

PHY116 GLENDALE COMMUNITY COLLEGE Fall 2009

PHY 116 University Physics II

A general physics course using calculus to develop the principles of electromagnetism and optics. Recommended for majors in the sciences and mathematics. Required for engineering and physics majors.

Prerequisites/co requisites: **PHY 115, MAT 230/1, (Calculus II) Co requisite MAT241**

Course content may vary from this outline to meet the needs of this particular group.

Instructor: Cheryl Dellai Office in Room PS 109 Phone 623.845.3678

E-mail: cheryl.dellai@gmail.com

Lectures:	MTRF	1:00 - 1:50 PM	Room PS167	Section 14598
Labs:	Thursday	2:30 - 5:00 PM	Room PS169	Section 14600

The Hi-Tech center is available for student use for physics assignments. Each student using the center will log in each time and follow all rules.

Homework Session T 2:00- 2:50 PS167

Office Hours: TF 10-11, M 11-12 and by arrangement
Math Center availability MR 10-10:50 AM

Text: **Fundamentals of Physics 8th Ed** by Halliday & Resnick, 2007

OR

Text: **Fundamentals of Physics 7th Ed** by Halliday & Resnick, 2004

Physics & Spreadsheets by Cheryl K Dellai

Physics Handouts by Cheryl K Dellai

Recommended and Optional Materials

Preparing for General Physics by Pickar, 1993

Equipment: **Calculator** $\Rightarrow\Rightarrow$ With scientific notation, log functions, trig functions.

(BRING Calculator to first lab!)

3 ring notebook $\Rightarrow\Rightarrow$ - For storing lab manual, problem solutions etc.

Storage Device

ATTENDANCE POLICY: Attendance will be taken daily. When a student has accumulated unexcused absences in excess of four class periods, the instructor MAY file a withdrawal form for that student.

WITHDRAWAL POLICY: According to college policy, a student may withdraw from the course during the 1st 7 weeks by submitting a withdrawal form to the Admissions Office. If a student wishes to have the instructor withdraw him or her from the course AFTER the 7th week, it is the responsibility of the STUDENT to contact the instructor about the possibility of a withdrawal.

SAFETY REGULATIONS

Arizona State ARS15-151 specifies that every student, teacher, and visitor in community colleges must wear appropriate protective eyewear while participating in or when observing vocational, technical, industrial arts activities involving exposure to: molten metals; molten metals, cutting shaping, and grinding of materials; heat treatment; tempering or kiln firing of any metals or other materials; welding fabrication processes; explosive materials, caustic solutions and radioactive materials.

Cheating or plagiarism will result in a zero grade for the item.

Audio taping of classes is allowed.

Smoking, eating, & drinking in class is not allowed. Water in a sealed bottle is allowed.

Turn off all cell phones.

Special needs students need to contact me and/or Disability Services 623.845.3080.

Misbehavior or failure to follow instructions is cause for instructor withdrawal.

PERSONS NOT ENROLLED IN CLASS ATTENDING CLASS

No one not enrolled in class is allowed in class. For emergency childcare during class time call **Child Referral Phone Number 623.845.2678.**

Grading: 1000 pts total

50 pts Assigned project

40 pts Student Tests (8 pts/test)

150 pts Weekly quiz (last 10 min of class) (5 - 10 pts)

200 pts Tests no makeups unless arranged in advance.

300 pts Final- comprehensive (2 PARTS)

100 PTS TAKE HOME 200 PTS IN CLASS NO NOTES

Common Final Exam: A common comprehensive final exam consisting of 20 multiple-choice questions from the official textbook test bank will be given to all classes. The composition of the common final will be determined by a consensus of the instructors of the course.

The weight of the common final in the determination of the course grades is left to the discretion of the instructor. However, The following guidelines apply to all students in the course:

No student scoring below 70% on the common final may receive a grade higher than a B.

No student scoring below 50% on the common final may receive a grade higher than a C.

No student scoring below 30% on the common final may receive a grade higher than a D.

60 pts Homework (3 pts/chapter) - due on Thursdays one week after the chapter.
Late homework will receive 1 pt.

50 pts Lab Test

150 pts 10 labs (15 pts) (Lab grades will be scaled)

(50% loss of points for labs more than 1 week late) To receive a course grade of "C" or higher, a student must submit passing lab reports for at least 7 of the scheduled labs. Grades will be reduced on late lab reports (2 weeks late maximum) proportionally down to 60%.

