COURSE INFORMATION – PHYS:1200:0001

THE PHYSICS OF EVERYDAY EXPERIENCE

SPRING 2016  MWF  11:30 AM–12:20 PM  LR-1 VAN

COURSE GOAL

To discover the basic principles of physics from everyday experience.

COURSE WEBPAGE

- The course webpage can also be accessed from the course ICON webpage.

INSTRUCTOR CONTACT INFORMATION

- Instructor: Professor Robert L. Merlino
- Office: 405 Van Allen Hall
- Phone: 335-1756
- E-mail: robert-merlino@uiowa.edu
- Office Hours: Tues. and Thurs. 9:45A–11:15A, or email me to set up a meeting.

DEPARTMENT OF PHYSICS AND ASTRONOMY

- Physics Department Office: 203 Van Allen Hall, 335-1686
- DEO: Professor Frederick Skiff, 207 VAN, 335-1689
  EMAIL: frederick-skiff@uiowa.edu
- Associate DEO: Professor Craig E. Pryor, 402 VAN, 335-0099
  EMAIL: craig-pryor@uiowa.edu

COURSE TEACHING ASSISTANT

A TA will be available for help outside of class. The TA's contact information will be posted on the course webpage under the Help Outside of Class link.
COURSE MATERIALS  (Lecture notes, Lecture Presentations, and Assignments)

- No textbook purchase is required for this course.
- The instructor provides a set of Lecture Notes for each lecture to accompany the Lecture Presentations.
- Assignments that include review questions and problem exercises are also provided.
- The Lecture Notes, Lecture Presentations, and Assignments are posted below.

COURSE DESCRIPTION

- Basic principles of physics for non-science majors
- Lecture demonstrations will be used to illustrate the phenomenon
- This course is eligible for Courses In Common Options.
- This course is an approved General Education Course. For students admitted for Summer 2011 and after, it satisfies the Natural Science without Lab requirement; or students admitted before Summer 2011: Natural Science without Lab
- There are no prerequisites, co-requisites, or restrictions for this course.
- This course contains both a conceptual and quantitative components.
- The math content of this course requires the ability to perform simple arithmetic and very basic high school algebra but not trigonometry.
- A review of basic math is given as an assignment with the first lecture.

TOPICS COVERED IN THIS COURSE

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<th>UNIT</th>
<th>TOPIC</th>
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<td>4</td>
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<td>Light and Optics</td>
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<td>7</td>
<td>Atomic and Nuclear Physics</td>
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<td></td>
<td>TOTAL</td>
<td>36</td>
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COURSE EXAMINATIONS

<table>
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<tr>
<th>EXAM</th>
<th>DAY</th>
<th>DATE</th>
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<th>ROOM</th>
<th>POINTS</th>
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<tr>
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<td>Wednesday</td>
<td>February 17</td>
<td>11:30 A - 12:20 P</td>
<td>LR-1 VAN</td>
<td>25</td>
<td>1 - 11</td>
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<tr>
<td>2</td>
<td>Wednesday</td>
<td>March 30</td>
<td>11:30 A - 12:20 P</td>
<td>LR-1 VAN</td>
<td>25</td>
<td>12- 22</td>
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**FINAL EXAM:** Date, time, and location to be announced.

Do not make any travel plans until the final exam schedule has been posted for all of your classes.

- There will be two, 50 minute Midterm Exams (on the dates listed above) and a 2 hour Final Exam
- A week before each exam, a study guide will be posted on the course webpage specifying what material will be covered on the exams
- The exams will contain both conceptual and quantitative questions.
- The final exam is not cumulative.
- A practice exam will also be posted for each exam. We will review the practice exam during the class before the exam. There will be 2 review classes before the final exam.
- Exam scores will be posted on ICON. Exam curves will be posted on the course webpage.
- **A Word about the Date and Time of the Final Exam:** The final examination date and time will be announced by the Registrar generally within the first month. I will announce the final examination date and time on the course webpage and on the course ICON site. Do not make end of the semester travel plans until the final exam schedule is posted. It is your responsibility to know the date, time, and place of the final exam.

EXAM FORMAT AND POLICIES

- The midterm exams will both consist of 25 multiple-choice questions
- The midterm exams (February 17 and March 30) are given during the regular class time 11:30 A – 12:20 P and in LR-1.
- The final exam will consist of 50 multiple-choice questions. The final exam is not cumulative.
- The date, time, and room for the Final Exam will be announced later.
- **All exams are closed book exams, and no notes or other materials can be used.**
- **You are responsible for all the material on the class webpage including the PowerPoint presentations, lecture notes, review questions and exercises and the demonstrations performed in class.**
- A list of physical constants and formulas will be provided with each exam. This list will be posted on the Exam Information Page.
• You may NOT use calculators during the exams.
• Students will be required to show their University Photo ID or a valid driver’s license when handing in the exam scoring forms
• Make-up examinations will only be given in the event of verifiable medical excuses or for absence due to conflicting official University activities. Student should email me in advance if they will be absent from one of the exams.
• Academic misconduct (cheating) is a serious offense and will be handled according to the policies and procedures of the Department, CLAS, and University.

