

**Science Education - Physics Concentration** 

College of Science

## **Program Progression Guides**

**Disclaimer**: The <u>2023-2024 Purdue West Lafayette catalog</u> is considered the source for academic and programmatic requirements for students entering programs during the Fall 2023, Spring 2024, and Summer 2024 semesters. The Program Progression Guide assists students in the development of an individualized 8-semester plan. Students are encouraged to use this guide, MyPurduePlan\* (online degree auditing tool) and the Student Educational Planner (SEP) as they work with their academic advisor towards the completion of their degree requirements. **Notification**: Each student is ultimately responsible for knowing, monitoring and completing all degree requirements.

An undergraduate degree in the College of Science requires completion of the following degree requirements.

University Degree Requirements						
Minimum 2.0 Cumulative GPA	Minimum 124 Credits	that fulfill	32 Residency Credits (30000 and above) at a			
	degree requirements		Purdue University campus			
University Core Curriculum**						
<ul> <li>Human Cultures: Behavioral/Social Science</li> <li>Human Cultures: Humanities</li> <li>Information Literacy</li> <li>Oral Communication</li> <li><u>University Core Curriculum</u></li> <li><u>Course Listing</u></li> </ul>		<ul> <li>Quantitative Reasoning</li> <li>Science</li> <li>Science, Technology &amp; Society Selective</li> <li>Written Communication</li> </ul>				
Civic Literacy Proficiency - https://www.purdue.edu/provost/about/provostInitiatives/civics/						
civic Eneracy rioliciency - incps://www.puruue.euu/provost/about/provostinitiatives/tivics/						
<b>Required Major Program Courses</b>						
All Professional Education courses, including Learner (Specialty) Pathway Concentration courses, must be completed with no grade lower than a C. Overall GPA for Physics Concentration courses with the Departmental/Program Major Courses must be ≧2.5. (Required courses for the Physics Concentration that are met within Department/Program requirements, but included in the content GPA for this concentration: CHM 11500/12500/12300; PHYS 17200/17200H (note: Majors in Physics must take the Honors Versions); PHYS 27200/27200H (note: Majors in Physics must take the honors Versions)). 2.5 average in Physics concentration courses required to graduate. 2.0 Graduation GPA for a Bachelor of Science degree. 2.5 Overall GPA is required for the Teacher Education Program and Indiana Licensure. 3.0 Professional Education GPA is required for the Teacher Education Program and Indiana Licensure.						
College of Science Core Curriculum						
<ul> <li>First-Year Composition</li> <li>Technical Writing and Presentation: 0</li> <li>Computing</li> <li>Cultural Diversity: 0-6 credits</li> </ul>	-6 credits • Great Issue • Laborato	<ul> <li>General Education: 6 credits</li> <li>Great Issues in Science: 3 credits</li> <li>Laboratory Science</li> <li>Mathematics</li> <li>Science, Technology, and Society</li> <li>Statistics</li> <li>Team-Building and Collaboration</li> </ul>				
Degree Electives						
<u>No Count courses</u> are not allowed for credit. Overlapping Course Content courses - only one course can be used for courses considered to have overlapping content. A course can only be used once in the Major Course area.						

\* This audit is not your academic transcript and it is not official notification of completion of degree or certificate requirements.

\*\* University Core Curriculum Outcomes may be met through completion of the College of Science Core curriculum. Students should consult with their academic advisors and MyPurdue Plan for course selections.

## 2023-2024 Science Education - Physics Concentration - Degree Progression Guide

The College of Science has suggested the following degree progression guide for the Science Education – Physics Concentration Degree. Students will work with their academic advisors to determine their best path to degree completion.

