DEPARTMENT OF PHYSICS
THE UNIVERSITY OF TEXAS AT AUSTIN

Austin, Texas 78712-1081 • (512) 471-1153

Physics n303L – Summer 2017 – Engineering Physics II

M-Tu-W-Th-F 10:00–11:15am – PAI 4.42 – Unique No. 88160

Instructor: Prof. John Markert. *Office*: RLM 13.314, 471-1039. *Office Hours*: M 1:30–2:30, Th 1:30–2:30. Or by appointment, or after class (outside PAI 4.42). E-mail: markert@physics.utexas.edu

LA/TA: Learning Assistants: To be announced. Teaching Assistant: To be announced.

Textbook: Required: *Physics for Engineers and Scientists*, 3rd Ed., Ohanian and Markert, Vol. 2 (either print or electronic version). iClicker remote required (below). Optional: (*Study guide,* etc.). Tutorials at http://www.wwnorton.com/college/physics/om/index.shtml ("Online Concept Tutorials").

"Quizzes:" Three in-class exams on alternate Thursdays: June 15, June 29, and July 13. An equation sheet will be provided; also, you may bring one 8.5"x11" handwritten sheet (both sides OK).

Final: The final exam is mandatory, Thursday, July 27, 7:00 p.m.–10:00 p.m. Location TBA.

Homework: Read and study the chapter assigned on the back of this sheet before coming to class. Homework is submitted on Quest (https://quest.cns.utexas.edu/student) and is due 4am every Tuesday and Friday (so HW really due Monday and Thursday nights). Exceptions: No homework on Thursday nights after exams (6/15, 6/29, and 7/13). Solutions will appear on Quest 2 hours after the due time.

Coaching/ Help: TA/LA help sessions TBA. Computer/Quest help in PMCL in RLM 7.306. Coaching tables on 5th floor of RLM may have some daytime TA help (use escalators for floors 5–7). Jester West and Kinsolving have had physics study groups Su–Th 7:30–10:30pm. Sanger Learning Center (JES A332) has tutoring, peer academic coaching, and specialist appointments: http://www.utexas.edu/ugs/slc or call 512-471-3614.

Classwork: iClicker system. Buy a new or used iClicker remote and register its serial number in Canvas only (https://utexas.instructure.com/courses) at the i>Clicker tab. We will practice on F 6/2 and begin on M 6/5. Attendance and participation by iClicker will be posted in Canvas. (Students with better attendance usually get higher grades.)

Grade:

Homework (best 10 out of 12)	15%
Quizzes (best 2 of 3)	45%
Classwork (3 drops)	10%
Final Exam	30%

Overall Grade:

A	90-100	B–	70-75	D+	50-55
A–	85-90	C+	65-70	D	45-50
B+	80-85	C	60-65	D–	40-45
B	75-80	C–	55-60	F	< 40

No make-ups are allowed. I drop the two lowest homeworks, one lowest quiz, and three iClicker sessions to accommodate students with extraneous circumstances.

Engineering Physics II: Electricity, Magnetism, and Optics. Chapter Topics:
22-Electric Force; 23-Electric Field; 24-Gauss' Law; 25-Potential and Energy; 26-Capacitance; 27-Current and Resistance; 28-DC Circuits, 29-Magnetic Force, Field, and Ampere's Law; 30-Currents and Charges in a Magnetic Field; 31-Induction and Faraday's Law; 32-AC Circuits, 33-Electromagnetic Waves, 34-Geometrical Optics, 35-Interference and Diffraction.

Read and study chapters listed below before coming to class.

	Reading Chapters						
Week	Mon	Tue	Wed	Thu	Fri	Monday Homework	Thursday Homework
29-May	—	—	—	22	22		Register iClicker in Canvas; start HW#1
05-June	22/23	23	23	24	24	#1 Ch 22 4am Tu 6/06 (Mon night)	#2 Ch 23 4am F 6/09 (Th night)
12-June	24	25	25	Quiz1	26	#3 Ch 24 4am Tu 6/13 (Mon night)	
*Quiz 1: Thursday, June 15, 10-11:15am (Quiz 1: Ch. 22–24)							
19-June	26	27	27	28	28	#4 Ch 25-26 4am Tu 6/20 (Mon night)	#5 Ch 27 4am F 6/23 (Th night)
26-June	28	29	29	Quiz2	30	#6 Ch 28 4am Tu 6/27 (Mon night)	
*Quiz 2: Thursday, June 29, 10-11:15am (Quiz 2: Ch. 25–28)							
03-July	30 Holiday	30	31	31		#7 Ch 29 4am Tu 7/04 (Mon night)	#8 Ch 30 4am F 7/07 (Th night)
10-July	31	32	32	Quiz3	33	#9 Ch 31 4am Tu 7/11 (Mon night)	
*Quiz 3: Thursday, July 13, 10-11:15am (Quiz 3: Ch. 29–31)							
17-July	33	34	34	35	35	#10 Ch 32-33 4am Tu 7/18 (Mon night)	#11 Ch 34 4am F 7/21 (Th night)
24-July	35 Rev/Mod	X Final	X			#12 Ch 35 4am Tu 7/25 (Mon night)	
*Final Exam: Thursday, July 27, 7:00 p.m.–10:00 p.m., location TBA.							

This course makes use of the web-based Quest content delivery and homework server system maintained by the College of Natural Sciences. This homework service will require a $30 charge per student for its use, which 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. After the 12th day of class, when you log into Quest you will be asked to pay 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 $60/semester. For payment questions, email quest.fees@cns.utexas.edu.

This course carries the Quantitative Reasoning flag.

This course may be used to fulfill three hours of the natural science and technology (Part I or Part II) component of the university core curriculum and addresses the following four core objectives established by the Texas Higher Education Coordinating Board—communication skills, critical thinking skills, teamwork, and empirical and quantitative skills, via homework, exams, class participation, and section meetings.

Student Accommodations

Students with a documented disability may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 512-471-6259 (voice) or 1-866-329-3986 (video phone). http://ddce.utexas.edu/disability/about/ Please request a meeting as soon as possible to discuss any accommodations.