

PHYSICS 2 – General Physics for Life Sciences – Touro College

Sample Syllabus

Course Information, Policies & General Guidelines

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Course ID for Mastering Physics Login; **XXXXXPASCUZZIXXX**

GOALS: To ensure that you become adept, confident and highly skilled at problem-solving with an emphasis on achieving success on the Physics portion of the MCAT examination.

NATURE OF THE COURSE MATERIAL: PHY1 encompasses the principles of freshman physics with applications to problems related to the life sciences and medical fields. The material is heavily laden with challenging concepts, algebra and trigonometry, but no calculus. You should be aware that, upon enrolling into an intensive and fast paced introductory course such as this, there is a serious level of commitment and investment of time required of you should you wish to be successful and earn a good grade. The course pace is fast and the demands on you are great; do your part and you will succeed.

HOW TO EARN A HIGH GRADE: As with any other college course, you can always do quite a bit to improve your grades, just like doing nothing will hurt your grade. These include;

- 1) Take notes on the required chapter readings and be sure to highlight key items such as laws or important equations that are always true (and not just specific for one question). Read the chapter sections very carefully to be sure you understand it. If you don't, ask for help. You should also work every worked example in the chapter readings to be sure you know/understand how to apply the particular concept at hand.
- 2) Don't memorize every equation in the book...this is counterproductive. Instead, focus on laws and rules that are always true, rather than trying to "find" an equation that looks like it works. Remember that there is a big difference between laws which are always true and formulae which are specific for a certain question.
- 3) Sit in the FRONT of the lecture hall/classroom so your attention is better focused and pay attention.
- 4) Leave your cell phone and your laptop OFF; you DO NOT need them during class.
- 5) Get the Schaum's Outline book for College Physics and do all the worked problems until you understand the angle/approach for each one. Then, do the problems again.
- 6) Take your education and work seriously and ask questions if you have to...the worst questions are the ones which are never asked.
- 7) Come and ask for help. Everyone needs help with physics...you are not the first one. You will be glad that you did, and you will feel more confident after, and will be happy to finally understand something that has bugged you for weeks.
- 8) Be assertive and caring when it comes to your own education...laying low for the first 2/3 of the semester and then trying to raise your grade by two letters at the last minute doesn't work. Hard and consistent good *will* work.
- 9) There is no such thing as an extra credit project to take the place of not working hard all semester. Don't even ask.
- 10) Don't miss exams or quizzes...you will not be permitted to make them up and no soap opera will be considered as a valid reason for having done so.

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11) Form a regular study group (not a gossip group that wastes time) and sit down and brainstorm about how to solve problems you might be stuck with.

12) Do your own work, and keep it to yourself. You are only hurting yourself by not doing so.

TEXTBOOK AND REQUIRED MATERIALS: The text used is **College Physics- A Strategic Approach**, by Randall D. Knight, 2nd edition, 2010 by Pearson publishing (ISBN # 9780321595485, which includes the Student Access Code) and is available with the Student Access Code to facilitate logging on to MasteringPhysics.com to complete homework assignments. If you choose not to purchase the text, you will still be responsible for purchasing the Student Access Code for access to MasteringPhysics.com to complete online homework assignments.

CLASS TIME: MWF, 3:30 pm – 6:30 pm, in Chemistry/Physics Lab classroom, 2nd floor (room 248). A ten minute break will be given during the middle of our class which is stringent. Class time includes presentation of necessary physics material, demonstrations, powerpoint slide shows, student problem solving practice, quizzes and necessary hands-on lab activities.

BLACKBOARD: Nearly all of the course administration will be done via Blackboard.

“Blackboard” is blackboard.stonybrook.edu and nearly all of the administration of the course will be done through Blackboard, so you must be sure that your correct email address is listed there. During the course, announcements will be posted and sent via email to you concerning updates, changes, etc., and you will also have access to many other items such as supplementary problems for practice to prepare for quizzes and exams. Note that in order to keep up to date with course postings on Blackboard, you must a) have a valid and real email address posted there with your course registration and b) **you must READ your email daily. It is your responsibility to read your email received at this account!**

LABORATORY: The laboratory is mandatory and failure to partake in laboratory activities allows you to fail the course. Not a great idea....Note that each lab activity should be available beforehand on Blackboard so check for them and download/print them. Do not come to the laboratory without having read/understood what you are supposed to do with a certain lab. This way, your time will be used efficiently. Since many labs will involve taking and tabulating data (and eventually graphing it), you absolutely must bring a laptop loaded with MS Excel to lab every time we do a lab. This way, you can quickly plot your data *before* you're done to see how your lab is progressing. You will discover that taking your data to an MS Excel file will expedite any plotting that you have to do so you don't have to save it for the night before the lab is due.

