

[Print this page](#)PHYS 214 , Section 001: WAVE MOTION&QUAN

**Faculty Information**

Title	Assoc. Prof. Physics
Instructor	Dr. Ann Schmiedekamp
Office Phone	215-881-7572
Office Address	217W
Office Hours	MWF 12:00-1:00 PM Wed. 3:00-4:00 PM Thurs. 3:00-4:00 PM and by appointment
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Course Information

Credits	2
Course	214
Section	001
Location	123 W
Times	1:00-2:50 pm MWF
Start Date	March 3, 2008

Required Text

Halliday, Resnick, Walker, Fundamentals of Physics, extended with Modern Physics, part 4,5, 6th, 7th or 8th edition
Webassign card and access to the internet for the submission of homework is required.
Webassign card may be purchased by credit card online.

Course Description

Physics for science and engineering majors. The course utilizes calculus and covers electromagnetic radiation, geometrical optics, physical optics, elementary quantum physics concepts.

Course Objectives

Understanding the concepts in the generation of electromagnetic radiation, geometric optics, physical optics, initial principles of quantum mechanics, and application of problem solving skills to reinforce conceptual understanding.

Tentative Schedule

Mar. 3 Chap. 33 Electromagnetic Waves
Mar. 5 Ch 33

Mar. 7 Ch 33

Spring Break

Mar. 17 Chap. 33 Reflection and Refraction
(Class from 12-2pm)

Mar. 19 Chap. 34 Lens Optics

Mar. 21 Chap. 34 Mirror Optics

Mar. 24 Chap. 34

Mar. 26 Chap. 35 Interference

Mar. 28 Chap. 35

Mar. 31 Chap. 35 Interference

Apr. 2 Chap. 35 Interference

Apr. 4 Midterm exam

Apr. 7 Chap. 36 diffraction

Apr. 9 Chapter 36 diffraction gratings

Apr. 11 Chapter 36 Bragg diffraction

Apr. 14 Chap. 38 Photoelectric effect
(Class from 12:00 to 2:00pm today.)

Apr. 16 Chap. 38 Compton scattering

Apr. 18 Chap. 38

Apr. 21 Chap. 39 More about Matter Waves

Apr. 23 Chap. 39

Apr. 25 Chap. 39

Apr. 28 Chap. 40 Some properties of atoms
(Class from 12:00 to 2:00pm today.)

Apr. 30 Chap. 40

May 2 Chap. 40

Final Exam, May 8, 1:15-3:05 pm

Course Requirements

Prerequisites: Math 140, Physics 211

Concurrent: Math 141

Course Prerequisites

Prerequisites: Math 141, Physics 211, Physics 212

Grading Policy

Midterm Exam - 30%.

Final Exam 30%

Exams will be closed book but important equations and physical constants will be provided.

Classwork/homework(using Webassign)/pop quizzes- 40%

A > 88 C+ = 65-68

A- = 84-87 C = 58-64

B+ = 80-83 D = 52-57

B = 73-79 F < 51

B- = 69-72

Attendance Policy

Pop quizzes and classwork may not be made up. The equivalent of one pop quiz will be subtracted from the grade total to accommodate unavoidable absences.

Excessive absences will be detrimental to the grade.

Lab exercises can be made up only upon availability of the equipment or classroom.

Since many class exercises and all quizzes cannot be made up, excessive absences will negatively affect the class grade. Labs and assignments are due on the due date, even if the student is absent. Labs may be emailed if the student is not able to attend.

If a student has a serious reason for missing an exam the professor must be contacted on or before the date of the exam and evidence should be provided to document the legitimacy of a makeup. A make up exam may be in a different format and could be comprehensive. Immediate notification of the professor on or before the day of the exam is essential if the student must be absent for a legitimate reason.

Academic Integrity

Academic honesty is expected of all students at Penn State University. Any reasonable proof of academic dishonesty in the completion of an exam, quiz or homework, may result in sanctions against the student, which may include a grade of zero on an exam, quiz or assignment. Please consult the Abington College Academic Integrity Policy for explanation of what is considered a violation.

<http://www.abington.psu.edu/psasite/cs/shared/Registrar/academicintegritypolicy.html>

Examination Policy

See grading policy

Disability Access Statement

Penn State encourages persons with disabilities to participate in its programs and activities. If you anticipate needing any type of accommodation or have a question about disability services, please contact Anne Prior, Room 315 Sutherland, 215-881-7537.

Additional Information

Respect for a proper academic climate during class is expected of all students. Please turn off cell phones before entering the classroom to avoid disruption.

Due to safety regulations, no food or drinks may be consumed in the physics labs.

Open toe shoes are also banned due to safety regulations.

Free peer and professional tutoring and study skill coaching are available at the Learning Center (Room 315 Sutherland, 215-881-7538). Students striving for an "A" and students struggling for a "C" agree that they benefit from tutoring sessions.

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