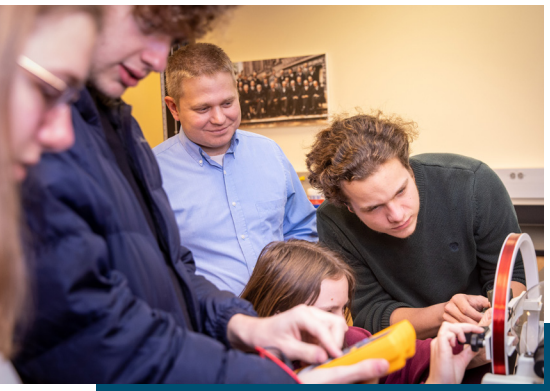
Physics Education Fast Track

A Collaboration Between the Departments of Physics and Education.



Earn your teaching credential at Westmont.

Become a knowledgeable, caring, Christian educator through our rigorous, highly practical and professional program. You'll learn from full-time professors with K-12 experience as you develop essential skills and attitudes to succeed as a teacher. Westmont's stellar reputation opens doors for you to observe, teach and invest in diverse schools. You enter our professional program with a collegial cohort, taking classes in the fall semester and student-teaching in the spring. With careful planning and hard work, you can complete a B.A. or B.S. and a teaching credential in four or five years.

Physics Fast Track

If you desire to teach junior high or high school physics, you can work with the physics and education departments to obtain a teaching credential. With careful planning, you may complete a secondary (single subject) teaching credential in four years on our fast-track plan. In three and a half years, you'll complete the B.A. in physics and a minor in education that fulfills the prerequisites for the Teaching Credential Program. The final semester in the program focuses on student-teaching. Students work with academic advisers in both education and physics.

PHYSICS COURSES

- Advanced Physics Lab
- Classical Mechanics
- Computational Physics
- Electricity and Magnetism
- Mathematical Methods in Physics
- Modern Physics (lecture and lab)
- Quantum Mechanics (2 semesters)
- Thermodynamics

EDUCATION COURSES

- Explorations in Teaching
- Educational Psychology
- Science Curriculum & Instruc. Planning
- Content Area Literacy
- Special Education

CAREER PATHS

The majority of graduates who complete the Single Subject Credential Program for physics get work as physics teachers at secondary schools.

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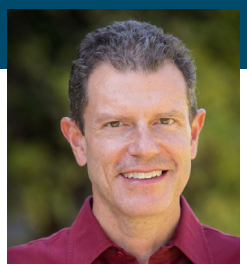
FACULTY HIGHLIGHTS

WILL ALLISON, M.S.

A mechanical design engineer with extensive experience in CAD and prototyping

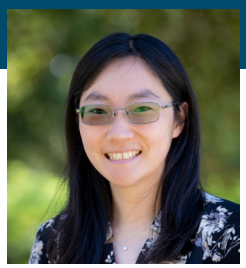
BEN CARLSON, PH.D.

Searches for new fundamental particles at the large Hadron Collider



BOB HARING-KAYE, PH.D.

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



JEN ITO, PH.D.

Explores creation from the fingerprints of the early universe

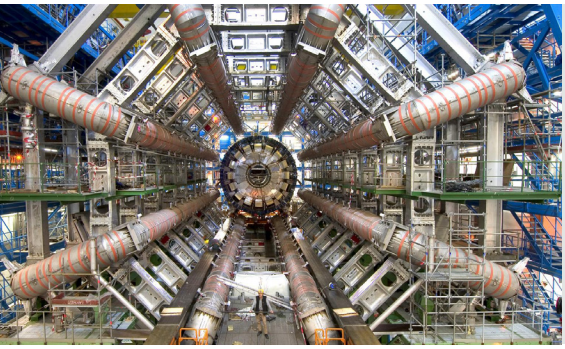
CAROLYN MITTEN, PH.D.

Pursues her passion for STEM education and seeks to foster a desire to learn

ANDREW MULLEN, PH.D.

Shares his expertise about the history of education, curriculum and instruction

RESEARCH OPPORTUNITIES



Students in the physics fast track will gain the background needed to pursue research opportunities, such as:

- ATLAS experiment at the Large Hadron Collider
- Early-universe cosmology using the Simons Array
- Nuclear structure studies using gamma-ray spectroscopy

ALUMNI PROFILE: SIMON JANZEN

On earning the credential and my degree in physics:

"I didn't know that I would enroll in the credential program until the end of my senior year, but I had contemplated it. I'd been impressed with the education faculty. I took a few education classes as an undergraduate: Cultural Diversity [ED105] and Health for the Classroom Teacher [KNS156]. These courses helped me complete some prerequisites and decide if I wanted to work on a credential.

On choosing Westmont's credential program:

"The program is smaller than other programs in the area, and the individual support and resources I received were irreplaceable and invaluable. I also found great value in hearing perspectives from people in other subjects as well as students in the primary program. Westmont gave me a well-rounded perspective that has been extremely helpful and formative in my teaching. Another thing: as far as I can tell, Westmont is highly regarded in town. Westmont gives you great connections."

On the joy of teaching:

"I really love building connections with kids from all different backgrounds and experiences — working with other teachers, paraeducators and administrators who provide such excellent and unique resources and perspectives. I have also enjoyed the constant learning. I'm always reading new articles, discovering new phenomena, and figuring out ways to teach and process these things."

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