

Education Major with Teaching Physics Concentration

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About

The Education and Counseling Department undergraduate offerings include a Major in Secondary Education, two different Minor in Education programs, a Minor in Counseling, and a combined [BA/MA in Education](#). The Secondary Education degree has been approved by the Pennsylvania Department of Education (PDE) to recommend candidates for Level I Certification in order to teach in grades 7 through 12 in Pennsylvania's public schools. Faculty in the department are highly engaged in both theoretical and practical research related to education and counseling.

Program: [Education and Counseling](#)

Type: Bachelor of Arts

PRIMARY MAJOR (122 credits)

To be accepted into the major, students must have a 3.0 GPA, 6 credits in English and 6 credits in math completed prior to the start of their junior year. Candidates for the major should apply as soon as possible and no later than sophomore year

Required Major Credits (47 credits + Concentration)

In addition to demonstrating competence within their chosen academic discipline, as well as fulfilling the College of Arts and Sciences' core curriculum requirements, students participate in a wide variety of classroom field experiences. Such experiences are carefully selected and supervised and always appropriate to both the academic and professional competence of the students.

Program Notes:

- PDE requires all Education Majors to take two Math and two English courses before the end of their sophomore year. This is part of the state certification requirement. One English is taken as part of the Core Curriculum.
- Teacher certification is embedded within the B.A. program. [Visit this page to learn more.](#)

Course	Title	Credits
	EDU 2201 or EDU 2202	3
EDU 2300	Research Seminar in Education	3
EDU 3000	Prof. Development in Education	1
EDU 3251	Psych of Teaching & Learning	3
EDU 3263	Diversity and Inclusion	3
EDU 3264	Intro to Disability Studies	3
EDU 4245	Literacy & Eng Lang Learning	3
EDU 4284	Meth Science Sec School	3
EDU 4290	Philosophy of Education	3
EDU 3011	Pre-Practicum & Seminar 1	1
EDU 3012	Pre-Practicum & Seminar 2	1
EDU 3013	Pre-Practicum & Seminar 3	1
EDU 4291	Student Teaching	9
EDU 4292	Senior Seminar	3
MAT 1505	Calculus II	4
	Advanced English Elective for EDU PHY	3

Teaching Physics Concentration (36 credits)

Concentration Notes:

- Students must be a declared education major to have this concentration.
- Students in the education major with a Physics emphasis fulfill their core math and social science with courses taken in the major.

Course	Title	Credits
	PHY 1100 & 1101	4
MAT 1500	Calculus I	4
MAT 2705	Diff Equation with Linear Alg	4
	PHY 2410 & 2411	4
	PHY 2412 & 2413	4
PHY 3200	Thermo, Optics and Waves	3
	PHY 3400 & 4801	5
	MSE 2602 & 2652	4
	MSE 2603 & 2653	4

Core Curriculum Requirement (27 credits)

Education Majors with the Teaching Physics Concentration meet the following core requirements in the major and therefore are omitted from the summary below:

- Core Math (3 cr)
- Natural Sciences (8 cr)
- Social Sciences (6 cr)

Course	Title	Credits
ACS 1000	Ancients	3
ACS 1001	Moderns	3
THL 1000	Faith, Reason, and Culture	3
PHI 1000	Knowledge, Reality, Self	3
ETH 2050	The Good Life:Eth & Cont Prob	3
	Natural Science (2 courses with laboratory)	8
	Literature and Writing Seminar (1 course)	3
	History (1 course)	3
	Fine Arts (1 course)	3
	Upper-Level Theology (1 course)	3
	Language Requirement	
	Diversity Requirement (2 courses)	

Free Elective Requirement (12 credits)

Students with an Education primary major with a concentration in Teaching Physics have twelve (12) required free elective credits.

Degree Credit Summary

- **Major Credits:** 47 credits
- **Concentration:** 36 credits
- **Core Credits:** 27 credits
- **Free Electives Credits:** 12 credits
- **Total Required Credits:** 122 Credits

Note: The above credit totals are based on the minimum number of required credits in each degree area. The minimum number of required credits in each area listed above must be met. Credits taken beyond the required minimum for one area may not be applied to another area.

Category Descriptions

EDU 2201 or EDU 2202

Credits: 3

Course	Title	Credits
EDU 2201	Social Foundation Educ I	3
EDU 2202	Social Foundation Edu II	3

Advanced English Elective for EDU PHY

Credits: 3

- Take one three credit (3 cr) Advanced English elective, ENG 1000:5000, except ENG 1975.

PHY 1100 & 1101

Credits: 4

Course	Title	Credits
PHY 1100	General Physics I	3
PHY 1101	General Physics I Lab	1

PHY 2410 & 2411

Credits: 4

Course	Title	Credits
PHY 2410	University Phy:Mechanics	3
PHY 2411	Lab: Mechanics	1

PHY 2412 & 2413

Credits: 4

Course	Title	Credits
PHY 2412	Univ Physics:Elec & Mag	3
PHY 2413	Lab:Elec & Magnetism	1

PHY 3400 & 4801

Credits: 5

Course	Title	Credits
PHY 3400	Modern Physics	3
PHY 4801	Experimental Physics I	2

MSE 2602 & 2652

Credits: 4

Course	Title	Credits
MSE 2602	PHY:40% Solution: Light/Sound	3
MSE 2652	PHY:40% Solution Lab	1

MSE 2603 & 2653

Credits: 4

Course	Title	Credits
MSE 2603	PHY:Big Bang: Forces/Particles	3
MSE 2653	PHY: Big Bang Lab	1

Natural Science (2 courses with laboratory)

Credits: 8

Non-science majors meet the Core Curriculum Natural Science requirement by taking two semesters of Mendel Science Experience (MSE), thematically-based lecture/laboratory courses designed for non-science majors; or two semesters of lecture/laboratory courses designed for science majors.

Science (AST, BIO, BIOC, CHM, CBN, CSC, ENV, MAT, PHY - B.S. only, PSY - B.S. only) majors meet the science requirement through the regular program of study in their major.