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
2-3	EDCI 20500 - Exploring Teaching As A Career		2-3	EDCI 28500 - Multiculturalism And Education	
4	PHYS 17200 (HONORS)	ALEKS 85+ or SATM 670/ACTM 29 requirement	1-3	EDCI 35000 - Community Issues & Applications For Educators	
4	CHM 11500 or CHEM 12500	ALEKS 75+ or SATM 620/ACTM 26 requirement	1-3	EDST 20010 - Educational Policies And Laws	
4-5	MA 16100 or MA 16500	ALEKS 85+ or SATM 670/ACTM 29 requirement	4	PHYS 27200 (HONORS)	PHYS 17200, MA 16200 co- req
3-4	Science Core Language & Culture Option		4	CHM 11600/CHM 12600/CHM 13600	CHM 11500
			4-5	MA 16200 or MA 16600	MA 16100 or MA 16500
17-19			16-18		

Credit	Fall 2nd Year	Prerequisite	Credits	Spring 2nd Year	Prerequisite
1	EDCI/EDPS 20002 - Special Populations Seminar: English Language Learners And Students With Gifts And Talents		1	EDCI/EDPS 20001 - Special Populations Seminar: Focus On Students With Disabilities And Differentiation Approaches	
2-3	EDCI 37001 - Teaching And Learning English As A New Language		2-3	EDPS 23500 - Learning And Motivation	
1	EDPS 24800 - Differentiating Curriculum And Instruction		1	EDPS 24000 - Children With Gifts, Creativity, And Talents	
2-3	EDPS 36201 - Positive Behavioral Supports		2	EDPS 26501 - The Inclusive Classroom	
3	PHYS 30600^ Fall only	PHYS 27200, MA 26100 co-req	3	PHYS 30700 Spring only	PHYS 27200, MA 26100 co- req
1	PHYS 34000^	PHYS 34400 co-req	3	PHYS 42200 Spring only	PHYS 27200
4	PHYS 34400^ Fall only	PHYS 27200, MA 26100 co-req	3	STAT 30100 (Sci, Engr Selective)	
4	MA 26100* or MA 27101	MA 16200	3	Science Core TWTP Option (COM 21700 recommended)	
18-19			15		

Credit	Fall 3rd Year	Prerequisite	Credit	Spring 3rd Year	Prerequisite
1-3	EDCI 27000 - Introduction To Educational Technology And Computing		3	PHYS 36000 Spring only	(PHYS 31000 or 33000), PHYS 34400
1-3	EDCI 30900 - Reading In Middle And Secondary Schools: Methods And Problems		4	CS 17700 OR CS 18000	
4	PHYS 31000 Fall only	PHYS 27200, MA 26100		EDCI 42800 - Teaching Science In The	
3	PHYS 33000 Fall only	PHYS 27200, MA 26100	2-3	Middle And Junior High School OR	
2	PHYS 45000	PHYS 42200		EDCI 55800 - Integrated Science, Technology, Engineering And Mathematics (STEM) Education Methods-Secondary	
3	Learner Pathway Selective		3-4	PHYS 53600 OR PHYS 58000	PHYS 27200 (or PHYS 34400, 31000)
3	Science Core Language & Culture Option		3	Science Core General Education Option	
17			15-17		

Credit	Fall 4th Year	Prerequisite	Credit	Spring 4th Year	Prerequisite
3	EDCI 42400 - The Teaching Of Earth And Physical Science In The Secondary Schools		12	EDCI 49800 (Teambuilding and Collaboration Experience)	EDCI 20500, 28500 AND EDPS 23500, 26501 (C- or better)
1-3	EDPS 32700 - Classroom Assessment				
1-3	EDPS 43010 - Secondary Creating And Managing Learning Environments	EDCI 20500, 28500 AND EDPS 23500, 26501 (C- or better)			
3	PHYS/ASTR ≥ 300 level	Varies			
3	Science Core Great Issues Selection				
3	Science Core General Education Selection				
2	Elective				
17			12		

## Science Core Curriculum Options

(one course needed for each requirement unless otherwise noted)				
Options recommended for first- and second-year students	Options recommended for third- and fourth-year students			
Written Communication <sup>UC</sup>	Technical Writing and Presentation <sup>UC</sup> (COM 217 recommended)			
Foreign Language and Culture <sup>UC</sup> (2 courses + EDCI 28500)	Science, Technology, and Society <sup>UC</sup>			
Computing (CS 17700 or CS 15900) /Teamwork	Great Issues			
Foreign Language and Culture <sup>UC</sup> (3 courses needed)	General Education <sup>UC</sup> (2 courses + EDPS 23500)			

UC Select courses may also satisfy a University Core Curriculum requirement; see the University Core Requirement course list for approved courses. Students must have 32 credits at the 30000 level or above taken at Purdue.