
Degree: Bachelor of Science
Major: Mathematics and Economics



The College of Arts and Sciences administers an interdisciplinary major program in Mathematics and Economics leading to the Bachelor of Science degree. The major, with courses taught by faculty in the Departments of Economics and Mathematical Sciences, provides a strong background in mathematics and economics. Students graduating with this degree will be well prepared for graduate studies in economics or in mathematics.

CURRICULUM	CREDITS
------------	---------

University Requirements

ENGL 110 Critical Reading and Writing (minimum grade C-).....	3
First Year Experience	0-4
Discovery Learning Experience	3
Three credits in an approved course or courses stressing multi-cultural, ethnic, and/or gender-related course content.....	3

College Requirements

Writing (minimum grade C-)	3
Second writing course taken after completion of 60 credit hours.	

Breadth Requirements

Eighteen credits from Groups A, B and C with a minimum of six credits from each group.

Group A.....	6
Group B	6
Group C	6

Major Requirements

A grade of C- or better is required for major courses and related work.

Computer and Information Sciences Section

Either CISC 105 or CISC 106 (for those with no previous equivalent experience), or CISC 181 Introduction to Computer Science	3
---	---

Economics Section

ECON 301 Quantitative Macroeconomic Theory	3
ECON 303 Intermediate Macroeconomic Theory	3
ECON 422 Econometric Methods and Models I	3
ECON 423 Econometric Methods and Models II	3
One of the following two courses	3
ECON 406 Markets: Information and Uncertainty	
ECON 426 Mathematical Economic Analysis	
One of the following five courses	3
ECON 302 Banking and Monetary Policy	
ECON 430 Advanced Macroeconomic Theory	
ECON 443 International Monetary Economics	
FREC 471 Futures and Options Markets	
FINC 311 Principles of Finance	

Mathematics Section

One of the following two courses	3
MATH 210 Discrete Mathematics I	
MATH 230 Finite Mathematics with Applications	
MATH 242 Analytic Geometry and Calculus B	4
MATH 243 Analytic Geometry and Calculus C	4
MATH 268 Perspectives on Mathematics	1
MATH 302 Ordinary Differential Equations	3
MATH 349 Elementary Linear Algebra	3
One of the following two options (A or B)	
Option A	
MATH 350 Probability Theory and Simulation Methods	3
MATH 450 Mathematical Statistics	3
Option B	
MATH 201 Introduction to Statistical Methods I	3
MATH 202 Introduction to Statistical Methods II	3

One of the following two options (C or D)

Option C

MATH 245 An Introduction to Proof 3

MATH 401 Introduction to Real Analysis 3

Option D

MATH 503 Advanced Calculus for Applications 3

One of the following three courses 3

MATH 426 Introduction to Numerical Analysis and Algorithmic
Computation

MATH 512 Contemporary Applications of Mathematics

MATH 529 Linear Programming: Methods and Applications

MATH 530 / ECON 530 Optimization and Game Theory 3

At least 39 credits in MATH and ECON courses at or above the 300 level.

MATH 308, MATH 379, MATH 380 and MATH 382 are not applicable.

Credits to total a minimum of 124

For more information on this major, visit the web page

www.math.udel.edu/programs/ugrad/

Sample Curriculum — MAEC

Freshman Year

MATH 242 Calculus B	(4)	Breadth Group A / MC	(3)
CISC 106 Gen Comp Sci	(3)	Breadth Group B	(3)
ENGL 110 Crit Read/Write	(3)	MATH 210 Discrete Math I	(3)
ECON 151 Group C	(3)	MATH 243 Calculus C	(4)
Breadth Group A	(3)	ECON 152 Group C	(3)
UD FYE UNIV 101	(1)		
UD FYE MATH 268	(1)		

Total	18	Total	16
--------------	-----------	--------------	-----------

Sophomore Year

ECON 301 Quant Microecon	(3)	ECON 303 Interm Microecon	(3)
ACCT 207 Accounting I	(3)	ACCT 208 Accounting II	(3)
MATH 350 Probab & Simul	(3)	Elective	(3)
MATH 349 Linear Algebra	(3)	MATH 302 Diff Equations	(3)
Breadth Grp B (ECON 315)	(3)	MATH 450 Math Stat	(3)

Total	15	Total	15
--------------	-----------	--------------	-----------

Junior Year

MATH 503 Adv Calc for Appl	(3)	ECON 415 Econ Forecasting	(3)
ECON 422 Econometrics Meth I	(3)	ECON 423 Econometrics Meth II	(3)
ECON 426 Math Econ Analysis	(3)	ECON 430 Advanced Microecon	(3)
Elective	(3)	Elective	(3)
Elective	(3)	Elective	(3)

Total	15	Total	15
--------------	-----------	--------------	-----------

Senior Year

MATH 529 Linear Programming	(3)	Elective	(3)
MATH 530 Optim & Game Theory	(3)	Elective	(3)
Second writing	(3)	FINC 311 Principles of Finance	(3)
Math Elective	(3)	Math Elective	(3)
Elective	(3)	Elective	(3)

Total	15	Total	15
--------------	-----------	--------------	-----------

Total number of credits: 124