When lab reports are due, they are expected to be completed by the due date/time, and are collected immediately at the start of the class. Students who do not submit their lab reports at this time and continue to work on them for more than 5 minutes after the due collection time will earn a 10% grade deduction on the lab report. Additionally, students who submit lab reports late will earn a 10% grade deduction for EACH class day the report is late prior to the submission of the report.

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MAIN TOPICS: Electrostatics, electric forces, electric fields, electric potential, point charges, equipotential plotting, electric current, resistance, Ohm's Law, simple DC circuits, capacitors, magnetism, wave motion, metric optics (lenses & mirrors), refraction and reflection. If there are changes, they will be announced as the course develops.

HOMEWORK: The importance of learning and understanding physics lies predominantly with becoming adept at problem-solving, a necessity we will cover constantly during every class. To better facilitate both the administration and grading of your homework problems, we have invoked online homeworks through MasteringPhysics.com, for which you must purchase an access code (provide your access code to create an account and then access course homework using the code given at the top of this document). The responsibility is yours when it comes to working out homework problems in order to best understand the applications of the laws and concepts involved. If you find that you are having any difficulty, please do not hesitate to email me to make an appointment for extra help. It is imperative that you stay on top of your own work. Assignment due dates will be clearly shown on MasteringPhysics.com and it will be up to you to check for the next assignments as the course moves along.

QUIZZES: Short quizzes will be most likely be given rather frequently, during class time at the beginning of the class lasting not more than 45 minutes or so. If you feel you are falling behind get help immediately. Read more here about extra help.

EXAMS: There will be at least two (2) full length several-chapter unit exams after major topics and these will always be announced. At the last class meeting, you will take a cumulative final exam, which of course covers all material from the entire course. The exam dates are currently not posted in the Course Calendars but are always announced in class well in advance. **Additionally, there are no make-up exams offered unless there is a legitimate religious reason or medical emergency which must be accompanied immediately by a letter from the physician who cared for you ("LETTER" means just that...a letter, not a prescription pad or a scribbled signature on a post-it note). Please consult the Course Calendar documents posted on Blackboard in order to plan your parties, weddings, trips to the beach, etc. accordingly. Only in extreme medical emergencies will any makeup exam be considered. Personal vacations, broken nails or sneezing are not medical emergencies.**

COURSE POLICIES & GRADING: Your course grade will be based on the following assignments with the percentages shown (**PLEASE NOTE THESE ARE APPROXIMATE AND MAY CHANGE**);

- Online homework problems – 15%
- Quizzes – 15%
- Unit Exams – 25%
- Lab Work – 15%
- Final Exam – 30%

The approximate grading schema for letter grades in Physics 1 is as shown below. **Note there are no curves on anything, so if you earn a low, unwanted grade, work harder for the next exam.**

	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
Percentage	96-100	91-95	86-90	82-85	78-81	74-77	71-73	66-70	64-65	61-63	58-60	56-57	<55

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EXTRA HELP: Learning physics is not easy, so you have two choices; a) do your work and succeed, or b), do nothing and fail, but do not complain because this is the CHOICE you make. If you feel that you are not understanding something, get in for an extra help appointment IMMEDIATELY. If you don't, things tend to snowball and you will become further and further behind. Once that happens, it is nearly impossible to catch up.

Some tips for succeeding were given above, but you can also do the following;

- 1) Make appointments REGULARLY with your class professor for extra help. I am in nearly 1 hour in advance of every class, so email if you'd like to make an appointment. Unfortunately, Touro has not provided me with any other office hour time.
- 2) Get a tutor, plain and simple.
- 3) Form a study (not gossip) group. Get things done by brainstorming and tossing in all sorts of ideas.
- 4) Review the day's lecture problems every night; do them again, again and again until you get them right.

