



# Syllabus for PHYS 2325 (University PHYS I)

## Southeast College, Spring 2018

<b>Course Title:</b>	University Physics I
<b>Course Number:</b>	PHYS 2325-0001
<b>Class Number:</b>	59945
<b>Semester:</b>	Spring 2018
<b>Session:</b>	Regular Term
<b>Time:</b>	01/16/2018 - 05/13/2018 (MW 12:30PM – 1:50PM)
<b>Location:</b>	Felix Morales Building MW: Rm 208

<b>Instructor:</b>	<b>Aqiang Guo (AQ Guo)</b>
<b>Email:</b>	aqiang.guo@hccs.edu
<b>Office Hours:</b>	Arrange appointment with instructor/before (after class)
<b>Course Information: (on HCC Learning Web)</b>	Only syllabus on the Learning Web. <a href="http://learning.hccs.edu/faculty/aqiang.guo">http://learning.hccs.edu/faculty/aqiang.guo</a>
<b>Course Information: (on Canvas)</b>	Canvas > files > Course Materials >
	1. Grade Calculation and Requirements
	2. Homework
	3. HW Solutions
	4. Lecture Notes
5. Textbook Information	
<b>Grade Information:</b>	Canvas: Canvas is only used for you to <b>check your detail records.</b> <b>Final grade calculation equation is based on Syllabus.</b>
<b>Office Phone:</b>	To be announced
<b>Office Location &amp; Hours</b>	Before/After class

<b>Course Information</b>	
<b>Prerequisites:</b>	Math 2413 (calculus-based physics course)
<b>Course Description and Goals:</b>	Mechanics Fluids and Waves (Chapter 1 to 18) approximately 1.5 chapter per week. The specific subjects covered will be: One-dimensional motion, vectors, motion in a plane, dynamics, work and energy, impulse and momentum, collisions, rotational kinematics, rotational dynamics, gravity, fluids, oscillations, and mechanical waves.
<b>Textbooks:</b>	Physics for Scientists and Engineers by Serway. 9th Edition, 8th Edition or 7th Edition.
<b>Academic Honesty:</b>	Zero tolerance for any type of academic dishonesty.
<b>Attendance Policy:</b>	Keep perfect attendance is essential for any science class. Students are responsible by themselves for catching up the course works due to absence, tardiness or any other forms of missing the class. <b>NO MAKE UP for any TEST, LAB or QUIZ</b>

## Grade Calculations

<b>Grading Scale:</b>	100-90 = A, 89-80 = B, 79-70 = C, 69-60 = D, <60 = F
<b>Three Tests:</b> 60%	<ul style="list-style-type: none"><li>➤ There will be three exams (equally weighed) in addition to a final exam.</li><li>➤ All exams are closed book and closed notes (a formula sheet is provided by the instructor).</li><li>➤ Exams may include problems similar to homework and Lecture/text example problems and concepts as discussed in class.</li><li>➤ <b>The final exam will replace ONE of the exam with the lowest marks (if lower than final).</b></li></ul>
<b>Final Exam:</b> 20%	The final exam is comprehensive. <b>No make-up.</b>
<b>Format of All Exams</b>	<ul style="list-style-type: none"><li>➤ Similar to homework and Lecture/text example problems and concepts as discussed in class.</li><li>➤ 0 – 20% multiple choice problems in a given Exam.</li><li>➤ No cell phone during Exam</li><li>➤ No restroom during Exam</li></ul>
<b>Homework:</b> 10%	The goal of the homework is to check how well the students understanding the <b>procedures</b> /methods used by the instructor during the lecture/class. Detailed Homework requirements and grade calculation see the following.
<b>Attendance:</b> 5%	<ul style="list-style-type: none"><li>➤ Keep perfect attendance is essential!</li><li>➤ Students must sign Attendance sheet each class. Students who forgot signing treat as miss the class.</li><li>➤ 10 min late or 30 min leaving early will loss 50% of Attendance grade of that lecture. For Lab see the rules for Lab attendance and Lab participation.</li></ul>
<b>Lecture Notes:</b> 5%	Your Lecture Notes are very important. It could be used as a guiding line to do homework and exams.
<b>Bonus Points:</b>	The instructor may make a small adjustment to the student's grade if the student shows a strong desire of active learning. For example, if he/she (1) asks questions, (2) corrects my mistakes, (3) vocalizes his/her solutions for the discussion topic/problem, (4) requests that I speak more clearly or adjust my handwriting, or (5) teaches other students, (6) Class Activities and Participation, etc.
<b>Make –up Policy:</b>	No makeup allowed for any test, lab, quiz and the final. No credit will be given for HW turned in later.
<b>Time/date for correcting the instructor's mistakes relate to student's grades:</b>	<p>If students think the instructor made mistakes about their grades, they should contact the instructor as soon as possible. The instructor will explain why he give the grade(s), or make proper changes if the instructor did make mistake(s).</p> <ol style="list-style-type: none"><li>1. For the grade related to homework and/or Lab reports, students should contact the instructor before the last two weeks of the semester (April 29) except the last chapter's homework and/or the last Lab's report. If students find errors, they should contact the instructor ASAP, do not wait to the last moment.</li><li>2. For the grades related to Exam 1 and Exam 2, students should contact the instructor within one week once the grades are posted. For the grades related to Exam 3, students should contact the instructor within three days once the grades are posted. For the grades related to final exam, students should contact the instructor within 24 hours (one day) once the grades are posted.</li></ol>

