

# **COURSE OUTLINE**

PHY245 - Physics III

CRN: 95714 Credits: 3

<u>Instructor</u>: Prof. Glenda Denicoló (PhD) <u>e-mail</u>: <u>denicog@sunysuffolk.edu</u> <u>website</u>: <u>http://gdenicolo.net/</u> and **Blackboard** (most course material will be in **Bb**)

<u>Instructor office hours (my office is T-218)</u>: Mon 1:30–2pm; Tue 2:30–4pm; Wed 10:30–11am; Thu 2:30–4pm

Online hours (not on campus): Wed 7–8pm.

Hours of physics tutors at the Help Center: posted on T-16 or online at http://gdenicolo.net

#### **GRADE POLICY**

The final course grade will be based on a combination of several homeworks, coding exercises, 4 non-cumulative tests and 1 cumulative final exam. The final exam is optional and can replace the lowest grade of a test. At the end, only 4 test grades will be used.

Make-up will be allowed only ONCE for the non-cumulative tests and ONLY to students who show DOCUMENTATION proving an emergency. If you do NOT have a document (example: from hospital, doctor, police, jury duty) proving your emergency, THERE WILL BE NO make-up. Once a student presents a document, he/she MUST schedule a make-up with the professor within 24 hours of the missed test. There will be no make-up for the final exam.

#### HOW TO COMPUTE YOUR FINAL GRADE:

Homework (total of 8)89	%
VPython coding exercises (4 out of 6)8	<b>%</b>
Each test219	6 (4 x)
Final exam (optional)219	(if taken, the final exam will replace the lowest of the 4 tests)
Extra credit (optional)0.5%	(4x)

There will be NO curving of the grades in this course. Your final grade is non-negotiable. This is the letter grade breakdown that will be used throughout the semester:

89.5 ≤	$A \leq 100$
84.5 ≤	$B+ \le 89.4$
79.5 ≤	$B \leq 84.4$
<b>74.5</b> ≤	$C+ \le 79.4$
69.5 ≤	$C \leq 74.4$
64.5 ≤	$D+ \le 69.4$
59.5 ≤	$D \leq 64.4$
	$F \leq 59.4$

#### Important Note:

At the end of the course, once all the grades are in, a 69.1 for example, translates into a D+ and never to a C. Students must understand what it means when we say "YOUR FINAL GRADE IS NOT NEGOTIABLE". It means the grade breakdown shown IS FIRM. A difference of even 0.1 point in your final grade is NOT NEGOTIABLE. You have been warned about this since the first day of class, so you must prepare accordingly. The main benefit of extra credit assignments is to help students bump up their final grades by up to a letter grade. At the end of the course, no other activity will be given in order to change your final grade: at the end of the course, after your last test, the conversation is OVER.

According to the Family Educational Rights and Privacy Act (FERPA), grades will never be discussed by e-mail or phone, only in person.

## **HOMEWORK** (to be done *INDIVIDUALLY* always)

Eight homework assignments will be given throughout the semester. Each homework will be comprised of about 10 problems. After the homework is returned, the professor will use a die or any other random method to select one problem for correction. In other words, only one problem –selected by chance, in class– will be graded, out of the  $\sim 10$  problems originally given. The remaining problems will not be considered for grading at all. Answers to the homework problems will be made available online (Bb) after the deadline.

Your homework must present *complete solutions*; these are the guidelines for a successful homework (and tests):

- You *must* clearly show your work for each step of each problem, no matter how trivial the step might be.
- You *must* show your reasoning in a mathematical or numerical manner, even if the problem does not explicitly say so.

- You *must* show that each step follows logically from the previous one. If you have tried several different ways of doing the same problem, you will *not* get partial credit unless your work shows a logical progression.
- You *must* present your work in a legible manner.
- You will not get any credit even if the final answer is correct but the work shown does not support it.
- You will lose points anytime there is a conceptual mistake at an intermediate step even if the final answer is correct.

#### ABSENCE POLICY

Students absent from more than 2 lectures without a well-documented justification may be dropped from the course.

#### E-MAIL COMMUNICATION WITH THE INSTRUCTOR

E-mail is the preferred means of communication with your instructor. The instructor will ALWAYS reply to your message within 24 hours (with the exception of weekends and holidays). If your instructor does not reply within 24 hours it is because you did NOT succeed in sending the message, and it is YOUR RESPONSIBILITY to check whether you typed the correct e-mail address or any other simple mistake as such. In the case of an emergency, you are allowed to submit one homework assignment via e-mail *before* the deadline. However, a <u>printed paper copy</u> of your work should ALWAYS be provided to the instructor the following class.

