Oakland University *College of Arts & Sciences* *Department of Physics*

PHY 5620, Mechanics II
4 Credit Hours
Fall 2020

Instructor: Eugene Surdutovich **E-mail:** surdutov@oakland.edu
Office: 172 Hannah Hall **Office phone:** 248-370-3409
Class Time: MW, 3:30 – 5:17 pm **Office hours:** MWF 10:30-11:30am or by appointment
Auditorium: 113 HH
Textbook: *Classical Mechanics* by H. Goldstein, Safko and Poole, 3rd edition, Pearson

Additional texts: *Mechanics*, L.D. Landau and E.M. Lifshitz, 3rd edition

Classical Mechanics, J.R. Taylor, University Science Books

Homework: Every week, I will assign homework. **The homework is worth 20% of the final grade.**

Exams: There will be three exams. The material covered will be discussed on pre-exam reviews.

Grading Schedule and Scale:

Exam 1	25%
Exam 2	25%
Final Exam	30%
Homework	20%
Total	100%

A	96-100	C	65-69
A-	90-95	C-	60-64
B+	85-89	D+	55-59
B	80-84	D	50-54
B-	75-79	F	< 50
C+	70-74		

Goals

To appreciate the beauty of classical mechanics and its formalization in analytical mechanics

To apply the methods of calculus and differential equations to solving problems of classical mechanics

Classical mechanics will be covered until the introduction to the Hamilton-Jacobi theory. Relativistic mechanics will be discussed if the time will allow.