

# Physics



**When you study physics, you seek a fundamental understanding of the physical universe.**

You'll also take courses in mathematics, the language of science, and chemistry for scientific breadth. Test some of the theory you learn in laboratory classes and hands-on research and take advantage of opportunities to conduct research with your professors. State-of-the-art instrumentation enriches your experience. You may also pursue internships with high-tech firms in Santa Barbara. Such practical training prepares you for graduate school and professional work in science, engineering and related fields. Interested in a double major? Take the Bachelor of Arts track for greater breadth and flexibility.

## SELECTED COURSES

- Modern Physics
- Multivariable Calculus
- Differential Equations
- Mechanics
- Optics
- Electricity and Magnetism
- Quantum Mechanics
- Thermodynamics

## CAREER PATHS

- Research physicist
- Science writing
- Patent law
- Software development
- Materials research
- Nuclear medical science
- Forensic science
- Museum education
- Engineering (mechanical, electrical, process, civil, aeronautical, etc.)
- Medicine
- Technician
- Teaching (high school or college)



**WESTMONT**

## FACULTY HIGHLIGHTS



KEN KIHLMSTROM, PH.D.

Demonstrates physics by lying on a bed of nails and walking on hot coals



MICHAEL SOMMERMANN, PH.D.

A nuclear physicist who takes astronomical photos



BOB HARING-KAYE, PH.D.

An experimental nuclear physicist who specializes in teaching laboratory-based courses

## OPPORTUNITIES ABROAD



- Westmont's Europe Semester
- Westmont in Northern Europe
- Westmont's England Semester
- Westmont in Asia

## ALUMNI

**Jesse Cozean '07** majored in physics at Westmont and works for medical device companies his mother, Colette Day Cozean '80, has started. He is vice president of research and development at Innovative BioDefense Inc. and Abela Pharmaceuticals, and he spends much of his time in the lab. At Westmont, he learned to think through problems and persist until he solved them, which helps in developing new products. He has also written a book "My Grandfather's War: A Young Man's Lessons from the Greatest Generation," which documents Robert Cozean's ordeal in a German camp.

A specialist in the narrow field of radiation oncology, **David Bush '86** treats cancer patients from around the country. He works as a physician and professor at Loma Linda University Medical Center in Loma Linda, Calif., which has pioneered the promising technology of proton radiation therapy. He contributes valuable research about this form of treatment, seeking ways to help heal people with cancer. He majored in both physics and biology at Westmont.



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