responses using an instrument with 20+ MCQ or 10+ short answer</p> <p><u>Submit a document showing comments/feedback from BIO 6043, as well as the changes you have made. Below this “messy” version, add a “clean” version in the same document.</u></p> | February 1   |
| <i>Data collection</i><br>25 points           | Collect all of your data, then submit a summary document (1-2 paragraphs) describing <u>how</u> the data collection went (do not submit the actual data). What actually occurred? Often times what we plan, and what actually takes place are different. No analysis of results is required at this point.   | March 1  |
| <i>Data analysis</i><br>100 points            | Transcribe/code/analyze your data then submit your data analysis section and conclusions sections. What are your results, and what do they mean? Explain your findings in detail and provide specific evidence for any claims that you make.   | April 1  |
| <i>Pilot Study Presentation</i><br>200 points | Create and present a 15-minute PowerPoint presentation summarizing your pilot study to your peers. Be prepared to answer questions about your study. See the Pilot Study Presentation rubric for details. (Submit slides to Canvas as an assignment before the actual presentation.)   | Presentations<br>Tues., April 18<br>or<br>Tues., April 25<br>(depending on when POS meets) |
| <i>Pilot Study Report</i><br>500 points       | Create a Pilot Study Report summarizing the project and your results. Paper is to be approximately 8-10 pages in length, double spaced. See the Pilot Study Report rubric for scoring info.  | May 1  |

## GENERAL PLNU POLICIES

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### PLNU SPIRITUAL CARE

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#### **Balboa Campus:**

PLNU strives to be a place where you grow as whole persons. To this end we provide resources for our graduate students to encounter God and grow in their Christian faith. At the Balboa campus we have an onsite chaplain, Rev. Kevin Portillo who is available during class break times across the week. If you have questions, desire to meet with Rev. Portillo or prayer requests you can contact him directly at [KevinPortillo@pointloma.edu](mailto:KevinPortillo@pointloma.edu).

#### **Liberty Station Campus:**

PLNU strives to be a place where you grow as a whole person. To this end we provide resources for our Graduate students to encounter God and grow in their Christian faith. At the Liberty Station campus we have an onsite chaplain, Rev. Dave Hazel, who is available during class break times across the week. If you have questions, desire to meet or share a prayer request with Rev. Hazel you can contact him directly at [dhazel@pointloma.edu](mailto:dhazel@pointloma.edu) or feel free to call or text (913-231-3975).

#### **Mission Valley:**

PLNU strives to be a place where you grow as a whole person. To this end we provide resources for our Graduate students to encounter God and grow in their Christian faith. At the Mission Valley (MV) campus we have an onsite chaplain, Rev. Gordon Wong, who is available during class break times across the week. If you have questions for, desire to meet or share a prayer request with Rev. Wong you can contact him directly at [mcvhaplain@pointloma.edu](mailto:mcvhaplain@pointloma.edu) or [gordonwong@pointloma.edu](mailto:gordonwong@pointloma.edu). Rev. Wong's cell number is 808-429-1129 if you need a more immediate response.

In addition, on the MV campus there is a prayer chapel on the third floor which is open for use as a space set apart for quiet reflection and prayer.

### PLNU COPYRIGHT POLICY

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Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

### PLNU ACADEMIC HONESTY POLICY

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Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See the [Academic Honesty Policy](#) in the Graduate and Professional Studies Catalog for definitions of kinds of academic dishonesty and for further policy information.

### USE OF TECHNOLOGY

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In order to be successful in the online or hybrid environment, you'll need to meet the minimum technology and system requirements; please refer to the [Technology and System Requirements](#) information. Additionally, students are required to have headphone speakers, microphone, or webcams compatible with their computer available to use. Please note that any course with online proctored exams require a computer with a camera (tablets are not compatible) to complete exams online.

Problems with technology do not relieve you of the responsibility of participating, turning in your assignments, or completing your class work.

## **PLNU ACADEMIC ACCOMMODATIONS POLICY**

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PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities. Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center ([EAC@pointloma.edu](mailto:EAC@pointloma.edu) or 619-849-2486). Once a student's eligibility for an accommodation has been determined, the EAC will issue an academic accommodation plan ("AP") to all faculty who teach courses in which the student is enrolled each semester.

PLNU highly recommends that students speak with their professors during the first two weeks of each semester/term about the implementation of their AP in that particular course and/or if they do not wish to utilize some or all of the elements of their AP in that course. Students who need accommodations for a disability should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to assure appropriate accommodations can be provided. It is the student's responsibility to make the first contact with the EAC.

## **SEXUAL MISCONDUCT AND DISCRIMINATION**

Point Loma Nazarene University faculty are committed to helping create a safe learning environment for all students. If you (or someone you know) have experienced any form of sexual discrimination or misconduct, including sexual assault, dating or domestic violence, or stalking, know that help and support are available through the Title IX Office at [pointloma.edu/Title-IX](http://pointloma.edu/Title-IX). Please be aware that under Title IX of the Education Amendments of 1972, it is required to disclose information about such misconduct to the Title IX Office.

If you wish to speak to a confidential employee who does not have this reporting responsibility, you can contact Counseling Services at [counselingservices@pointloma.edu](mailto:counselingservices@pointloma.edu) or find a list of campus pastors at [pointloma.edu/title-ix](http://pointloma.edu/title-ix)

## **PLNU ATTENDANCE AND PARTICIPATION POLICY**

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Regular and punctual attendance at all **synchronous** class sessions is considered essential to optimum academic achievement. If the student is absent for more than 10 percent of class sessions (virtual or face-to-face), the faculty member will issue a written warning of de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university drop date or, after that date, receive the appropriate grade for their work and participation. See [Academic Policies](#) in the Graduate and Professional Studies Catalog. If absences exceed these limits but are due to university excused health issues, an exception will be granted.