Modern Physics II (Physics 304)  
Syllabus, Fall 2011

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 to understand the physics of atoms, molecules, solids, nuclei and elementary particles. The course will closely follow the second half of the text by Harris. Physics 303 and 304 are required courses for physics majors but 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.
Angel course web site: http://lms.wsu.edu/ (access via http://my.wsu.edu/)
Public home page: http://www.wsu.edu/~collins/304-11
Syllabus: http://www.wsu.edu/~collins/304-11/syllabus.pdf (remember to reload!)

Course format

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

<table>
<thead>
<tr>
<th>Contributions to final grade</th>
<th>Absolute grading scale</th>
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<tbody>
<tr>
<td>Homework</td>
<td>30%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>10%</td>
</tr>
<tr>
<td>Hour exams (best 2 of 3)</td>
<td>30%</td>
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<tr>
<td>Final exam</td>
<td>27%</td>
</tr>
<tr>
<td>Participation</td>
<td>3%</td>
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Angel course web site

The Angel course web site will be used for posting homework assignments and homework, quiz and exam solutions. Possibly, it may be used later on for additional purposes such as posting grades and discussions.
Other notes:

- Attendance is expected. Bring your text and read ahead on the day’s topic.
- Exams will be in the evenings from 7-9 pm. Classes on those days will be used for review.
- Homework solutions should be written, each on a separate page, on one side 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. But do not copy solutions by others! I will strictly enforce strong university rules against any plagiarism that comes to my attention!
- Time permitting, 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 homework and exam 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.
- In-class team activities and unannounced closed-book quizzes may be held.
- Right away, please mail your preferred email address to me at mailto:phys304@gmail.com.
- 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.
- Any questions?? Please don’t hesitate to contact me!

Fine print

- **Academic honesty.** See [http://academicintegrity.wsu.edu/default.asp?PageID=4614](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/](http://safetyplan.wsu.edu/).
  - Emergency preparation is at [http://oem.wsu.edu/emergencies](http://oem.wsu.edu/emergencies).
  - The campus-wide alert system is at [http://alert.wsu.edu/](http://alert.wsu.edu/).
  - Enter personal emergency contact information at [http://zzusis.wsu.edu](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/](http://drc.wsu.edu/).

This syllabus is provisional and subject to change.

Gary S. Collins
August 10, 2011