GRADE REPORTS: To better help you monitor your own progress, near-weekly Grade Reports are emailed

to all students which clearly shows the students' calculated course average at a moment's notice. It is your choice to determine what you wish to do with this information, but bear in mind that **THERE ARE NO**

EXTRA CREDIT PROJECTS OR ASSIGNMENTS AT THE END OF THE SEMESTER TO TAKE THE PLACE OF POOR/FAILING GRADES OR YOUR LACK OF A WORK ETHIC DURING THE ENTIRE SEMESTER. THE GRADE YOU EARN IS SIMPLY THAT; THE GRADE YOU EARNED.

THE END OF THE COURSE: The moment your final examination in this course ends, you are finished. **NO WORK WILL BE ACCEPTED AFTER THAT TIME.** If you owe work, its grade will simply be entered as a zero.

ACADEMIC INTEGRITY STATEMENT:

Each student must pursue his or her academic goals honestly and be personally accountable for their own submitted work. Representing another person's work as your own is always wrong and is a statement of deceit. Academic integrity is expected of all students throughout their course of study at Touro College. Academic integrity is the foundation of a supportive learning environment and a credible educational process. It enables students to develop a strong sense of self-esteem, self-confidence, and pride in accomplishment, which are integral to educational and professional growth.

Because intellectual integrity is the hallmark of academic inquiry, students are expected to adhere to the highest standards of academic honesty in study and preparation for, and presentation, of examinations, term papers and research projects. Therefore, academic dishonesty is one of the most serious offenses a student can commit. Academic dishonesty entails intentional cheating, fabrication, or plagiarism, as well as knowingly facilitating the dishonesty of others. Academic dishonesty lowers scholastic quality, and defrauds those who will eventually depend on the knowledge and integrity of program graduates. The program's obligation is to preserve the integrity of the processes utilized in evaluating student learning, and to ensure that graduating students are knowledgeable in medicine and can safely and competently provide healthcare.

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PROFESSIONAL CONDUCT AND MATURITY:

P Students are expected to conduct themselves in a manner consistent with the function of an institution of higher education and to abide by the highest standards of academic honesty, ethics, and professional conduct. Students are professional trainees and representatives of Touro College. They come into contact with patients, families, and a variety of healthcare professionals during their education. The faculty monitors the professional development of all students as well as their academic development. Students are expected to maintain patient confidentiality, safety, and dignity, as set forth in the American Academy of Physician Assistants' Guidelines for Ethical **A** Conduct for the Physician Assistant Profession.

CLASS ATTENDANCE:

It is the responsibility of the program to communicate to students the elements of professional behavior, one of which is embodied in consistent class attendance and accountability. Therefore, attendance is mandatory. Students are expected to attend all lectures, laboratory sessions, fieldwork assignments, and rotations on a regular and punctual basis and **C** complete assignments in a timely fashion. The faculty regularly monitors attendance, and it is factored into the grade in many classes. Students who are absent from class will be asked to meet with their advisors to explain the reasons for their absence. Students are also expected to notify the program office prior to class if they will be unable to attend. Repeated absences may lead to a reduction in the grade for a course and/or to disciplinary actions such as Professional Probation.

LATENESS:

U Coming to class late is disrespectful to the instructor and to fellow students, is unprofessional and is of course disruptive to the learning environment. **Z** The faculty regularly monitors punctuality and consistent lateness may result in Professional Probation.

TEMPORARY GRADING ASSIGNMENTS:

Z A student will receive a temporary grade if they are missing one assignment, not more. If a student misses a quiz or a test the missing test/quiz will be scored as a zero when calculating the student's temporary grade. Students cannot miss any exam including the final unless there is an emergency situation substantiating the absence. Students have two days to make up a test and must contact the professor via email seeking their approval for a make-up. If the professor is not proctoring the exam, it is then the student's responsibility to call the Undergraduate office to arrange an appointment to take the test @ 631-**I**65-1600 ext. 6264. Late work is penalized and after a period of time (two weeks), an assignment is no longer accepted. No work is accepted after the last day of class.

NOTE THAT COURSE GRADES ARE NOT CHANGED TO SUIT YOUR NEEDS/WANTS AND DESIRES. IF, ON 12/18/14 YOU SEE A FINAL COURSE GRADE ON YOUR GRADE REPORT THAT IS NOT WHAT YOU “NEED” YOU MUST RETAKE THE COURSE IN ORDER TO ACHIEVE THE GRADE YOU “NEED”...GRADES WILL NOT BE CHANGED TO SUIT YOUR NEEDS AND DESIRES.

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