

California Lutheran University

Bachelor's Degree for Professionals

Course Number and Title – Physics 100L Introduction to Astronomy Lab

Term – Fall 2016, August 29 – November 14

Campus & Classroom number – The lab will be held in the Facilities Department Conference room (in order to facilitate laboratory experiments). The Facilities Department is at 3530 Campus Drive.

Drop Dates: September 12th Last day to add/ drop without financial penalty

October 10th Last day to withdraw without academic penalty

Instructor: Ryan VanOmmeren,

Instructor Contact: rvommere@callutheran.edu

Office Hours/Tutoring: I am full-time staff at CLU and can be available most days with an appointment. I am also available for drop-in before most classes.

Course Description

This course is delivered in seven lab sections mostly lasting 4.5 hours each. Each lab covers some aspect of physics that can relate both to astronomic observation and science on earth. Students must attend all sessions to pass the course. Make up work will only be allowed in extreme circumstances.

Textbooks

There is no text required for the lab

Course Outcomes

At the end of the course, the student will be able to:

1. Produce charts and graphs illustrating scientific phenomenon.
2. Record and produce data following scientific process.
3. Understand scientific process.
4. Understand atmospheric pressure, and how it relates to elevation.
5. Understand lift and its relationship to weight.
6. Understand gravity and its relationship to velocity.
7. Understand momentum, and its relationship to mass.
8. View stars and planets in the night sky.
9. Connect scientific observations above with stars, planets, and space.

Class Format

Each lab will consist of a lab experiment conducted by student teams, followed by student development of a lab report reflecting scientific process. Experiments are performed with everyday materials that are configured with measurement instruments. As an example, in lab three students will be floating a camera to 500 feet. All materials and tools will be provided by the instructor.

Course Assignments/Requirements/Course Schedule

Class#	Date	Class Experiment	Homework Due
1	Saturday, September 10, 2016 9:00 AM - 1:30 PM	Fundamentals of measurement, recording data, and producing a report.	
2	Saturday, September 17, 2016 9:00 AM - 1:30 PM	Lift, weight, and measurement	Lab 1 Report
3	Saturday, September 24, 2016 9:00 AM - 1:30 PM	Barometric pressure, force of gravity	Lab 2 Report
4	Saturday, October 01, 2016 9:00 AM - 1:30 PM	Solar power, power from the sun, illumination vs. power	Lab 3 Report Topic Selection
5	Saturday, October 08, 2016 9:00 AM - 1:30 PM	Water, evaporation, and other principles of water.	Lab 4 Report
6	Saturday, October 15, 2016 9:00 AM - 1:30 PM	Student Presentations	Lab 5 Report Student Presentation
7	Saturday, October 22, 2016 7:00 PM – 10:00 PM	Orionids Meteor Shower	Lab 6 Report

Student Workload/Carnegie Hours:

Activity	Instructor-Led Hours		Homework Hours		Remarks
	Weekly	Course	Weekly	Course	
Weekly Classes	7 hr.	42			Includes final presentations
Lab Report Preparation			6	36	Average, varies by student
Student Project				20	Average, varies by student
Total		42		56	

Grading

CRITERION

1. Lab Reports

2. Student Project

PORTION

80%

20%

GRADING SCALE GRADE PERCENTAGE

A 95-100

A- 90-94.9

B+ 86-89.9

B 83-85.9
B- 80-82.9
C+ 76-79.9
C 73-75.9
C- 70-72.9

Attendance Policy

As the lab only meets six times, attendance is crucial for passing the course.

