GENERAL PHYSICS III: PHYS&123: Spring 2012

GENERAL INFORMATION

INSTRUCTORS: Ms. Davene Eyres
EMAIL: Please send course related email to me in ANGEL. If you need to send to my college email address, identify yourself as a PHY123 student in the subject line. davene.eyres@seattlecolleges.edu
OFFICE HOURS: Monday 1:00-1:50 and Thursday 10:00-10:50
WebSites:
  Course Management Site, ANGEL: http://angel.northseattle.edu
  Username: 9digits of your campus student ID with no dashes or spaces. For example: 987123456
  Password: First 5 letter of your last name. If your last name has fewer than five letters use your entire last name
  For Assistance: http://webshares.northseattle.edu/elearning/ANGELms/Student/
Mastering Physics online Homework: www.masteringphysics.com
  When registering make sure to use the same name as on your official school transcript. If you enter another name you may not receive credit for your work.
  Student ID: 9digits of your campus student ID with no dashes or spaces. For example: 987123456
  Course ID: See announcement on the Angel Website (begins with MP)
  For Assistance on Mastering Physics: Contact Mastering Physics Technical Support:
    http://www.masteringphysics.com/site/support/faq-students.html

COURSE INFORMATION

COURSE DESCRIPTION: This course is the third of three algebra-based general physics series. It will introduce the foundational concepts important in many fields related to physical science. The course will focus on the study of the physics of waves, optics, modern physics, and the relationship of physics to other sciences and current technology. There is a lab included.

COURSE PHILOSOPHY: This course is designed so that through the practice of physics, students will learn to apply reasoning skills to successfully deal with new situations or tasks. The fundamental reasoning and analysis skills learned in this course should be able to be applied toward understanding practical studies in other fields of interest.

COURSE OUTCOMES/LEARNING OBJECTIVES:
Course Outcomes/Learning Objectives:
Upon successful completion of the course, students will be able to:

- Understand and correctly handle quantities that are vectors.
- Analyze systems involving Simple Harmonic Motion.
- Analyze systems involving waves.
- Analyze simple optical systems.
- Describe how evidence has led scientists to modify their models of the structure of the atom.
- Describe the experimental evidence for wave-particle duality.
- Apply concepts involving waves, optics and modern physics to describe the function of simple devices such as string instruments, cameras, and lasers.

Lab Outcomes:
- Develop a testable experimental question and/or hypothesis given the relevant information.
- Set up an appropriate experiment given a testable experimental question or hypothesis.
- Analyze the results of an experiment and to draw appropriate conclusions from the results.
- Present the results and conclusions of an experiment following appropriate guidelines

TEXTS
Be sure to get the version that includes MasteringPhysics Access Code and the Student Workbooks by Knight and Andrews.
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OTHER MATERIALS:

- Scientific Calculator (any brand, graphing NOT required)
- Ruler with METRIC scale (any size, 12” recommended)
- Protractor (any size, full or half circle)
- Graph paper (quad. ruled paper with 5x5 divisions, engineer pad)
- Colored pencils
- Bound Lab Notebook with grid paper (These are bound composition books with grid paper)
- Handouts printed from the course website

PREREQUISITES: MAT 098 or the equivalent. This means that you remember this material. So if it has been many years since you took these courses or if you did not do well, you may not be prepared.

TIME: Academic lab courses of 5 credits generally require a minimum of 12 hours study outside of the 6 hours of class each week. In this hybrid course this means: 2 hours of class lecture/activity, 2 hours of lab, and 2 hours of outside online directed tutorial/discussion work and 12 hours of self-directed homework and study time. Students requiring tutoring or who are weak in prerequisite material should expect to spend additional time.

COURSE ACTIVITY:

You are responsible for all material and announcements covered in class and online. The instructor will cover material that is not in the textbook. For this reason, students that miss class time may miss important information. If you are to learn physics, you must be an active participant. Physics is something you do, not just something you watch.

CLASS MEETINGS: Good listeners are active listeners and learn the most. A sign of an active participant is the asking of good questions. You will also be asked to come to class with some prepared material in order to most effectively use the limited class time that we have.

HYBRID COURSE: As a hybrid course you will be responsible for working through online tutorials and simulations on your own outside of class. You will also be required to participate in online discussion groups. This is important as you must practice using the language of physics to truly integrate the concepts of the course. These discussions will be monitored by your instructor.

COURSE WORK: Unless otherwise specified, all homework is due at 11:00 pm

Mastering Physics Homework: Homework will be completed online, at www.MasteringPhysics.com. The access code required for establishing an account is free with new textbooks or available for purchase separately. Due dates are firm and indicated on the online calendar as well as in MP. All assignments may be done late with a 1% per hour deduction taken for the portion of the homework that is late.

On Your Own: Workbook Assignments and Skill Practice will be done at home on your own. Solutions are posted and some group work in class and some discussions will be connected to the workbook material. Approximately 25% of each major exam will cover workbook and group work material.

Discussions: Weekly discussion questions will be posted. You will have a required minimum number of postings and replies due each week. A first posting is required by 2-3 days before the discussion due date so that others have time to respond. The complete set of postings and replies are due by the Discussion due date indicated in the online calendar. Maximum scores require that discussions are done on time.

Labs: See the online information about writing lab reports. All formal lab reports are expected to follow the guidelines found in the online documents. You are expected to be in class the day that the lab is done in order to receive full lab credit. This course is a designated lab course, therefore students not demonstrating competency in laboratory outcomes will not pass the course. Approximately 20% of each major exam will cover laboratory work.

