

PHYSICS 317K

General Physics I (Mechanics/ Heat/ Sound)

Spring 2013, Unique numbers: 58385

Painter 2.48, TTH 3:30 - 5:00 pm

Bookmark these URLs:

- Online Homework (Quest): <https://quest.cns.utexas.edu/student/courses/list>
- (requires authentication via UTEID, register accordingly to your unique course number)
- The blackboard system login site: <https://courses.utexas.edu/webapps/portal/frameset.jsp>
- Basic How-to for Quest <http://cns.utexas.edu/quest/howto/>
- Student FAQs: <http://web4.cns.utexas.edu/quest/support/student/>

TEXTBOOK: Essential University Physics, Volume 1, by Richard Wolfson, 2nd edition, (Pearson Addison Wesley) ISBN: 9780321706690 (Note: the 1st edition is okay too.)

This course makes use of the web-based Quest content delivery and homework server system maintained by the College of Natural Sciences. Quest Spring semester billing will begin February 4th until February 11th. At that time, click the What I Owe page when you access Quest to begin your payment. Quest subscriptions are \$25 for a single course, or \$50 for 2 or more.

Where to get help with class registration?

Contact Lisa Gentry at ugaffairs@physics.utexas.edu

Undergraduate Coordinator/Course Schedules/Exams RLM 5.216 | (512) 471-8856

INSTRUCTOR:

- Name: Christina Markert, Associate Professor Physics
- Email: cmarkert@physics.utexas.edu (NOTE: cmarkert !!! (not markert))
- Office hours: Tuesday 5:00-6:00 pm, Wednesday 2:30-3:30 pm, RLM 10.305
- Office phone: 512-471-8834

TEACHING ASSISTANT:

- Name: David Purtseladze
- Email: ddatka@gmail.com
- Office hours: by appointment RLM 11.217 (phone 512-576-7825)

DISCUSSION SESSIONS by TA: (Same material on Thursday and Friday: pick one session)

(main discussion session) Thursday 5:00 pm – 7:00 pm, room: RLM 7.114

(main discussion session) Friday 11:00 am – 1:00 pm, room: PAR 301

(question and answer session) Monday 5:00 pm – 7:00 pm, room: RLM 7.114

If you have a time conflict with both main sessions, please email David your weekly schedule and he will find an alternative time and data.

HOMEWORK: There are 12 Homework assignments. The Homework will be due once a week, always on Monday night (technically, at 11:55 pm). The first assignment will be due on Monday, January 21. The computerized homework system will be used. You will need to register at

<https://quest.cns.utexas.edu/student/courses/list>. There are no make-ups for homework due to access problems. The homework consists of questions covered mainly by lectures and the material in the textbook.

CLASSWORK: Students must be seated by 3:30 pm. Attendance is not required but strongly recommended.

MIDTERM EXAMS: There will be 3 midterm exams given in class. All midterms will count for your grade (no dropping possible). These exams will include concept questions like those given in class and as well as problems like those in the textbook and the homeworks.

MAKE-UP: There are no make-ups for the Midterm Exams unless a substantial illness or family emergency is documented with a note from a physician or the dean's office. Any potential absences must be discussed with Christina Markert prior (at least 4 weeks) to the exam to have a make-up. The make-up will be an oral Exam.

FINAL EXAM: The final exam will cover all chapters listed in the class syllabus. You are responsible for all materials in the textbook according to the listed chapters in the syllabus even if some are not covered in class. However, the problems will focus on those materials discussed in class. The final exam will be given at the time scheduled by the University (please find the day, room and time yourself).

GRADING: 12 homeworks, the three lowest homework grade will be dropped (including missed homeworks); the 10 highest grades will count 20%. The **3 midterm Exams** will count 45% (15%+15%+15%); The **final exam** will count 35%. The final letter grades will be assigned as follows: A: $\geq 90\%$, A-: $\geq 85\%$, B+: $\geq 80\%$, B: $\geq 75\%$, B-: $\geq 70\%$, C+: $\geq 65\%$, C: $\geq 60\%$, C-: $\geq 55\%$, D+: $\geq 50\%$, D: $\geq 45\%$, D-: $\geq 40\%$, of the total possible score (=100%). Below 40.00% is F. (These are threshold numbers so 84.99% = B+, 85.00% = A-).