3. All other grades related such as attendance, Lab participation, Class notes, etc., students should contact the instructor before the date of final exam (May 9).

## Course Outcomes

- Students who successfully complete the course can describe oscillatory motion, waves and sound; and apply the pertinent principles/equations in analyzing and solving related problems.
- Students who successfully complete the course can explain the basic principles involved in electricity, electrical force, electric field, electrical power, direct current circuits, alternating current and magnetism; and be able to analyze and solve numerous related problems using these principles and the appropriate equations.
- Students who successfully complete the course can explain the fundamental principles of geometrical and wave optics, and distinguish between the two types of thin lenses; and be able to apply the appropriate equations to solve numerous related problems.
- In general, student who complete the course successfully, can apply the pertinent principles mastered in this course in setting up and performing various related laboratory experiments which are components of this course.

## Lecture and Lab Schedules

Week	Date	Lecture	
1	1/15	Review Syllabus, Ch 1 Introduction	
1	1/17	Ch-2: One dimension Motion	
2	1/22	Ch-2: One dimension Motion	
2	1/24	Ch-2: One dimension Motion; Ch-3: Vectors	
3	1/29	Ch-3: Vectors	
3	1/31	Ch-4: Motion in 2 Dimensions	
4	2/5	Ch-4: Motion in 2 Dimensions; Ch-5 The Laws of Motion	
4	2/7	Ch-5 The Laws of Motion	
5	2/12	Ch-5 The Laws of Motion	
5	2/14	Exam-1 (Ch 1, 2, 3, 4, 5)	
6	2/19	Holiday	n
6	2/21	Ch-6: Circular Motion	

Week	Date	Lecture	
7	2/26	Ch-7 & Ch-8 Work and Energy	
7	2/28	Ch-7 & Ch-8 Work and Energy	
8	3/5	Ch-7 & Ch-8 Work and Energy; Ch-9: Impulse and Momentum	
8	3/7	Ch-9: Impulse and Momentum	
9	3/19	Ch-10 Rotational Motion and Rigid object about a fixed axis	
9	3/21	Ch-10 Rotational Motion and Rigid object about a fixed axis	
10	3/26	Exam-2 (Ch 6, 7, 8, 9, 10)	
10	3/28	Ch-11 Angular Momentum	
11	4/2	Ch-11 Angular Momentum; Ch-12 Static Equilibrium	
11	4/4	Ch-12 Static Equilibrium	
12	4/9	Ch-13: Newton's Theory of Gravity	
12	4/11	Ch-13: Newton's Theory of Gravity	
13	4/16	Ch-14: Fluid Mechanics	
13	4/18	Ch-14: Fluid Mechanics	
14	4/23	Ch-15: Oscillation Motion	
14	4/25	Ch-15: Oscillation Motion	
15	4/30	Exam-3 (Ch 11, 12, 13, 14,15)	
15	5/2	Ch-16: Waves; Ch-17: Sound Waves	
16	4/27	Ch-17: Sound Waves;	
16	5/2	Ch-18 Superposition and Standing Waves	
17	5/7	No Class	
17	5/9	FINAL EXAM: (Comprehensive)	

## Important Dates

Feb 19: President's Day.

