



Physics and Engineering

EGR4092 Internship in Engineering

Number of Units 2

Hybrid (work for internship host + PLNU online tasks)

No Final Exam

Spring 2025

Instructor: Dr. Maria Zack

Phone: 619.849.2458

Email: mzack@pointloma.edu

Office hours:

In Person or Google Meet. [Use this link](#)Links to an external site. to book an appointment.

These are the times that I work to hold open for appointments. If none of them work you can email me to see if we can find another time. You can come to my office or join via Google meetings. My office is RS246.

Monday 1:00-2:00 PM

Tuesday 8:30-10:00 AM and 1:00-2:00 PM

Wednesday 1:45-2:45 PM

Thursday 8:30-10:00 AM

Friday 2:00-3:00 PM

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 is an expression of faith. Being of Wesleyan heritage, we strive to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

Department Mission

The Physics and Engineering Department at PLNU provides strong programs of study in the fields of Physics and Engineering. Our students are well prepared for graduate studies and careers in scientific and engineering fields. We emphasize a collaborative learning environment which allows students to thrive academically, build personal confidence, and develop interpersonal skills. We provide a Christian environment for students to learn values and judgment and pursue integration of modern scientific knowledge and Christian faith.

COURSE DESCRIPTION

A supervised experience in which the student works with industry professionals to gain experience in engineering. May be repeated up to a total of four (4) units. Credit/No Credit. Prerequisite(s): Student must have taken at least two upper-division engineering or physics classes and consent of instructor.

COURSE LEARNING OUTCOMES

- PLO1. Graduates of the program will demonstrate an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics (CC: CT)
- PLO2. Graduates of the program will demonstrate an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- PLO 3. Graduates of the program will demonstrate an ability to communicate effectively with a range of audiences (CC: OC, WC, IL)
- PLO 4. Graduates of the program will demonstrate an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- PLO 7. Graduates of the program will demonstrate an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

In addition, an internship is an opportunity for students to:

- Apply skills and knowledge learned in major courses to real business situations.
- Reinforce and expand previous conceptual learning through work experience.
- Develop “networks” in the business and professional community.

The PLO assessed in this course: PLO 4 Graduates of the program will demonstrate an ability to recognize ethical and professional responsibilities in engineering situations and make informed

judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

The signature assignment for this assessment: Ethics Exercise

REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

There is no textbook for this class.

COURSE CREDIT HOUR INFORMATION

In the interest of providing sufficient time to accomplish the stated Course Learning Outcomes, this class meets the PLNU credit hour policy for a 2 unit class delivered over fifteen weeks. Specific details about how the class meets the credit hour requirement can be provided upon request. (Based on 37.5 hours of student engagement per credit hour.)

Distribution of Student Learning Hours	
Category	Time Expectation in Hours
Work at internship location (verified via time sheets).	80
Reading Assignments	5
Written Assignments	10
Other Assignments & Learning Activities	1
Total Hours	96

ASSESSMENT AND GRADING

Graded Components

- **Academic Internship Contract:** You must complete an “Academic Internship Contract” and turn it in to me no later than midnight on Friday of the second week of classes. The form is attached. The person who is to supervise you at your internship work place must sign as your on-site supervisor and I must sign as your department sponsor. Please be as precise as possible in specifying your duties as an intern and the skills you hope to develop. Your internship should not be considered valid for academic credit until I have approved and signed your completed contract.
- **Weekly Timesheets:** Each week you need to turn in your timesheet indicating the hours that you have worked and what you did during those hours. The timesheet must be signed by your supervisor. Each weekly report covers Monday through Saturday of that week and is due by Wednesday of the following week. You can find a link to the timesheet in the relevant assignment. Please upload you signed timesheet in Canvas.

- **Internship Evaluation Essay:** There are multiple steps in preparing this essay and a assignment related to each step. This brief paper asks you to reflect on the quality of your internship, what new things you learned and how the work connects with the coursework that you have taken. *This should include references to articles and books that you have read to gain technical knowledge for your internship.*
- **Ethics Assignment:** There will be an assignment due at the end of the semester that will ask you to consider some of the ethical issues that you observed or encountered during your internship.
- **Examinations and the Final Examination.** There are no examinations in this class.
- **Late work will not be accepted** without prior consent or a well-documented emergency.

