Yale University
Department of Physics

Physics 180  Fundamental of Physics

Instructor: Dr. M. Ghiassi-Nejad

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Meets: Mondays, Tuesday, Thursdays and Fridays (9:30-10:45)
Discussion Sections: Tuesdays and Thursdays (11:00-12:00)

Textbook:  Halliday and Resnick, Fundamental of Physics, 10th edition

Course Description
This is one-semester course, which gives an overview of vectors, Kinematics, Dynamics, Energy, Linear and Angular Momentum, Gravitation, Oscillations and Wave Mechanics

Communication:
I will use the email system built into Canvas as the official form of communication for this class. All information, Changes to the schedule and other notices will be sent by means of Canvas’s email. You can email me by means of Canvas or regular email.

Pre and Co-requisites
Calculus at the level of Math 115 or equivalent is a prerequisite for Phys. 180

Goals of the Course:
The goal of PHYS 180 is to provide a very good knowledge in physics in such a way that students are ready to continue in science and engineering majors and for medical schools. It also provides strong foundation for students to think like a physicist.
Course requirements and student evaluation:

A. Students are expected to attend all classes. Class participation is considered part of grades.
B. Text messaging in class is not allowed.
C. Students should be prepared to discuss assigned readings and homework problems.
D. Homework problems will be assigned (see homework section). Assignments and solutions will be posted on Canvas. No late homework will be accepted.
E. There will be three tests. The third test will replace the final.

Student Evaluation:

1- Class participation          10%
2- Participation in discussions 10%
3- Homework Assignments        20%
4- Tests (3)                    60%

Important dates:

Test 1  06/04/2018  15%
Test 2  06/15/2018  20%
Final   06/29/2018  25%
Tentative Calendar:

**Week 1**
Vectors, Kinematics
Chapters 3, 2, 1

**Week 2**
Dynamics
Chapters 5, 6

**Week 3**
Work, Energy and Momentum

**Week 4**
Rotation, Torque and Angular Momentum

**Week 5**
Gravitations, Oscillations and Waves
Chapters 13, 15