# Secondary Education / Mathematics Education BSEd 

## Overview

The Bachelor of Science in Education in Secondary Education / Mathematics Education is offered by the Department of Teaching and Learning.
Students must complete all coursework and fieldwork requirements needed to make them eligible for Pennsylvania certification in Secondary Education: Mathematics. Passing the required Praxis exam(s) as stipulated by the Pennsylvania Department of Education is required to apply for Pennsylvania certification.

Students wishing to complete the full Mathematics (BA) major will need to take additional courses as defined by the Mathematics BA which is housed in the College of Science and Technology (CST). Students planning to complete the entirety of this major must declare the second major of Mathematics through CST.

Campus Location: Main
Program Code: ED-SEME-BSED

## GPA Requirements

In order to maintain good standing in Secondary Education, students must maintain a 3.0 cumulative grade point average and a 2.0 grade point average in the course work in their content area.

## Accreditation

The program is approved as a teacher preparation program by the Pennsylvania Department of Education.

## Licensure/Certification

Upon successful completion of the program requirements, candidates may apply for a Pennsylvania Instructional I Teaching Certificate. Please note, Pennsylvania requires assessment of candidates in General Knowledge, Professional Knowledge and/or Subject Area Knowledge prior to issuance of a certificate. Please refer to the PDE web site for testing requirements.

## Contact Information

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Learn more about the Bachelor of Science in Education in Secondary Education / Mathematics Education.
These requirements are for students who matriculated in academic year 2023-2024. Students who matriculated prior to fall 2023 should refer to the Archives to view the requirements for their Bulletin year.

## Summary of Requirements

## University Requirements

All students are required to complete the university's General Education (GenEd) curriculum.
All students (including transfer students) must take a minimum of two writing-intensive (WI) courses at Temple University. Writing intensive course numbers end in 96, 97 and 98.

## College Requirements

Students receive a Bachelor of Science in Education degree by meeting the following minimum College requirements:

- Completion of program requirements as detailed on the academic plan.
- Earn a "C-" or above in all required Education Courses.
- Earn a "C-" or above in all required University General Education Courses.
- Earn minimum grades required by CST in all Mathematics courses.
- Students in Secondary Education must maintain a 3.0 cumulative GPA and a 2.0 GPA in their content area courses.

For additional college and certification requirements, refer to the College Requirements page.

## Major Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| EDUC 2103 | Socio-cultural Foundations of Education in the United States ${ }^{1}$ | 3 |
| EDUC 2109 | Adolescent Development for Educators ${ }^{1}$ | 3 |
| MGSE 2111 | Applications of Teaching and Learning Theories to Classroom Practice (grades 4-12) | 3 |
| SPED 2231 | Introduction to Special Education ${ }^{1}$ | 3 |
| EDUC 2296 | Effective Teaching: Theory and Practice (WI) | 3 |
| EDUC 2306 | Assessment and Evaluation | 3 |
| SPED 3187 | Integrated Literacy and Special Education Practicum | 3 |
| TESL 3631 | Principles and Practice for Teaching English Learners | 3 |
| MGSE 3796 | Differentiated Literacy Instruction in the Disciplines (grades 7-12) (WI) | 3 |
| SPED 3211 | Effective Instructional Strategies for Students with Disabilities | 3 |
| SPED 4103 | Classroom Management and Positive Behavior Support | 3 |
| MGSE 4801 | Senior Seminar and Performance Assessment in Grades 4-12 Education | 3 |
| MGSE 4888 | Student Teaching in Grades 4-12 | 9 |
| Total Credit Hours |  | 45 |
| 1 |  |  |
| These courses must be completed with a C- or better to be eligible for Candidacy approval. Pre-Candidacy coursework includes a variety of courses, including a minimum of 1) two college-level math courses totaling at least six credits, 2) one college-level writing/composition course with a minimum of three credits (GenEd Analytical Reading and Writing), and 3) one literature course with a minimum of three credits (Intellectual Heritage I: The Good Life, Intellectual Heritage II: The Common Good, or an ENG (literature, but not children's literature) course). No 0700 or pre-college level course can count. |  |  |

