

## Schedule for Physics with Calculus II– Summer, 2017

**Instructors: Dr. Richard Bone (May 8 – June 7)**  
**Dr. Timothy Steckmann (June 9 – June 16)**

The textbook for this course is "University Physics", 14th edition by Young & Freedman. Only volume 2, covering chapters 21 to 37, is needed. The eText version is a lot less expensive and comes with Mastering Physics. (*If you already have a different calculus-based book, you are not required to buy this edition of Young and Freedman. However you will need to order "Mastering Physics." See below.*) **Prior to each class, read briefly the sections that are to be covered. Do not worry about gaining a full understanding at this stage. The purpose is to make you more prepared to absorb the material provided in class. After the class you will need to read the sections again, this time in depth, so that you can upgrade and clarify your lecture notes accordingly. Gaining conceptual understanding of physics is of the utmost importance.**

**Homework** We will be using the Web-based homework system, "Mastering Physics", that is included with your purchase of Young and Freedman. You will need to register by going to [www.masteringphysics.com](http://www.masteringphysics.com) and selecting Young/Freedman, University Physics with Modern Physics, 14e. (*If you are using a different book, or you bought a used Young and Freedman, you will need to purchase Mastering Physics which you can do via the same website.*) **During registration, you must enter the course ID, which is MPBONE31.** Further details will be given in the first class, and/or in an update of this Schedule.

**Assistance** Individual assistance with any aspect of this course will be available during office hours which, generally, will be (Bone) Monday through Friday 1:30 to 4:30 pm in CP 213 or CP 276, and (Steckmann) Monday and Wednesday 3:00 to 4:00 pm in CP 253.

**This is a 4 credit course running at double the normal speed. You should therefore schedule at least 16 hours per week for homework and self-study outside the classroom.**

**Clickers:** We will be using i>clickers so that you will all be able to respond to questions posed during class. Clicker remotes should be purchased if you do not already possess one. They are < \$30 (used) at Amazon. Go to the i>clicker website, [www1.iclicker.com/register-clicker/](http://www1.iclicker.com/register-clicker/), to register your remote.

The relative weighting of the 3 exams, clicker responses, and homework will be as follows:

HOMWORK - 13%, CLICKER\* – 12%, EXAMS 1, 2 and 3 - 25% each

(\*Clicker score will be 67% for participation + 33% for correct answer)

Your overall score will be converted to a letter grade according to the following approximate scheme: >85% = A, A-; 75-84% = B+, B, B-; 58-74% = C+, C

**Make-up exams and/or incompletes will only be given in extreme cases** involving serious medical problems, death in family, etc, not because your car breaks down, or you are not prepared for the exam, or you have a work/vacation conflict. Written verification will be required. Any make-up exams will be scheduled for after the final, assuming you get passing grades on the other exams.

**Student Learning Outcome** Our technologically dependent world requires an understanding of the processes that led us here. Learning the basic concepts and ideas of scientific fields provides contact with not just those fields but with how science is done. In these courses students study the scientific method through examination of the foundational theories of modern scientific thought. Students apply scientific principles and theories to problem solving, evaluate scientific statements, and incorporate new information within the context of what is already known.

Emphasizing the essential connection between theory and experiment, the hands-on laboratory experience provides the context for testing scientific theories.

The successful student will be one who has developed a strong, conceptual understanding of the material described in the reading assignments below. A strong conceptual understanding is gained through regular class attendance, questioning your instructor in class and during office hours, and paying particular attention to homework. Confidence that you have a deep understanding of physics is achieved through homework problem-solving. Always work from first principles. There are so few of these principles that there's not much to memorize. If you find yourself simply hunting for an equation that contains the variables in the problem, you will likely fail the exams. The successful student will be one who, confronted with an original problem, is able to apply the basic laws of physics in order to find a solution.

<u>Date</u>	<u>Week</u>	<u>Instructor</u>	<u>Chapters to be covered each week (tentative)</u>
May 8	1	Bone	21, 22
May 10		Bone	
May 12		Bone	
May 15	2	Bone	23, 24
May 17		Bone	<b>Exam 1 (2 hr)</b>
May 19		Bone	
May 22	3	Bone	25, 26
May 24		Bone	
May 26		Bone	
May 29	4	Bone	27, 28
May 31		Bone	<b>Exam 2 (2 hr)</b>
June 2		Bone	
June 5	5	Bone	29, 30, 32 <b>DR/WI deadline</b>
June 7		Bone	
June 9		Steckmann	33, 34,35
June 12	6	Steckmann	
June 14		Steckmann	
June 16		Steckmann	<b>Exam 3 (2 hr)</b>