Catalog description

This is a three credit-hour, calculus-based physics course which covers basic mechanics. In this course, we will use a few fundamental models to describe a wide range of physical phenomena. Topics to be covered include motion, forces, momentum and energy.

Course Objectives

• Be able to both mathematically and conceptually describe Newtonian mechanics including kinematics, Newton’s Laws, conservation of energy, linear and angular momentum, and rotational mechanics.

• Learn to understand fluid dynamics, gravitation, wave mechanics, and their consequences.

• More broadly, develop critical thinking skills and the ability to use physical intuition and translate this intuition to mathematics to solve problems

Course Corequisites

• Prerequisite: Math 262 or Math 261 and Physics 201

• Corequisite: Physics 221
Textbook

University Physics Volume 1 by OpenStax.

https://openstax.org/details/books/university-physics-volume-1

Note: this is an open-source textbook available for free at this website or as a downloadable pdf; however, there are also printed versions available for purchase.

Grades

A [92, ∞)
A- [90,92)
B+ [87,90)
B [82,87)
B- [80,82)
C+ [77,80)
C [72,77)
C- [70,72)
D [60,70)
F (-∞, 60]
### Grade Breakdown

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Participation</td>
<td>15%</td>
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<tr>
<td>Test 1</td>
<td>15%</td>
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<td>Test 2</td>
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<td>Test 3</td>
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<td>Homework</td>
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<tr>
<td>Final</td>
<td>20%</td>
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### Attendance

The university requires that all students have a verified attendance at least once during the first two weeks of the semester for each course. If your attendance is not verified, you will be dropped from the course and any financial aid will be adjusted accordingly. Please see [http://olemiss.edu/gotoclass](http://olemiss.edu/gotoclass) for more information. Apart from this, a large portion of your grade is based on participation which is in part measured via attendance. In short, come to class!

### Academic integrity and honesty

Students are expected to adhere to the University of Mississippi Creed and the Standards of Honesty as described in Policy Code ACA.AR.600.001 and the [M Book](http://olemiss.edu/gotoclass).

Students are reminded that cheating in any form will not be tolerated. Performance on all tests and assignments shall represent the individual work of the student. Those who violate the Standards of Honesty will be reported and subject to the appropriate sanction, which may include expulsion from the University.

### Intellectual property

All materials distributed electronically and in hard copy in this class are protected under intellectual copyright. Any attempt to upload these documents to a file sharing service or to profit from their distribution by any means constitutes theft and will be in violation of intellectual property law and the UM Academic Conduct Code unless expressly permitted for by the instructor.
Nondiscrimination policy

The University complies with all applicable laws regarding affirmative action and equal opportunity in all its activities and programs and does not discriminate against anyone protected by law because of age, color, disability, national origin, race, religion, sex, sexual orientation, handicap, or status as a veteran or disabled veteran.

Policies and procedures for students with disabilities

It is University policy to provide, on a flexible and individual basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in course activities or meet course requirements. Students with disabilities should contact the Office of Student Disability Services (662-915-7128 or sds@olemiss.edu) to discuss their individual needs.

Student Support Services

Students are encouraged to visit the University’s Keep Learning site https://keeplearning.olemiss.edu/ to access information and resources related to COVID-19 support. The site provides links to University student services to facilitate and support learning.

Students with diagnosed health concerns that may affect their compliance with COVID-19 health requirements should contact UM’s Student Disability Services (SDS) Office https://sds.olemiss.edu/ to see if they are eligible for an SDS accommodation as soon as possible.

The University Counseling Center is a professional facility offered by the University of Mississippi to assist students, faculty, and staff with many types of life stressors that interrupt day-to-day functioning, including the stressors associated with the COVID-19 pandemic. They offer individual counseling, couple’s counseling, group counseling, stress management, crisis intervention, assessments and referrals, outreach programs, consultations, and substance abuse services. There is no fee for currently enrolled University students and everything you say to your counselor is confidential. You can contact the Counseling Center for information about mental health issues at https://counseling.olemiss.edu, counslg@olemiss.edu, 662915-3784, 320 Lester Hall, and https://www.facebook.com/universitycounselingcenterolemiss/. You can schedule an appointment or get information about appointments by calling the UCC at 662-915-3784.
Tentative Exam Dates

Exam 1 – Thursday 9/22
Exam 2 – Thursday 10/20
Exam 3 – Thursday 11/17
Final Exam – Tuesday 12/6 at noon