# PHYS211 COURSE SYLLABUS

**FALL, 2014** 

**INSTRUCTOR:** Dr. Muruges Duraisamy

OFFICE: Lewis 226

OFFICE HOURS: 10.00 a.m. - 11.00 a.m. MWF, other times by appointment

OFFICE PHONE: 915-5622

E-MAIL ADDRESS: duraism@phy.olemiss.edu

COURSE PAGE: http://www.phy.olemiss.edu/~duraism/phys211 14.html

CLASS HOURS: 09:00 a.m.-09:50 a.m. MWF. Lewis Room 101(Auditorium):

Scan your ID: 08.55 a.m.-9.15 a.m.

## **Course Description and Objectives:**

This course is designed for those majoring in the physical and biological sciences, mathematics, and engineering. Topics will include rectilinear and rotational motions of particles and rigid bodies, forces, energy methods, conservation laws, and oscillations and waves. The objective of this course is to understand the motion of objects in terms of forces, momentum and energy.

### **Textbook:**

The required text book is Physics for Scientists and Engineers 9th Ed. by Serway and Jewett

## **Pre-requisites:**

Knowledge of algebra, calculus and trigonometry is required.

### **Online Homework:**

The WebAssign online testing system provides online homework and grading.

You will access and do the WebAssign homework problems online at <a href="http://webassign.net/">http://webassign.net/</a>. You must self-enroll, the class key for **Physics 211 is : olemiss 8248 3442.** Please supply your entire student ID accurately in order for the system to transfer credit from Webassign to Blackboard.

Online assignments are usually assigned on Wednesdays (10.00 a.m.) and are due back in a week. They expire automatically after that and will disappear from WebAssign. Print a copy of your completed online assignments for your records. Solutions will be posted on blackboard. Late homework will not be accepted. Online assignments contribute 20% to your final grade.

### **Class Quiz**

Simple quizzes with ~ 3 questions, based on class lectures, will be given every Wednesday. You should return them the following Friday. These will contribute 5% to your final grade.

#### **Midterm Exams**

Three mid-term exams will be conducted during lecture hours as specified in the syllabus. There will be no make-up exams. All exams are closed book, but equations sheet will be given. Bring a scientific calculator to the exams. Other electronic devices will be not allowed. Your scores on the three mid-term exams contribute 45% to your final grade.

#### **Final Exam:**

The final exam is scheduled for Wednesday, December 10th, 8:00a.m.-11:00 a.m. Attendance is compulsory. It will contribute 30% to your final grade.

# **Grading Plan:**

Coursework will be weighted as follows:

Weekly Homework (10 Sets)	20%
Weekly Wednesday Quiz(10 Sets)	5 %
Exam 1	15 %
Exam 2	15 %
Exam 3	15 %
Final Exam	30%

# **Grading Type:**

Whole Letter Grade (A-F). The conversion to letter grades will be approximately of the form:

Grade	Total
A	90-100 %
В	80-90%
C	65-80%
D	50-65%
F	<49 %

## **Academic Integrity Statement:**

As an Olemiss student I have abided by the UM academic integrity policy. My words and actions will reflect academic integrity. I will not cheat or lie or steal in academic matters. I will promote integrity in the University of Mississippi community. For more information, refer to

http://www.olemiss.edu/depts/general\_library/instruction/resources/plagiarism\_resources/lesson\_plans.html

#### **Students With Disabilities:**

If you have a disability requiring an accommodation, please contact the Office of Student Disability Services (SDS) at 234 Martindale Center (<a href="mailto:sds@olemiss.edu">sds@olemiss.edu</a>) phone: 662-915-7128

## **Attendance Policy:**

All students are required to be present for all class meetings. Students with special needs will be accommodated. Please inform me in advance.

### **Free Physics Tutoring:**

The physics graduate teaching assistants will be available to help you with this course in room 101 of the Lewis Building. Hours are posted on the door .

## **Laboratory Course PHY221:**

You must co-register for the laboratory course PHY221. This course is graded separately. Mr. Thomas Jamerson (Email: thomas@phy.olemiss.edu) is in charge of the lab course. The lab class web page is http://relativity.phy.olemiss.edu/~thomas/

**TENTATIVE CLASS SCHEDULE:** This is a tentative syllabus and slight adjustments might be made as the semester progresses.

Week	Date	Day	Chapter/Topic	Reading Assignment
1	Aug 25	M	Introduction, CH 1	1.1 -1.2
	Aug 27	W	CH1: Mechanics1	1.3-1.4
	Aug 29	F	CH1: Mechanics1	1.5-1.6
2	Sep 01	M	LABOR DAY HOLIDAY	
	Sep 03	W	CH2: Motion in One Dimension	2.1-2.2
	Sep 05	F	CH2: Motion in One Dimension	2.3-2.5

3	Sep 08	M	CH2: Motion in One Dimension	2.6-2.7
	Sep 10	W	CH3: Vectors	3.1-3.2
	Sep 12	F	CH3: Vectors	3.3-3.4
4	Sep 15	M	CH4: Motion in Two Dimensions	4.1-4.3
	Sep 17	W	CH4: Motion in Two Dimensions	4.4-4.6
	Sep 19	F	CH5: The Laws of Motion	5.1-5.4
5	Sep 22	M	Exam 1	
	Sep 24	W	CH5: The Laws of Motion	5.5-5.6
	Sep 26	F	CH5: The Laws of Motion	5.7-5.8
6	Sep 29	M	CH6: Circular Motion	6.1-6.2
	Oct 01	W	CH6: Circular Motion	6.3-6.4
	Oct 03	F	CH7:Energy of a System	7.1-7.4
7	Oct 06	M	CH7:Energy of a System	7.5-7.6
	Oct 08	W	CH7:Energy of a System	7.7-7.9
	Oct 10	F	CH8: Conservation of Energy/Midterm Grades Due	8.1-8.2
8	Oct 13	M	CH8: Conservation of Energy	8.3-8.5
	Oct 15	W	CH9: Linear Momentum/ Collisions	9.1-9.4
	Oct 17	F	CH9: Linear Momentum/ Collisions	9.5-9.7
9	Oct 20	M	Exam 2	
	Oct 22	W	CH10: Rotation of a Rigid Object	10.1-10.3
	Oct 24	F	CH10: Rotation of a Rigid Object	10.4-10.6
10	Oct 27	M	CH10: Rotation of a Rigid Object	10.7-10.9
	Oct 29	W	CH 11: Angular Momentum	11.1-11.2
	Oct 31	F	CH 11: Angular Momentum	11.3-11.5
11	Nov 03	M	CH12: Static Equilibrium	12.1-12.2
	Nov 05	W	CH12: Static Equilibrium	12.3-12.4
	Nov 07	F	CH13: Universal Gravitation	13.1-13.3
12	Nov 10	M	CH13: Universal Gravitation	13.4-13.6
	Nov 12	W	CH14: Fluid Mechanics	14.1-14.4
	Nov 14	F	CH14: Fluid Mechanics	14.5-14.7
13	Nov 17	M	Exam3	
	Nov 19	W	CH15: Oscillatory Motion	15.1-15.3
	Nov 21	F	CH15: Oscillatory Motion	15.4-15.5

			THANKSGIVING	
14	Dec 01	M	CH16: Wave Motion	16.1-16.3
	Dec 03	W	CH16: Wave Motion	16.4-16.7
	Dec 05	F	CH17: Sound Waves	17.1-17.4
15	Dec 10	W	Final Exam: 8.00 am -11.00 am	