PHYSICS 7 – LAB SYLLABUS – SPRING 2014

Ticket No. 3407: Prerequisite: Physics 6

Lab Meets: Wednesday, 6:50 p.m. – 10:00 p.m.

INSTRUCTOR: Richard Rains
Office Phone (818) 364-7702
Email: rainsre@lamission.edu
Web Site: http://www.lamission.edu/~rainsre

REQUIRED TEXTS: "Physics 7 Lab Experiments": College Bookstore: approx $5

OFFICE HOURS: M-Tu-W-Th-F 2:00 – 3:00 p.m.
Office number: CMS 237 - 241

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

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.

LAB FINAL: Date: May 20 (May 27 is a holiday)

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.

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

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 POLICY: No cell phone activity of any kind, including text messaging, is allowed in the classroom at any time, before, during, or after class. The physics lab is a "No-Cell-Phone-No-Ear-Bud Zone."

IPOD POLICY: Please remove all ear buds and headphones upon entering the classroom..

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":	February 23
Last Day to drop the class with a "W":	May 11

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.

Tentative Schedule of Lab Experiments

Feb 11: Electrostatics
Feb 18: Mapping Electrical Fields: Graphical Method
Feb 25: Electric Field by Equipotentials
March 4: Ohm's Law
March 11: Wheatstone Bridge
March 18: Potentiometer
March 25: Meter Sensitivity
April 1: RC Circuit
April 8: Spring Break
April 15: Oscilloscope
April 22: Ray Optics
April 29: Refraction and Total Internal Reflection
May 6: Focal Lengths of Lenses
May 13: Diffraction and Interference
May 20: Lab Final Exam