

PH105 General Physics I

Patrick LeClair

Contact

- pleclair@ua.edu
 - cc lab TA; “PH105” in subject
- offices
 - 323 Gallalee
 - 1047 Bevill
- office hours
 - MW 12-1 in Bevill
 - TR 11-12, F 12-1 in Gallalee
 - email for other times

Graduate Assistants

- they run the labs
- meet them next week
 - will get their contact info in 1st lab
- pooled office hours (“help desk”)
 - will post schedule when this starts
- no labs this week

Undergrad assistants

- Alex Mathers
- John Hossler
- Michael Walters

- they'll help in here and in some lab sections

General points

- “Can my question be answered by reading the syllabus”
- I am very much outnumbered
- The assistants are here to help too

Labs

- 005 R 7-8:50p hou / wu / *mathers*
- 006 W 3-4:50p carson / wu
- 007 W 5-6:50p carson / sharma / *hossler*
- 008 W 7-8:50p carson / hou
- 010 R 5-6:50p hou / sharma

Lectures

- *principles* - new material in lecture
 - mostly discussion and concepts
 - worry about logic, strategies
 - *read chapter ahead of time ...*
- *practice* – not something you can watch
 - have to do it!
 - HW, extra time in lab period

“Lab” periods

- not just ‘do the lab and go’.
 - this is practice time (e.g., HW)
- first ~30 min: discuss homework/problems
- lab introduction (possibly a quiz)
- do the lab
- remainder: Q&A, group work
- drop 1 lab at the end of the semester

Topics

- Motion in 1D
- Acceleration
- Momentum
- Energy
- Interactions [energy]
- Force
- Work
- Motion in 2D
- Rotation & torque
- Gravity
- Periodic motion
- Waves
- Fluids
- Entropy
- Thermal energy

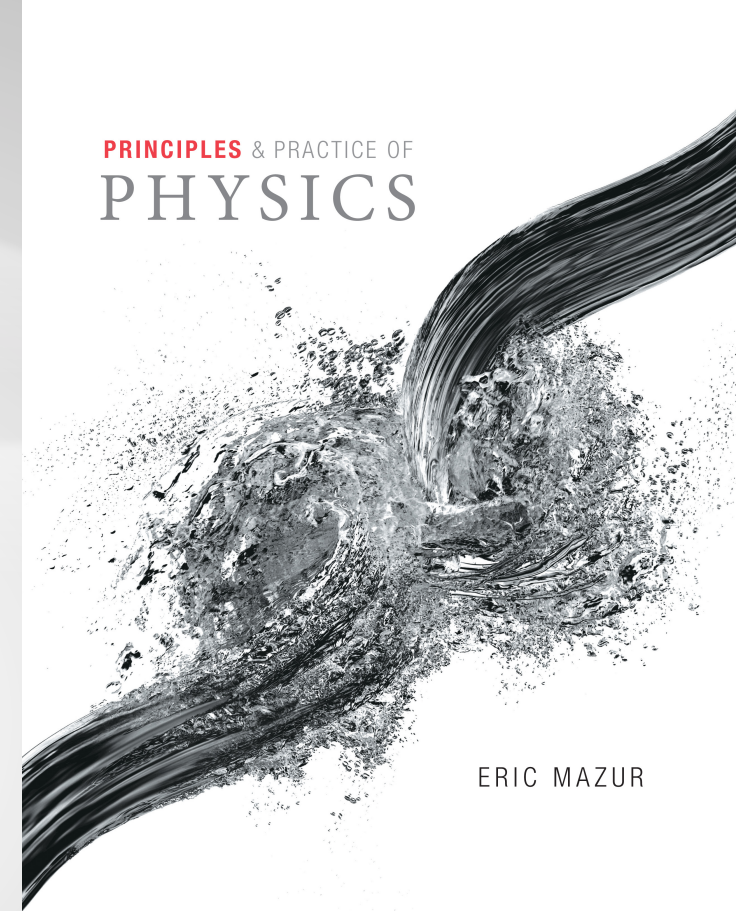
Syllabus

Schedule (subject to change)

20-Aug	syllabus, overview	15-Oct	motion in a circle
25-Aug	1D motion	20-Oct	EXAM 2
27-Aug	1D motion	22-Oct	torque
1-Sep	acceleration	27-Oct	fluids
3-Sep	momentum	29-Oct	OFF
8-Sep	momentum	3-Nov	fluids
10-Sep	energy	5-Nov	periodic motion
15-Sep	EXAM 1	10-Nov	waves in 1D
17-Sep	interactions	12-Nov	waves in 1D
22-Sep	interactions	17-Nov	gravity
24-Sep	force	19-Nov	gravity
29-Sep	force	24-Nov	entropy
1-Oct	work	26-Nov	OFF
6-Oct	work	1-Dec	thermal energy
8-Oct	motion in a plane	3-Dec	thermal energy
13-Oct	motion in a circle	8-Dec	FINAL EXAM

