

PHYSICS 7 – SYLLABUS – SPRING 2013

Ticket No. 3407: Prerequisite: Physics 6

Class Meets: Monday-Wednesday, 6:50 p.m. – 10:00 p.m.

INSTRUCTOR: Richard Rains
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REQUIRED TEXTS: “College Physics” by Serway/Vuille, 9th edition, Vol. 2
ISBN 0-8400-6850-6
Mission College Bookstore: New: \$149; Used; \$112
Amazon.com: New: \$37; Used: \$20

“Physics 7 Lab Book”: College Bookstore: approx \$5.00

OFFICE HOURS: M-TU-TH 1:00 p.m. to 3:00 p.m.

COURSE DESCRIPTION: a survey of basic physics using algebra and trigonometry, with emphasis on electricity, magnetism, optics and modern physics.

GRADING: The final course grade will be determined by:

Monday chapter quizzes 20% of final grade

Wednesday mini-quizzes 10%

Midterm Exam: Mon. March 25 20%
(Chapters 15-21)

Final Exam: Mon June 3, 7:00 p.m.
(Chapters 22-29) 20%

Weekly Homework: 10%

Lab Reports: 10%

Lab Final Exam: Mon. May 20 10%
(May 27 is Memorial Day)

STUDENT LEARNING OUTCOMES

1. calculate the magnitude and direction of electrical and magnetic forces and fields under diverse circumstances
2. determine image characteristics for various lens and mirror configurations
3. find voltages, currents, powers and phases of different a.c. and d.c. electrical circuits
4. solve problems relating to relativity, quantum physics, atomic and nuclear physics
5. acquire, analyze and graph scientific data collected with instruments during laboratory experiences.

MONDAY QUIZZES: At the beginning of the lab session, each Monday, there will be a one-hour, closed-book quiz. (A formula sheet will be provided.)

The Monday quiz will be given only during the first hour of class. If a quiz is missed, no make-up quiz will be given, and missed quizzes will be recorded as zero. However, to account for personal emergencies, the two lowest quiz grades will be dropped at the end of the semester.

Quizzes are closed book, closed notes. Useful formulas will be provided for use during the quizzes.

MINI-QUIZZES: A chapter is assigned to be read for each Wednesday, with a brief mini-quiz on that chapter at the beginning of that Wednesday's lecture period (see reading schedule below).

Only students who arrive during the first 15 minutes of class may take the mini-quiz. If a mini-quiz is missed, no make-up mini-quiz will be given, and missed mini-quizzes will be recorded as zero. However, the two lowest mini-quiz grades will be dropped at the end of the semester.

HOMEWORK: Homework is accepted only during the first 15 minutes of the class period on the day it is due. No late homework is accepted under any circumstances. However, the two lowest homework grades will be dropped at the end of the semester.

LAB: The lab final exam is an open-lab-report exam, so good quality and complete reports will greatly aid in taking this exam.

No make-up labs will be given, but the one lowest lab report grade will be dropped at the end of the semester. If a student misses a lab session, he/she is still responsible for questions about that lab on the final examination.

Measurements made in the lab must be recorded in the pre-printed data sheets provided in the Lab Handout Booklet available in the Bookstore. Any student not using the pre-printed sheets by the third week of the semester will lose 10% on the lab report grade.

MIDTERM AND FINAL EXAMS: Exams are closed book, closed notes. Useful formulas will be provided for use during the exams.

No early or late exams will be given under any circumstances. Please arrange your life accordingly.

GRADES: will be posted on the internet at: <http://www.lamission.edu/~rainsre>

Approximate grading scale for quizzes, mini-quizzes, tests and final course grade:

90% – 100% = A, 75% – 89% = B, 65% – 74% = C, 40%– 64%= D

PLAGIARISM: Lab reports must be written by the individual student. Any material which is word-for-word the same as another source must be placed in quotes with the source citation. Any word-for-word segments not in quotes will be considered as plagiarism. The grade for such a lab report will be zero.

CELL PHONE/IPOD POLICY: No cell phone activity of any kind, including text messaging, is allowed in the classroom at any during the lecture or lab. The physics lab is a “No-Cell-Phone-No-Ear-Bud Zone.”

ETHICS POLICY: Any student found to be cheating on any quiz or test will receive an immediate zero on that activity. Cheating on the Final Exam will result in a grade of F for the class.

DATES listed on this syllabus may change. Each student is responsible for current class announcements, whether he/she is present in class or not.

Last Day to drop the class without a "W": Feb. 18

Last Day to drop the class with a "W": May 3

NOTE: It is the student’s responsibility to drop the class. After the final census date, the instructor is not responsible to exclude students who have become inactive.

You can get help from Learning Center Resources:

If you need help or feedback while you are working on your assignments, visit the Science Success Center (SSC) at the Learning Resource Center, located on the 1st floor of the Library building (Room 208). Free tutoring will also be available Monday through Thursday from 11AM-7PM. Check out the schedule for Science related workshops. Join your peers and tutors at LAMC SSC on Facebook for class discussions. Enroll in a study group.

<http://lamission.edu/learningcenter/ssc.aspx>

Reading Assignments for mini-quizzes:

Feb 6: Chapter 15, Electric Forces and Electric Fields

Feb 13: Chapter 16, Electrical Energy and Capacitance

Feb 20: Chapter 17, Current and Resistance

Feb. 27: Chapters 18, Direct-Current Circuits

March 6: Chapter 19, Magnetism

March 13: Chapter 20, Induced Voltages and Inductance

March 20: Chapter 21, Alternating Current Circuits and Electromagnetic Waves

March 27: Chapter 22, Reflection and Refraction of Light

April 3: Spring Break

April 10: Chapter 23, Mirrors and Lenses

April 17: Chapter 24, Wave Optics

April 24: Chapter 25, Optical Instruments

May 1: Chapter 26, Relativity

May 8: Chapter 27, Quantum Physics

May 15: Chapter 28, Atomic Physics

May 22: Chapter 29, Nuclear Physics