



### Undergraduate Research

Research with faculty is a hallmark of the Gettysburg College Physics Department. Students from first years to seniors participate in cutting-edge research in a variety of different fields.

### Cross-Disciplinary Science Institute (X-SIG)

The X-SIG program equips students with the skills necessary for modern research, allowing them to explore the practical and ethical aspects of being a scientist. Learn more at: [www.gettysburg.edu/offices/cross-disciplinary-science-institute/about-us/](http://www.gettysburg.edu/offices/cross-disciplinary-science-institute/about-us/)

### Who We Are

Our Gettysburg College Physics Faculty Specialize in the Following Areas

- |                       |                                   |
|-----------------------|-----------------------------------|
| <b>Kurt Andresen</b>  | DNA Packing                       |
| <b>Bret Crawford</b>  | Nucleon-Nucleon Interactions      |
| <b>Tim Good</b>       | Plasma Wave-Particle Interactions |
| <b>Ryan Johnson</b>   | Galaxy Clusters                   |
| <b>Jackie Milingo</b> | Spotted Stars                     |
| <b>James Puckett</b>  | Soft Condensed Matter Physics     |
| <b>Yoshi Sato</b>     | Theoretical Quantum Biology       |



For more information please visit:  
[www.gettysburg.edu/academic-programs/physics/](http://www.gettysburg.edu/academic-programs/physics/)

# Gettysburg College Department of Physics

The Physics  
Department  
Dual Degree  
Engineering  
Program

is in collaboration with

Columbia  
University

Rensselaer  
Polytechnic  
Institute

Washington  
University,  
St Louis

University of  
Pittsburgh

Gettysburg  
COLLEGE

## Department of Physics

Gettysburg College offers majors to fulfill either the Bachelor of Arts or Bachelor of Science degrees. We also offer a minor and oversee the **dual-degree engineering** program.

The physics curriculum introduces students to concepts and techniques basic to our present understanding of the physical universe. Our physics faculty is dedicated to teaching, while remaining actively engaged in research. Mentoring relationships between faculty and students are the norm.

The physics major is flexible, allowing double majors or minors as well as study abroad.

Gettysburg College physics majors have succeeded in diverse careers, including government, law, and management, as well as engineering, plasma physics, and molecular biology. Our majors who choose graduate study have been well prepared for study in a wide range of fields, including astronomy; astrophysics; biophysics; business; geophysics; environmental, electrical, nuclear, and ocean engineering; and medicine.

*The possibility of a double major is limited only by interests, dedication, and imagination.*

At the core of our mission in the Gettysburg College Physics Department is the success of our students. We achieve this through creative and innovative teaching, exciting and accessible student-faculty research opportunities, and, most importantly, through our close relationships with all of the students in our major.

## Engineering Dual-Degree Program

Gettysburg College's Engineering Dual-Degree Program combines the enhanced communication skills and creativity of a liberal arts education with the focused rigor of a highly regarded engineering program.

### Requirements

- Complete pre-engineering courses, the Gettysburg College curricular requirements and Gettysburg College Major.
- Minimum 3.0 to 3.3 GPA
- Recommendation by the Gettysburg College Engineering Advisor.
- Schedule courses in close cooperation with Engineering Advisor at Gettysburg College.

Specific courses required for admission by each affiliated institution vary and students should schedule courses in close cooperation

with the Engineering Advisor at Gettysburg, Yoshihiro Sato, who is a member of the physics department.

Upon successful completion of the program, the student is awarded the bachelor-of-arts degree from Gettysburg and the bachelor-of-science degree in an engineering discipline from one of the four affiliated universities.

Since the student graduates with two degrees, all degree requirements from both institutions must be completed, including a major at each institution. The Gettysburg College major can be in any discipline provided the student completes the pre-engineering courses and the Gettysburg College curricular requirements before starting at the engineering school. The affiliation agreement between schools allows many courses to transfer so that the student can complete both degrees in 5 years.

Through our various affiliations, below are examples of just some of the engineering degrees offered:

Biomedical Engineering  
Chemical Engineering  
Civil Engineering  
Computer Engineering  
Electrical Engineering  
Environmental Engineering  
Materials Engineering  
Mechanical Engineering  
Systems Engineering