Textbook

- Principles & Practice
 - separated for a reason
 - get concepts first
- ordering of topics uncommon
 - based on education research
 - ‘builds’ better
- can get ebook with homework system
 - (cheapest overall I think)
- <http://paybackbooks.com> - textbook rentals



Grading

- Exams 50%
 - 2 in class, 15% each
 - 1 final, 20%
- Homework 15%
- Labs 15%
- Quizzes 10%
- Participation 10%

Homework

- <http://MasteringPhysics.com>
- course code: PLECLAIRF15
- need an access code too
 - should have with new book
 - can buy separately (\$60)
 - can get ebook + MasteringPhysics (\$111)
- new homework every week
 - due Friday at 5pm, **5% late per hour**
 - penalty for multiple tries, bonus for unused hints
 - collaboration is OK
- drop lowest single set
- will have time in first lab to try it out

Quizzes

- reading quiz before each lecture
 - on MasteringPhysics.com
- opens evening before, closes at class time
 - none on exam days
 - **first one next week Tues!**
 - no credit if late!
- a few multiple choice questions
 - mostly qualitative, on that day's reading
 - read the chapter, you're OK
- may be quizzes in lab too

Interaction

what do you mean "participation"?



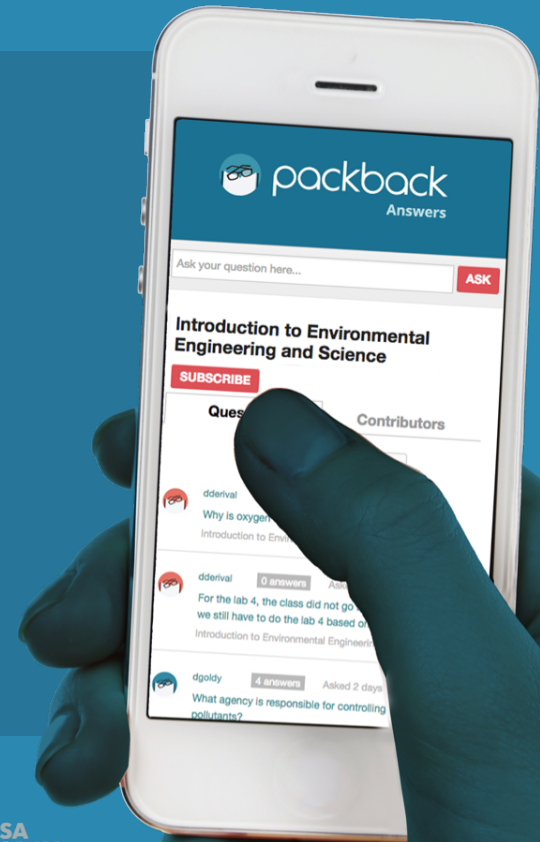
packback

Answers



Our class is using Packback Answers this semester for out-of-class discussion and help.

- Earn participation points while getting extra help
- Learn cool things, start interesting discussions
- Student-founded at Illinois State University in 2012
- Seen on **Shark Tank** (A Mark Cuban company!)
- As easy to ask for help as it is to text a friend



TechCrunch



FAST COMPANY

THE WALL STREET JOURNAL
WSJ

The
Washington
Post



packback

What to post to earn participation points:

✓ Post open-ended discussion questions

- Share a resource (video, article, link) and ask for responses
- A “How might we...” or “What would happen if...” question
- Ask for examples, rather than definitions

✓ Post questions asking for extra help

- Show your work or progress up to where you got stuck
- Provide details to explain exactly what you need help with!

✓ Detailed answers to classmates’ questions

- Earn points for providing great, detailed, (correct!) answers to your classmates’ discussion and extra help questions.

X What won't count:

- **Anything too class specific:** (i.e. “Is class canceled today?” or “What’s the answer to #4?”)
- **Incorrect Answers**
- **Duplicate Answers to questions that only have one “correct” answers**
- **Any obvious cheating** (Anything that is obviously cheating-like posting homework assignments, quizzes, etc-will be immediately removed.)

How to get started on Packback Answers:

Step 1: Check your school email

Packback emails always go to your school account.

