

# Physics

**Degree: Bachelor of Science in Physics**  
**Bachelor of Science in Applied Physics**

Study physics and you'll start to unlock the nature of the universe. Study physics at Marietta and you'll unlock your potential at the same time. Whatever your goals, our program will provide you with a rigorous and comprehensive background in theoretical, experimental, and computational physics. You'll work together with faculty members who are recognized for their research in highly specialized fields and who make that expertise accessible to students.

## Full-time faculty:

Dr. Dennis Kuhl, Associate Professor  
Dr. Craig Howald, Associate Professor  
Dr. Cavendish McKay, Assistant Professor  
Dr. Ann Bragg, Assistant Professor, Planetarium Director

## Facilities:

Physics classes and labs meet in state-of-the-art facilities at the new **Rickey Science Center** and recently renovated areas of the **Selby-Bartlett building**. Astronomy courses utilize the telescopes in the **William Chamberlain Gurley Observatory** located on the roof of Mills Hall. In the spring of 2009, the campus opened the **Anderson Hancock Planetarium**. The 4,400-square-foot building addition houses a 102-seat star theater featuring a hybrid projection system consisting of a Chronos optomechanical starfield projector and a Digistar full-dome video projector. The building includes physics faculty offices and a lobby with an astronomy gallery and NASA ViewSpace video feed.

## Special Features:

At Marietta, you can choose from two physics majors and two minors:

- The **Physics major** will prepare you for graduate or professional study and for a career in physics or related fields.
- The **Applied Physics major** offers a curriculum designed to prepare you for either the 3-2 Engineering Binary Program or employment in technical positions immediately after graduation.
- The **Physics Minor** provides students with a foundation in the tools, techniques, and concepts of physics in order to enhance the study of other fields
- The **Astronomy Minor**, accessible to motivated students in all disciplines, introduces the manner in which the process and concepts of physical science can be used to address questions in astronomy. With a Physics Major and Astronomy Minor, students will be well prepared to continue their studies of astronomy in graduate school.

## Sample Courses:

- General Physics I and II
- Modern Physics
- Mathematical Methods for Physics
- Experimental Physics I and II
- Classical Mechanics
- Electricity and Magnetism
- Quantum Mechanics
- Senior Capstone Course: Physics Research I and II



Requirements for the **Applied Physics** major are flexible and depend on the interests of the student.

<http://www.marietta.edu/departments/Physics/>

### Clubs & Organizations:

Marietta's **Society of Physics Students** is a student affiliate of the prestigious American Physical Society, a group dedicated to promoting the understanding and study of physics. **Sigma Pi Sigma** honors outstanding scholarship in physics.

### Scholarship Opportunities:

The **Rickey Scholarships in Physics** support the study of physics at Marietta College. The scholarships are awarded to full-time students showing excellent academic achievement and intending to major in physics with the goal of continuing on to graduate school and a scientific or technical career. The current scholarship is \$18,000 per academic year and is renewable given satisfactory progress towards the degree.

In addition, recipients of Rickey Scholarships in Physics are automatically eligible to receive up to two **Summer Research Grants**.

The **Samuel R. Ruby Scholarship** is given to a deserving student in physics or chemistry who has completed a full year at the college.

Many physics majors complete summer research internships both on and off campus. Chad Byers, class of 2010, conducted condensed matter physics research in a lab on a project investigating magnetic transitions of exotic metal alloys. *"This research project has given me great opportunities in learning condensed matter theory and experimental techniques, both of which will suit me well as I prepare for graduate school research."*

### What can I do with this degree?

Astronomer, Biophysicist, Physicist, Professor, Engineer

### Career Outcomes of MC Graduates:

Technical Staff, Los Alamos National Laboratory	Head of Low Q Neutron Scattering Group, Oakridge National Laboratory
Physicist, Sandia National Laboratory	Electrical Engineer, ABB, Inc.
Senior editor, <i>Astronomy</i> magazine	Physics Professor, University of Toledo
Technical Staff, AT&T Bell Labs	Engineer, NASA Glenn Research Center
Officer and nuclear specialist, U.S. Navy	
Researcher, 3M Company	

### Graduate/Professional Schools MC Graduates Have Attended:

Duke University, PhD, Math  
Penn State University, PhD, Physics  
The Ohio State University, PhD, Physics  
Yale University, PhD, Biophysics  
University of Wisconsin-Madison, PhD, Mechanical Engineering  
Clark University, PhD, Physics  
Purdue University, MS, Materials Science  
University of Toledo, PhD, Astrophysics  
Columbia University, MS, Environmental Engineering

*"It was a decision I never regretted because majoring in physics afforded me employment opportunities in many research and development fields."*

**William Thiesen, Jr., Class of 1961, Engineering Consultant**

