

Welcome to PH 211!

Instructor: Benjamin Bauml

Drop-In and Appointment Hours: To Be Determined (TBD)

To book an individual appointment with me, see my [Booking Page](#).

Teaching Assistants (TAs):

Kevin Dimmitt (Tuesday lab) and Ben Hansen (Wednesday lab)

Wormhole Hours: Fridays

10 a.m. - 12 p.m. (Kevin)

1 p.m. to 3 p.m. (Ben)

Learning Assistants (LAs):

Austin Gugenheim, Matilda Pike, Ahmed Rashid

Getting to Know You

What is your preferred full name?

Benjamin Noë Bauml

What do you want me to call you?

You may call me Benjamin.

If you don't want to call me by my first name, you may call me Mr.
Bauml.

What are your preferred pronouns?

He/Him/His

What identities do you associate with yourself? Include any that you feel are important to who you are, and that you are comfortable sharing with me.

Physicist, Mathematician, Teacher, Social Dancer, Musician, Gamer,
Writer, Cat Person, [REDACTED]

What are your interests? What do you want to learn? What do you do for fun?

Aside from this class, what are your priorities for the term?
What goals (educational, professional, personal) do you have during this time?

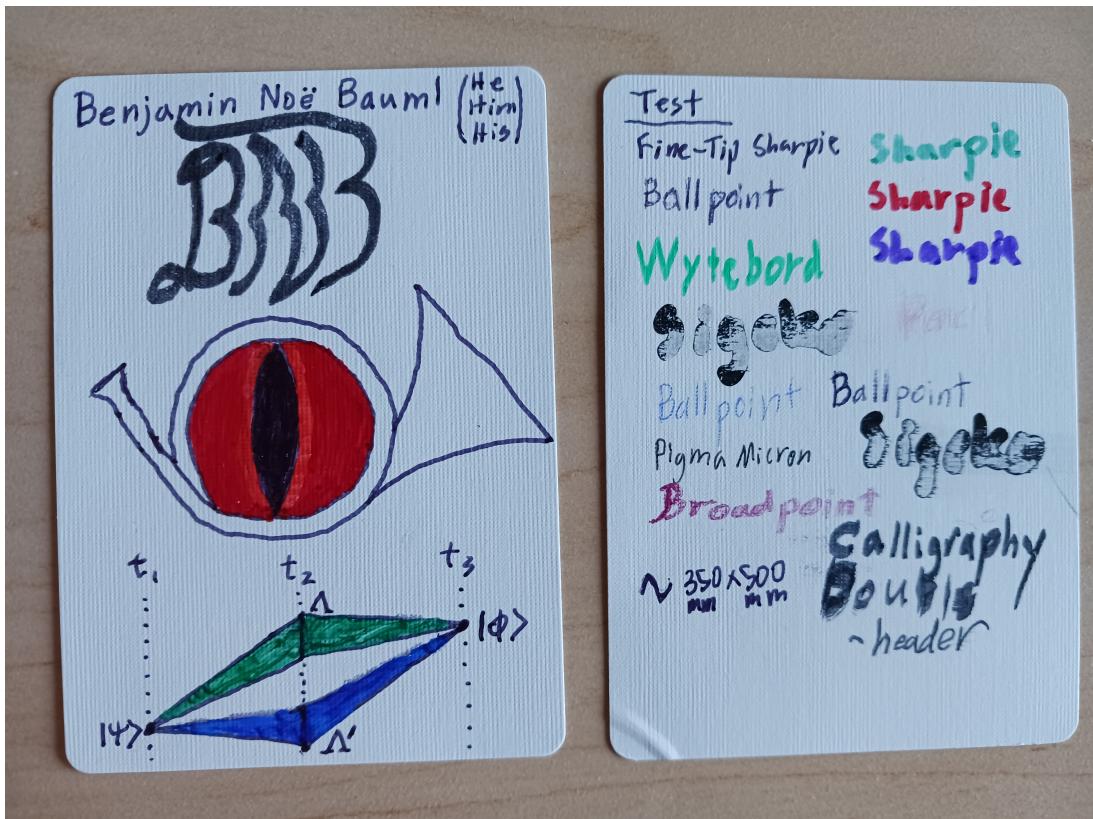
Where does this class rank among your priorities for the term? If it helps, you can rank it twice; where would you rank it in terms of its actual importance to you, and where do you think it needs to be ranked in your priorities for you to be successful?

What is your major? What year in college is this for you? What are you studying to do?

