

**PHY 317L: GENERAL PHYSICS II**  
**FALL 2016, MWF 10-11 AM, PAI 4.42**  
**UNIQUE # 56120**

- Homework Server: <https://quest.cns.utexas.edu>
- Canvas: <http://canvas.utexas.edu>

**Instructor:** Zhen Yao, [yao@physics.utexas.edu](mailto:yao@physics.utexas.edu), 512-471-1058, RLM 13.208  
**Office Hours:** Monday and Wednesday 1:15-2:15 pm. Other times by appointment.

**TA:** TBA  
**Discussion Sessions:** TBA  
**Office Hours:** TBA

**Extra Help:** Extra TAs are available for coaching on the 5th floor of RLM. Check the bulletin board near the coaching tables for schedule. You may also get help at the Drop-In Tutoring Center in Jester A315A.

**Text:** The recommended textbook is *Essential University Physics*, 3rd Edition, Volume 2 by Richard Wolfson (older editions are fine as well). See attached syllabus for schedule of lectures.

**Overview:** This is the second part of a calculus-based technical physics sequence recommended primarily for premedical students and others in the biomedical sciences. The course covers optics, electricity and magnetism, and selected topics in modern physics. 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.

**Administrative Issues:** Please see Ms. Kelly McCoy, Undergraduate Office, RLM 5.214, 471-8856

**Course Pre- and Co-Requisites:** Physics 317K and 117M with a grade of at least C-; and credit with a grade of at least C- or registration in Physics 117N.

**Grading:** Course grades will be calculated based on the weighted sum of the following: Homework – 25%, Midterm Exams – 40%, and Final Exam – 35%. Course grades will be determined by a class curve at the end of the semester and no prescribed cutoff values should be assumed.

**Quest:** This course makes use of the web-based Quest content delivery and homework server system maintained by the College of Natural Sciences. This service will require each student to pay a \$30 charge per course and \$60 for two or more courses per semester for its use. This charge goes toward the maintenance and operation of the resource. Please go to <http://quest.cns.utexas.edu> to log in to the Quest system for this class. At some point during the second or third week, when you log into Quest you will be asked to pay via credit card on a secure payment site. Quest provides mandatory instructional material for this course, just as is your textbook, etc. For payment questions, email [quest.billing@cns.utexas.edu](mailto:quest.billing@cns.utexas.edu).

**Homework:** You will download the homework and submit your answers online at <https://quest.cns.utexas.edu>. Solutions will be available online right after the due time. The

lowest two homework grades will be dropped in calculation of the course grade. Read the students' documentation at <https://getquest.cns.utexas.edu/documentation/student>. You are encouraged to work together on the homework. You must, however, submit your own work for credit.

**Midterm Exams and Final Exam:** There will be three evening midterm exams on Mondays September 19, October 17, and November 14 as announced in the Course Schedule. The lowest midterm grade will be dropped in calculation of the course grade. No makeup exam will be given. If you miss a midterm exam, it will be the one that will be dropped. The final exam is comprehensive and mandatory and will be held 7-10 pm on Monday December 12, as scheduled by the Registrar's Office. No early final exam will be given. The midterm exams and final exam will be closed book and notes. A formula sheet will be provided to you and calculators may be used for numerical calculations only. Academic dishonesty will not be tolerated.

**Pre-Class Reading and In-Class Activities:** Before coming to class you are expected to have read the relevant materials from the textbook for that day. The lectures will not simply regurgitate what you have read, rather they will focus on explaining and expanding the concepts that you may have difficulty understanding, with the help of demonstrations, interactive quiz questions and example problems.

**Important Dates:** The last day to drop a course for a possible refund is Friday September 9. The last day to drop the course with approval and to change registration to or from the pass/fail basis is Tuesday November 1.

**Special Accommodations:** 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.

## Tentative Schedule

	DAY	DATE	Topics	Chapter
1	W	08/24	Reflection and Refraction	30
2	F	08/26		
3	M	08/29	Images and Optical Instruments	31
4	W	08/31		
5	F	09/02		
	M	09/05	No class - Labor Day	
6	W	09/07	Interference and Diffraction	32
7	F	09/09		
8	M	09/12	Electric Charge, Force, and Field	20
9	W	09/14		
10	F	09/16	Gauss's Law	21
11	M	09/19	Review	
Midterm Exam 1 (Ch. 30-32, 20), 8-10 pm, Monday September 19				
12	W	09/21	Gauss's Law, Cont'd	21
13	F	09/23	Electric Potential	22
14	M	09/26		
15	W	09/28	Electrostatic Energy and Capacitors	23
16	F	09/30		
17	M	10/03	Electric Current	24
18	W	10/05		
19	F	10/07	Electric Circuits	25
20	M	10/10		
21	W	10/12		
22	F	10/14	Magnetic Force and Field	26
23	M	10/17	Review	
Midterm Exam 2 (Ch. 21-25), 8-10 pm, Monday October 17				
24	W	10/19	Magnetic Force and Field, Cont'd	26
25	F	10/21		
26	M	10/24	Electromagnetic Induction	27
27	W	10/26		
28	F	10/28		
29	M	10/31	Alternating-Current Circuits	28
30	W	11/02		
31	F	11/04	Electromagnetic Waves	29
32	M	11/07		
33	W	11/09	Relativity	33
34	F	11/11		
35	M	11/14	Review	
Midterm Exam 3 (Ch. 26-29, 33), 8-10 pm, Monday November 14				
36	W	11/16	Particles and Waves	34
37	F	11/18		
38	M	11/21	Quantum Mechanics	35
	W	11/23	No Classes - Thanksgiving Holidays	
	F	11/25		
39	M	11/28	Atomic Physics	36

40	W	11/30	Nuclear Physics	38
41	F	12/02		
42	M	12/05	Review	
<b>Final Exam, 7-10 pm, Monday December 12</b>				