

**COLORADO STATE UNIVERSITY
DEPARTMENT OF PHYSICS**

**PH 341 – Mechanics
Fall Semester 2015
Course Syllabus**

Instructor: Prof. Norm Buchanan
Office: Engineering D119
Phone: 491-6192
Email: Norm.Buchanan@colostate.edu

Textbook: Classical Mechanics, John R. Taylor

Lectures: Monday, Wednesday, Friday 2:00-2:50 PM – Weber BLDG room 202
Tuesday 2:00-2:50 PM – Weber BLDG room 202
(*the Tuesday class will usually be working session for problem solving*)

Office Hours: 11:00 – 12:00 PM Wednesday *starting the second week of the semester, or by appointment.*

Prerequisites: MATH 340 or MATH 345; PH 141

Schedule:

Exam 1:	Wed., Sep. 30, 2015	5:00-6:50 PM	TBD
Exam 2:	Wed., Nov. 4, 2015	5:00-6:50 PM	TBD
Exam 3:	Thu., Dec. 17, 2014	7:30-9:30 AM	Weber 202

Grading:

Homework	40%
Exam #1	20%
Exam #2	20%
Exam #3	20%

Letter Grades:

A+ >94%, A 85-94%, A- 80-84.9%, B+ 75-79.9%, B 70-74.9%, B- 65-69.9%,
C+ 60-64.9%, C 55-59.9%, D 50-54.9%, F < 50%

I reserve the right to lower the threshold for any grade range.

Course Description:

This course will provide an introduction to classical mechanics for students of physics and related fields. It is expected that students taking the course will have taken a course in differential equations and freshmen-level physics. Topics covered will include:

- **Review of Newton's Laws**
- **Particle Dynamics**
- **Rotation of Rigid Bodies**
- **Oscillations**
- **Lagrangian Mechanics**
- **Other topics – time dependent**

Homework:

There will be 10 problem sets assigned throughout the term. I reserve the right to have only selected homework problems graded. If this situation arises the problems that are graded will be determined randomly.

Assignments are due **at the start of class** on the due date. Late assignments will in general not be accepted.

It is understood, and expected, that discussion between students will occur as they work on assignments. This is not something I want to discourage. However, when a student writes up their assignment it must be the work of that individual only. Cheating on assignments, or any other work, will not be tolerated and will be dealt with swiftly and harshly.

Attendance:

Attendance is expected and while role call will not be taken, electronically or otherwise, being present for the lectures will greatly benefit the student. All lectures will be written on the board during the lecture and will not be posted.

The Tuesday class will usually be used as a time to work on problems, which will be given during that class period. I will be present to assist with the problems. There may be occasions where this class period will be used for additional lectures.

Class RamCT Blackboard Site:

Assignments will be posted on Canvas after they are announced in class. Solutions will be posted after the problem sets are collected. Course grades will also be posted on Canvas. You are welcome to email me with questions at any time.

Time Commitments and Preparation Expectations:

Students should expect to spend at least three hours outside of class for every hour in class reviewing lecture materials, reading, and homework assignments.

Examinations:

Exams will cover materials presented in the class lectures, from the textbook, and homework assignments. There will be three equally weighted exams given and they will be focused on the material leading up to that exam, but not leading up to any previous exam. While the exams are not specifically cumulative it is expected that techniques learned throughout the course will be used for exams. I will explain this in more detail in the lectures.

Calculators are allowed. **Laptop computers, cell phones, or any other electronic devices are not allowed.** Exams will be closed book and I will provide any equations or other required information on the examination question sheet.

If you have any conflicts with the examinations, please bring these to my attention as soon as possible.

Academic Integrity and Honor Pledge:

This course will adhere to the Academic Integrity Policy of the Colorado State University General Catalog and the Student Conduct Code.

On the first page of any material you submit for grading in this course, you have the opportunity to write the following honor pledge:

I have not given, received, or used any unauthorized assistance in completing this problem set/exam.

Your signature after this pledge is a positive affirmation that you have abided by the Academic Integrity Policy given in this syllabus, in the Colorado State University General Catalog, and in the Student Conduct Code.

The Academic Integrity Policy of the Colorado State University General Catalog may be found on page 7 at the following web site:

<http://www.catalog.colostate.edu/FrontPDF/1.6POLICIES1112f.pdf>.

The Colorado State University Student Conduct Code can be found at:

<http://www.conflictresolution.colostate.edu/conduct-code>.

Cheating, plagiarism, or copying will result in a grade of zero on the assignment or exam in question and may lead to further disciplinary action including but not limited to a failing grade in the course.