Mar 12 to Mar 16: Spring Break.

Mar 30: Spring Holiday.

Apr 3: Spring 2018 Reg 16 WK: Last day to withdraw

Final Exam Schedule (Spring 2018)	
May 9	Classes start between: <b>8:00 am</b> - 8:30 am, Final exams will be given at 8:00 am.
(We)	Classes start between: 12:00 pm- <b>12:30 pm</b> , Final exams will be at 12:00 pm.

**Note: The instructor reserves the right to change/modify the syllabus, should there be any conflict with the schedule or policy of the college.**

## Homework Format and Requirements:

Cover Page	10%
Index:	
Name:	Last, First
Class:	
Ch #	Problem List: List the problems which you finished and unfinished
Date of submit:	Month/day/2018
Due date:	<ul style="list-style-type: none"> <li>➤ You are given one <b>weekend</b> after each <b>Chapter is finished</b>.</li> <li>➤ The due date is the <b>first lecture date</b> of the following week. (<b>for your class: due date is Monday</b>)</li> </ul>
<b>Format of the HW</b>	<b>90%</b>
Write clearly	20%
Draw figure show what is the question (I assume that you can explain what is the question based on your drawing)	20%
List the procedures and equations used	40%
Calculation and Final Answer	10%
Late-Work Policy:	Only original HW-sheet accepted, <b><u>NO Email, FAX, and Photocopy</u></b> . <b>No credit</b> will be given for HW if turned in late.
<b><u>Keep a copy of your HW</u></b>	The instructor will keep your HW. You may need to keep a copy of your HW If you need to use it for study.
Bonus Points	You may get bonus points if you follow your instructor's method (the examples shown during the lecture).

**Note: The instructor reserves the right to change/modify the syllabus, should there be any conflict with the schedule or policy of the college.**

## **Disabilities Act**

### **ADA Policy**

HCCS is committed to compliance with the American with Disabilities Act and the Rehabilitation Act of 1973 (section 504) "Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the Disability Services Office at the respective College at the beginning of each semester. Faculty are authorized to provide only the accommodations requested by the Disability Support Services Office"

If a student has any special needs or disabilities which may affect his/her ability to succeed in college classes or participate in college programs/activities, please contact the office of disability support services at the college. Upon consultation and documentation, a student will be provided with reasonable accommodations and/or modifications. Please contact the DSS office as soon as the term begins. For questions, contact Donna Price at (713) 718- 5165 or the Disability Counselor at HCC. Also visit the ADA web site at:

<http://www.hccs.edu/students/disability/index.htm>.

Faculty Handbook/ Faculty Orientation is also available at

<http://www.hccs.edu/students/disability/faculty.htm>

## **Electronic Devices Policy**

No recording devices or cellular phones will be allowed at any time without the express permission of the Instructor. If you carry a cellular phone to class, make sure the sound is set to "silent" or "vibrate", and that the telephone is tucked away out of sight. Any student found using a cellular phone during a test/exam will receive a zero grade for that assignment.

## **Classroom Rules:**

No cell phones and other electronic devices during lecture and tests. A basic scientific calculator is needed for lecture and tests.

## **Withdraw from the class:**

Students are responsible for dropping or withdrawing from a class. If your name is still on the roster and you intended to drop the class but did not do so officially and you thus miss multiple exams, you will receive an "F". Make sure that if you want to drop or withdraw from the class, you do so officially. If the class is still on your official schedule, you have not dropped or withdrawn from the class. Last Day for Administrative and Student Withdrawals for **spring 2018 Reg 16 WK, this date is April 3**.

## **Attendance**

The HCCS attendance policy is stated as follows: "Students are expected to attend classes regularly. Students are responsible for materials covered during their absences, and it is the student's responsibility to

consult with instructors for make-up assignments. Class attendance is checked daily by instructors. Although it is the responsibility of the student to drop a course for non-attendance, the instructor has full authority to drop a student for excessive absences. A student may be dropped from a course for excessive absences after the student has accumulated absences in excess of 12.5% of the hours of instruction (including lecture and laboratory time).”

If circumstances significantly prevent a student from attending classes, please inform the instructor. Sometimes, outside circumstances can interfere with school, and the instructor will try to be as accommodating as possible, but please be aware of the attendance policy.

