

PHYSICS 2110 SYLLABUS

SPRING 2006

Chapter Sections	Subject Matter	Approx. No. of Lectures
1.1- 1.9	Concepts of Motion	2
2.1- 2.8	Kinematics: The Mathematics of Motion	3
3.1- 3.4	Vectors and Coordinate Systems	2
4.1- 4.7	Force and Motion	2
5.1- 5.4, 5.6	Dynamics I: Motion Along a Line	2
6.1- 6.4	Dynamics II: Motion in a Plane	2

EXAM I: THURSDAY, FEBRUARY 23, 7:00-9:00 PM (Location TBA)

7.1- 7.3, 7.5- 7.6	Dynamics III: Motion in a Circle	2
8.1- 8.5	Newton's Third Law	2
9.1- 9.7	Impulse and Momentum	3
10.1- 10.6	Energy	2
11.1- 11.9	Work	2
13.1-13.5,13.7-13.10	Rotation of a Rigid Body	3

EXAM II: THURSDAY, APRIL 6, 7:00-9:00 PM (Location TBA)

14.1,14.3-14.8	Oscillations	3
20.1-20.7	Traveling Waves	2
21.1-21.8	Superposition	3
16.1-16.6	A Macroscopic Description of Matter	1
17.1-17.7	Work, Heat, and the First Law Of Thermodynamics	2
18.1-18.6	The Micro/Macro Connection	1
19.1-19.6	Heat Engines and Refrigerators	1

FINAL EXAM: TUESDAY, MAY 2nd, 8:00-10:00 AM (Location TBA)

TEXT: Physics for Scientists and Engineers: A Strategic Approach V:1-3 by Randall D. Knight

INSTRUCTORS: Dr. Sakir Ayik, Office BR217, phone X-3156, email ayik@tntech.edu
Dr. David Murdock, Office BR221, phone X-3044, email murdock@tntech.edu

GRADE WEIGHTINGS: Homework 15%; Quizzes 15%; Exam I 20%; Exam II 20%; Final 30%

GRADE SCALE: 80-100 A; 65-79 B; 50-64 C; 35-49 D; 0-34 F

Weekly homework assignments will be assigned and graded using the Mastering Physics on-line system. Students will need to register with system at

<http://www.masteringphysics.com>

Select [Mastering Physics for Knight Physics for Scientists and Engineers 1e](#) and follow the registration instructions. You will need to input the codes for the courses, which are (note which section you're in)

Section 1, Murdock: MPMURDOCK0002

Section 2, Ayik: MPAYIK0001

Use the personal access code that comes with the textbook inside that cardboard thingy (you can purchase one on-line if you need to) and enter your social security number when asked for your Student ID. (Also, the username is a name for *you*, not the name of the instructor.) When you've registered with the system, do the first assignment, which is an introduction to the Mastering Physics system.

There are several issues that arise because we are using a web-based service. First, you know that connections on the web can be erratic. Inability to connect will not be an excuse for not getting an assignment done on time. Second, the web site only asks for an answer, not a full solution; on quizzes and exams this will not be acceptable. Third, the web site only accepts a number (without a unit) to its numerical problems; this is acceptable because their questions ask for the answers in a certain set of units. However, on quizzes and exams, we will typically only ask for a given variable and you will be required to include appropriate units with your answer (as well as throughout your solution). Fourth, the web site can be much too lenient in dealing with significant figures. Again, we expect you to do things correctly on quizzes and exams. If any of these issues are unclear or if you have problems in signing up or accessing your assignments, please contact your instructor.

At least four classroom quizzes will be given during the course. Make-up quizzes will not be given without prior approval of the instructor.

Watch the bulletin board for dates and times of help sessions. All students are invited to seek assistance from any Physics faculty member who is available at the time.

Students with a disability requiring accommodations should contact the Office of Disability Services (ODS). If necessary, an accommodation request should be completed by the end of the first week of the course. The ODS is located in the Roaden University Center, Room 112; phone 372-6119.

NOTE: PHYSICS 2111 LAB CLASSES WILL START THE WEEK OF JANUARY, 23rd .