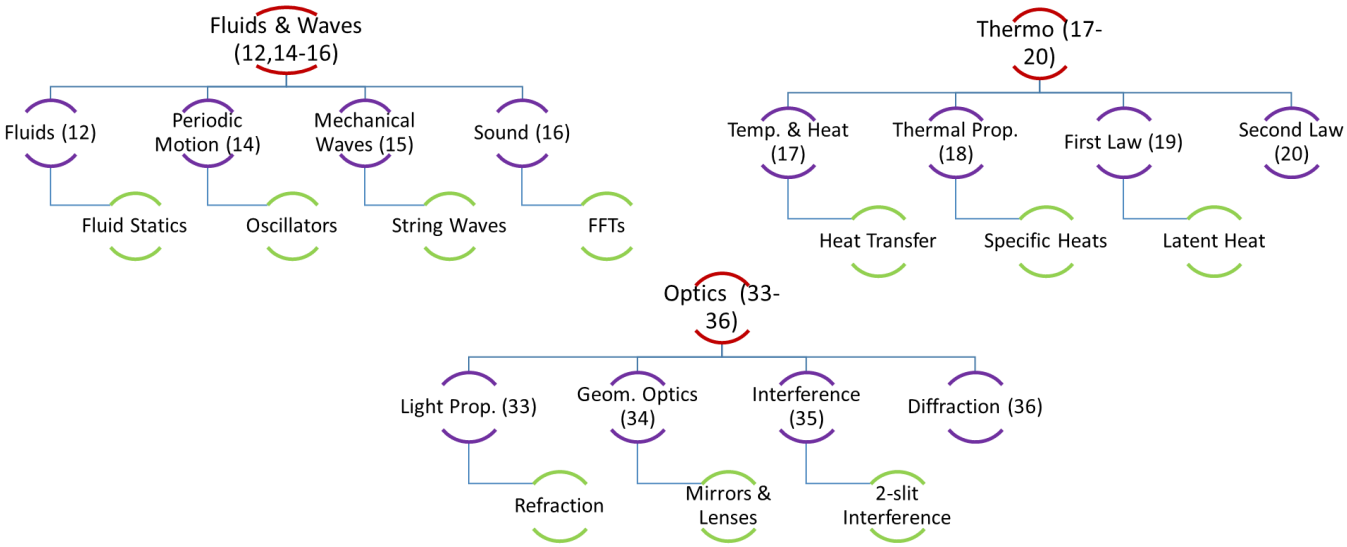
Welcome to Physics 23!
Fluids, Waves, Thermodynamics, and Optics
Fall 2018

Class meetings: MW 10:00 AM – 12:30 PM in Sci 106, F 8:00 – 10:00 AM in Sci 155
Instructor: Professor Jennifer Carson, carson_jennifer@smc.edu
Office hours: Immediately after class on Mondays and Wednesdays in Sci 106
Textbook: *University Physics with Modern Physics*, 14th ed., Young and Freedman

Course topics: This is a calculus-based course covering fluids, waves, thermodynamics, and optics. Here are the topics we'll cover, with textbook chapters in parentheses and associated labs:



Mastering Physics: We'll use Mastering Physics (www.masteringphysics.com) for pre-lecture questions, homework, and study help. Please register as a student with the course ID 'MPCARSON96607'. **Homework (10%)** is due every week, usually on Tuesdays at midnight (11:59 PM); dates and times are listed. Optional Adaptive Learning assignments are designed based on your performance on the homework and are due four days after the homework. I'll drop your lowest homework score. **Pre-lecture questions (5%)** are due before we start each new chapter.

Quizzes (10%): There will be frequent short, in-class quizzes to gauge how well the material is sinking in. They will consist of one exam-level questions. I'll drop your lowest quiz grade.

Labs (15%): You will work in pairs to complete several labs, on Mondays or Wednesdays. There will be three lab reports due during the semester.

Exams (40%): There will three in-class exams. To pass the class, you must take every exam. The **Final Exam (20%)** will be cumulative.

There will be **no cell phone use during class** without prior permission. You will need **a scientific calculator and a ruler**.

Schedule*: Below are the dates that we will start each new chapter; pre-lecture questions are due by the start of class on those days. Exam dates are **bolded**.

Date	**Topic**	**Chapter**
Wed 8/29	Fluids	12
Wed 9/5	Periodic Motion	14
Wed 9/12	Mechanical Waves	15
Wed 9/19	Sound	16
Fri 9/28	Exam 1 Review	12-16
Mon 10/1	Exam 1	12-16
Wed 10/3	Temperature and Heat	17
Mon 10/8	Thermal Properties	18
Mon 10/15	First Law of Thermodynamics	19
Mon 10/22	Second Law of Thermodynamics	20
Mon 10/29	Exam 2 Review	17-20
Fri 11/2	Exam 2	17-20
Mon 11/5	Nature and Propagation of Light	33
Fri 11/9	Geometric Optics	34
Fri 11/16	Interference	35
Wed 11/21	Diffraction	36
Mon 11/26	Exam 3 Review	33-36
Fri 11/30	Exam 3	33-36
Fri 12/7	Final Exam Review	all
Fri 6/14	Final Exam (8:00 – 11:00 AM)	

*Subject to change if necessary

Grades:

The percentage that each course component counts in your grade is indicated on page 1. Your letter grade in the course is determined according to the following scale:

A: 88-100%

B: 75-88%

C: 60-75%

D: 45-60%

F: < 45%.

Grade cutoffs may be changed during the semester, at my discretion.

Student Learning Outcomes:
When presented with a variety of natural phenomena from everyday life, the student will be able to give qualitative explanations and solve simple quantitative problems using basic physics principles. When doing a laboratory exercise and writing a report, the student will be able to state a clear and testable hypothesis, take careful measurements, estimate uncertainties, and draw appropriate conclusions based on gathered data and on sound scientific principles.

The full list of course objectives can be found on the SMC website at:
Physics → Physics Course Descriptions → Physics 23 Course Outline of Record.

Drop and Withdrawal Policy:
I retain the right to drop you if you miss more than three consecutive classes. However, it is still your responsibility as a student to withdraw from the course if you do not intend to complete it. Students must NOT expect faculty to initiate withdrawal procedures for them. If you wish to drop the course, you may do so through Corsair Connect, through the 12th week of the semester. The deadline to withdraw without a "W" is early March; check your Corsair Connect portal for specific dates. General information regarding drop dates, withdrawals, and other enrollment matters can be found at the Admissions section of the SMC website:
http://www.smc.edu/EnrollmentDevelopment/Admissions/Pages/default.aspx

Students with Disabilities:
I encourage students requesting disability-related accommodations to contact Disabled Student Services as soon as possible. I will work with you and the Center for Students with Disabilities to provide appropriate and reasonable accommodations. An early notification of your request for test-taking and/or other accommodations is necessary to ensure that your disability related needs are addressed appropriately; testing accommodations cannot be applied retroactively. The DSPS office is located in the Admissions/Student Services Complex, Room 101, and the phone numbers are (310) 434-4265 and (310) 434-4273 (TDD).

Academic Integrity:
SMC has a clearly defined Honor Code, to which each student agrees during the enrollment process each semester. The Honor Code can be found at:
http://www.smc.edu/StudentServices/HonorCouncil/Pages/Honor-Code.aspx
If I determine that a student has violated the SMC Honor Code and/or the Code of Academic Integrity, the student will be assigned no credit. Future occurrences could result in academic disciplinary action.