FORMULAR SHEET and CALCULATOR: You will be provided with an equation sheet for your Exams. Bring your own calculator (no computer, iphone, etc)

PHY 117M: The laboratory course PHY 117M is a co-requisite for PHY 317K, unless you have already passed it, you are required to register for it. For more information please contact Lisa Gentry RLM 5.216, tel: (512) 471-8856.

PREREQUISITE: A high school physics course, PHY 306, or consent of the undergraduate advisor; Math 408C, or Math 408K and concurrent registration for M 408L; and concurrent registration for PHY 117M.

DROP DATES: ([UT Austin Academic Calendar](#))

STUDY SUGGESTIONS: Students are responsible for assigned sections of the book even if they are not all covered in class. Read the material to be covered in class before coming to class, and a second time afterward. Start working on your homework as soon as it is available and turn your work in as soon as you have completed your work (you get multiple tries for missed questions, but every wrong answer will give you some small negative credit). Get help from your TA and instructor if you have trouble in understanding the material. The importance of doing the homework assignments (*and understanding them*) cannot be overemphasized. Also, work the problems at the end of the chapter and looking for particularly interesting ones to solve in addition to those, which you have done for homework.

Where to get help with your homework?

There are several places to get help: 1) You are encouraged to discuss your homework with your classmates. 2) Coaching Tables: The physics department assigns Teaching Assistants to coach students in introductory physics courses. The coaching area is by the elevators on the 5th floor of RLM. The hours will be posted in the coaching area but are usually 9am-5pm, starting on the 2nd week of the

semester. 3) The UT learning center. You can get free tutoring! The information is available at the following website: <http://www.utexas.edu/student/utlc/student.html>. 4) Your TA's discussion session

Tentative Syllabus:

	DAY	DATE	Chapter	Subject and Comments	Homework due
1	T	Jan 15	1	Introduction/ Doing Physics	HW1: Jan 21
2	TH	Jan 17	2	Motion in a Straight Line	
3	T	Jan 22	3	Motion in Two and Three Dim.	HW2: Jan 28
4	TH	Jan 24	4	Force and Motion	
5	T	Jan 29	5	Using Newton's Law	HW3: Feb 4
6	TH	Jan 31		Review	
7	T	Feb 5		Midterm Exam 1 (chapter 1-5)	
8	TH	Feb 7	6	Work, Energy, Power	
9	T	Feb 12	7	Conservation of Energy	HW4: Feb 18
10	TH	Feb 14	8	Gravity	
11	T	Feb 19	9	System of Particles	HW5: Feb 25
12	TH	Feb 21	10	Rotational Motion	
13	T	Feb 26	11	Rotational Vectors and Angular Mom.	HW6: Mar 4
14	TH	Feb 28		Review	
15	T	Mar 5		Midterm Exam 2 (chapter 5-8)	
16	TH	Mar 7	12	Static Equilibrium	
	T	Mar 12		Spring Break	
	TH	Mar 14		Spring Break	
17	T	Mar 19	13	Oscillatory Motion	HW7: Mar 25
18	TH	Mar 21	14	Wave Motion	
19	T	Mar 26	14	Wave Motion	HW8: Apr 1
20	TH	Mar 28	15	Fluid Motion	
21	T	Apr 2	15	Fluid Motion	HW9: Apr 8
22	TH	Apr 4		Review	
23	T	Apr 9		Midterm Exam 3 (chapter 9-12)	
24	TH	Apr 11	16	Temperature and Heat	
25	T	Apr 16	17	The Thermal Behavior of Matter	HW10: Apr 22
26	TH	Apr 18	18	Heat, Work, and the First Law of Therm.	
27	T	Apr 23	18	Heat, Work, and the First Law of Therm.	HW11: Apr 29
28	TH	Apr 25	19	The Second Law of Thermodynamics	
29	T	Apr 30	1-19	Review I for Final Exam	HW12: May 3
30	TH	May 2	1-19	Review II for Final Exam	