Expected Student Workload
The estimated workload for this course is **22.5 hours per week**. In order to be successful in the course, you need to allocate at least this much time per week, if not more.

Preparing for Your Course

Textbooks/Course Materials

- Boas, Mary, Mathematical Methods in the Physical Science, 3rd Edition. This is a popular physics textbook that covers a wide range of topics.

On the course schedule you will find a tentative outline of topics and dates for this course. In italics listed next to most of the topics are relevant sections of Boas. You should read these sections before watching the lectures. There will be more specific reading assignments provided on each Problem Set.

It is important to get many different perspectives on the subject, since you never know which one may “click” for you. Different authors have different writing styles, emphases and organizational schemes. Listed below are other Mathematical Physics texts that you may find useful. They are on reserve at the Physics Library and available online:

- Hassani, Sadri, Mathematical Methods: For Students of Physics and Related Fields, 2nd Edition. This is the recommended text.
- Kreyszig, Erwin, Advanced Engineering Mathematics. This comes recommended from previous Physics 89 professors for a more in-depth look at linear algebra.
- Jeevanjee, Nadir, An Introduction to Tensors and Group Theory for Physicists. Available as an electronic resource through the UC Berkeley library. This is a really well written and clearly presented introduction to vector spaces and tensor and come highly recommended by the instructor. It also has a lot of great introductions to group theory, though we unfortunately won’t get to explore this topic in class.
- Arfken, George, Mathematical Methods for Physicists. Available as an electronic resource through the UC Berkeley library. This is a slightly higher-level and more rigorous text than Boas but should still be accessible to you.
- Altland, Alexander and von Delft, Jan, Mathematics for Physicists, 1st Edition. This is a newer book that has a great range of topics and tends to follow the approach that the instructor will take in the class, but it does not have mnay exercises and may serve better as a reference than a core text.
Computer Requirements

- Review the What are the browser and computer requirements for Canvas?

Course Log-on

- Classroom – bcourses.berkeley.edu
  - You will need to authenticate and login with your CalNet ID and passphrase
  - If you don’t already have your CalNet ID contact CalNet directly
    - calnet@berkeley.edu or 510-642-4126
- Personalize your settings (only takes a minute)
- Setting up your notification preferences (you can choose to receive course communication through a personal email account or mobile device)
  - We recommend setting your preference for receiving Announcements to ASAP (via text or email) in case we need to contact you on short notice
- Tech Support
  - In your course, click on the “Help” button on the bottom left of the global navigation menu

Access to Your Course

- You will be able to access the Orientation Module one week prior to the official start date
- Read and accept the UC Berkeley Academic Integrity Pledge
- Module 1 will open on the first day of class

**PLEASE NOTE:** You will NOT be able to launch Module 1 on the first day of class until you read and accept the UC Berkeley Academic Integrity policies.

Learning Activities

- Read the assigned textbook pages
- Watch and listen to the lecture presentations
- Read web-based announcements and posting assigned during the course
- Compose and post assigned responses to lectures and readings
- Complete homework assignments
- Complete the midterm exam and final exam

Students with Disabilities

- If you are requiring course accommodations due to a physical, emotional, or learning disability contact the UC Berkeley’s Disabled Students’ Program (DSP).
- Notify the instructor and GSI through course email and inform them which accommodations you would like to use.

Final Exam

- There will be one 24-hour take-home exam.
- The exam will be open-book/open-notes.
● You may work on the exam for any or all of the 24-hour period but the designed time to take the exam is three hours.
● Your work must be submitted to Gradescope by the deadline.
● The final will emphasize the material not originally covered by the midterm (though all of that material uses the materials from the first half).

Have Questions?
Email summer_online_support@berkeley.edu