Applied Physics, BS

LSAPHYS

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 will be 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**: No
- **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.

Freshman | Transfer | International | Readmission

Change of Major Requirements

A current ASU student has no additional requirements for changing majors. Students should see https://students.asu.edu/changingmajors for information about how to change the major to this program.

Transfer Agreements

ASU has partnered with colleges and universities in Arizona, California, Illinois and Washington to provide transfer curriculum pathways. Students should select their current institution to see if there is a partnership agreement between the institution and ASU for this degree program. Students who do not see their state or institution listed should check back as ASU is always working on creating new partnerships.

Transfer from a Maricopa Community College in Arizona

Select a college

- Chandler-Gilbert Community College
- Estrella Mountain Community College
- GateWay Community College

Transfer from an Arizona Community College

Select a college

- Arizona Western College
- Central Arizona College
- Cochise College
- Coconino Community College
- Dine College

Transfer from another state

Select a state

- California
- Illinois
- Washington
- Another state
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/](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>Occupation</td>
<td>Change</td>
<td>Salary</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------</td>
<td>----------</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