

Astrophysics

Minor



Explore the Created Cosmos

The astrophysics minor provides a strong introduction to the field of astrophysics which studies the physical laws that govern our universe. You will gain experience in operating an optical Ritchey-Chretien telescope, developing observation schedules, and performing data analysis of astrophysical phenomena. Additionally, you will develop useful expertise in problem solving, critical thinking, and programming that will be applicable in a wide variety of careers. Come join us as we peek behind the curtain and explore the depths of the celestial dance our Creator has choreographed in the night sky.

SELECTED COURSES

- General Physics I and II
- Modern Physics
- Observational Astronomy
- Astrophysics I or II
- One physics upper-division elective

CAREER PATH

A strong foundation in astrophysics will provide opportunities in governmental, academic, for-profit, and non-profit organizations. Career paths will be a combination of scientific and computer science experience and include potential positions such as data analyst, science journalist, researcher, planetarium director, and science instructor.



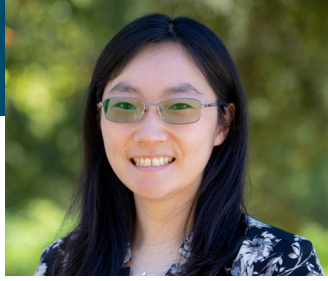
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SANTA BARBARA

FACULTY HIGHLIGHTS



BEN CARLSON, PH.D.

Professor Carlson's area of research is experimental high energy physics, and he works on the ATLAS experiment in Geneva Switzerland. In particular, he looks for hints of new particles in decays of the Higgs boson.



JENNIFER GEE, PH.D.

Professor Gee's specialization is in astrophysics. She studies stars that vary in brightness using Westmont's Observatory and learns more about stellar structure and evolution. Additionally, she develops innovative pedagogical methods for teaching physics and astronomy.



ROBERT HARING-KAYE, PH.D.

Dr. Haring-Kaye's research interests focus on the structure of atomic nuclei at the limits of spin and binding deduced from gamma-ray spectroscopy, and he thoroughly enjoys involving undergraduates in that research.

RESEARCH OPPORTUNITIES



- Variable Star Astronomy
- Astronomy Education Research
- Stellar Astrophysics

PAIR AN ASTROPHYSICS MINOR WITH YOUR EXISTING MAJOR

An Astrophysics minor provides a foundational exploration of the physical laws governing our universe, integrating hands-on astronomy with analytical depth. Students gain practical experience, from operating an advanced optical telescope and planning observation schedules to analyzing scientific data, while honing problem-solving, critical thinking, and programming skills. The 24-unit program includes core physics courses and an Observational Astronomy requirement, with electives such as Astrophysics I or II, Mathematical Physics,

Classical Mechanics, Quantum Mechanics, Electricity and Magnetism, or Thermodynamics. Graduates are well equipped for diverse careers as data analysts, science communicators, researchers, planetarium directors, or educators. Students may also engage in faculty-led research in areas like cosmology and variable-star astronomy. Speak with our physics faculty to learn how the Astrophysics minor can deepen your scientific understanding and broaden your academic path.



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westmont.edu/astrophysics-minor