Course name	Physics 5B, Introduction to Physics II
Meeting place, time	Earth&Marine B206, TuTh 2:00–3:45 PM
Instructor	Gey-Hong (Sam) Gweon
Office hours	Mo 2-3, TuTh 12-1
Instructor coordinates	ISB 249, gweon@ucsc.edu, http://gweon.com
Textbook	*Physics for Scientists And Engineers With Modern Physics*, 4th ed., Giancoli
References	*Physics for Scientists and Engineers*, Knight
	Fundamentals of Physics, Halliday, Resnick & Walker
Course website	http://gweon.com/teaching/current

One place to remember It is the above course web site. It will be a central depository of information, and it will also host some important course activities. All information above and below will be made accessible on the course web site, with proper updates.

Email address Email communication is very important for this course. You must make sure that you are not missing any emails sent by me to your official UCSC email address. If you like to receive emails at an alternative email address of yours, you can contact me individually.

Course objectives In this course, we will learn basic concepts of simple harmonic oscillator, waves, optics (light), fluids, and statics. This segment of the introductory physics may be called the "wave mechanics" as the wave is the central notion. That is the wave mechanics in the *classical* regime. This is a very useful thing to do by itself, but you will also discover that it becomes very useful later on when you learn more advanced topics of physics.

Homework, etc. In this course, I do *not* plan to use any commercial homework system or any commercial classroom interaction device (e.g., i-clicker). **Late homework is not accepted as a policy.** However, the lowest homework score will be dropped at the end of the quarter. Generally, homework will be due on Thursdays.

Evaluation This course will be evaluated based on the homework (about 25 %), the quiz (about 10 %), the midterm (about 30 %) and the final (about 35 % or more). There will be two types of quizzes: reading quiz before class, and quizzes during class. As long as you participate in these quizzes, you will get nearly perfect points, even if you choose incorrect answers. This is not to give you free points, but to let you *learn without stress*. Please read the last sentence one more time and keep it in your mind throughout this course.

Enrollment issues We will be ironing out enrollment issues in the first couple of weeks. Please contact me in person or by email.

5M This laboratory course is closely tied to this course. Nonetheless, it is formally separate from 5B. I do not have the authority to answer your questions regarding 5M. The instructor for 5M is George Brown.

Get help! Any one can use some help every now and then. Really! Getting no help adversely affects most students according to my observation. Getting help starts with asking questions. No question is a bad question during my lectures or my office hours, so do not be afraid to ask any question that comes up! That is the best way that you can start helping yourself. Also, make active use of TA discussion sections and the MSI/LSS (or ACE) tutoring sessions. (Their schedules are not set yet, but will be made available in a few days, also.) The emphasis is on "active." Do not simply accept a solution; *internalize/assimilate* it. You need to chew on it, until every piece of it becomes part of you. Otherwise, you will not be helping yourself, and you may be just helping your homework score, soon to become meaningless. In short, to truly help yourself, you must *start by asking questions yourself and end by answering them yourself.*

Academic integrity While I encourage asking for help and giving help, one should not get or give help when it is not allowed (during exams), or in ways that are not allowed (e.g., you should not copy other people's solutions for homework, quiz, etc., or let others copy yours). Likewise, you should never engage in other activities that breach the academic integrity. To assure fairness, I will be monitoring for possible activities that breach the academic integrity. If confirmed to be involved in such an activity, you will fail this course.

Emergency If highly unusual personal circumstances arise to prevent you from participating in core course activities (exam, homework, quiz, etc.), you should communicate with me as soon as you can, so that you will get the best consideration for makeup opportunities. Per the University-wide policy, I can *not* accept any "medical documentation."

Extra credits Generally speaking, if you genuinely try to learn *without* worrying much about your grade, your grade should follow. Extra credit opportunities will be provided, or *may be provided by yourself*, as a way to help this come true more easily.

Lecture plan The following plan may be updated on the course web site, as we go along. One very well-known secret to success: **read before class!**

Week	Lecs	Dates	Ch	Subject	Lab
1	1,2	Jan 6,8	14	Simple harmonic oscillator	
2	3,4	Jan 13,15	15	Wave	SHO
3	5,6	Jan 20,22	16	Sound	Wave
4	7,8	Jan 27,29	32	Reflection, Refraction	Wave
5	9,10	Feb 3,5	32,33	Refraction, Lenses	Resonance
6	11,12	Feb 10,12	33,34	Interference, **Midterm** (Feb 12)	Optics
7	13,14	Feb 17,19	34,35	Interference, Polarization	Optics
8	15,16	Feb 24,26	35	Diffraction	Polarization
9	17,18	Mar 3,5	13	Fluids	Interference
10	19,20	Mar 10,12	12	Statics, Review	Fluids
11		Mar 19		**Final** (4-7 PM)	