

Physics 2500 - Section 04

General Physics I Fall Semester 2025

<i>Room/Time:</i>	Lectures: TR 1:45 - 3:00pm, Seaver 207 (in person) (75-minute lectures) Lab Sections: (starting third week): in person R 8:00 – 9:40am, Seaver 117-114
<i>Instructor:</i>	Dr. Gabriele Varieschi
<i>Office:</i>	Seaver Hall - 110
<i>Phone:</i>	(310) 338-7632 (can leave a message)
<i>E-mail:</i>	gvarieschi@lmu.edu (I will reply by the next day)
<i>Office hours:</i>	TR 11:00 - 11:50am, in my SEA 110 office. Other times available by appointment (in person, or on Zoom).
<i>Course Webpage:</i>	https://brightspace.lmu.edu/d2l/home/285027 (for all course materials)
<i>Personal Webpage:</i>	https://gvarieschi.lmu.build/
COVID-19 info:	Please see the latest LMU guidelines at: https://www.lmu.edu/together/
<i>Textbook:</i>	College Physics – P. Urone and R. Hinrichs – Openstax Free textbook and free student guides available for download at: https://openstax.org/details/books/college-physics-2e
<i>Objectives and Topics:</i>	Chapters 1-11 (tentatively). Physics, measurement and units. Motion in one dimension: velocity and acceleration. Vectors and components. Projectile motion and circular motion. Newton's laws and applications. Free body diagrams. Rotational motion and angular variables. Static equilibrium. Newton's law of universal gravitation. Linear momentum and collisions. Kinetic and potential energy: conservation of energy. Fluids. Laboratory experiments pertaining to mechanics. Algebra based course for biology and chemistry students.
<i>Prerequisite or concurrent enrollment:</i>	<i>MATH 112</i> or <i>MATH 122</i> or <i>MATH 131</i> or concurrent enrollment.
<i>Learning Outcomes:</i>	Understand the phenomenology of mechanics. Understand the concepts of kinematics: position, velocity, acceleration and the related use of vectors. Conceptually understand the idea of force and the three fundamental laws of mechanics. Be able to solve problems of increasing complexity involving different forces and master the technique of free body diagrams. Understand the theoretical framework of conservation principles (such as conservation of energy and linear momentum). Understand more advanced applications of rotational dynamics, statics and fluids. This course serves as a prerequisite for PHYS 2550.
<i>Tests:</i>	There will be three tests during the semester. The lowest score will be dropped, so only the two best test grades will count toward your final grade. There will be no make-up tests given. If you miss a test, it will be automatically considered as the dropped one. Tests are closed-book, but you may bring in a sheet of equations.
<i>Test Dates:</i>	TBA
<i>Final Exam:</i>	<u>SECTION 04: Thursday, December 11, 11:00am – 1:00pm</u> The final exam is cumulative and almost equivalent to 2 tests.

- Homework:* Weekly homework will be assigned and partially graded – one or two problems per assignment. Solutions will be discussed in class and posted online. Homework assignments are due online at the beginning of class, on the due date. Late homework will receive partial credit.
- Laboratory:* The laboratory is an integral part of this course. The experiments will complement the topics of the lectures. The laboratory will count for 15% of your final grade. Missing 2 or more lab sessions will result in a failing grade for the course. See lab schedule below for more information.
DOWNLOAD LAB MATERIALS AT:
<https://brightspace.lmu.edu/d2l/home/285027>
- Grading:*
- | | |
|--------------------|-------------|
| Laboratory | 15 % |
| Homework | 10 % |
| Best Test 1 | 20 % |
| Best Test 2 | 20 % |
| Final Exam | 35 % |
- Course Grading:* 0-50%=F; 50-55%=D; 55-60%=C-; 60-65%=C; 65-70%=C+; 70-75%=B-; 75-80%=B; 80-85%=B+; 85-90%=A-; 90-100%=A.
- Academic Honesty:* Academic dishonesty will be treated as an extremely serious matter with severe consequences that can range from receiving no credit for assignments/tests, failing the class, to expulsion. It is never permissible to turn in any work that has not been authored by the student, such as work that has been copied from another student or copied from a source (including Internet) without properly acknowledging the source. It is your responsibility to make sure that your work meets the standard set forth in the “[Academic Honesty Policy](#)”.
- Special Accommodations:* Students with special needs who require reasonable modifications, special assistance, or accommodations in this course should promptly direct their request to the Disability Support Services (DSS) Office. Any student who currently has a documented disability (ADHD, Autism Spectrum Disorder, Learning, Physical, or Psychiatric) needing academic accommodations should contact the DSS Office (Daum Hall 2nd floor, 310-338-4216) as early in the semester as possible. All discussions will remain confidential. Please visit <http://www.lmu.edu/dss> for additional information.
- Syllabus changes:* If necessary, this syllabus and its contents are subject to revision; students are responsible for any changes or modifications announced in class.

Have a nice semester. Good luck!

Phys 2500 - Laboratory Schedule
General Physics I
Fall 2025

Lab Instructor	Section	Day	Time	Rooms
Dr. G. Varieschi	04	Thu	8:00 - 9:40 am	S117 S114

	<i>Aug 25</i>	<i>M</i>	<i>Classes begin (no lab this week)</i>
	<i>Sep 01</i>	<i>M</i>	<i>University Holiday –Labor Day</i>
	<i>Sep 04</i>	<i>Thu</i>	<i>No Lab this week</i>
1.	Sep 11	Thu	Motion
2.	Sep 18	Thu	Free Fall
3.	Sep 25	Thu	Projectile Motion
4.	Oct 02	Thu	Newton's 2nd Law
	<i>Oct 09</i>	<i>Thu</i>	<i>No Lab this week</i>
	<i>Oct 10</i>	<i>F</i>	<i>No Classes – Autumn Day</i>
5.	Oct 16	Thu	Newton's 2nd Law - 2 Bodies
6.	Oct 23	Thu	Friction
7.	Oct 30	Thu	Conservation of energy
8.	Nov 06	Thu	Energy – nonconservative forces
9.	Nov 13	Thu	Momentum
10.	Nov 20	Thu	Rotation
	<i>Nov 26 – Nov 28</i>	<i>W-F</i>	<i>No Classes – Thanksgiving Holidays</i>
	<i>Dec 04</i>	<i>Thu</i>	<i>No Lab this week</i>
	<i>Dec 8 – Dec 12</i>	<i>M-F</i>	<i>Final Examinations</i>

Lab materials are available for download at:
<https://brightspace.lmu.edu/d2l/home/285027>