## Northern Illinois University

## Course Syllabus for Physics 253 --- Basic Mechanics

#### Fall Semester, 2016

Instructor: Dennis Eugene Brown Faraday West 208W and/or 213W

DEBrown.niu.edu@gmail.com

**Office Hours:** MWF 10am – 12noon; tel: 630-910-5512 **Textbook:** Physics for Scientists & Engineers (4<sup>th</sup> edition)

**Author**: Giancoli

We will be covering the following material through Class Notes that will be distributed

on the Web: (Tentative Schedule)

Units and Significant Figures: Unit 1
Basic Kinematics: Unit 2
Vector Kinematics: Unit 3
Projectile Motion: Unit 4

Quiz #1

Newtons's Laws:

Basic Dynamics with Friction:
Unit 5
Unit 6
Dynamics of Circular Motion:
Unit 7

Quiz #2

Work Energy Theorem: Unit 8 Conservation of Energy: Unit 9 Conservation of Momentum: Unit 10

Ouiz #3

Torque and Static Equilibrium: Unit 11
Rotational Dynamics: Unit 12
Angular Momentum: Unit 13
Final Exam (Mon. December 5, Noon-1:50 p.m.)

### No labs will be accepted after the last day of classes (Dec 2, 2016, 4:30pm)

Problem Sets will be posted on **www.niu.edu/brown** every week, and they will be due one week later at the beginning of the class (**not at the end of class**). Late homework will be penalized 10% per day (however, Problem Sets # 3, 6, 9—the problem sets just before quizzes—and the final problem set will not be accepted late).

All quizzes and exams are closed book, and closed notes. Graphics Calculators and Cell Phones will not be allowed, only scientific calculators can be used.

Tentatively: All Problems Sets will make up 25% of the **lecture** grade

Each quiz " " 15% " " Final Exam " " 30% " "

Lecture grade will make up 75% of the **final** grade

Lab will make up 25% of the **final** grade

The lowest scoring Problem Set will not be counted towards the final grade.

# There are Physics Tutors available in Faraday East Room 251

#### **Additional Notes:**

- (1) When the solutions are posted on Blackboard, late homework will no longer be accepted.
- (2) When graded problem sets are handed back to students in class, late homework for that problem set will no longer be accepted.
- (3) Do not put any homework in the box outside my door—I may never see it and it will get mixed up with graded work. If I am not in my office and you wish to turn in a problem set, slide it under my door or have it put in my office mailbox.
- (4) All labs are to be handed in to your Lab TA. Do not hand any labs to me.
- (5) You will be asked for a codename at the beginning of class. Put this codename on your homework. Do not put your real name or ZID on homework (or you will be penalized).
- (6) Homework must be stapled (or you will be penalized). Homework should have the following format (or you will be penalized):

Codename
Course
Date
Instructor's Name

Homework #1

Solution to Problem #1 ......

Solution to Problem #2 ......

Homework must be written in on a separate sheet of paper, not on the Problem Set handout.

**ACCESSIBILITY:** Northern Illinois University is committed to providing an accessible educational environment in collaboration with the Disability Resource Center (DRC). Any student requiring an academic accommodation due to a disability should let his or her faculty member know as soon as possible. Students who need academic accommodations based on the impact of a disability will be encouraged to contact the DRC if they have not done so already. The DRC is located on the 4th floor of the Health Services Building, and can be reached at 815-753-1303 (V) or *drc@niu.edu*.

**HONOR CODE:** Be aware of the policies and procedures regarding your rights as well as responsibilities that are published in the NIU Student Code of Conduct, which is available on line at: <a href="http://www.stuaff.niu.edu/judicial/24430jo(body).pdf">http://www.stuaff.niu.edu/judicial/24430jo(body).pdf</a>.

Working with other students on homework is encouraged, but outright copying (plagiarism) of other student's work is strictly forbidden and will be reported to the NIU administration.