PennWest UNIVERSITY

**Degree:** Bachelor of Science
**Credits Required: 120**
**College:** Science, Technology, and Business
**Major:** Mathematics
**Major Code:** MATH
**Minor:** N/A
**Concentration:** Actuarial Science (ACSC)
**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 Intro 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)**

☐ ECON 2100 Principles of Microeconomics
☐ ECON 2200 Principles of Macroeconomics
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**Elective/Wellness & Personal Health: (3 Credits)**

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**Competencies:**

**Applied Methodologies**

☐ MATH 3810 Mathematical Interest Theory

**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
☐ COMJ 2201 Business & Professional COM

## Program Requirements

**Required Major Courses: (23 Credits)**

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

**Major Electives: (3 Credits)**

☐ Any MATH/STAT course at the 3000+ level

**Required Concentration Courses: (18 Credits)**

☐ STAT 4010 Statistical Inference
☐ MATH 3810 Mathematical Interest Theory
☐ STAT 3800 Introduction to Actuarial Science
☐ ACC 2000 Financial Accounting
☐ FINA 3000 Financial Management
☐ COMJ 2201 Business & Professional Communications

**Free Electives: (33 Credits)**

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Updated: 6/18/2025

# Suggested Four Year Course Sequence

## Year 1

**Fall Semester**

MATH 2410 (Calculus I)
CMSC 1380 (Prog. With Python)
ENGL 1200 (College Composition)
ECON 2100 (Princ. of Microeconomics)
Natural Science/Technology Discovery

**Spring Semester**

MATH 2420 (Calculus II)
Oral Communications Foundation
ECON 2200 (Princ. Of Macroeconomics)
Natural Science/Technology Discovery
Art/Humanities Discovery

## Year 2

**Fall Semester**

MATH 3430 (Calculus III)
MATH 3210 (Linear Algebra I)
ACCT 2000 (Financial Accounting)
Natural Science/Technology Discovery
Art/Humanities Discovery

**Spring Semester**

MATH 3000 (Foundations of Math Proof)
FINA 3000 (Financial Management)
MATH 3440 (Differential Equations)
Art/Humanities Discovery
Social Sciences Discovery

## Year 3

**Fall Semester**

STAT 3010 (Math. Probability & Statistics)
MATH 3810 (Math. Interest Theory)
~Or~ Mathematics/Statistics Elective
Free Electives (9 credits)

**Spring Semester**

STAT 3800 (Intro to Actuarial Science)
STAT 4010 (Statistical Inference)
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 3810 (Math. Interest Theory)
~Or~ Mathematics/Statistics Elective
MATH 4900 Senior Math Seminar
Free Electives (6 credits)

**Spring Semester**

COMJ 2201 (Business & Profess. Comm.)
Student General Education Elective
Free Electives (9 credits)