Notice that in the case of an emergency, the instructor may also try to get in touch with you via e-mail. The instructor will write an e-mail to your official college e-mail address (ending in @sunysuffolk.edu). This is the e-mail address you should be reading at all times concerning SCCC official announcements.

### WITHDRAWAL POLICY

This instructor will NOT grant "W" after the mid-semester cutoff to any student, unless a very well-justified case comes up, with documentation proving this extreme case. Mid-semester cutoff for Fall 2018: Wednesday, October 31st. Only students who submit a course withdrawal form on or before this date are guaranteed a grade of "W".

Please note that this means if you stop attending class without officially withdrawing in the time period provided, you will very likely be given an F by your instructor. It is common courtesy to communicate to your instructor the fact that you are leaving the course. If you have a failing (F) average after the mid-semester cutoff, you will be given an F rather than a W as your final grade, even if you stop attending class.

#### **ADA STATEMENT**

Suffolk County Community College provides reasonable accommodations to registered students with disabilities who have self-identified and been approved by the Office of Disability Services. Once approved for reasonable accommodations, such students will be provided with a laminated letter, describing the specific accommodations. Students must present this laminated letter to each of their professors before accommodations can be provided.

Students who have, or think they may have, a disability are invited to contact Disability Services for a confidential consultation. Call the Disability Services Office at 631-451-4045, email the Office at <a href="mailto:disabilityserv-ammr@sunysuffolk.eduail">mailto:disabilityserv-ammr@sunysuffolk.eduail</a> or stop by to make an appointment at Room 202 in the Ammerman Building. For more information regarding the College's commitment to ensuring accessibility and non-discrimination please see: <a href="www.sunysuffolk.edu/accessibility/">www.sunysuffolk.edu/nondiscrimination</a>

#### CRITICAL INCIDENT MANAGEMENT

SCCC expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Dean of Students Services any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, and/or inhibits students' ability to learn. The Office of the College Associate Dean of Students and/or the Campus Associate Dean of Student Services shall maintain all records of documented acts of academic dishonesty.

#### ACADEMIC INTEGRITY STATEMENT

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty is required to report any suspected instance of academic dishonesty to the Campus Associate Dean of Students Services. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the Student Code of Conduct at the website at: http://www3.sunysuffolk.edu/forms/Policies\_9.pdf

#### Special Procedures for Academic Dishonesty (extracted from the Student Code of Conduct)

If a faculty member concludes that a student has committed an act of academic dishonesty, the faculty member may initiate student conduct action through the College Associate Dean of Students and/or may notify the student that s/he has imposed any of the following penalties:

- 1. require that the student repeat the assignment or the examination; or
- 2. give the student a failing grade for the assignment or examination; or
- 3. give the student a failing grade in the course and deny the student continued access to the class.

# PHY245

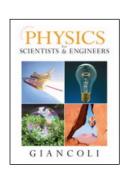
Tue 6 – 7:50 pm (T-15) Thu 6 – 7:50 pm (T14) CRN 95714

	DATE	COVERED TOPICS		DATE	COVERED TOPICS
Week 1 Tue Thu	Sep 04 Sep 06	§ 14.1 – 4 § 14.5 – 7	<b>Week 9</b> Tue Thu	(official 1 Oct 30 Nov 01	mid-semester Oct 31) § 33 (except § 4,5,9,10) § 34.1 – 3 (H5 is due)
Week 2 Tue Thu	Sep 11 Sep 13	§ 14.8 § 30.5 – 30.6 (H1 is due)	<b>Week 10</b> Tue Thu	(H6 is du Nov 06 Nov 08	se on Bb 11pm Sat Nov 10) § 34.4 – 5, § 35.1 – 3 § 35.4, 5, 7, 8, 10, 11, 13
Week 3 Tue Thu	(H2 is du Sep 18 Sep 20	se on Bb 11pm Sat Sep 22) § 30.7 – 30.8 § 30.9	<b>Week 11</b> Tue Thu	Nov 13 Nov 15	Test 3 Due: EC3 on Bb before test § 17.1 – 9
Week 4 Tue Thu	Sep 25 Sep 27	Test 1 Due: EC1 on Bb before test § 15.1 - 4	Week 12 Tue Thu	Nov 20	§ 18.1 – 7 Due: coding exercises (last 3)
Week 5 Tue Thu	Oct 02 Oct 04	§ 15.5 – 11 § 16.1 – 4	Week 13 Tue Thu	Nov 27 Nov 29	§ 19.1 – 5 (H7 is due) § 19.6 – 10
Week 6 Tue Thu	(H3 is du — Oct 11	No class (Prof. Dev. Day) § 16.5 – 9 Due: coding exercises (first 3)	<b>Week 14</b> Tue Thu	(H8 is du Dec 04 Dec 06	se on Bb 11pm Sat Dec 8) § 20.1 – 4 § 20.5 – 8
Week 7 Tue Thu	(H4 is du Oct 16 Oct 18	se on Bb 11pm Sat Oct 20) § 31.1 – 10 § 31 – § 32	<b>Week 15</b> Tue Thu	Dec 11 Dec 13	Test 4 Due: EC4 on Bb before test Final Exam
Week 8 Tue Thu	Oct 23 Oct 25	Test 2 Due: EC2 on Bb before test § 32			

