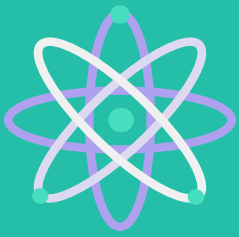


PHYSICS



The field of physics is evolving and features many specialties.

Someone who obtains a bachelor's degree in physics may work with solving complex, technical problems, often extending for long periods of time. Physics features a Acquire a strong mathematics and computer science background, and scientific computing and data analysis skills are essential. Join relevant professional associations and attend meetings to stay current on research/publications. Acquire excellent oral, written, and interpersonal skills for sharing findings and collaborating with interdisciplinary teams and gain experience using scientific instruments and equipment. Computer skills are critical. Participate in summer research institutes and make sure to submit research to local poster competitions or research symposiums.

A willingness to relocate is helpful due to limited opportunities in specialized areas. A bachelor's degree will qualify candidates for positions as research assistants, high-level technicians, or computer specialists, as well as nontechnical work in publishing or sales. An undergraduate degree also provides a solid background for pursuing advanced degrees in other employment areas such as law, business, or accounting. A graduate degree and post-graduate experience will allow for more responsibility and advancement in the field of physics and a doctorate is required for college or university teaching, advanced research, and administrative positions.

AREAS OF OPPORTUNITY

- Acoustical Physics
- Development & Testing
- Education & Research
- Astrophysics
- Particle/High Energy
- Medicine & Health
- Nuclear Physics
- Chemical Physics
- Geophysics
- Optical Physics
- Engineering
- Operations and Maintenance
- Biophysics
- Computer Software Development

Colleges and Universities
Department of Defense
Department of Energy
Nuclear Regulatory Commission
Department of Health and Human Services
State and Federal Government
Medical instrumentation Companies
Nuclear Power Plants and Operations
Waste Management/Disposal Companies
Food Irradiation Operations
Petroleum Companies
Nonprofit Research Centers
Environmental Firms

COMMON EMPLOYERS



PROFESSIONAL ORGANIZATIONS



- ASA - Acoustical Society of America
- AAPM - American Association of Physicists in Medicine
- AAPT - American Association of Physics Teachers
- AAS - American Astronomical Society
- AIP - American Institute of Physics
- ANS - American Nuclear Society
- APS - American Physical Society
- AVS - American Vacuum Society
- BPS - Biophysical Society
- MRS - Materials Research Society
- OSA - Optical Society of America
- SEG - Society of Exploration Geophysicists
- SPS - Society of Physics Students



STRATEGIES ON ENTERING THE FIELD

- Acquire a strong mathematics and computer science background. Scientific computing and data analysis skills are essential.
- Develop excellent communication skills, verbal and written, for interacting with students, colleagues, and parents.
- Visit laboratories or research centers to learn more about opportunities in the field.
- Supplement training with courses in engineering, environmental science, urban planning, remote sensing, physiology, speech communication, or other areas of interest.
- Become skilled in the use of computers and laboratory equipment.
- Gain experience working with age group of interest through volunteering and tutoring.
- Plan to study the most fundamental aspects of the universe if pursuing this physics specialty.
- Gain experience in the optics field through internships in industry or research with professors.
- Obtain a master's degree for positions in industry which largely consists of the design and manufacturing of devices.
- Join relevant professional associations to learn of challenges and opportunities in the field.
- Pursue a graduate degree and post-graduate experience to advance in the field.