Any student failing the laboratory portion of the course cannot receive a grade higher than a D for the course.

A 90% B 80-89% C 70-79% D 60-69% F < 60%

COURSE COMPETENCIES:

1. Use fundamental physical laws and principles to solve problems encountered in academic and non-academic environments.
2. Develop and use appropriate models that closely represent actual physical situations.
3. Apply problem-solving techniques in terms of logic, efficiency, and effectiveness.
4. Solve problems beyond the level of plug-in type problems.
5. Solve practical engineering and science problems.
6. Use computer systems and techniques in solving a variety of problems.

COMPUTER PROGRAMS

All students have access to the palette which includes Office 2003, Office 2007, Netscape, and Maple. A shareware spreadsheet Aseasyas 4.0Q is available. Instruction in your course folder. <https://files.gccaz.edu/shared/courses/phy115/cdellai>

Library at <http://www.gccaz.edu/Library>

COPY OF SYLLABUS ACKNOWLEDGEMENT

Course: **Physics 116**

Semester: **Fall 2009**

Email _____

Instructor: **Cheryl K Dellai**

Section: 14598/14600

Phone : _____

I acknowledge that I have received a course syllabus for the course described above. I have read it and understand the attendance, withdraw, grading and other policies. I recognize that to successfully complete this course it may require 2 to 3 hours out of class for each hour spent in class.

Signature: _____

Printed Name: _____ **Date:** _____

Email Address: _____

HOMEWORK SCHEDULE

Clearly identify each problem number.

Show all details for solving the problem.

Clearly identify the answer to the problem.

SCHEDULE IS SUBJECT TO CHANGE WITHOUT NOTICE.

8TH EDITION

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
8th	8th	8th	8th	8th	8th	8th	8th	8th	8th	8th	8th	8th	8th	8th	8th	8 th
3	9	1	4	5	7	6	2	2	1	1	3	5	1	1	5	2
4	10	6	5	7	14	15	9	5	15	5	17	6	2	16	11	11
8	19	11	11	8	20	22	17	6	21	11	29	7	19-31	19	17	13
10	32	20	12	9	23	27	19	8	24	15	40	8	34-40	33	21	14
7	41	21	13	13	33	35	25	19	25	19	51	12	59-68	80	27	21
13	46	37	15	26	38	41	39	21	26	21	55	20	69-79	81	35	74
17	51	38	40	27	39	42	44	28	31	25	57	26	90	82	40	
19	55	41	41	34	43	48	53	33	33	27	59	32	104	83	89	
35	67	50	46	36	47	53	59	41	47	34	69	34	110	96	90	
44	69	51	56	39	52	54	62	49	48	47		51	119	102		
66	71	55	59	45	57	56	68	56	55	59		58	122	118		
53	75	58	90	48	66	62	70	68	64	64		65	129			
54	76	73	92	49		72	80	76	71	65		69				
	86	74	94	59		79	83	77	74	69		99				
		81	95	74		80		81	76	72		100				
			98			86		93	101	76						
			103			92				89						
			114			107										

CLASS SCHEDULE:

3x5 note card allowed on chapter tests

	Week	Chapter	Lab	Test given In labs
1	Aug 24	21,21	(1) Wave Motion & Superposition.	Test 1 Chapter 21-25
2	Aug 31	22,23	Electric Fields in Calculus	Test 2 Chapter 26-29
3	Sept 7	23,24	(2) Electric Field Mapping(Labor Day Monday)	Test 3 Chapter 30-32
4	Sept 14	24,25	(3) Capacitance)	Test 4 Chapter 33-36
5	Sept 21	25,26	(4) Wheatstone Bridge	
6	Sept 28	27,27	Exam #1	
7	Oct 5	28,28	(5) Slide Rule Potentiometer e	
8	Oct 12	29,29	(6) E/M for Electrons	
9	Oct 19	30,30	Exam #2	
10	Oct 26	31,31	(7) Earth Inductor	
11	Nov 2	32,32	(8) Reflection/Refraction	
12	Nov 9	33,33	Exam #3 Wednesday Veteran's Day	
13	Nov 16	34,34	(9) Lens	Lab Test Due
14	Nov 23	34	Thanksgiving Nov 27	
15	Nov 30	35,35	(10) Interference(3 labs)	
16	Dec 7	36,37	Exam #4	
	Dec 16	FINAL	Wednesday at Class time for day	