GRADING SYSTEM AND THE USE OF PLUSSES AND MINUSES

• The course uses the plus or minus grading system
• In assigning course grades, I try to follow the CLAS recommended grade distributions: A: 15%, B: 34%, C: 40%, D: 8%, F: 3%; Class GPA = 2.50
• Note that A+ grades are given only in extraordinary situations

WORK OUTSIDE OF CLASS

• Lecture Notes for each lecture are posted on the course webpage
• The PowerPoint Slides for each lecture are posted on the course webpage
• Assignments that include Review questions and exercises (including solutions) for each lecture are posted on the course webpage.
• The exercises will not be collected and graded, however you are urged to do the assignments to help you learn and review the material and get experience solving quantitative problems

LECTURE FORMAT

• All of the course presentations will be given in PowerPoint format.
• The class presentations also include many demonstrations
• The PowerPoint slides will be posted on the class webpage at least one day before each class.

COURSE GRADING

• Your semester grade will be based entirely on the scores of the 2 midterm exams and the final exam – a maximum of 100 points
  o 2 Midterm Exams—maximum of 25 points each
  o Final Exam (non-cumulative) — maximum of 50 points
• There is no possibility of extra credit work.
HELP OUTSIDE OF CLASS

• See me during my office hours or email me to set up a time that will work for both of us.
• See the TA during his/her office hours or email to set up a meeting time
• The Physics and Astronomy Department maintains a Tutorial Room staffed by TAs who are available to provide assistance to students in the elementary courses. The schedule for the Tutorial Room will be posted on the course webpage.

CLASS ATTENDANCE
Lecture demonstrations are an essential part of this course and will be used frequently to illustrate the physics concepts that will be discussed. There is no substitute for being present when these demonstrations are performed, therefore attendance is highly recommended. There will be one or two questions on the Final Exam on demonstrations that will be shown during the Final Exam.

CLASSROOM ETIQUETTE

I will start each class on time and try to finish on time. If you arrive late or need to leave early try to do so with as little disruption to the class as possible. While in class, please do not talk to your neighbors since this can be very disruptive to other students and me. Either turn your cell phone off when you are in class, or put it in the vibrate mode and quietly leave class if you receive a call that you must take.

IMPORTANT DATE

Monday APRIL 4 - last day for undergraduates to drop semester-length courses

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COLLEGE OF LIBERAL ARTS AND SCIENCES IMPORTANT POLICIES AND PROCEDURES

Administrative Home

The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall, or see the CLAS Academic Policies Handbook at http://clas.uiowa.edu/students/handbook.
Electronic Communication

University policy specifies that students are responsible for all official correspondences sent to their University of Iowa e-mail address (@uiowa.edu). Faculty and students should use this account for correspondences (Operations Manual, III.15.2, k.11).

Accommodations for Disabilities

A student seeking academic accommodations should first register with Student Disability Services and then meet with the course instructor privately in the instructor's office to make particular arrangements. See http://sds.studentlife.uiowa.edu/ for more information.

Academic Honesty

All CLAS students or students taking classes offered by CLAS have, in essence, agreed to the College's Code of Academic Honesty: "I pledge to do my own academic work and to excel to the best of my abilities, upholding the IOWA Challenge. I promise not to lie about my academic work, to cheat, or to steal the words or ideas of others; nor will I help fellow students to violate the Code of Academic Honesty." Any student committing academic misconduct is reported to the College and placed on disciplinary probation or may be suspended or expelled (CLAS Academic Policies Handbook).

CLAS Final Examination Policies

The final examination schedule for each class is announced by the Registrar generally by the fifth week of classes. Final exams are offered only during the official final examination period. No exams of any kind are allowed during the last week of classes. All students should plan on being at the UI through the final examination period. Once the Registrar has announced the date, time, and location of each final exam, the complete schedule will be published on the Registrar's web site and will be shared with instructors and students. It is the student's responsibility to know the date, time, and place of a final exam.

Making a Suggestion or a Complaint

Students with a suggestion or complaint should first visit with the instructor (and the course supervisor), and then with the departmental DEO. Complaints must be made within six months of the incident (CLAS Academic Policies Handbook).

Understanding Sexual Harassment

Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual
harassment should be reported immediately. See the UI [Comprehensive Guide on Sexual Harassment](#) for assistance, definitions, and the full University policy.

**Reacting Safely to Severe Weather**

In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. For more information on Hawk Alert and the siren warning system, visit the [Department of Public Safety website](#).