

Physics 374

Fall Semester 2014

Instructor – Eric Barnes, 2012 Cowley, 785-8437

Email – barnes.eric@uwlax.edu

Office Hours – 12:05 - 2:05 PM Tuesdays, 9:55 - 11:55 AM Thursdays, by appointment, or just drop by (I'm normally in)

Instructor – Rob Salgado, 116 Cowley, 785-6684

Email – rsalgado@uwlax.edu

Office Hours –

Meeting Times

2:15 - 5:15 PM, Mondays and Wednesdays, in 252 Cowley Hall

–Course Description–

This course is an introduction to computational physics using MatLab. Students will learn the fundamentals of applying numerical and graphical methods to a variety of physics topics ranging from mechanics, optics, electrodynamics, thermodynamics, and quantum mechanics.

–Learning Objectives–

When this class is over, you will be able to –

- confidently program in MatLab
- use computational techniques to solve a variety of physics problems

–Responsibilities–

Please read the entire syllabus carefully; you are responsible for all of the requirements and procedures described here. You are also responsible for all announcements, assignments, changes, etc., **regardless of your class attendance.**

–Assessments & Exams–

Students will complete informal reports for each topic covered. An example informal report will be provided. The instructors will choose one topic for which each student will prepare a formal report. Students will choose a final project from a list prepared by the instructors.

There will be one programming exam given during the semester. More details will be provided later in the semester.

–Required Texts–

- *An Introduction to Computer Simulation Methods* – Gould & Tobochnik.

–Course Policies and Procedures–

Special Needs — Any student with a documented disability (e.g., physical, learning, psychiatric, vision, or hearing, etc.) who needs to arrange reasonable accommodations must contact the instructor and the Disability Resource Services office (165 Murphy Library, 785-6900) at the beginning of the semester. Students who are currently using the Disability Resource Services office will have a copy of a contract that verifies they are qualified students with disabilities who have documentation on file in the Disability

Resource Services office. It is the student's responsibility to communicate their needs with the instructor in a timely manner.

Academic Standards — The academic conduct and discipline procedures outlined in Chapter 14 of the University of Wisconsin – La Crosse Student Handbook will be followed. You are responsible for being familiar with these. Students are welcome to work together, exchange ideas, etc. However, EACH STUDENT MUST MAKE HIS/HER OWN MEASUREMENTS AND OWN CALCULATIONS. Copying of someone else's measurements or calculations is equivalent to cheating and will be handled accordingly.

Makeup Information — Assignments and exams must be completed and handed in on the appointed dates. The instructors will determine how to handle late work or missed exams.

GRADING	
Aspect	% of Grade
Informal Reports	50%
Formal Report	20%
Mid-term Practical	10%
Final Project	20%
Total for the Course	100%

Grades will be assigned by the following scale

- A : 93% – 100%
- A/B : 88% – 93%
- B : 78% – 88%
- B/C : 74% – 78%
- C : 65% – 74%
- D : 50% – 65%
- F : 0% – 50%