The Ball State University Department of Physics and Astronomy offers the following undergraduate majors:

**Major in Physics–General Option:** Preparation for graduate school or industry

**Major in Physics–Applied Option:** Preparation for industry

**Teaching Major in Physics:** Certification for teaching high school physics

**Teaching Major in Physical Science (physics option):** Certification for teaching physics and chemistry

**Pre-Engineering Major:** Five-year program for students who transfer to accredited schools of engineering

Following are some of the main fields of physics:

- plasma physics
- nuclear physics
- condensed matter physics
- acoustics
- optics and quantum optics
- geophysics
- physics education
- particle physics
- medical physics
- biophysics
- atmospheric physics
- atomic & molecular physics
- astrophysics
- computational physics

**Employer distribution for full-time US physics bachelors (class of 2006-2007):**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>59%</td>
</tr>
<tr>
<td>High School</td>
<td>13%</td>
</tr>
<tr>
<td>Military</td>
<td>5%</td>
</tr>
<tr>
<td>College/University</td>
<td>10%</td>
</tr>
<tr>
<td>Civilian Government</td>
<td>6%</td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
</tr>
</tbody>
</table>

**Type of employment of physics bachelors 5 to 7 years after earning their degrees (1999):**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software</td>
<td>28%</td>
</tr>
<tr>
<td>Engineering</td>
<td>17%</td>
</tr>
<tr>
<td>Science and Lab Technician</td>
<td>10%</td>
</tr>
<tr>
<td>Management, Owner &amp; Finance</td>
<td>19%</td>
</tr>
<tr>
<td>Education</td>
<td>12%</td>
</tr>
<tr>
<td>Active Military</td>
<td>5%</td>
</tr>
<tr>
<td>Service &amp; Other Non-Technical</td>
<td>9%</td>
</tr>
</tbody>
</table>

**Careers that make use of a background in physics or may be performed by physicists:**

- Engineering
- Computer Science
- Nuclear Medicine and Radiation Therapy
- Medical Imaging (MRI, CAT, PET and Ultrasound)
- Oceanography
- Patent Law
- Communications
- Archeology

**Astronomers pursue an undergraduate degree in physics. Following is a list of positions (jobs) filled by astronomers:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>60%</td>
</tr>
<tr>
<td>Observatories (Government and Private)</td>
<td>30%</td>
</tr>
<tr>
<td>Museums, Public Information</td>
<td>5%</td>
</tr>
<tr>
<td>Business and Industry</td>
<td>5%</td>
</tr>
</tbody>
</table>
Ball State University
Department of Physics and Astronomy

Careers in Physics and Astronomy

Following is a list of academic, engineering, medical, and research positions currently held by Ball State University Physics and Astronomy bachelors and/or masters graduates:

**Highest Degree Earned: Bachelors**
- Acoustical Engineer
- Computer Analyst
- Construction
- Consulting Director
- Contractor
- Electrician
- Entertainment Management
- Firefighter/EMT
- Health Actuary
- High School Teacher
- Information Technology Programmer
- Instructional Designer
- Marketing VP
- Mechanical/Aero Engineer
- Naval Aviation Depot Director
- Network Specialist
- Plating Engineer
- Power Systems Technical Support
- Program Manager
- Radiation Monitor
- Software Engineer
- Systems Consultant
- Test Engineer
- WAN Engineer

**Highest Degree Earned: Masters**
- Aerospace Engineer
- Airline Pilot
- Assoc Dir -Transportation Engineering Services
- Business Development Director
- Consulting Geologist
- Design Manager
- Electrical Engineer
- Engineering Director
- Environmental Consultant
- Geophysicist Technical Support
- High School Teacher
- Insurance Agent
- Manufacturing Engineer
- Materials Engineer
- Medical Physicist
- Network System Analyst
- Nuclear Safety Engineer Consultant
- Optician
- Planetarium Director
- Programmer
- Project Manager
- R&D Materials Scientist
- Radiation Therapy Physicist
- Resource Supervisor
- Restaurant Owner/Operator
- Satellite Engineer
- Software Engineer
- Speech Pathologist
- Technical Consultant
- Technical Support Engineer

**Highest Degree Earned: Doctoral**
- Engineer
- Meteorologist
- Operations Research Analyst
- Optometrist
- Physicist -Airline Company
- Product Development
- Systems Analyst -Optics
- Technical Support Engineer
- University Professor