Applied Physics, BS

You will thrive in a project-based environment where you connect physics, computer science and modern mathematical modeling to solve industry challenges.

Program Description

The acceleration of advances at the frontier between physics, engineering and technology creates a need for interdisciplinary training and research that is not readily accommodated by traditional single-focus programs in physics. Bringing fundamental physics together with its immediate applications, the BS in applied physics is attractive to students whose interests span new physical technologies in industry and engineering. The degree combines physics, computer science and applied mathematics to tackle complex real-life problems in physics, material sciences, engineering, chemistry and others.

The bachelor's degree program brings together the expertise of physics faculty, particularly in the modeling of physical systems, which relies heavily on both modern numerical techniques and fundamental physics. The growing presence of Intel and other high-tech companies in the east valley and metropolitan Phoenix presents a unique opportunity to enhance the students' interaction with industry. Given the importance of hands-on experience, the degree program offers a series of unique courses allowing students interactive involvement in a project-based environment.

At a Glance

- **College/School:** College of Integrative Sciences and Arts
- **Location:** Polytechnic campus
- **Additional Program Fee:** Yes
- **Second Language Requirement:** No
- **First Required Math Course:** MAT 265 - Calculus for Engineers I
- **Math Intensity:** Substantial

Required Courses (Major Map)
Admission Requirements

General University Admission Requirements:

All students are required to meet general university admission requirements.

Change of Major Requirements

A current ASU student has no additional requirements for changing majors.

Students should refer to https://changingmajors.asu.edu/request for information about how to change a major to this program.

Transfer Options

ASU is committed to helping students thrive by offering tools that allow personalization of the transfer path to ASU. Students may use the Transfer Map search to outline a list of recommended courses to take prior to transfer.

ASU has transfer partnerships in Arizona and across the country to create a simplified transfer experience for students. These pathway programs include exclusive benefits, tools and resources, and help students save time and money in their college journey. Students may learn more about these programs by visiting the admission site: https://admission.asu.edu/transfer/pathway-programs.

Global Opportunities

Global Experience

With over 250 programs in more than 65 countries (ranging from one week to one year), study abroad is possible for all ASU students wishing to gain global skills and knowledge in preparation for a 21st-century career. Students earn ASU credit for completed courses, while staying on track for graduation, and may apply financial aid and scholarships toward program costs. https://mystudyabroad.asu.edu/
Career Opportunities

Graduates of this program apply their knowledge in high-performance and scientific computing, biophysics, condensed matter physics, chemistry, material science, electrodynamics and radar physics. This knowledge is vital for employment in chemical and pharmaceutical companies, environmental management agencies and firms specializing in scientific software. Graduates are prepared to continue their studies in graduate programs in physics and chemistry.

Career examples include but are not limited to those shown in the following list. Advanced degrees or certifications may be required for academic or clinical positions.

<table>
<thead>
<tr>
<th>Career</th>
<th>*Growth</th>
<th>*Median Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Programmer</td>
<td></td>
<td>$82,240</td>
</tr>
<tr>
<td>Health Sciences Manager</td>
<td>9.9%</td>
<td>$118,970</td>
</tr>
<tr>
<td>Nanosystems Engineer</td>
<td>6.4%</td>
<td>$97,250</td>
</tr>
<tr>
<td>Photonic Engineer</td>
<td>6.4%</td>
<td>$97,250</td>
</tr>
<tr>
<td>Physics Professor</td>
<td>10.0%</td>
<td>$87,340</td>
</tr>
</tbody>
</table>

* Data obtained from the Occupational Information Network (O*NET) under sponsorship of the U.S. Department of Labor/Employment and Training Administration (USDOL/ETA).

☀ Bright Outlook  Green Occupation

Contact Information

College of Integrative Sciences and Arts | SANCA 233
cisa@asu.edu | 480-727-1526