



Physics 2B: General Physics II Syllabus

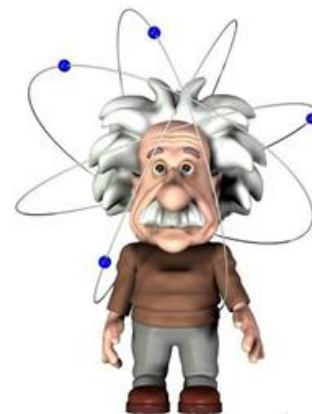
Reedley College – Fall 2023

Revised August 17, 2023

Course Description:

This physics course picks up where we left off in PHYS 2A.

We will cover fluids, waves (including sound), thermodynamics, and electricity & magnetism.



It is likely we will not cover relativity, and modern (quantum) physics;

we also may cover optics only partially or not at all.

Lectures: ON-LINE

This is a “hybrid” course, so lectures are on-line. I learned of this only on the first day of the semester. Students are NOT required to attend real-time on-line lectures at any specific time. Students can instead review recordings of lectures at any time they choose. My first attempts to use ZOOM encountered problems with limited time, etc. Until Reedley officials can help resolve this, I will be posting asynchronous lectures - meaning that there will be no real-time component, and then discuss issues of interest with students during office hours or lab meetings.

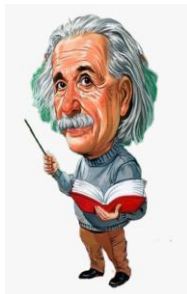
Labs: **IN PERSON**, Fridays 9:00 AM – 11:50 AM in PHY 70 at Reedley College

Some lab days will be used for homework sessions, in-person lectures or midterm exams

Contact Information:

Instructor Name: Mike Bisset

Email: mike.bisset@reedleycollege.edu



Office Hours:

Fridays 1:30 P.M. - 3:30 P.M. in PHY 70 or 75, either in person or via ZOOM

I am also available to meet with you at other times, either in person or on-line by appointment.

You need to reach out to me, and then we will definitely schedule time.

Required Course Materials:

- TEXTBOOK: Open Stax – College Physics,
ISBN-10: 1-947172-01-8, ISBN-13: 978-1-947172-01-2
 - **THIS TEXTBOOK IS AVAILABLE FREE ONLINE:**
[College Physics - OpenStax](#)
- Calculator (graphing or non graphing)

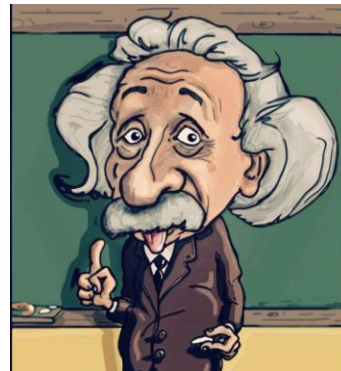
Prerequisites: Math 4A, PHYS 2A

Advisories: English 1A or 1AH

Student Learning Outcomes:

In this course, students will -

- Apply algebra and trigonometry to solve physical problems in topics such as:
 - Mechanical waves
 - Thermodynamics
 - Electricity & Magnetism



Calendar:

- November 23rd – Thanksgiving, no classes held
- August 18th – Last day to drop a Fall 2023 full-term class for full refund
- August 25th – Last day to drop a Fall 2023 full-term class in person to avoid a "W"
- October 6th – Last day to drop a full-term class
- Dec. 4th - 8th – Finals week

Exams:

There will be two midterm exams (each worth **20%** of the overall grade) and one final exam (worth **25%** of the overall grade).

The exams will be held during lab hours.

The exams contribute **65%** of your semester grade, so they are very important to prepare for.

Makeup exams will be given **with pre-approval only**.

Further details will be given during the semester.

Homework:

Homework is **15%** of your semester grade.

Homework assignments with due dates will be posted on Canvas.

I will assign some homework problems from your textbook,

BUT I will only score problems I assign which are NOT from your textbook.

Detailed solutions to all problems in the textbook are free online at

https://www.youtube.com/@GlaserTutoring/playlists?view=50&sort=dd&shelf_id=1
Completed assignments will be turned in on due dates at the start of lab.
Late homework will be accepted with a 30% reduction in score.

Laboratory:

This class has a lab that is **mandatory**. The lab scores make up **20%** of your grade.
There will be one online make-up lab available at the end of the semester.

I will drop your lowest lab score.

Missing 2 or more labs will significantly reduce your grade. Make plans to attend every lab session if possible!

There will be quizzes given at the start of **some** labs related to topics covered in the previous lab experiment. Scores of these quizzes are included in your lab score.

Grading Policy:

I do curve-grade, so the scores on the exams may not tell you exactly what your final score will be.