# Required textbook:

Physics for Scientists and Engineers, 4/E by Doug Giancoli Publisher: Addison-Wesley Chapters 1 to 37; without Modern Physics.

Please acquire the complete version, avoid splitting into volumes.



## SOME INTERESTING PROBLEMS:

Basically, all problems of difficulty I and II are inside the level of knowledge expected of PHY245 students. You should tackle those even if they are not explicitly mentioned below.

Chapter 14 (Test 1) *Problems*: 10, 11, 13, 14, 15, 16, 18, 19, 25, 33, 37, 38, 39, 45, 52, 56, 60, 61, 64, 67, 69

Chapter 34 (Test 3) *Problems: 7, 11, 13, 19, 25, 27, 31, 37, 42, 43, 44, 48, 49, 55, 57, 61* 

Chapter 15 (Test 2)

Problems: 8, 9, 10, 12, 13, 19, 28, 29, 32, 35, 37, 41, 43, 54, 62, 63, 67, 87, 88

Chapter 35 (Test 3)

Problems: 1, 7, 13, 19, 25, 31, 37, 43, 49, 55, 60, 61, 67, 73, 74, 79

Chapter 16 (Test 2)

Problems: 55, 57, 64, 65, 66, 74, 90, 108, 109

Chapter 17 (Test 4) *Problems: 37, 43, 49, 55, 67, 73, 79, 85* 

Chapter 30 (Test 1)

Problems: 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 67, 71, 72, 73, 82, 84, 87, 93, 103, 104

Chapter 18 (Test 4) *Problems*: 1, 7, 13, 19, 22, 25, 31, 37, 43, 49, 55, 61, 67, 73

Chapter 31 (Test 2)

Problems: 1, 7, 23, 25, 28, 31, 43, 44, 53, 58, 61

Chapter 19 (Test 4)

Problems: 1, 7, 13, 19, 24, 25, 31, 32, 37, 38, 43, 49, 51, 52, 53, 54, 55, 61, 67, 69, 70, 72, 73, 79, 80, 85

Chapter 32 (Test 3)

Problems: 4, 13, 18, 19, 24, 25, 26, 43, 49, 61, 73, 75, 76, 77, 81, 83

Chapter 20 (Test 4)

Problems: 1, 6, 7, 13, 19, 25, 31, 37, 39, 42, 43, 44, 49, 55, 61, 63, 64, 67, 72, 73, 79

Chapter 33 (Test 3)

Al problems level I and II in sections 1, 2, 3, 6, 7, 8.

# **IMPORTANT DISCLAIMER:**

General rules are printed in your course outline. But even if a rule is not *specifically* printed on your course outline, it may be announced only in class and it is a valid new rule that must be followed. If there are changes to any existing rules, these too will be announced in class whether or not they are in print.

Students are responsible for apprising themselves of *anything* that transpires in class whether or not they are in attendance. <u>All students need to be aware of all announcements whether or not they are in attendance</u>. Ask another student. E-mail the professor and ask to update you on any new announcements. If you have missed a class, you have to ask, it is YOUR responsibility to ask.

Professors are not "babysitters", i.e., they will not remind you all the time of the requirements presented in the course outline: you have the responsibility to know what is strictly expected from you.

All students are personally accountable for all submitted work.

You must keep track of your own progress in class. Calculate your average grade at all times; estimate your own final grade to know where you are heading: this only requires basic math knowledge!

YOU are responsible for the grade you receive.

Professors are just messengers in the classroom: the grade you get is not "given" by the professor – it is **the grade that you gave to yourself**, in direct correspondence to how much YOU have studied and learned about the subject. Taking responsibility for your own acts and taking responsibility for your own work is a good rule for life.

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Please return this signed slip with	in the first week of classes.	
I have read and am aware of all th	ne information contained in the course o	utline of PHY245.
Name (please print):	Date:	_//
Your signature:		