Quizzes and Exams: There will be two unit exams, and a comprehensive final. Make-up exams are by arrangement with the instructor for emergencies only. Quizzes may be announced at anytime and may not be made up.
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GRADING:

Grades will be based on the percentage of points earned. Use the following as an approximate guide for the different types of work:

- Exams and Quizzes: 2 midterms and a Final. Quizzes as announced (low quiz is dropped, no make-up quizzes).
- Mastering Physics Homework Problems: These are assigned and completed online corresponding to each chapter.
- Labs: Lab Notebooks, Lab Assignments, and Formal Lab Reports. Attention! Students must complete at least one acceptable (70% min.) formal lab-report in order to pass the course. Students not in attendance will have a point deduction in that week’s lab. Prelab work is due the evening before the day of the lab. All lab reports are due 1 week following the lab activity unless otherwise specified. (No allowance will be made for late prelab work.)
- Discussions, Workbook, other assigned online work: Discussion questions and tutorial work from the text and workbook are required outside of class for the Hybrid sections of the course.
- Other class work as assigned.

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<tr>
<th>GRADE (No rounding up)</th>
<th>MIN. %</th>
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<tr>
<td>3.9-4.0..................</td>
<td>92-100%</td>
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<tr>
<td>3.5-3.8..................</td>
<td>88-91</td>
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<td>3.2-3.4..................</td>
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<tr>
<td>2.2-2.4..................</td>
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<tr>
<td>1.9-2.1..................</td>
<td>72-74</td>
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<tr>
<td>1.5-1.8..................</td>
<td>68-71</td>
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<tr>
<td>1.2-1.4..................</td>
<td>64-67</td>
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<td>0.9-1.1..................</td>
<td>62-64</td>
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<td>0.7-0.8..................</td>
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SCHEDULE:

For more detailed information about due dates and class activities see the online calendar.

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<tr>
<th>Week 1</th>
<th>Chapter 7, 8, 14</th>
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<tbody>
<tr>
<td>Week 2</td>
<td>Chapter 15</td>
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<td>Week 3</td>
<td>Chapter 16</td>
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<td>Chapter 29</td>
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<td>Week 10</td>
<td>Chapter 30</td>
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<td>Week 11</td>
<td>Finals</td>
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Note: Finals for all courses are this week according to the online schedule

Special Grade Arrangements:

“NC—No Credit. Indicates that the student did not fulfill the requirements for receiving an “S” grade, an “N” grade or a numerical grade in the course. A student in good standing may request an “NC” symbol from the instructor prior to the final examination, granted at the instructor’s discretion. After an “NC” is issued, the course may be repeated no more than one (1) more time. An “NC” does not affect a student’s GPA.” (NSCC Catalog)

Therefore requests will only be accepted from students who:

- Are current with their work and passing
- Make the request in writing before the day of the final.
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OTHER POLICIES:

Know the Syllabus: You are expected to read and know the syllabus. Do not expect other students to know the policies. They are often wrong!

Dropping Class: The procedures for obtaining a withdrawal are in the college catalogue. Make sure to note the timeline which is also listed in the academic calendar.

Cell Phones: Please turn them off in class so they do not distract others in the classroom. Cell Phones will be required to be off during exams.

Student Conduct: Students are expected to comply with student conduct policy and procedures. These can be found in the student handbook.

Students with disabilities who believe that they may need accommodations in this class are encouraged to contact Disability Services as soon as possible to ensure that such accommodations are implemented in a timely fashion. You may make an appointment with Disability Services by calling 527-3697 or stopping by the DS office on the 2nd floor of the Campus Center.

Indoor Air Quality: North Seattle Community College recognizes that suitable air quality is important in fostering a healthy and creative learning and working environment. North encourages a fragrance-free environment on its campus and in its programs.

Campus Tutoring Resources: The LOFT (for writing help) and MLC (for math, physics, chemistry and computer help) are available for your benefit. See the quarterly bookmark or website (https://northseattle.edu/tutoring) for hours and services.

Plagiarism:

Any incidence of plagiarizing may result in a zero grade for the assignment and reporting of both students for disciplinary action (Student Handbook, p. 19)

Plagiarism is defined as using work from another individual as if it was your own. In this course, plagiarism will include turning in copies of any part of another person’s work as if it is your own. If this occurs, I will give both copies a zero grade. So, be careful in your sharing of work. Do not give your work to someone else. If you do use a quote or idea from someone else, you must cite it using a standard format (see the library website for help). I will accept any format as long as you are consistent. For those of you who need help with this, you can find help in the LOFT.

Please DO work together. This means that you should be talking to each other to understand the material. However, when it comes to writing it down, write it your way. You compose the sentences and you write the equations. For graphs, you plot them yourself. In general, it is expected that you are demonstrating your skills and abilities, not someone else’s.

Lab Reports:

Yes, you are expected to do the lab with other students. That means that you will have the same data as the rest of your lab group. However, all writing in a lab report must be your own creation. This includes making the tables, graphing the data, drawing the pictures, and even writing the procedure. You may talk to others about the report but you, individually, must create everything that you turn in.

Changes may be made to this course syllabus at any time. Any changes will be announced, at which point it becomes the responsibility of the student to keep track of the change.

References

Student handbook: