

# Physics 320 - Classical Mechanics

Spring 2020

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Office Hours	Monday 8:00am to 3:00pm with time off for lunch
Text	Classical Mechanics by John Taylor

This course has traditionally been one of, if not the most, time consuming and difficult of the undergraduate curriculum for physics majors. A new level of mathematical sophistication is required and the analysis of the world around us becomes far more subtle. Your reward for a great deal of hard work will be a foundation upon which much of the structure the many parts of your education yet to come may firmly rest.

The semester grades will be determined as follows.

Problem sets	40%
Midterm exams	20% each for two exams
Final exam	20%

The midterm exams will each have three parts.

1. **In-class** Short questions - definitions, problem set up, isolated problem parts, etc.
2. **Take-home** Two fairly difficult, homework-like problems that you will be able to work on over a weekend with access to your textbook, notes, and problem sets.
3. **Oral exam** You will have three problems given to you two days in advance. When you come for the exam, one of the problems will be chosen at random and you will present, without notes, your solution to the problem. This is not an exercise in memorization; if you understand the solution you will have no trouble presenting it.

We will discuss this as the first exam draws near.

The final exam will be entirely in-class during our scheduled time on Monday, May 4 from 8:00am to 10:00am in our usual classroom.

Week Number / Tuesday Date		Tuesday	Thursday
0	January 8	X	Ch. 1
1	January 15	Ch. 2	Ch. 2
2	January 22	Ch. 3	Ch. 4
3	January 29	Ch. 4	Ch. 4
4	February 5	Review	Exam #1
5	February 12	Ch. 6	Ch. 6
6	February 19	Ch. 6	Ch. 6
7	February 26	Ch. 7	Ch. 7
8	March 5	Ch. 7	Ch. 7
9	March 12	Review	Exam #2
10	March 19	Ch. 13	Ch. 13
11	March 26	Spring Break	Spring Break
12	April 2	Ch. 13	Ch. 13
13	April 9	Ch. 8	Ch. 8
14	April 16	Ch. 8	Ch. 9
15	April 23	Ch. 9	Ch. 9
16	April 30	Final Exam 8:00am	

## Standard Syllabus Material

**[Here is a link to the spring 2014 calendar](http://events.umt.edu/?calendar_id=27&upcoming=upcoming&)**  
**[http://events.umt.edu/?calendar\\_id=27&upcoming=upcoming&](http://events.umt.edu/?calendar_id=27&upcoming=upcoming&)**

Students are expected, when selecting and registering for their courses, to make informed choices and to regard those choices as semester long commitments and obligations. After registering and through the **first fifteen (15) instructional days of the semester**, students may use the internet (<http://cyberbear.umt.edu>) to drop and add courses or change sections and credits. Fees are reassessed on the fifteenth day of the term. Added courses and credits may result in additional fees. For courses dropped by the fifteenth instructional day, no fees are charged and courses are not recorded. (For deadlines and refund policy for withdrawal from all courses, see the Withdrawal sections of this catalog.) An instructor may specify that drop/add is not allowed on the internet. A drop/add form is used to make changes in these courses, if approved by the instructor. After adding a course, the credit/no credit grading option or auditor status may be elected on the internet or on a form available at the Registration Counter in Griz Central in the Lommasson Center. These options are not allowed for some courses as identified in the Class Schedule. Change of grading option to audit is not allowed after the 15th instructional day. Beginning the **sixteenth (16) instructional day of the semester through the thirtieth (30) instructional day**, students use paper forms to drop, add, and make changes of section, grading option, or credit. The drop/add form must be signed by the instructor of the course and the student's advisor. The signed drop/add form must be returned to the Registration Counter (or the Registrar's Office at the College of Technology) no later than the thirtieth instructional day. A \$10.00 processing fee is charged for each drop/add form. Added courses and credits may result in additional fees. There are no refunds or reductions of fees for courses dropped and grades of W (withdrew) are recorded. Beginning the thirty first (31) instructional day of the semester through the last day of instruction before scheduled final examinations, students must petition to drop, add, and make changes of section, grading option, or credit. The petition form must be signed by the instructor of the course and the student's advisor and, in the case of drops only, by the dean of the student's major. A \$10.00 processing fee is charged for each petition. Added courses and credits may result in additional fees. There are no refunds or reductions of fees for courses dropped, and the instructor assigns a grade of WP (withdrew/passing) if the student's course work has been passing or a WF (withdrew/failing) if the course work has been failing. These grades do not affect grade averages but they are recorded on students' transcripts. Documented justification is required for dropping courses by petition. Some examples of documented circumstances that may merit approval are: registration errors, accident or illness, emergency, change in work schedule, no assessment of performance in class until after this deadline, or other circumstances beyond the student's control. The opportunity to drop a course for the current term or alter grading option for such a course ends on the last day of instruction before scheduled final exams. Dropping a course taken in a previous term or altering grading option or audit status for such a course is not allowed. The only exceptions are for students who have received a grade of NF (never attended) or new students unfamiliar with the drop process who have ceased attendance before the sixteenth day of instruction and can provide to the Registrar's Office instructor verification of non-attendance.

### **Class Attendance/Absence Policy**

Students who are registered for a course but do not attend the first two class meetings may be required by the instructor to drop the course. This rule allows for early identification of class vacancies to permit other students to add classes. **Students not allowed to remain must complete a drop form or drop the course on the internet (<http://cyberbear.umt.edu>) to avoid receiving a failing grade.** Students who know they will be absent should contact the instructor in advance. Students are expected to attend all class meetings and complete all assignments for courses in which they are enrolled. Instructors may excuse brief and occasional absences for reasons of illness, injury, emergency, or participation in a University sponsored activity. (University sponsored activities include for example, field trips, ASUM service, music or drama performances, and intercollegiate athletics.) Instructors shall excuse absences for reasons of military service or mandatory public service. Instructors may establish absence policies to conform to the educational goals and requirements of their courses. Such policies will ordinarily be set out in the course syllabus. Customarily, course syllabi will describe the procedures for giving timely notice of absences, explain how work missed because of an excused absence may be made up, and stipulate any penalty to be assessed for absences.

### **Academic Honesty**

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the university.

All students need to be familiar with the Student Conduct Code. The Code is available for review online at <http://www.umt.edu/SA/VP/SA/index.cfm/page/1321>.