## Program Requirements for Secondary Education / Mathematics Education

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| MATH 1041 | Calculus ${ }^{1}$ | 4 |
| MATH 1042 | Calculus II ${ }^{1}$ | 4 |
| PHYS 1061 | Elementary Classical Physics I | 4 |
| MATH 2111 | Basic Concepts of Math ${ }^{1}$ | 3 |
| MATH 2043 | Calculus III ${ }^{1}$ | 4 |
| PHYS 1062 | Elementary Classical Physics II | 4 |
| MATH 2021 | Functions and Modeling ${ }^{1}$ | 3 |
| MATH 2101 | Linear Algebra ${ }^{1}$ | 3 |
| MAES 4371 | History of Mathematics | 3 |
| or SCTC 3001 | History of Science |  |
| MATH 3096 | Introduction to Modern Algebra (WI) | 3 |
| MATH 3137 | Real \& Complex Analysis I | 3 |
| MATH 3138 | Real \& Complex Analysis II | 3 |
| MGSE 3404 | Teaching and Learning Math in the Middle Grades | 3 |
| MATH 3003 | Theory of Numbers | 3 |
| MATH 3061 | Modern Geometry I | 3 |
| or MATH 2061 | Euclidean Geometry |  |
| MATH 4096 | Senior Problem Solving (WI) | 3 |
| MGSE 4189 | Project-Based Instruction | 3 |
| MATH 2031 | Probability and Statistics | 3 |

Total Credit Hours 59

These courses must be completed with a C- or better to be eligible for Candidacy approval. Pre-Candidacy coursework includes a variety of courses, including a minimum of 1) two college-level math courses totaling at least six credits, 2) one college-level writing/composition course with a minimum of three credits (GenEd Analytical Reading and Writing), and 3) one literature course with a minimum of three credits (Intellectual Heritage I: The Good Life, Intellectual Heritage II: The Common Good, or an ENG (literature, but not children's literature) course). No 0700 or pre-college level course can count.

## Suggested Academic Plan

## Bachelor of Science in Education in Secondary Education / Mathematics Education

## Suggested Plan for New Students Starting in the 2023-2024 Academic Year

(Certain courses require that a student secure clearances as per the College of Education and Human Development policy; students should check the current list of courses that require clearances on the College of Education and Human Development web site.)

## Year 1

| Fall |  | Credit Hours |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { ENG } 0802 \\ & \text { or ENG } 0812 \\ & \text { or ENG } 0902 \end{aligned}$ | Analytical Reading and Writing ${ }^{4}$ or Analytical Reading and Writing: ESL or Honors Writing About Literature | 4 |
| GenEd Breadth Course |  | 3 |
| GenEd Breadth Course |  | 3 |
| GenEd Breadth Course |  | 3 |
| MATH 1041 | Calculus I ${ }^{\text {3,4 }}$ | 4 |
|  | Credit Hours | 17 |
| Spring |  |  |
| $\begin{aligned} & \text { IH } 0851 \\ & \text { or IH } 0951 \end{aligned}$ | Intellectual Heritage I: The Good Life ${ }^{4}$ or Honors Intellectual Heritage I: The Good Life | 3 |
| EDUC 2103 | Socio-cultural Foundations of Education in the United States ${ }^{4}$ | 3 |
| EDUC 2109 | Adolescent Development for Educators ${ }^{\text {2,4 }}$ | 3 |
| MATH 1042 | Calculus II ${ }^{3,4}$ | 4 |
| PHYS 1061 | Elementary Classical Physics I ${ }^{1}$ | 4 |
|  | Credit Hours | 17 |