Course Evaluations Statement

All course evaluations are conducted online. Your feedback is important to us. You will receive an email message reminding you when the website is open for your feedback. The link is:

<http://courseval.callutheran.edu>

Disability Statement

California Lutheran University is committed to providing reasonable accommodations in compliance with ADA of 1990 and Section 504 of the Rehabilitation Act of 1973 to students with documented disabilities. If you are a student requesting accommodations for this course, please contact your professor at the beginning of the semester and register with the Disability Support Services Coordinator, Wendy Jimenez, for the facilitation and verification of need. The Disability Support Services Coordinator is located in the Center for Student Success Office at 3259 Pioneer Street, and can be contacted by calling 805.493.3878 or emailing wjimene@callutheran.edu

Statement on Academic Honesty

The educational programs of California Lutheran University are designed and dedicated to achieve academic excellence, honesty and integrity at every level of student life. Part of CLU's dedication to academic excellence is our commitment to academic honesty. Students, faculty, staff and administration share the responsibility for maintaining high levels of scholarship on campus. Any behavior or act which might be defined as "deceitful" or "dishonest" will meet with appropriate disciplinary sanctions, including dismissal from the University, suspension, grade F in a course or various forms of academic probation. Policies and procedures regarding academic honesty are contained in the faculty and student handbooks.

Plagiarism, cheating, unethical computer use and facilitation of academic dishonest are examples of behavior which will result in disciplinary sanctions. Plagiarism includes, but is not limited to:

- word for word copying without using quotation marks or presenting the work as yours
- using the ideas or work of others without acknowledgement
- not citing quoted material. Students must cite sources for any information that is not either the result of original research or common knowledge.

Standards of Student Conduct Statements:

- [Student Life Handbook](#)
- [Academic Honesty Statement](#)

University Harassment Policy

Be civil to each other, both on- and offline. For information on the University's **student harassment policy and rights, please go to the following link:**

[Student Life Handbook](#)

Pearson Library

Pearson Library provides access to scholarly books, journals, ebooks, and databases of full text articles from scholarly journals. To begin using these materials, visit the library web page

<http://www.callutheran.edu/library>

There are many ways to contact Pearson Library for research assistance, no matter where you are!

- Email Yvonne Wilber (Professionals liaison) at ywilber@callutheran.edu
- General Library email: CLUlibrary@callutheran.edu
- Library main phone: 805.493.3250
- Text us your question: 805.493.3867
- Get more help at: <http://www.callutheran.edu/library/help/>

Cal Lutheran Writing Center

The Writing Center provides 1:1 writing consultations, in-person and online, with trained undergraduate and graduate writing consultants. We welcome all writing-related projects at any stage of the writing process across the diverse disciplines of study at Cal Lutheran. The Writing Center also hosts writing workshops, provides in-class visits, facilitates writing groups, and offers a writer's studio option for longer, sustained projects. Services suit writers of all levels, including traditional undergraduates, graduate students from all fields, all English language learners, and accomplished scholars alike. All members of the Cal Lutheran community with an @callutheran.edu email address are welcome to make use of our services. For more information, please visit at www.callutheran.edu/writing_center or call 805.493.3257. Please schedule appointments online through MyCLU Blackboard with the yellow "The Writing Center" icon in "Tools," or stop by The Writing Center itself, located in the Darling Collaboration Suite of Pearson Library.

Sexual Misconduct

California Lutheran University does not tolerate any degree of sexual misconduct on or off-campus. We encourage you to report if you know of, or have been the victim of, sexual harassment, misconduct, and/or assault. If you report this to a faculty member, she or he must notify Cal Lutheran's Title IX Coordinator about the basic facts of the incident. More information about your options for reporting can be found at: <http://www.callutheran.edu/title-ix/>

Veterans Resources

If you are a veteran, military member, or a family member of a veteran or military member, please refer to Cal Lutheran's Veterans Resources webpage for important information: <http://www.callutheran.edu/veterans/>. Also, if you are a veteran receiving benefits and you are struggling in a class, you most likely qualify for free tutoring. Please contact the Veterans Coordinator, Jenn Zimmerman, veterans@callutheran.edu or 805.493.3648, for more information.

Help Desk

Students may contact the Help Desk about telephone, network, wireless network, software questions password problems, hardware problems, and general consultation (i.e. you cannot log into your MyCLU portal, or you are having problems with Blackboard). Please email specific details about your problems to helpdesk@callutheran.edu, click on the following link for more

information http://www.callutheran.edu/iss/technology_services/helpdesk.php or call:
805.493.3698

Final Note

This syllabus is subject to change. Every effort will be made to alert students to changes that occur in a timely manner.

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