

PHYSICAL AND LIFE SCIENCES, BAAS

The physical and life sciences share fundamental principles that lie at the heart of scientific discovery and innovation. In this concentration, you develop a solid foundation in both branches of science by completing interdisciplinary foundation requirements covering biology, chemistry, and physics.

For more information: <https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-concentrations/physical-and-life-sciences> (<https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-concentrations/physical-and-life-sciences/>)

Curriculum

The Bachelor of Applied Arts and Sciences (BAAS) recognizes the power of an applied liberal arts education to provide students with strong communication skills, understanding of different cultures and perspectives, and the ability to apply their knowledge to nuanced, complex scenarios with insight, perspective, and empathy.

Overview of degree requirements

30 course units are required for the Bachelor of Applied Arts and Sciences degree.

Code	Title	Course Units
Requirements		
	Foundational Requirements	8
	Concentrations	12
	Electives	10
	Total Course Units	30

In addition to course requirements, BAAS students complete a Senior portfolio.

Foundational requirements

The foundational requirements of the BAAS degree reflect the core competencies and values of Penn LPS Online: the skills and knowledge needed to understand and solve complex problems, the ability to communicate effectively with a wide variety of audiences and an appreciation for diverse cultures and traditions. Students can transfer a maximum of 4 course units of foundational courses from a regionally accredited institution. Our program team can also give a preliminary evaluation of transfer credits before students officially apply. Visit the Transfer Preparation & Policies (<https://lpsonline.sas.upenn.edu/admissions/baas-admissions/transfer-preparation-policies/>) page for more details.

Code	Title	Course Units
Foundational Requirements		
	<i>Ethical Reasoning</i>	
	Select 1 Ethical Reasoning course	1
	<i>Qualitative Analysis</i>	
	Select 2 Qualitative Analysis courses	2
	<i>Quantitative Analysis</i>	

Select 2 Quantitative Analysis courses	2
<i>Scientific Process</i>	
Select 1 Scientific Process course	1
<i>Writing</i>	
Select 1 Writing course *	1
<i>Cross-Cultural Interactions & Diversity</i>	
Select 1 Cross-cultural Interactions & Diversity course	1
Total Course Units	8

* Must be taken at Penn

Concentrations

Just as a college major serves to focus your studies during a four-year degree, the BAAS concentrations enable students to tailor their undergraduate education to specific personal and professional goals. Concentrations progress from introductory-level courses to higher-level courses so that students develop skills and knowledge with greater complexity as they move through the curriculum. Many concentrations are interdisciplinary, to provide students with opportunities to explore their areas of interest from multiple perspectives and develop a flexible approach to solving complex problems in professional as well as academic contexts.

Code	Title	Course Units
Physical and Life Sciences Concentration		
<i>Students are required to take a minimum of 3 of the required 12 courses at the 3000 and/or 4000 level</i>		
SPRO 1000	Scientific Reasoning	1
Complete 4 Science Foundation courses *		
Complete 2 Climate Change courses **		
Complete 2 Neuroscience courses ***		
Complete 3 other science electives with attribute BBPL (Can include applicable transfer courses)		
Total Course Units		12

* **Foundational Science courses:** <https://lpsonline.sas.upenn.edu/academics/bachelors-degree/course-blocks/science-foundations>

** **Climate Change courses:** <https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/climate-change>

*** **Neuroscience courses:** <https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/neuroscience>

Electives

Electives are courses that do not apply toward your foundational or degree concentration requirements. You may choose to deepen your field of study by taking additional classes within your concentration, develop a new skill by completing all of the courses within a course block outside of your degree concentration, or discover new interests and abilities by taking individual courses that appeal to your interests. Students choose 10 electives from any of Penn LPS Online's areas of study. Transfer students can apply a maximum of 8 course units from a regionally accredited institution toward this requirement.

Senior Portfolio Requirements

Throughout the BAAS degree, students draw on their coursework to build a digital collection of materials, or Senior Portfolio. The Senior

Portfolio is a powerful tool to ensure students are aligning their academic studies with their individual professional, personal, and academic goals. Developing the Senior Portfolio provides students with the opportunity to reflect on selected assignments and discover how they can be applied to the broader context of their current and future careers. Students can share their Senior Portfolio with prospective and current employers to provide evidence of the skills and knowledge they have developed through coursework.

BAAS degree students who are working on their Senior Portfolio and seeking to connect with other students about the process can do so on our virtual discussion boards through the Canvas Senior Portfolio website. Ask a question, answer a question, and meet other talented, career-focused students.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
