Physics

The Physics major focuses on the study of matter, energy, and the fundamental forces of nature. Students explore concepts in mechanics, electromagnetism, thermodynamics, quantum physics, and relativity, gaining strong analytical and problem-solving skills. This major prepares students for careers in research, technology, and engineering. Typical industry sectors for physics majors include aerospace, defense, energy, telecommunications, research and development, and academia.

Job Title Examples:

- Research Assistant
- Data Analyst
- Laboratory Technician
- Physics Technician
- Software Developer
- Aerospace Engineer
- Test Engineer
- Environmental Scientist
- Systems Analyst
- Quality Control Analyst

Hard and Soft Skills Needed:

Hard Skills:

1. Data Analysis
2. Computational Modeling
3. Laboratory Techniques
4. Programming (e.g., Python, MATLAB)
5. Mathematical Modeling

Soft Skills:

1. Problem-Solving
2. Critical Thinking
3. Communication
4. Teamwork
5. Attention to Detail

Further Education/Training Required and/or Suggested:

A BS in Physics qualifies students for entry-level roles, but additional training or certifications can enhance career prospects:

To Enter the Field:

1. Certifications (e.g., in data analysis, programming, or lab techniques):
    - Optional for specialized roles in research or industry.

To Advance:

1. Master's or Doctoral Degree:
    - Required for advanced research, teaching, or specialized roles in physics, engineering, or academia.

Summary:

While a BS in Physics is sufficient for many entry-level roles, advanced degrees and specialized certifications support career advancement in research and specialized fields.

Professional or Student Associations:

- Society of Physics Students
- Women in Physics
- Sigma Pi Sigma Honor Society
- Hilltopper Astronomy Club