Getting to Know You – In-Class Submission

Write your preferred full name and pronouns on a blank playing card, along with any other drawings you want to add.

These should be turned in during Friday's lecture.



Science of Thinking

Before class, I asked you to watch a video on the Science of Thinking.

Talk with your neighbor about something you learned from the video.

Course Structure

Lecture and Studio

- Time to practice the content; opportunity to ask questions; group work!
- Attendance and participation in lecture/studio is critical to learning in this course! (But stay home if you are sick; lecture slides will be posted to Canvas, and you can feel free to email me any questions you have. We will work with you to help you keep up!)

Get-Ready Activities

- Readings, videos, and exercises to complete **before** Monday and Wednesday lectures.
- Add notes based on lecture/studio and submit by the end of the day.
- Prominently write questions you have about the reading and from lecture. We want to know what you are wondering about!

Lab

- Opportunities to make up one or two missed labs in the last week.
- If you cannot complete all labs, talk to me about your options.

Homework

- Due at 10 p.m. on Fridays.
- You may work with others, but **you must include their names** on your submission, and your **submitted work must be your own**, not a copy of someone else's work.

Ungrading Policy

You will not receive grades on individual assignments.

- You will receive feedback to help you think about your learning and improve your work.
- There is no direct calculation from the points for completion and attendance in Canvas to your overall grade.

You will propose your own final grade.

- As your final assignment of the term, you will write a reflection on your learning and your work and decide what grade you have earned.
- Attendance, participation, and assignments factor into the proposal.
- I have the right to change the grade you propose.

You will get to practice before the final ungrading.

- At the end of Week 4, you will get to go through the ungrading process based on the work you have completed so far. If you have trouble assessing your own learning at this point, we will help fix any issues and prepare you for the final ungrading.
- There are small reflections on learning at the end of each homework assignment.

What is physics?

Come up with a sentence (or two) for each of the following questions:

- What is physics?
- What do you expect to learn from physics?

If someone asked you to describe physics using one word, what would you choose?

Course Context

The physical contexts we will study are:

- Motion
- Forces
- Energy
- Momentum

What is motion?

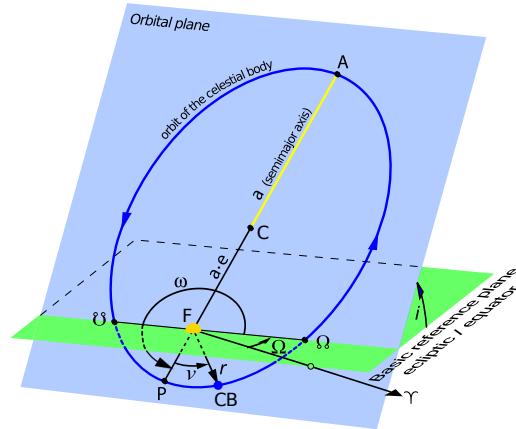
- Write down something you know about **motion**.
- Turn to your neighbor and talk about what you each know.
- Find another neighbor and talk about what you each know.
- We will be building a model for describing the **motion** of **objects**.

Model Building

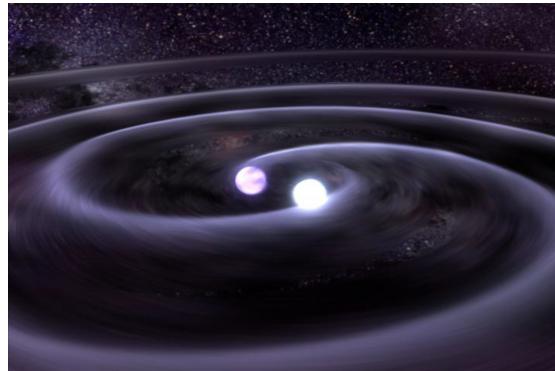
How do physicists do physics?

- Make an observation
- Take data
- Come up with a model that explains the observation
- Test the model
- Repeat

The models we come up with will help us describe what we see around us!



Wikimedia Commons user Mliu92, released under CC-BY 4.0



Credit: Tod Strohmayer (GSFC), CXC, NASA - Illustration: Dana Berry (CXC)

Principles for Success

Treat everyone with respect.

- Everyone's ideas matter.
- Act professionally.

Learn by doing and questioning.

- Everyone in your group is responsible for participating and working together.

Make sense of everything.

- Jargon alert – if you hear a term you don't understand, ask!
- Representations – if you don't understand what a picture or image is showing, ask!