

## PHYSICS 302L, FIRST DAY HANDOUT

Fall Semester 2018

MWF 1 - 2 PM      Unique #55480      Pai 4.42

Instructor:      Rory Coker, RLM Hall 8.312, 471-5194, <http://tinyurl.com/cokerrory> contains links to all Coker's course information. <http://tinyurl.com/302lcoker> takes you directly to the 302L web page.

Text:      *College Physics*, 9th, 10th or later Edition, Volume 2 or combined edition, by Serway and Vuille (for example, © 2012, or 2015).

Office Hrs:      TBA.

Nature of the Course:      This is the second semester of college-level physics for majors in technical careers. You should **not** be in this course unless you have had a **very good** physics course in high school and have taken 302K *at this university*. You must also be concurrently enrolled in Physics 102N, a separate course which constitutes the laboratory part of the Physics 302L coursework. In general, you should **not** be in this course unless you are thoroughly familiar with all aspects of algebra and trigonometry at the level of a **very good** high school course or a college-level remedial course.

Examinations:      There will be three mid-term examinations and a comprehensive final which slightly emphasizes material from the last few weeks of the course (see syllabus). The examinations will cover **ONLY** material that has been covered in class lectures, independent of what is in the textbook chapters supposedly covered, so that good class notes and regular class attendance are an *an absolute necessity*. Each examination will have several basic conceptual questions and several numerical or algebraic problems. All will be in multiple-choice format, answered on bubble sheets, and graded by the same Quest system that handles homework. On the mid-term examinations, you can use a “crib sheet” that you have made for yourself, handwritten by you on both sides of a single 8.5 by 11 sheet of white paper. Each crib sheet is for a specific exam and cannot be re-used. No other reference material may be used: no books, no old homework solutions, no notes, no nothing— unless provided by the instructor at the time of the test. **There will be no makeup exams.** The lowest exam grade (*of 3*) will be dropped in computing the class averages. The mid-term exams are held during the regular class times in the regular classroom, on October 1, November 5 and December 3.

Homework:      Homework is handled by the on-line College of Natural Sciences system called Quest. The homework assignments can be viewed on your web browser or smart phone and your answers submitted there as well; the homework will consist of conceptual questions and problems to be solved; most answers are in multiple-choice format; a few will require input of a specific numerical answer. You log in with your UT-EID at <https://quest.cns.utexas.edu/>. A link is found on our class web-page, <http://tinyurl.com/302lcoker>. There is a continuously-updated

running table of homework due dates and times on this same course web page; and of course the due dates and times are clearly stated on the assignments themselves. There is a severe built-in penalty for guessing, in multiple-choice format. Problems that have required numerical inputs have more tolerance. Problems are usually set up so that the first try is *free*, not considered a guess if wrong. “Late Homework” and “Makeup Homework” *DO NOT EXIST!* Doing the homework is vital! Trouble in doing the homework is a clear indication of trouble with your study habits; don’t neglect the warning! When you need help, don’t hesitate to get it, but try to work *on your own* and start work well before the homework is due. It is when doing the homework, *on your own*, that you find out what you don’t understand and what you need to study more effectively, or ask the class TA, or coaches, or the instructor, or your tutor for more information concerning. If you don’t find this out when doing the homework, you will first find it out when you take the relevant mid-term exam... and then it is far, far too late. The homework also directly contributes as a significant percentage of your final course grade. **Note that Canvas is not used in physics lecture classes.** The Quest homework service will require a charge of roughly \$30 per student for its use, which goes toward the maintenance and operation of the resource. After the 12th day of class, when you log into Quest using the link provided above, you will be asked to pay that amount via credit card on a secure payment site. You have the option to wait up to 30 days to pay while still continuing to use Quest for your assignments. If you are taking more than one course using Quest, you will not be charged more than a total of \$60/semester. Quest provides mandatory instructional material for this course, just as does your textbook. For payment questions, email [quest.fees@cns.utexas.edu](mailto:quest.fees@cns.utexas.edu).

Basis of Grade: Best 2 of the 3 in-class quizzes, 25%; Homework, 40%; Comprehensive Final, 25%; lecture attendance 10%.

Teaching Assistant: The TA is Wei-Jin Zheng, [wjzheng@chaos.utexas.edu](mailto:wjzheng@chaos.utexas.edu). His office hours are Monday 3-4 pm, in RLM 14.318. He will hold a weekly problem/review session: Friday 3-4 pm, in RLM 5.122.

