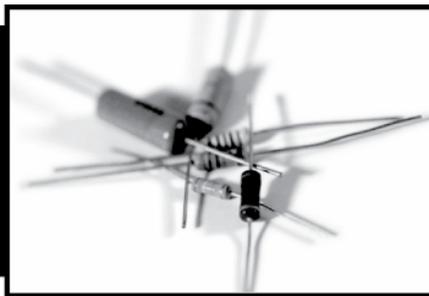


what can I do with a major in

PHYSICS



Physics, the science of matter and energy, is the study of the deepest mysteries of our universe, ranging from the smallest subatomic particles to the largest galaxies in the universe. Exploring ideas of space, time, matter, energy, and radiation, physics serves as the basis for the physical sciences. Today's society is influenced by physics in countless ways, including recent developments in such fields as laser optics, miniaturized electronics, nuclear energy, and medical instrumentation. Astronomy applies the ideas of physics to the study of planets, stars, galaxies, and all celestial phenomena within reach of our telescopes. University of Wisconsin–Eau Claire offers standard majors in liberal arts, applied physics, dual degree (for engineering), and physics teaching, as well as comprehensive majors in physical science and physics–mathematics. In addition to these majors, UW–Eau Claire offers minors in liberal arts and physics teaching.

Typical interests and values of physics majors:

- Gaining knowledge about our physical environment
- Analyzing and sharing experimental data
- Designing projects/experiments
- Working with optical, electronic, and computational equipment
- Solving the mysteries of our complicated universe

Knowledge and skills gained from studying physics:

Knowledge:

Students who are pursuing a degree in physics learn how to solve quantitative problems and find relationships between physical factors. Physics majors can organize, analyze, and interpret scientific data. They develop knowledge of natural laws of optical, mechanical, and electrical data. They are also able to effectively research, organize, and arrange information and adapt ideas.

Skills:

- Ability to conduct experiments
- Ability to develop theories
- Ability to perform calculations
- Ability to prepare technical reports
- Knowledge of mathematical modeling
- Ability to use computer technology
- Ability to research and gather information
- Ability to analyze and organize data

- Gathering information
- Initiating new ideas
- Imagining alternatives
- Handling details
- Defining needs
- Problem Solving

Related student and professional organizations:

Student:

- Society of Physics Students
- Sigma Pi Sigma–Physics Honor Society
- Chippewa Valley Astronomical Society

Professional:

- American Physical Society
- American Institute of Physics
- Institute of Physics
- Acoustical Society of America
- American Astronomical Society

Career fields related to physics:

Potential Employers:

Graduates with a degree in physics typically work in science, engineering, or education careers. A few examples of employers that hire those with a degree in physics include schools/universities, state/federal government, high-tech industrial companies, optics technology companies, computer science companies, utility companies, weather bureaus, hospitals, airports, and professional and technical journals.

Potential Job Titles:

Research Scientist	Astrophysicist
Physicist	Scientist
Astronomer	Optical Physicist
Geophysical Surveyor	Physics Engineer
Marine Geophysicist	Nuclear Engineer
Chemical Analyst	Product Safety Engineer
Quality Control Engineer	Engineer
Research Scientist	Aerospace Engineer
Ballistics Expert	Machinist
Aviation Inspector	Information Scientist
Seismologist	Acoustical Engineer
Computational Scientist	
Teacher/College Professor	
Research & Development Engineer	

Jobs You Might also Consider...

Air Traffic Controller	Technical Writer
Industrial Hygienist	Food Scientist
Mathematical Technician	Science Teacher
Computer Programmer	Math Teacher
Metallurgical Engineer	Automotive Engineer

Sample entry-level jobs held by UW–Eau Claire physics graduates:

- *Electronic Technician*, Marlin Technologies Inc., Horicon, WI
- *Web Developer*, Broadcast Interactive Media, Madison, WI
- *Continued Education*, Medical College of Wisconsin
- *Structural Engineer*, HDR Engineering, Minneapolis, MN

Learn more about physics:

Department

- Contact UW–Eau Claire’s Department of Physics and Astronomy, Phillips 230, 836-3148

Getting Started at Career Services:

- Meet with a career counselor
- Take interest inventory and self-assessment tests
- Utilize Blugold Career Success Network, a database of UW–Eau Claire alumni & friends available for informational interviewing
- Utilize Blugold CareerLink, an online job search database specifically for UWEC students and alum

Resources at Career Services:

Yellow Section-

- Sigi 3 handouts:
 - Physics
 - Mathematician
 - Physicist
 - Radiologist
 - Teacher, Science/Math
 - Chemical Engineer
- Book sections:
 - Engineering & Architecture
 - Science

Orange Section-

- Internship information pertaining to physics
- Computers: Internship Center Database and Blugold CareerLink

Blue Section-

- Resources to help you create a resume and cover letter for a career in physics

Opportunities to enhance skills in physics:

Internships

Internships are a way to gain hands-on experience in a position that you may be considering as a potential career. To find an internship in physics, visit Career Services (Schofield 230) and speak with a career associate.

Directed Studies or Independent Study Class

By participating in a directed studies or independent study class, students will be able to research an area that they find particularly interesting. Contact your adviser about enrolling in PHYS 399, 495, or 499.

Research

There are many opportunities for students to participate in a Research Experience for Undergraduates (REUs) to enhance the breadth of knowledge learned in the classroom. For additional information about REU’s for undergraduates, visit Career Services (Schofield 230) and speak with a career associate.

What you can do now:

- Become a teacher assistant for a physics professor.
- Enter physics competitions like the Sir Isaac Newton Competition



career services

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