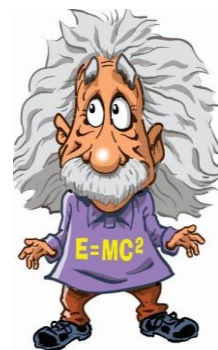
After each test, I will display a score distribution for that exam, and tell you what it means.

Basically, things only go up, not down.

Category	% of Class Grade
Midterm Exams	40% (20% each)
Homework	15%
Labs, incl. quizzes	20%
Final Exam	25%

STUDENT SUCCESS:

- Technology Support:
<https://www.reedleycollege.edu/campus-life/technology-help.html>
- Tutoring Services:
<https://www.reedleycollege.edu/academics/tutoring-services/index.html>
- COVID-19 information is uploaded to the Reedley College site:
<https://www.reedleycollege.edu/covid-19/index.html>
- DSPS contact information:
 - Hours: Monday – Friday 8:00 am – 5:00 pm
 - Phone: 559-638-0332
 - See more DSPS information here: <https://www.reedleycollege.edu/student-services/disabled-student-programs-and-services/index.html>



Very special thanks to Kurt Shults

who provided me with the template upon which this syllabus is based!

Schedule for Physics 2B Fall 2023

revised August 17

This schedule *may* be too ambitious! We may go slower.

Week		Lecture #	Date	Chapter	Subject	LAB
1	F	1	Aug. 11	1-10	REVIEW	
2					REVIEW	
2	F	2	Aug. 18	11	Static Fluids	
3		3&4		12,16	Moving Fluids, Waves	
3	F		Aug. 25			Pendulum
4		5&6		16	Waves	
4	F		Sept. 1			Standing Waves
5		7&8		17,13	Hearing; Temperature; Gas Laws	
5	F		Sept. 8			Homework session
6		9&10		14	Heat	
6	F		Sept. 15		Midterm EXAM #1 Chs. 11-13,16,17	
7		11&12		15	Thermodynamics	
7	F		Sept. 22			Specific Heat
8		13&14		18	Electric Charge	
8	F		Sept. 29			Entropy Checkers
9		15&16		19	Electric Potential	
9	F		Oct. 6			Homework session
10		17&18		20	Current & Resistance	
10	F		Oct. 13			E-field Mapping
11		19&20		21	DC Circuits	
11	F		Oct. 20			Homework session
12		21&22		22	Magnetism	
12	F		Oct. 27		Midterm EXAM #2 Chs. 13-15,18-21	
13		23&24		23	Faraday's Law; AC Circuits	
13	F		Nov. 3			Resistive Circuits
14		25&26		24	Electromagnetic Waves	
14	F		Nov. 10			Homework session
15		27&28		25	Geometrical Optics	
15	F		Nov. 17			Ray Optics
16		29		25,26	Geometrical Optics; Vision	
16	F		Nov. 24		THANKSGIVING HOLIDAY	
17		30			REVIEW	
17	F		Dec. 1			Geometrical Optics
18					REVIEW	
18			Dec. 4-8	--	FINALS WEEK Exam covers Chs.18-25	

Academic Dishonesty

Students at Reedley College are entitled to the best education that the college can make available to them, and they, their instructors, and their fellow students share the responsibility to ensure that this education is honestly attained. Because cheating, plagiarism, and collusion in dishonest activities erode the integrity of the college, each student is expected to exert an entirely honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences.

CHEATING

Warning: I am strongly disturbed by cheating. It is simply NOT worth it!!!!

Cheating is the act or attempted act of taking an examination or performing an assigned, evaluated task in a fraudulent or deceptive manner, such as having improper access to answers, in an attempt to gain an unearned academic advantage. Cheating may include, but is not limited to, copying from another's work, supplying one's work to another, giving or receiving copies of examinations without an instructor's permission, using or displaying notes or devices inappropriate to the conditions of the examination, allowing someone other than the officially enrolled student to represent the student, or failing to disclose research results completely. 48 Administrative Policies 2022-2023 Reedley College Catalog

PLAGIARISM

Plagiarism is a specific form of cheating: the use of another's words or ideas without identifying them as such or giving credit to the source. Plagiarism may include, but is not limited to, failing to provide complete citations and references for all work that draws on the ideas, words, or work of others, failing to identify the contributors to work done in collaboration, submitting duplicate work to be evaluated in different courses without the knowledge and consent of the instructors involved, or failing to observe computer security systems and software copyrights. Incidents of cheating and plagiarism may result in any of a variety of sanctions and penalties, which may range from a failing grade on the particular examination, paper, project, or assignment in question to a failing grade in the course, at the discretion of the instructor and depending on the severity and frequency of the incidents

Important Notes:

- Any student needing accommodations should inform the instructor. Students with disabilities who may need accommodations for this class are encouraged to notify the instructor and contact DSPS early in the semester so that reasonable accommodations may be implemented as soon as possible. All information will remain confidential.