

University of Massachusetts at Boston

Fundamental Physics I (Physics 113 Evening Session)

Summer 2009

1. **Instructor:** Greg Sun, Office S-3-116; Email:greg.sun@umb.edu
2. **Registration:** All students are required to register for the course.
3. **Classroom:** S-3-126.
4. **Text:** **Essential University Physics** by Richard Wolfson, Volume 1 , Pearson Addison Wesley, 2007.
5. **Labs:** If you need a laboratory course, you should be enrolled in **Physics 181** separately.
6. **Tutoring:** Tutoring hours will be held on Monday through Thursday from 11:30am to 5:30pm in Room S-4-073.
7. **Grader:** Lanting Cheng, Email: lanting.cheng@umb.edu
8. **Problems:** For each chapter of the text a list of problems are assigned for pointing out the emphasized areas and providing working materials. The **underlined problems** are due on the dates shown.
9. **Examinations:** There are **three** sectional examinations as shown on the schedule. Each of the examinations will only cover materials in the preceding part of the course. The examinations consist of problems and questions similar to those in the assignments. You need to bring a calculator to exams. Each exam will be of closed book. You may, however, bring a piece of paper on which you can write anything you wish.
10. **Hand calculators:** You will need a hand calculator for problem solving throughout this course. It need not be elaborate or expensive. But it should be a scientific model, that is, it should have at minimum in addition to the arithmetic operations, the trigonometric functions, natural logarithm, the exponential function, as well as their inverse operations. It should also have statistical function keys to help you with the laboratory work.
11. **Mathematical preparation:** The course runs very rapidly. For this reason students should bring to the course an elementary but working knowledge of arithmetic, algebra, geometry, trigonometry, and calculus.
12. **Grades:** The final grade is computed as follows: **30%** for each exam and **10%** for the homework.

**Physics 113 - Lecture Schedule
Summer 2009**

Week	Month	Date	Day	Chapter	Topics
I	May	25	Monday	Holiday	
		26	Tuesday	Chapter 2	Velocity and Acceleration
		27	Wednesday	Chapter 2	One Dimensional Motion
		28	Thursday	Chapter 3	Vectors
II	June	1	Monday	Chapter 3	Two Dimensional Motion
		2	Tuesday	Chapter 4	Dynamics
		3	Wednesday	Chapter 5	Law of Motion
		4	Thursday	Chapter 5	Law of Motion - Friction
III		8	Monday	Exam #1	
		9	Tuesday	Chapter 6	Work and Energy
		10	Wednesday	Chapter 7	Potential Energy
		11	Thursday	Chapter 7	Conservation of Energy
IV		15	Monday	Chapter 9	Conservation of Momentum
		16	Tuesday	Chapter 9	Inelastic Collisions
		17	Wednesday	Holiday	
		18	Thursday	Chapter 9	Elastic Collisions
V		22	Monday	Exam #2	
		23	Tuesday	Chapter 8	Gravity
		24	Wednesday	Chapter 10	Rotation
		25	Thursday	Chapter 10	Rotational Dynamics
VI		29	Monday	Chapter 12	Statics
		30	Tuesday	Chapter 12	Statics
	July	1	Wednesday	Chapter 13	Oscillations
		2	Thursday	Chapter 14	Waves
VII		6	Monday	Chapter 15	Fluids
		7	Tuesday	Reading	
		8	Tuesday	Exam # 3	