

Professor: Wilfred Hok Kong LEE, Ph.D.

Office: 343A

Classroom: 341

Mail box: MSE Office 215

Contact Info:

Email: hlee@swccd.edu

Phone: ext. 5533

Office Hours:

Mon 11:40 – 1:10

Wed 11:40 – 1:10

Thu 11:40 – 12:40

Important Dates:

Last Day to Add Sept 3

Last day to drop without a W Sept 3

Last day to drop and receive a W Nov 9

Misc Info:

WebAssign class key: **swccd 4482 4250**

Midterm Ch 24-27 Oct 24 (Wed, may change)

Final Ch 9, 24-31 Dec 3 (Mon) 8:10 – 10:10

Textbooks:

Required: *Principles of Physics with WebAssign (5th edition)*, by Serway and Jewett, Published By Brooks/Cole

Course Homepage:

The main course website will be <http://dept.swccd.edu/hlee>, where you will find the syllabus, lecture notes, and tutorial videos and homework solutions.

Homework (WebAssign):

For homework we will be using the WebAssign program online <http://www.webassign.net>. You have up to 4 attempts per question. Your work will be graded automatically and posted online. Detail for how to log onto WebAssign is in a separate handout. Class key for this semester is listed above, you will need this when you log in for the first time.

As of Jan 2018, the cost for the WebAssign + eBook access code is about \$125 for multi-term "Life of Edition" (LOE) access. The access code is good for any courses that use the same edition of the textbook. For single term access (not LOE) it is \$100. The price may vary from year to year.

Other Useful sites:

<http://dept.swccd.edu/hlee> (My SWC page)

<http://www.webassign.net/> (WebAssign – Homework)

<http://phet.colorado.edu/> (Physics Education Technology)

Prerequisite: Phys 172 or equivalent

Course Description:

3 Units. Third of a three-semester, calculus-based sequence intended mainly for majors in the life sciences. Topics include: light and its interaction with matter; optics; special relativity; quantum mechanics; and nuclear physics, basically Ch 24 to 31 and Ch 9 of Serway. See course outline below.

Course Objectives:

To prepare you to become a scientist and to get you one step closer to your degree. Passing this class indicates the ability to understand and apply the concepts in this course to various physics problems. Your performance will be measured based on the conceptual understanding as well as the ability to use mathematics to state and solve problems.

Tentative Course Outline:

Ch 24	Electromagnetic Waves
Ch 25	Reflection and Refraction of Light
Ch 26	Image Formation by Mirrors and Lenses
Ch 27	Wave Optics
Ch 9	Relativity
Ch 28	Quantum Physics
Ch 29	Atomic Physics
Ch 30	Nuclear Physics
Ch 31	Particle Physics

Grading:

Your final course letter grade will be based on your overall score. Individual letter grades will not be formally assigned to exams. Letter grade will be determined approximately as follows:

100 – 85%	A
84 – 75%	B
74 – 60%	C
59 – 50%	D
49 – 0%	F

Note that the above scale is only an approximation and may be revised near the end of the semester.

Evaluation:

The overall grade will be determined by your performance in the mid-term exam, final exam, quizzes and homework. They carry different weight in computing your overall grade, as summarized below:

Homework:	20%
Quizzes:	10%
Midterm Exam:	30%
Final Exam:	40%

Homework:

Some of the homework problems will become questions on the exams. You will not know which homework questions will show up on an exam until you take the exam, so you must do all homework questions to properly prepare for the exams. Late homework will receive zero points. Being too busy is not an acceptable excuse for handing in homework late.

Quizzes:

There will be a quiz every two to three chapters. The exact time will be announced in advance. If you cannot make it to class you will receive zero points unless you contact me *in advance* to arrange for a make up quiz.

Midterm and final exam:

Mid-term will cover roughly the materials from the first half of the course, while the final exam will cover the entire semester. Many of the exam questions will be from the homework problems, but I may include a few questions from elsewhere. If you cannot make it to the exams you will receive zero points unless you contact me *in advance* to arrange for a make up exam.

Student Learning Outcomes:

Students will analyze observations from different physical situations and recognize the underlying laws of physics that govern wide-ranging phenomena seen in nature.

Students will formulate and analyze physics problems mathematically by translating words into mathematical equations and find the quantitative solutions.

General Policy:

For information regarding attendance, classroom policy, misconduct and tutorial services please refer to the syllabus addendum on the course website.

Disclaimer:

The content of this syllabus or course outline may change during the semester. It is your responsibility to keep track of the changes.