Modern Physics II (Physics 304)
Syllabus, Fall 2012

Physics 304 is the second semester of a course in modern or quantum physics for students of physics, math, sciences and engineering. Principles learned in Physics 303 are applied here to understand properties of atoms, molecules, solids, nuclei and elementary particles. The course will follow the second half of the text by Harris. While Physics 303 and 304 are required for physics majors, they provide an excellent introduction to quantum physics and applications for all students who have completed a first-year physics course. Contact me for more information.

General information

Instructor:	Professor Gary S. Collins, Webster 554, 335-1354.
Office hours:	whenever my door is open, or by appointment.
More about me:	http://defects.physics.wsu.edu/gary_collins.html
Course email:	mailto:phys304@gmail.com
Classes:	MWF, 12:10-13:00 pm, Webster B11.
Required text:	Modern Physics, Randy Harris (Pearson, 2nd edition, 2008).
Angel course web site:	http://lms.wsu.edu/ (access also via http://my.wsu.edu/)
Public home page:	http://www.wsu.edu/~collins/304-12
Syllabus:	http://www.wsu.edu/~collins/304-12/syllabus.pdf (remember to reload!)
Schedule:	http://www.wsu.edu/~collins/304-12/schedule.pdf

Course format

Grading will be based on homework, the best 2 out of 3 hour exams, unannounced quizzes and a final exam.. There will also be a small subjective grade to recognize outstanding classroom participants. Letter grades will follow the absolute scale given below. Exams will be closed-book, but you may bring one double-sided, 8x11-inch page of notes in your own handwriting to each exam, with four sheets for the final exam. Syllabus, schedule and grading contributions are subject to change!

Contributions to final grade

Homework	30%
Quizzes	~10%
Hour exams (best 2 of 3)	30%
Final exam	27%
Participation	3%

Absolute grading scale

A	85-100 %
B	70-85 %
C	55-70 %
D	45-55 %
F	0-45 %

Angel course web site

The Angel course web site will be used to post homework assignments and solutions, and quiz and exam solutions. Unfinished "class notes" that I wrote for my own use will be posted in case they are useful for some students, but they are not at all comprehensive!

Details:

- Right away, please send your preferred email address to mailto:phys304@gmail.com.
- Attendance is expected. Bring your text and read ahead on the day's topic.
- Exams will be in the evenings from 7-9 pm. They will be designed to take one-hour for a well-prepared student. Class times on those days will be used for review.
- Homework solutions should be written on one side of paper only, and stapled in order.
- Homework will not be graded in detail. Instead, I will give you full credit for a problem if you made a genuine effort to answer it. Therefore, you can expect to get good grades for homework if you try. Do not copy solutions by anyone else! I will strictly enforce strong university rules against plagiarism that comes to my attention!
- As possible, I will comment in class on good approaches to homework, quiz and exam solutions and common misconceptions. However, I will only spot-grade individual homework solutions. Always check your solutions against those I post!
- Exam problems will be similar to homework problems and example problems in the text.
- The final exam will be designed to take two hours but, with unanimous consent of all students, will be given over three hours to reduce time pressure.
- You must be able to read course files in portable document format (PDF).
- I strongly encourage you to study together and discuss approaches to solving homework problems among yourselves in a general way. However, submitted homework, quiz and exam solutions should be your own.
- Please don't hesitate to contact me with any questions.

Fine print

- Academic honesty. See http://academicintegrity.wsu.edu/default.asp?PageID=4614. You should not plagiarize or use unauthorized assistance such as solution sheets while doing homework, during tests, etc.
- Safety.
  - The campus safety plan is at http://safetyplan.wsu.edu/.
  - Emergency preparation is at http://oem.wsu.edu/emergencies (dead link).
  - The campus-wide alert system is at http://alert.wsu.edu/.
  - Enter personal emergency contact information at http://zzusis.wsu.edu.
- "Students with Disabilities: *Reasonable accommodations are available for students with a documented disability. If you have a disability and may need accommodations to fully participate in this class, please visit the Access Center. All accommodations MUST be approved through the Access Center (Washington Building, Room 217). Please stop by or call 509-335-3417 to make an appointment with an Access Advisor*." The Access Center's website is at http://drc.wsu.edu/ .

This syllabus is provisional and subject to change.

Gary S. Collins
August 14, 2012