Ways to Give

Please consider supporting the Physics Innovators Initiative (Pi²). We are grateful for your generosity.

- Use the enclosed envelope for donations by check or credit card.
- Give online at give.berkeley.edu/pi²
- Contact us directly to ask questions or to customize your gift:

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The time has passed when physics could be taught from chalkboard and textbook alone. To succeed to their fullest potential, today’s students must be given every opportunity for deep immersion in the tools and methods of research and discovery.

While Physics 7 and Physics 8 are crucial to student development, they have not been updated in decades. Pi² will allow us to reinvigorate the Physics 7 and Physics 8 series. Pi² will:

- Develop new curricula to build students’ understanding of fundamental physics and prepare them for laboratory activities
- Modernize laboratory equipment and facilities to support new lab activities that emphasize hands-on, student-directed experimentation
- Introduce modern data acquisition and analysis methods, including data science tools and concepts, into all aspects of the curriculum
- Create a specially designed Tinkering Studio that enables students to go beyond regular lab assignments and explore on their own

“The Tinkering Studio gives students the kind of preparation research groups look for when they recruit undergraduates to join their projects.”

~James Analytis, faculty lead for Pi²
The educational mission of Berkeley Physics is to equip students with the skills, motivation, and confidence to become creative scientists. More than mastering facts and figures, we want our students to become:

- **Inquisitive**: able to question their own understanding and delve deeper
- **Problem solvers**: able to confidently seek answers through laboratory explorations and critical analysis
- **Collaborators**: able to contribute to the learning of others while validating their own discoveries, through discussion and debate

**A New Vision for Introductory Physics**

Physics 7 and Physics 8 are two of the most important courses Berkeley Physics offers for lower division undergraduates. Each series comprises multiple semesters of lecture and laboratory sessions. They serve more than 4,000 students every year.

- **Physics 7** serves students in astronomy, chemistry, engineering, earth and planetary science, physics, and statistics.
- **Physics 8** serves students in architecture, biochemistry, biosciences, and pre-med.

The **Physics Innovators Initiative (Pi²)** is our new vision for modernizing, streamlining, and strengthening the path students follow as they pursue their undergraduate careers. Reinvention of Physics 7 and 8 is the foundation of a broader Pi² vision that will enable students to become confident researchers – in Physics or any other field they choose – by the time they leave Berkeley. Those who choose Physics will benefit from the new 7 Series Labs and seamlessly transition to our Advanced Lab Course 111. They will learn about modern machining and fabrication in an upgraded Student Machine Shop, and step into one of our many research laboratories, where they can continue their scientific growth.

**You Can Help**

- **Fund a Discussion Room**: $100,000 to provide collaborative discussion spaces.
- **Fund a Physics 7 or 8 Student Lab**: $150,000, which will allow us to:
  - Incorporate data science tools to connect experimental physics with modern scientific challenges.
  - Create an online physics lab to augment students’ experimental learning anytime and anywhere.
  - Connect traditional instructor-guided labs and student-driven experimentation, using the Tinkering Studio as a creative hub.
- **Fund the new Physics Tinkering Studio**: $250,000, to be equipped with:
  - Up-to-date tools for automated processing and computer aided design
  - 3D printers and laser cutters
  - Soldering and circuitry stations
- **Fund the upgraded Student Machine Shop**: $500,000, which will add:
  - Training modules for computer-aided design of experimental research projects
  - Training modules for introducing materials, machining, and scientific instrument design in the research lab
  - CNC machines that enable students to develop complex parts.

All gifts of $2,000 or more will be recognized on a special display in LeConte Hall.