# Education Major with Teaching Mathematics 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 (125 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 (43 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 4283	Meth Math 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
	Advanced English Elective for EDU MAT	3

### Teaching Mathematics Concentration (41 credits)

Concentration Notes:

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

Course	Title	Credits
MAT 1500	Calculus I	4
MAT 1505	Calculus II	4
MAT 2500	Calculus III	4
MAT 2600	Mathematical Reasoning & Proof	3
MAT 2705	Diff Equation with Linear Alg	4
MAT 3300	Advanced Calculus	3
MAT 3400	Linear Algebra	3
MAT 3500	Modern Algebra I	3
MAT 3930	History of Mathematics	3
STAT 4310	Stat Methods	3
MAT 5110	Topics in Geometry	3
CSC 1051	Algorithms & Data Struc I	4

# Core Curriculum Requirement (35 credits)

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

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

Credits
3
3
3
3
3
8
3
3
3
3

### Free Elective Requirement (6 credits)

Students with an Education primary major with a concentration in Teaching Mathematics have six (6) required free elective credits.

## Degree Credit Summary

- Major Credits: 43 credits
- Concentration: 41 credits
- Core Credits: 35 credits
- Free Electives Credits: 6 credits
- Total Required Credits: 125 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.

## Mathematics Double Major

Students majoring in Education with a Mathematics concentration may double major in Mathematics by taking an additional nine (9) credits in the following areas:

- Upper-Level Analysis Course (3 cr)
- MAT 3000+ Elective Course (3 cr)
- MAT 5900 Seminar in Mathematics (3 cr)

\*Please check with the Mathematics department to make sure the above list has not changed.

# **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 MAT

Credits: 3

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

#### 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.