Laboratory: The laboratory is a separate course, 102N, and must be registered for, taken, and passed, independent of Physics 302L. You must take the lab unless this is your second time to take 302L, and you passed the lab the first time. If you have registered for 302L but not 102N, you may be automatically dropped from 302L after one warning e-mail from the Registrar.

Class Attendance: Class attendance will be checked using the usual i-Clicker system, as in past semesters. Your i-Clicker serial number should be registered *for this class* on Canvas, and the resulting attendance scores will be transferred by me to Quest. It is important to realize that all class grades are stored on Quest. We do not use Canvas for grades, or for anything else, other than i-Clicker registration.

Coaching: Coaches will be available at certain posted hours per day (typically 9 to 5) at tables near the elevators on the 5th level of the physics building, RLM Hall. Please do not ask coaches to do your homework for you! They can give hints on

homework, but they are mainly there to answer questions you might have, set up and solve example problems, and explain concepts that you are having trouble with. Be aware that some coaches may give you incorrect information!

Tutors: If you find yourself having trouble with understanding the material, or keeping up, it is important *as soon as possible* to take steps to improve your situation. *Do not wait* until you have flunked an exam, or stopped doing homework, or stopped coming to class!! One thing that helps many is to hire a tutor. The physics undergraduate student office on the 5th level of RLM Hall has a list of physics graduate students available for tutoring. Rates and hours must be arranged individually between you and the tutor. If this is your second time to take 302L, i.e., if you have *already* had to drop the course, or took the course previously and made D or F, **you should definitely get and work closely with a competent tutor from the very first day of the class.** Be highly specific in explaining what you want the tutor to help you with, e.g., strategies and techniques for physics problem solving, starting from a thorough review of basic principles and concepts. Have the tutor watch as you work out examples, so that he or she can see specifically where you go off the tracks.

UT Legal Notice: (1) “The University of Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471- 6259, 471-6441 TTY.”

(2) “This course carries the Quantitative Reasoning flag. Quantitative Reasoning courses are designed to equip you with skills that are necessary for understanding the types of quantitative arguments you will regularly encounter in your adult and professional life. You should therefore expect a substantial portion of your grade to come from your use of quantitative skills to analyze real-world problems.”

## COURSE SYLLABUS

Date	Topic of lecture
Aug 29	Ch. 15
Aug 31	Ch. 15
Sept 5	Chs. 15, 16
Sept 7	Ch. 16
Sept 10	Ch. 16
Sept 12	Ch. 17
Sept 14	Ch. 17
Sept 17	Chs. 17, 18
Sept 19	Ch. 18
Sept 21	Ch. 18
Sept 24	Ch. 19
Sept 26	Ch. 19
Sept 28	Ch. 19, 20
Oct 1	Quiz 1, Chs. 15 - 18
Oct 3	Ch. 20

Oct 5	Ch. 20
Oct 8	Ch. 21
Oct 10	Ch. 21
Oct 12	Chs. 21, 22
Oct 15	Ch. 22
Oct 17	Ch. 22
Oct 19	Ch. 23
Oct 22	Ch. 23
Oct 24	Chs. 23, 24
Oct 26	Ch. 24
Oct 29	Ch. 24
Oct 31	Ch. 25
Nov 2	Ch. 25
Nov 5	Quiz 2, Chs. 19 - 23
Nov 7	Chs. 25, 26
Nov 9	Ch. 26
Nov 12	Chs. 26, 27
Nov 14	Ch. 27
Nov 16	Chs. 27, 28
Nov 19	Ch. 28
Nov 26	Ch. 28
Nov 28	Ch. 29
Nov 30	Ch. 29
Dec 3	Quiz 3, Chs. 24 - 28
Dec 5	Ch. 29, 30
Dec 7	Ch. 30
Dec 10	Ch. 30

*Exact* due dates and times for homework assignments are summarized on the course web page, <http://tinyurl.com/302lcoker>, and of course on the specific Quest assignment itself. The final exam will be cumulative, but will omit the material covered on Quiz 3 and will slightly emphasize Chs. 29 and 30, which were not covered on mid-term exams. This final exam will be held at a place to be announced, on Monday, Dec. 17, 2 to 5 PM.