Physics 1401Q, Sections: 1-4
General Physics with Calculus, Spring 2009
Instructor: *Boris Sinkovic*

Course Text: Young and Freedman, *University Physics with Modern Physics and Mastering Physics*, 12th Edition, Pearson-Addison Wesley (ISBN-13: 97800321501479). This is a calculus-based textbook with extensive online supplemental material, including the *MasteringPhysics* problem sets & tutorials.

Lectures: are on M/W/F from 9:00-9:50 am in P38, Physics Building (ground floor of the Gant Science Building). You are expected to do have basic understanding of the scope of subject covered in the lecture prior to coming to the class, by reading appropriate sections of the text.

Web page: All the relevant information about the class can be downloaded from the web page: http://www.phys.uconn.edu/~sinkovic/1401_2009/. Included will be lecture notes, practice exams and other announcements.

Homework: will be assigned weekly. A web-based system *MasteringPhysics* will be used. Each student needs to self-register at http://www.masteringphysics.com using the access code obtained with purchase of new or used textbook (only used books purchased at Co-op come with that !). The course ID is **MPSINKOVIC73252** and the course name is PHYS-1401Q_2009.

Class Participation: will be recorded primarily through the "clickers" for doing conceptual problems during the class. There will be also 10-min **Quizzes** throughout the semester testing your understanding of topic covered currently in the lecture.

Clickers: purchase at UConn Co-op. Self-register online at www.einstruction.com

Laboratory: Laboratory and discussion sections will begin 3rd week of classes (2/1). Lab classes are held in PBS-205. The lab manuals are on sale at the UConn Co-op. All students are required to purchase their own lab manuals and have them when they come to lab. Failing the lab (received less than 60%) will result in **failing the entire course**. Labs schedule: Sec01-Mon(1-4pm), Sec02-Mon(5-8pm), Sec03-Tu(1-4pm), Sec04-Tu(5-8pm).

Review sessions: will be held before each exam and by arrangement.

Additional Help can be obtained at the Physics Learning Resource Center, room P207-C. (see http://www.phys.uconn.edu). Make sure you seek help at the earliest sign of need.

Evaluation: The final grade:		
	Homework -	10%
	Lab Grade -	25%
	2 Midterms -	36% (18% each)
	Final Exam -	25%
	Class Participation -	4 % (Clickers & Quizzes)

Incomplete: If you miss 2 or more labs an incomplete for the course will be posted.

Academic Misconduct: All students should be aware of the misconduct section of the student code. It can be found at: http://www.dosa.uconn.edu/

Contact Information:
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Office hours: Mondays 10-11 AM or at other times by arrangement.

Week of	Chapters	Topics	Lab & HW
Jan. 19	1	Units, Physical Quantities and Vectors	No Lab
	2	Motion Along Straight Line	
Jan. 26	2	Motion Along Straight Line	No Lab
	3	Motion in 2 or 3 Dimensions	
Feb. 2	4	Newton's Laws of Motion	Introduction
	5	Applications of Newton's Laws	
Feb. 9	5	Applications of Newton's Laws	1-D Motion (basics)
	6	Work and Kinetic Energy	
Feb. 16	7	Potential Energy and Energy Conservation	1-D Motion (mass & a)
	8	Momentum, Impulse and Collisions	
Feb. 23	**Midterm I** (Chapters 1-7)		Forces
	8	Momentum, Impulse and Collisions	
March 2	9	Rotation of Rigid Bodies	Forces (friction)
	10	Dynamics of Rotational Motion	
March 9	**Spring Recess (no classes)**		
March 16	10	Dynamics of Rotational Motion	Energy & Momentum (inelastic)
	11	Equilibrium and Elasticity	
March 23	12	Gravitation	Energy & Momentum (elastic)
	13	Periodic Motion	
March 30	13	Periodic Motion	Torque
	14	Fluid Mechanics	
April 6	**Midterm II** (Chapters 8-13)		Angular Momentum [17,18]
	15	Mechanical Waves	
April 13	15	Mechanical Waves	Springs [19,20]
	16	Sound and Hearing	
April 20	17	Temperature and Heat	Mechanical Oscillations
	18	Thermal Properties of Material	
April 27	18	Thermal Properties of Material	Waves on a String
	19	The First Law of Thermodynamics	
May 4-9	**FINAL EXAM (Chapters 1-19)**		