Astronomy and Astrophysics is the study of planets, stars, galaxies, and the universe as a whole, including how these originate and how they evolve in time. The principal pursuits of the astronomer are to extend our understanding of the physical nature of the universe and to convey this understanding to students and the general public. It is an observational, not experimental, science because we cannot touch most celestial objects. The heart of the prospective astrophysicist’s education consists of a firm grounding in physics plus the advanced mathematics at the core of the physics.

**Career Areas/Job Titles:**

<table>
<thead>
<tr>
<th>Management and Industry</th>
<th>Astrophysicist</th>
<th>Public Education Coordinator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observatory Manager</td>
<td>Climatologist</td>
<td>Community Liaison</td>
</tr>
<tr>
<td>Science Museum Administrator</td>
<td>Engineer</td>
<td>Fundraiser/Development</td>
</tr>
<tr>
<td>Communication and Media</td>
<td>Meteorologist</td>
<td>Director</td>
</tr>
<tr>
<td>Science Journalist</td>
<td>Research and Developer</td>
<td>Government/Politics</td>
</tr>
<tr>
<td>Photographer</td>
<td>Telescope Operator</td>
<td>Lawyer</td>
</tr>
<tr>
<td>Grant Writer</td>
<td>Physical Science Teacher</td>
<td>Lobbyist</td>
</tr>
<tr>
<td>Public Relations Coordinator</td>
<td>Professor</td>
<td>NASA Employee</td>
</tr>
<tr>
<td>Science and Technology</td>
<td>Non-Profit/Advocacy</td>
<td></td>
</tr>
<tr>
<td>Astronomer</td>
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</tr>
</tbody>
</table>

*Some careers may require licensure, certification, or further education. Talk to an advisor about specific requirements.*

**Transferable Skills:**

- Mathematics Skills
- Computer Programming
- Physics Foundation
- Technical Writing
- Use Technology Effectively
- Written Communication
- Teaching/Instructing Others
- Teamwork
- Developing Evaluation
- Strategies

- Experimental Design
- Forecasting/Predicting
- Research Skills
- Setting Goals
- Adaptability/Flexibility
- Attention to Detail
- Judgment & Decision Making
- Initiative
- Managing Time/Stress
- Organization Skills

- Strategic Planning/Visioning
- Creating Innovative Solutions
- Multi-tasking
- Quantitative Reasoning
- Data Analysis
- Analytical/Critical Thinking
- Problem Solving

*This is not an extensive list of transferable skills. See larger list of skills you might develop here: [http://ccss.osu.edu](http://ccss.osu.edu)*

**Professional Links:**

- Occupational Outlook Handbook: [Physicists and Astronomers](http://www.bls.gov/oco/ocos134.htm)
- American Institute of Physics: [http://www.aip.org/](http://www.aip.org/)
- International Astronomical Union: [http://www.iau.org/](http://www.iau.org/)

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