## **Academic Dishonesty**

The College upholds the core values of learning: **honesty, respect, fairness, and accountability**. We promote the importance of personal and academic honesty. We embrace the belief that all learners – students, faculty, staff, and administrators – will produce their own work and must give appropriate credit to the work of others. No fabrication of sources, cheating, or unauthorized collaboration is permitted on any work submitted within the College.

On all homework and lab assignments, working together with classmates is encouraged. Studying together and helping each other learn the material is a great exercise, but **no form of cheating or plagiarism will be tolerated**. Do not copy or share answers. While working on labs or other assignments, each person should make an effort to answer each question on his or her own before consulting a study group. HCCS policy as shown in the catalog describes penalties for academic integrity violations that range from failing grades to expulsion from school.

Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. Penalties and/or disciplinary proceedings may be initiated by College System officials against a student accused of scholastic dishonesty. “Scholastic dishonesty” includes, but is not limited to, cheating on a test, plagiarism, and collusion. “Cheating” on a test includes: Copying from another student’s test paper; Using materials during a test that are not authorized by the person giving the test; Collaborating with another student during a test without authority; Knowingly using, buying, selling, stealing, transporting, or soliciting in whole or part the contents of an administered test; Bribing another person to obtain a test that is to be administered. “Plagiarism” means the appropriation of another’s work and the unacknowledged incorporation of that work in one’s own written work offered for credit. “Collusion” means the unauthorized collaboration with another person in preparing written work offered for credit.

“Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. Disciplinary proceedings may be initiated by the college system against a student accused of scholastic dishonesty. Penalties can include a grade of "0" or "F" on the particular assignment, failure in the course, academic probation, or even dismissal from the college. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion.” In this class, the penalty for willful cheating on exams is a grade of F in the course. This is the standard policy of the Natural Sciences department at HCC.

Students Discipline: Any student failing to abide by appropriate standards of conduct during scheduled College activities may be asked to leave that day’s class or activity by the instructor or another College official. (The student has the right to return to the next class/activity.) If a student refuses a request to voluntarily leave the classroom, security may be summoned to remove the student so that the scheduled activity may resume without further disruption. In cases of serious problems, the faculty member will document and report the incident to his/her supervisor. Further disciplinary action may be pursued.

## **Class Distractions:**

Do not be a source of distraction during lecture. Being a distraction may mean a number of things, including but not limited to: inappropriately talking to another student while your instructor or another classmate is talking and has the attention of the class; possessing a device such as a cell phone or pager that rings and/or vibrates during class; arriving to class late; being disruptive, etc. Texting is also a huge distraction for an instructor. If I have to call on you multiple times for texting during lecture, you will start to lose grade points and eventually be asked to leave the class, first for just a session, then from the class entirely.

## **LATE TO CLASS POLICY:**

Once I close the door and begin lecturing, I will not open the door until the break. Students will not be admitted into the class session once I begin lecturing. Students who pound and knock on the door while it is closed and lecture is in session will lose grade points. The noise a late student makes is extremely disruptive to an instructor's lecture. If you are late to class and the door is closed, wait patiently until the break when I stop lecturing and then you may re-enter the class.

## **HCCS Sexual Harassment Policy:**

HCC shall provide an educational, employment, and business environment free of sexual harassment. Sexual harassment is a form of sex discrimination that is not tolerated at HCC. Any student who feels that he or she is the victim of sexual harassment has the right to seek redress of the grievance. HCC provides procedures for reviewing and resolving such complaints through its Grievance Policy. Substantiated accusations may result in disciplinary action against the offender, up to and including termination of the employee or suspension of the student. In addition, complainants who make accusations of sexual harassment in bad faith may be subject to equivalent disciplinary action

## **Non-Discrimination Statement:**

HCC is committed to provide a learning and working environment that is free from discrimination on the basis of sex which includes all forms of sexual misconduct. Title IX of the Education Amendments of 1972 requires that when a complaint is filed, a prompt and thorough investigation is initiated. Complaints may be filed with the HCC Title IX Coordinator available at 713 718-8271 or email at [oi@hccs.edu](mailto:oi@hccs.edu).

## **Syllabus disclaimer:**

It is the instructor's right to modify the class schedule when necessary and cover course topics as he/she feels is necessary to meet the learning outcomes, therefore this syllabus is subject to change.