Step 2: Find the “Get Packback” email

Click the link at the bottom of the email.

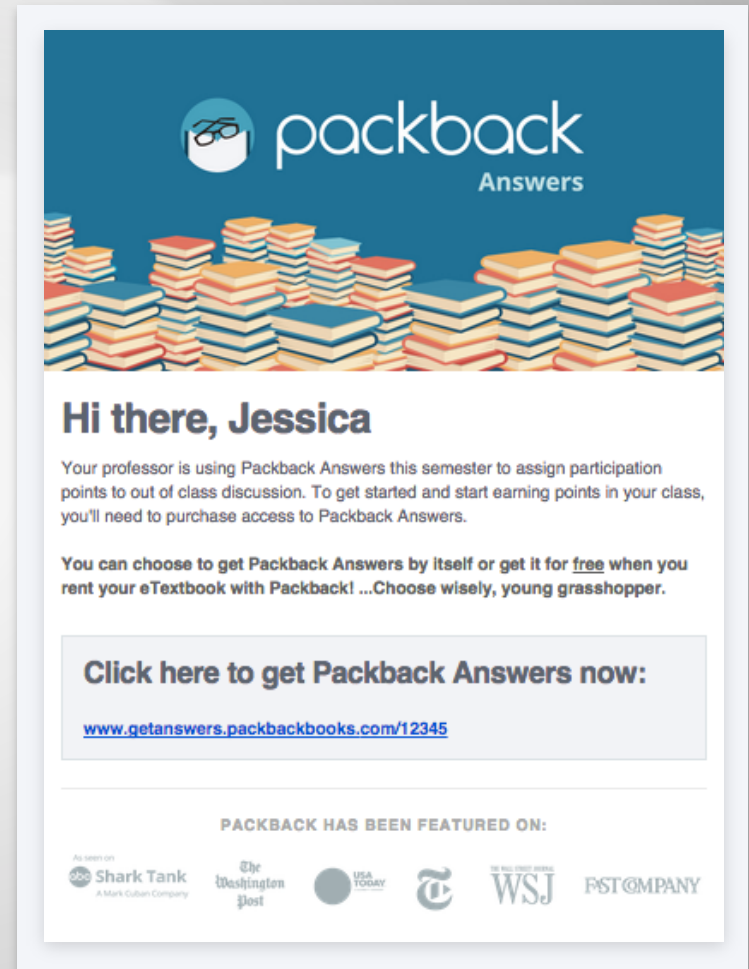
Step 3: Pick your plan & check out

Select the Packback Answers option and check out!

Step 4: Receive your login information

Check your school email again to find your log in info

Answers.Packbackbooks.com



The image shows a screenshot of an email from Packback Answers. At the top, there is a blue header with the Packback logo (a white circle with glasses) and the text "packback Answers". Below the header is a decorative image of several stacks of colorful books. The main body of the email is white and contains the following text:

Hi there, Jessica

Your professor is using Packback Answers this semester to assign participation points to out of class discussion. To get started and start earning points in your class, you'll need to purchase access to Packback Answers.

You can choose to get Packback Answers by itself or get it for **free** when you rent your eTextbook with Packback! ...Choose wisely, young grasshopper.

Click here to get Packback Answers now:

www.getanswers.packbackbooks.com/12345

At the bottom, there is a section titled "PACKBACK HAS BEEN FEATURED ON:" followed by logos for Shark Tank (A Mark Cuban Company), The Washington Post, USA TODAY, The CW, WSJ (The Wall Street Journal), and FST COMPANY.

Interaction

- it is like StackExchange or Reddit
- you ask & answer questions
 - up/down vote both Q & A
 - gain points = participation grade
 - expect 2 Q, 1 A per week**
 - don't do them all on Friday
- start next week. sign up now.
- \$6 to join, \$10 if you get an e-textbook

if you didn't get an email from PackBack ...

come to the front after class and add your name
to the list

Misc

- No attendance policy for lectures
 - exams may rely on in-class stuff
 - will post slides on MasteringPhysics
- missing labs/exams
 - let me know ahead of time
 - if not possible, ASAP after
 - acceptable reason = makeup
- Will keep grades on MasteringPhysics
 - no eLearning

For today

- Ch. 1 – Foundations
- should be largely review
- just to 'set the stage' for getting started

For Tuesday

- make sure you sign up for MasteringPhysics
 - first reading quiz is due Tues by classtime
- make sure you sign up for PackbackAnswers
 - first Q & A due by next Friday
- begin reading Ch. 2 of Mazur
 - 2.1-2.5 for Tues