Applied Physics, BS

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

Program Description

The acceleration of advances at the frontier where physics, engineering and technology meet creates a need for interdisciplinary training and research that is not readily accommodated by traditional single-focus programs in physics.

Pairing fundamental physics with immediate applications, the BS program in applied physics is attractive to students whose interests span new physical technologies in industry and engineering. The degree program combines physics, computer science and applied mathematics to tackle complex real-life problems in physics, material sciences, engineering, chemistry and others.

This 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
- **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)**

2022 - 2023 Major Map  
Major Map (Archives)

**Concurrent Program Options**

Students pursuing concurrent degrees (also known as a "double major") earn two distinct degrees and receive two diplomas. Working with their academic advisors, students can create their own concurrent degree combination. Some combinations are not possible due to high levels of overlap in curriculum.

**Admission Requirements**

General University Admission Requirements:  
All students are required to meet general university admission requirements.

First-year | Transfer | International | Readmission

**Change of Major Requirements**

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

Students should refer to [https://changemajor.apps.asu.edu](https://changemajor.apps.asu.edu) 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 [MyPath2ASU™](https://mypath2asu.asu.edu) 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 they 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/MyPath2ASU](https://admission.asu.edu/transfer/MyPath2ASU).

**Global Opportunities**

Global Experience
Study abroad enables students to gain valuable experience that will enhance their resumes. With more than 250 programs available, they are able to tailor their experience to their unique interests and skill sets. Students in applied physics are able to gain hands-on experience in programs ranging from a summer in Colombia to a semester in South Korea. In a competitive field, students with study abroad experience stand out due to their heightened cultural competency and leadership and critical thinking skills.

https://goglobal.asu.edu/

**Career Opportunities**

Graduates 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>Health Sciences Manager</td>
<td>4.8%</td>
<td>$137,940</td>
</tr>
<tr>
<td>Nanosystems Engineer</td>
<td>1.3%</td>
<td>$103,380</td>
</tr>
<tr>
<td>Photonic Engineer</td>
<td>1.3%</td>
<td>$103,380</td>
</tr>
<tr>
<td>Physicist</td>
<td>7.3%</td>
<td>$129,850</td>
</tr>
<tr>
<td>Physics Professor</td>
<td>4.4%</td>
<td>$90,400</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