

PHY 495 – Seminar in Physics

1 Units

Spring 2016

Professor: Dr. Heide Doss

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Office Hours: Th 9:00-12, or by appointment (RS 216)

Regular meeting times January 12, 2015 – April 29, 2015 (NOTE: T Jan 12 is a M schedule)

Lecture: Th 12:25 pm – 1:20 pm (Rohr Science 211)

Final Exam: Thursday, May 5, 1:30 AM to 4:00 PM

Textbook: None

Course Description: Seminar in Physics is designed to give students an opportunity to explore an area of physics that is of particular interest in today's society.

Student Learning Outcomes: By the end of this course students will be able to demonstrate the following skills:

1. Effective reading of scientific literature;
2. Presentation of scientific material from literature;
3. Group collaboration on a scientific project;
4. Writing a paper as a group in the format of current journal articles, along with peer review;
5. Presenting a group project in both video format and conference format;

Final Grades: Successful completion of this course is based on satisfactory completion of activities, active participation in discussions, and successful presentations.

Collaboration: Scientists and engineers collaborate, and I expect and encourage you to collaborate with your peers, however your work should be your own. The guideline is that you should have no trouble explaining or repeating the work you turn in.

Final Exam: The final is set for **Thursday, May 5, 1:30 PM to 4:00 PM**. This time may be used for final presentations.

Attendance and Participation: Regular and punctual attendance at all classes is considered essential. Some activities through this course occur only during class time and cannot be made-up. Let me know in advance if you must miss class. Attendance is one factor used in determining borderline grades. If absences become excessive, you will be required to meet with me and the situation will be dealt with on a case-by-case basis.

Academic Integrity and Honesty: All students are expected to uphold the highest standards of honesty and integrity in their academic work. Cheating or plagiarism may result at a minimum in failure on the assignment and may result in an automatic failure in this course. Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. As explained in the university catalog, 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. Violations of university academic honesty include cheating, plagiarism, falsification, aiding the academic dishonesty of

others, or malicious misuse of university resources. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for a) that particular assignment or examination, and/or b) the course following the procedure in the university catalog. Students may appeal also using the procedure in the university catalog. See the university catalog, Academic Policies for further information.

Academic Accommodations: While all students are expected to meet the minimum academic standards for completion of this course as established by the instructor, students with disabilities may require academic accommodations. At Point Loma Nazarene University, students requesting academic accommodations must file documentation with the Disability Resource Center (DRC), located in the Bond Academic Center. Once the student files documentation, the Disability Resource Center will contact the student's instructors and provide written recommendations for reasonable and appropriate accommodations to meet the individual needs of the student. See Academic Policies in the undergraduate academic catalog. This policy assists the university in its commitment to full compliance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities (ADA) Act of 1990, and ADA Amendments Act of 2008, all of which prohibit discrimination against students with disabilities and guarantees all qualified students equal access to and benefits of PLNU programs and activities.

FERPA Policy: In compliance with federal law, neither PLNU student ID nor social security number should be used in publicly posted grades or returned sets of assignments without student written permission. This class will meet the federal requirements by distributing grades and papers individually. Also, in compliance with FERPA, you will be the only person given information about your progress in this class unless you have designated others to receive it in the "Information Release" section of the student portal. See Policy Statements in the undergrad academic catalog.

Tentative Syllabus – subject to updates**GOAL: Class where you'll be learning skills while exploring things you are interested in.****HW: The general rule is 2 and 3 hours outside of class per unit hour of class, each week.**

Date	Topics and Readings	Assignments
1/14/16 Th	Science in literature	Read one science article written for the general public, and one for the general scientist. Be ready to share and discuss
1/21/16 Th	Scientific literature	Read one scientific research paper. Be prepared to discuss it.
1/28/16 Th	Scientific literature – form, process	Write an article for the general scientist and the general public about the science in research article you read.
2/4/16 Th	Discussion of presentations / Introduction of project	Prepare a 10 minute presentation about scientific research in the article or paper.
2/11/16 Th	Presentations – discussion	Pick a project
2/18/16 Th	Presentations - discussion	Proposal of project
2/25/16 Th	Presentations – Project discussion	Work on project, think about video production
3/3/16 Th	Update on projects, work on projects	Project – Write up background information section for project, work on mid project presentation – consider beginning video production
3/7-11/16	No Classes - Spring Break	
3/17/16 Th	Present background information and give mid project presentations	Project. Video production. Find, read and be ready to discuss a current science topic.
3/24/16 Th	Discussion of current science topics. Updates on projects	Project – Write up your research part of project (as much as is done). Video production
3/31/16 Th	Present/discuss research part of project	Project – Analysis on your results. Video production
4/7/16 Th	Present/discuss analysis	Project – Complete paper, conclusion and abstract. Video production.
4/14/16 Th	Assignment of peer review – discussion of peer review.	Project – Peer reviews. Video productions
4/21/16 Th	Video productions	Update final paper based on peer reviews.
4/28/16 Th	Video productions. Reflections. Current science topics	Finalize paper based on peer review. Find, read, and be ready to discuss a current science topic.
5/5/16 Th	FINAL EXAM 10:30 am - 1:00 pm	Final presentations
	Grades turned in by May 15	