



University of California, Santa Barbara
Program Learning Outcomes

B.A. or B.S. in Physics – College of Creative Studies

Students graduating with a B.A. in Physics will be able to:

1. Students will demonstrate proficiency in mathematics and the mathematical concepts needed for a proper understanding of physics.
2. Students will demonstrate knowledge of selected topics from classical mechanics, quantum mechanics, electromagnetism, and thermal physics, and be able to apply this knowledge to analyze a broad range of physical phenomena.
3. Students will show that they have learned laboratory skills, enabling them to take measurements in a physics laboratory and analyze the measurements to draw valid conclusions.
4. Students will be capable of oral and written scientific communication, and will prove that they can think critically and work independently.
5. Students will show that they can create new knowledge by participating in research under faculty supervision.

Students graduating with a B.S. in Physics will be able to:

1. Students will demonstrate proficiency in mathematics and the mathematical concepts needed for a proper understanding of physics.
2. Students will demonstrate knowledge of classical mechanics, quantum mechanics, electromagnetism, and thermal physics, and be able to apply this knowledge to analyze a variety of physical phenomena.
3. Students will show that they have learned laboratory skills, enabling them to take measurements in a physics laboratory and analyze the measurements to draw valid conclusions.
4. Students will be capable of oral and written scientific communication, and will prove that they can think critically and work independently.
5. Students will show that they can create new knowledge by participating in research under faculty supervision.