

MATHEMATICS MAJOR, BA

Campus: NYC, Westchester

A generalized program that enables students to develop a variety of skills. It allows students to double major or select up to two minors.

Major Completion Summary

Requirement	Credits
University Core Requirements	44-55
Major Requirements	37
Open Electives	36-47
Total Credits	128

PLV Students

University Core Requirements (44-55 Credits)

See complete University Core (<http://catalog.pace.edu/undergraduate/university-core-curriculum/>) requirements.

Code	Title	Credits
University Core		
Complete University Core Requirements ¹		44-55
Total Credits		44-55

¹ MAT 131 Calculus I (4 credits) may be used to satisfy Math core requirement; otherwise it must be taken for major credit.

Major Requirements (37 Credits)

Code	Title	Credits
Required Major Courses		
MAT 131	Calculus I ¹	4
MAT 132	Calculus II	4
MAT 234	Introduction to Probability and Statistical Analysis	4
MAT 236	Multivariable Calculus	4
MAT 238	Linear Algebra	4
MAT 253	Differential Equations	4
MAT 301	Algebraic Structures	3
MAT 305	Complex Variables	3
or MAT 311	Real Analysis	
MAT 137	Introduction to Discrete Mathematics	4
MAT 400	Mathematics: Connections, Communications, Research	3
Total Credits		37

¹ MAT 131 Calculus I (4 credits) may be used to satisfy Math core requirement; otherwise it must be taken for major credit.

Open Electives (36-47 Credits)

Code	Title	Credits
Open Electives		
Select 36-47 credits		36-47
Total Credits		36-47

NYC Students

University Core Requirements (44-55 Credits)

See complete University Core (<http://catalog.pace.edu/undergraduate/university-core-curriculum/>) requirements.

Code	Title	Credits
University Core		
Complete University Core Requirements ¹		44-55
Total Credits		44-55

¹ MAT 131 Calculus I (4 credits) may be used to satisfy Math core requirement; otherwise it must be taken for major credit.

Major Requirements (37 Credits)

Code	Title	Credits
Required Major Courses		
MAT 131	Calculus I ¹	4
MAT 132	Calculus II	4
MAT 234	Introduction to Probability and Statistical Analysis	4
MAT 236	Multivariable Calculus	4
MAT 238	Linear Algebra	4
MAT 253	Differential Equations	4
MAT 301	Algebraic Structures	3
MAT 305	Complex Variables	3
or MAT 311	Real Analysis	
MAT 233	Mathematical Structures and Models	4
MAT 490	Mathematics Seminar Capstone Experience I	1
MAT 491	Mathematics Seminar Capstone Experience II	2
Total Credits		37

¹ MAT 131 Calculus I (4 credits) may be used to satisfy Math core requirement; otherwise it must be taken for major credit.

Open Electives (36-47 Credits)

Code	Title	Credits
Open Electives		
Select 36-47 credits		36-47
Total Credits		36-47

Course	Title	Credits
First Year		
Fall		
ENG 110	Composition	3
UNV 101	First-Year Seminar: Introduction to University Community	1
MAT 131	Calculus I	4
Take any two remaining Area of Knowledge, Learning Community (LC) courses		6
Take any one remaining Area of Knowledge course		3
Credits		17
Spring		
MAT 132	Calculus II	4
ENG 120	Critical Writing	4
MAT 234	Introduction to Probability and Statistical Analysis (Analysis of Human, Social, and Natural Phenomena (AOK5))	4
One Lab science course		3
Open Elective Course		3
Credits		18
Second Year		
Fall		
MAT 236	Multivariable Calculus	4
MAT 233	Mathematical Structures and Models	4
or MAT 137	or Introduction to Discrete Mathematics	

First Second Language Course. See Advisor for guidelines	3
One Civic Engagement (CE) course	3
Take any one remaining Area of Knowledge course	3

Credits **17**

Spring

Second Language Course, if applicable	3
ENG 201 Writing in the Disciplines	3
MAT 253 Differential Equations	4
Take any one remaining Area of Knowledge course	3
Take any one remaining Area of Knowledge course	3

Credits **16**

Third Year

Fall

CS 121 Computer Programming I (Preferred) or CIS 101 or Introduction to Computing	3-4
MAT 238 Linear Algebra	4
MAT 305 Complex Variables or MAT 311 or Real Analysis	3
Take any one remaining Area of Knowledge course	3
Open Elective Course	3

Credits **16-17**

Spring

MAT 301 Algebraic Structures (Or Open Elective Course)	3
COM 200 Public Speaking	3
Open Elective Course	3
Open Elective Course	3
Open Elective Course	3

Credits **15**

Fourth Year

Fall

MAT 490 Mathematics Seminar Capstone Experience I (Or MAT 400 (MAT 400 is 3 credits))	1
Open Elective Course	3
Open Elective Course	3
Open Elective Course	3
Open Elective Course	3
Open Elective Course	3
Open Elective Course	3

Credits **16**

Spring

MAT 491 Mathematics Seminar Capstone Experience II (Only if student took MAT 490 and not MAT 400)	2
MAT 301 Algebraic Structures (Or Open Elective Course)	3
Open Elective Course	3
Open Elective Course	3
Open Elective Course	3

Credits **14**

Total Credits **129-130**