Grading Distribution	Percent
Contract Documents	5
Time Sheets	35
Paper Outline	10
Paper Draft	10
Final Paper	30
Ethics	10
Total	100

Grading Scale

Approximate minimal percentages required to obtain a given grade are:

Standard Grade Scale Based on Percentages					
	A	B	C	D	F
+		87.5- 90	77.5-80	67.5-70	
	92.5 -100	82.5-87.5	72.5-77.5	62.5 -67.5	0-60
—	90-92.5	80-82.5	70-72.5	60-62.5	

INCOMPLETES AND LATE ASSIGNMENTS

All assignments are to be submitted/turned in by the beginning of the class session when they are due—including assignments posted in Canvas. Incompletes will only be assigned in extremely unusual circumstances.

CLASS ENROLLMENT

It is the student's responsibility to maintain his/her class schedule. Should the need arise to drop this course (personal emergencies, poor performance, etc.), the student has the responsibility to

follow through (provided the drop date meets the stated calendar deadline established by the university), not the instructor. Simply ceasing to attend this course or failing to follow through to arrange for a change of registration (drop/add) may easily result in a grade of F on the official transcript.

ARTIFICIAL INTELLIGENCE (AI) POLICY

Use of Artificial Intelligence (AI) tools (e.g, ChatGPT, iA Writer, Marmot, Botowski) to generate content (text, video, audio, images) that will end up in any work submitted to be graded for this course is not permitted. Use of these tools will be treated as plagiarism. If you have any questions about using AI, please discuss this with the instructor.

PLNU ACADEMIC ACCOMODATIONS POLICY

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities in accordance with the Americans with Disabilities Act (ADA). Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center (EAC@pointloma.edu or 619-849-2486). Once a student's eligibility for an accommodation has been determined, the EAC will work with the student to create an Accommodation Plan (AP) that outlines allowed accommodations. The EAC makes accommodations available to professors at the student's request.

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. Accommodations are not retroactive so clarifying with the professor at the outset is one of the best ways to promote positive academic outcomes.

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. Students cannot assume that because they had accommodations in the past, their eligibility at PLNU is automatic. All determinations at PLNU must go through the EAC process. This is to protect the privacy of students with disabilities who may not want to disclose this information and are not asking for any special accommodations.

ADDITIONAL COURSE INFORMATION

Additional PLNU policies and practices that apply to this course can be found at the following link: <https://docs.google.com/document/d/18i1pUoY0iCfB8w7JKxVvACQW309X-JRB/edit?usp=sharing&ouid=116164865489739533893&rtpof=true&sd=true>Links to an external site.

Course Summary:

Date	Details	Due
Wed Jan 22, 2025	Assignment Week 1 Time Sheet	due by 11:59pm
Fri Jan 24, 2025	Assignment Contract Work	due by 5pm
	Assignment Location Paperwork	due by 5pm
Wed Jan 29, 2025	Assignment Week 2 Time Sheet	due by 11:59pm
Wed Feb 5, 2025	Assignment Week 3 Time Sheet	due by 11:59pm
Wed Feb 12, 2025	Assignment Week 4 Time Sheet	due by 11:59pm
Fri Feb 14, 2025	Assignment Schedule a Meeting To Discuss Reading	due by 11:59pm
Wed Feb 19, 2025	Assignment Week 5 Time Sheet	due by 11:59pm
Wed Feb 26, 2025	Assignment Week 6 Time Sheet	due by 11:59pm
Wed Mar 5, 2025	Assignment Week 7 Time Sheet	due by 11:59pm
Wed Mar 12, 2025	Assignment Week 8 Time Sheet	due by 11:59pm
Wed Mar 19, 2025	Assignment Week 9 Time Sheet	due by 11:59pm
Sun Mar 23, 2025	Assignment Paper Outline	due by 11:59pm
Wed Mar 26, 2025	Assignment Week 10 Time Sheet	due by 11:59pm
Wed Apr 2, 2025	Assignment Week 11 Time Sheet	due by 11:59pm

Date	Details	Due
Fri Apr 4, 2025	Assignment Draft of Paper	due by 11:59pm
Wed Apr 9, 2025	Assignment Week 12 Time Sheet	due by 11:59pm
Wed Apr 16, 2025	Assignment Week 13 Time Sheet	due by 11:59pm
Wed Apr 23, 2025	Assignment Week 14 Time Sheet	due by 11:59pm
Wed Apr 30, 2025	Assignment Week 15 Time Sheet	due by 11:59pm
Sun May 4, 2025	Assignment Final Paper	due by 11:59pm
Wed May 7, 2025	Assignment Ethics	due by 11:59pm