## Year 2

Fall

| $\begin{aligned} & \text { IH } 0852 \\ & \quad \text { or IH } 0952 \end{aligned}$ | Intellectual Heritage II: The Common Good ${ }^{4}$ or Honors Intellectual Heritage II: The Common Good | 3 |
| :---: | :---: | :---: |
| GenEd Breadth Course |  | 3 |
| MATH 2111 | Basic Concepts of Math ${ }^{4}$ | 3 |
| MATH 2043 | Calculus III ${ }^{3,4}$ | 4 |
| PHYS 1062 | Elementary Classical Physics II ${ }^{1}$ | 4 |
|  | Credit Hours | 17 |
| Spring |  |  |
| SPED 2231 | Introduction to Special Education ${ }^{2,4}$ | 3 |
| MATH 2021 | Functions and Modeling ${ }^{4}$ | 3 |
| EDUC 2306 | Assessment and Evaluation | 3 |
| MATH 2101 | Linear Algebra ${ }^{4}$ | 3 |
| Select one of the following: |  | 3 |
| MAES 4371 | History of Mathematics |  |
| SCTC 3001 | History of Science |  |
|  | Credit Hours | 15 |

## Year 3

Fall
EDUC 2296 Effective Teaching: Theory and Practice 3
MGSE $2111 \quad$ Applications of Teaching and Learning Theories to Classroom Practice (grades 4-12) 3

| TESL 3631 | Principles and Practice for Teaching English Learners ${ }^{2}$ | 3 |
| :---: | :---: | :---: |
| MATH 3096 | Introduction to Modern Algebra | 3 |
| MATH 3137 | Real \& Complex Analysis I | 3 |
|  | Credit Hours | 15 |
| Spring |  |  |
| MATH 3138 | Real \& Complex Analysis II | 3 |
| MGSE 3404 | Teaching and Learning Math in the Middle Grades | 3 |
| SPED 3211 | Effective Instructional Strategies for Students with Disabilities | 3 |
| MATH 3003 | Theory of Numbers | 3 |
| Select one of the following: |  | 3 |
| MATH 3061 | Modern Geometry I |  |
| MATH 2061 | Euclidean Geometry |  |
|  | Credit Hours | 15 |
| Year 4 |  |  |
| Fall |  |  |
| MATH 4096 | Senior Problem Solving | 3 |
| MGSE 4189 | Project-Based Instruction | 3 |
| SPED 3187 | Integrated Literacy and Special Education Practicum | 3 |
| MGSE 3796 | Differentiated Literacy Instruction in the Disciplines (grades 7-12) | 3 |
| MATH 2031 | Probability and Statistics | 3 |
|  | Credit Hours | 15 |
| Spring |  |  |
| MGSE 4888 | Student Teaching in Grades 4-12 | 9 |
| MGSE 4801 | Senior Seminar and Performance Assessment in Grades 4-12 Education | 3 |
| SPED 4103 | Classroom Management and Positive Behavior Support | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 126 |

1
The sequence of PHYS 1061 and PHYS 1062 constitutes a waiver for both of the GenEd Science and Technology (GS) courses required in the GenEd Science and Technology (GS) category if the courses are completed with a C- or better. Students must successfully complete both courses in the sequence to have both of the GS courses waived. If a student completes just one of these two courses with a C- or better, just one GS course of the two required will be waived.
2
Completion of 1) SPED 2231, 2) EDUC 2109 and 3) TESL 3631 constitute the waiver for the GenEd Human Behavior (GB) category if the courses are completed with a C- or better.
3
Completion of either 1) MATH 1041 , 2) MATH 1042 or 3) MATH 2043 constitutes a waiver for the GenEd Quantitative Literacy (GQ) category if the course is completed with a C - or better.
4
These courses must be completed with a C- or better to be eligible for Candidacy approval. Pre-Candidacy coursework includes a variety of courses, including a minimum of 1) two college-level math courses totaling at least six credits, 2) one college-level writing/composition course with a minimum of three credits (GenEd Analytical Reading and Writing), and 3) one literature course with a minimum of three credits (Intellectual Heritage I: The Good Life, Intellectual Heritage II: The Common Good, or an ENG (literature, but not children's literature) course). No 0700 or pre-college level course can count.

