PennWest UNIVERSITY

Degree: Bachelor of Science
College: Science, Technology, and Business
Major: Mathematics
Major Code: MATH
Concentration: N/A

Credits Required: 120
Minor: N/A
Minor Code: N/A

General Education

Foundations: (13 Credits)

Oral Communication: (3 Credits)

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Quantitative Reasoning: (4 Credits)

☐ MATH 2410 Calculus I

Technological Literacy: (3 Credits)

☐ CMSC 1380 Introduction to Programming with Python

Written Communication: (3 Credits)

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Discoveries: (27 Credits)

At least two (2) disciplines must be represented within each of the three (3) categories.

Art/Humanities: (9 Credits)

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Natural Sciences & Technology :(9 Credits)

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Social Sciences: (9 Credits)

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Elective/Wellness & Personal Health: (3 Credits)

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Competencies:

Applied Methodologies

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Ethical Reasoning

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Information Literacy

☐ MATH 4900 Senior Mathematics Seminar

Intercultural Fluency

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Keystone Experience

☐ MATH 4900 Senior Mathematics Seminar

Quantitative Applications

☐ STAT 3010 Mathematical Probability and Statistics

Writing Intensive - Two (2) courses are required

☐ MATH 3000 Foundations of Mathematics
☐ MATH 4410 Real Analysis I

Program Requirements

Required Major Courses: (29 Credits)

☐ MATH 2420 Calculus II
☐ MATH 3000 Foundations of Mathematics
☐ MATH 3210 Linear Algebra I
☐ MATH 3430 Calculus III
☐ MATH 3440 Differential Equations
☐ MATH 4260 Abstract Algebra I
☐ MATH 4410 Real Analysis I
☐ STAT 3010 Mathematical Probability and Statistics
☐ MATH 4900 Senior Mathematics Seminar

Major Electives: (15 Credits)

☐ MATH 1510 Discrete Structures
  ☐ Or STAT 2020 Elements of Statistics
  ☐ Or Any MATH/STAT at the 3000+ level beyond required courses

☐ 12 credits of MATH/STAT course at the 3000+ level beyond required courses
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Free Electives: (33 Credits)

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Updated: 6/20/2025

Suggested Four Year Course Sequence

Year 1

Fall Semester

MATH 2410 (Calculus I)
CMSC 1380 (Prog. With Python)
ENGL 1200 (College Composition)
Social Science Discovery
Natural Science/Technology Discovery

Spring Semester

MATH 2420 (Calculus II)
Oral Communications Foundation
Social Science Discovery
Natural Science/Technology Discovery
Art/Humanities Discovery

Year 2

Fall Semester

MATH 3430 (Calculus III)
MATH 3210 (Linear Algebra I)
Social Science Discovery
Natural Science/Technology Discovery
Art/Humanities Discovery

Spring Semester

MATH 3000 (Foundations of Math Proof)
MATH 3440 (Differential Equations)
Art/Humanities Discovery
Student General Education Elective
Free Electives (3 credits)

Year 3

Fall Semester

STAT 3010 (Math. Probability & Statistics)
MATH 4260 (Abstract Algebra I)
Or Mathematics Statistics Elective
Free Electives (9 credits)

Spring Semester

MATH 4410 (Real Analysis I)
Or Mathematics/Statistics Elective
Mathematics/Statistics Elective
Free Electives (9 credits)

NOTE: * A student who places into MATH 1410 (Precalculus) can complete this eight semester plan by moving MATH 2410 (Calculus I) into the semester two, MATH 2420 (Calculus II) in the semester three, and MATH 3430 (Calculus III) into semester five. Discovery courses and free electives can be redistributed to ensure graduation in eight semesters.

Year 4

Fall Semester

MATH 4260 (Abstract Algebra I)
Or Mathematics Statistics Elective
MATH 4900 Senior Math Seminar
Mathematics/Statistics Elective
Free Electives (6 credits)

Spring Semester

MATH 4410 (Real Analysis I)
Or Mathematics/Statistics Elective
Mathematics/Statistics Elective
Free Electives (6 credits)

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