

DID YOU KNOW?

- ▶ St. Mary's physics program scores in the top ten percentile among four-year colleges for graduating physics majors.
- ▶ A recent investment to the physics program of \$1,000,000 from The Patuxent Partnership will help expand labs and develop new programs, courses, and internships.
- ▶ In a 2014 SMCM survey of hiring practices used by regional employers for science and engineering jobs, the skills most widely sought were the liberal arts skills built into our physics curriculum: critical thinking, written communication, team work, oral communication, and the ability to locate and evaluate information.
- ▶ Our curriculum includes exploration of internship opportunities and career options, along with developing career skills. Alumni networking groups and events also help our students with career mentoring and job recruitment.

Background Image: Optics for using lasers to cool a beam of atoms



First-semester students calculate the launch angle for hitting a target with a projectile.

Hands-on experience is absolutely essential for any physics major. The ability to actually see and experiment with what you are learning brings a whole new level of understanding to a student working on a project.

- JONATHAN KWOLEK '14

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PHYSICS



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ST MARY'S
COLLEGE of MARYLAND

The Public Honors College

5 OVERLAPPING STUDY OPTIONS

1. Physics Major with Concentration in Fundamental Physics

The Fundamental Physics concentration focuses on the structure of the universe and the behavior of its constituents.

2. Physics Major with Concentration in Applied Physics

Applied Physics focuses on the application of physics to technology.

3. Physics Major with preparation for the Master of Arts in Teaching (MAT)

4. Physics Minor

5. Pre-Engineering

INTERNSHIPS

More than 90% of physics majors perform a science or engineering internship during their time at St. Mary's. For example, Kevin Tennyson '14 did summer internships in planetary science at the Applied Physics Laboratory of The Johns Hopkins University and in oceanography at Oregon State University. This led to his current enrollment in Oregon State's doctoral program in oceanography.

More than 80% of physics majors attend a professional physics conference. Many present their research. Most scholarly papers published by physics faculty are co-authored with students.

St. Mary's physics faculty & students are currently...

- › Designing highly sensitive magnetometers based on laser-cooled and trapped atoms for Navy uses
- › Examining possible signatures of higher dimensions and fourth generation leptons from the Large Hadron Collider
- › Constructing microchip traps for individual atoms—possibly the future building blocks of a quantum computer
- › Exploring the foundations of quantum mechanics
- › Investigating new uses of ultrasound in medical imaging

$$i\hbar \frac{\partial \Psi}{\partial t} = -\frac{\hbar^2}{2m} \nabla^2 \Psi + V\Psi$$

Recent alumni are currently...

- › Pursuing PhDs in physics graduate programs, including Yale, Duke, Rice, Cornell, University of Maryland, William & Mary, Ohio State University, George Washington University
- › Working as engineers in industry and government
- › Studying law at University of Maryland
- › Pursuing PhDs in math, chemistry, English, and more



< SARA DeSAVAGE '10

Sara expanded on research she performed as a student in a lab at Patuxent River Naval Air Station. Along the way, she earned a master's degree in physics. She now works as a physicist for the Naval Air Systems Command.

ADAM HAMMETT '12 >

Adam earned a master's degree in systems engineering from The Johns Hopkins University while employed as an analyst for Holmes-Tucker International.



< JEREMY PERRIN '13

Jeremy was a finalist for the American Physical Society's prestigious Apker Award. He is pursuing a doctorate in physics at Cornell University.



JESSICA MARBOURG '13 >

Jessica majored in physics and biochemistry with a minor in neuroscience. She is now pursuing her doctorate in neuroscience at Ohio State University.



Arrive. Realize. Thrive.