Roadmap: Applied Mathematics - Financial Mathematics - Bachelor of Science



AS-BS-AMTH-FMTH

College of Arts and Sciences
Department of Mathematical Sciences

Catalog year: 2014-2015

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designed as critical (!) must be

completed in the semester listed to ensure a timely graduation.							
Critica		Credit Hours	Upper Div.	Min. Grade	Major GPA	Туре	Term Taken
Semest	ter One [15 Credits]						
!	MATH 12002 Analytic Geometry and Calculus I	5				KMC	
	US 10097 Destination Kent State: First Year Experience ¹	1					
	Kent Core Requirement	3					
	Kent Core Requirement	3					
	Kent Core Requirement	3					
Semest	ter Two [15 Credits]						
!	MATH 12003 Analytic Geometry and Calculus II	5					
	CS 13001 Computer Science I-Programming and Problem Solving	4					
	Kent Core Requirement	3					
	Kent Core Requirement	3					
Semest	ter Three [16 Credits]						
!	MATH 22005 Analytic Geometry and Calculus III	4					
	PHY 23101 General University Physics I	5				KBS	
	Foreign Language ²	4 - 5					
	Kent Core Requirement	3					
Semest	ter Four [15 Credits]						
!	MATH 21001 Linear Algebra With Applications	3					
!	PHY 23102 General University Physics II	5				KBS	
	Foreign Language ²	4 - 5					
	Kent Core Requirement	3					
Semest	ter Five [15 Credits]						
!	ACCT 23020 Introduction to Financial Accounting	3					
!	MATH 32044 Introduction to Ordinary Differential Equations	3					
!	MATH 40011 Introduction to Probability Theory and Applications	3					
!	MATH 42031 Mathematical Models and Dynamical Systems	3	_				1
•	or MATH 42201 Introduction to Numerical Computing I		-		-		
	Kent Core Requirement	3					
Semest	ter Six [15 Credits]						
!	FIN 36053 Business Finance ³	3					
!	MATH 40012 Introduction to Statistical Concepts	3					
!	MATH 42045 Introduction to Partial Differential Equations	3					
	MATH 42091 Seminar: Modeling Projects ⁴	3				WIC	•
•	or MATH 42202 Introduction to Numerical Computing II	-					
	General Elective ⁵	3					
Semest	ter Seven [15 Credits]						
!	MATH 40051 Topics in Probability Theory and Stochastic Processes	3					
	MATH 42031 Mathematical Models and Dynamical Systems	3					1
<u> </u>	or MATH 42201 Introduction to Numerical Computing I	_	-				
	Kent Core Requirement	3					
	General Elective ⁵	6					
_	ter Eight [14 Credits]						
!	MATH 41021 Theory of Matrices	3					
!	MATH 42091 Seminar: Modeling Projects ⁴	3	•			WIC	1
	or MATH 42202 Introduction to Numerical Computing II				_		
!	Allied Area Elective 6	3					
	General Elective ⁵	5					

Graduation Requirements Summary

Minimum Total Hours	Minimum Upper-Division Hours	Minimum Kent Core Hours	Minimum		
Willimum Total Hours	willilliam opper-bivision nours	Williman Rent Core Hours	Major GPA	Overall GPA	
120	42	36	2.000	2.000	

- 1. US 10097 is not required of transfer students with 25 credits or students age 21+ at time of admission.
- 2. Fulfills College General Requirement
- 3. Majors pursuing this concentration are required to take ECON 22060 and 22061 as prerequisites for FIN 36053; these two ECON courses can them be used to satisfy part of the Kent Core Social Sciences for a B.S. degree in the College of Arts and Sciences.
- 4. A minimum C (2.000) grade must be earned in MATH 42091 to fulfill the writing-intensive requirement.
- 5. Minimum 9 upper-division credit hours. Credits required depends on meeting minimum 120 credit hours and minimum 42 upper-division credit hours

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6. Allied Area Elective (3 total credits hours)

Choose from the following:	
BSCI 3/4xxxx Biological Science upper-division courses (1 - 3)	CHEM 3/4xxxx Chemistry upper-division courses (1 - 3)
CS 3/4xxxx Computer Science upper-division courses (1 - 9)	MATH 3/4xxxx Mathematics upper-division courses (1 - 3)
PHY 3/4xxxx Physics upper-division courses (1 - 3)	ECON 32025 Money, Credit and Banking (3)
ECON 32040 Intermediate Microeconomic Theory and Applications (3)	ECON 32041 Intermediate Macroeconomic Theory and Policy (3)
ECON 32050 Applied Econometrics (3)	FIN 36054 Intermediate Business Finance (3)
FIN 36059 Investments (3)	FIN 46054 Financial Risk Management (3)
FIN 46055 Options and Futures Markets (3)	FIN 46064 International Business Finance (3)
FIN 46067 Portfolio Analysis (3)	

University Requirements Summary

Туре	Categories Course(s) Satisfying Categor		Remaining Requirements
	Kent Core I. Composition Enrollment based on placement test	visit www.kent.edu/catalog/kent-core	6
	Kent Core II. Mathematics and Critical Reasoning Enrollment based on placement test	MATH 12002	fulfilled
KHII	Kent Core III. Humanities Minimum one course from humanities in Arts and Sciences; may fulfill diversity requirement	visit www.kent.edu/catalog/kent-core	3
$K \vdash \Delta$	Kent Core IV. Fine Arts Minimum one course from the fine arts; may fulfill diversity requirement	visit www.kent.edu/catalog/kent-core	3
	Kent Core V. Humanities or Fine Arts One additional course from either the humanities or fine arts category, may fulfill diversity requirement.	visit www.kent.edu/catalog/kent-core	3
KSS	Kent Core VI. Social Sciences Must be selected from two curricular areas; may fulfill diversity requirement	ECON 22060 is recommended to fulfill prerequisite requirement for FIN 36053	6
I K K S	Kent Core VII. Basic Sciences Must include one laboratory	PHY 23101, PHY 23102	fulfilled
ΚΔΙΙ	Kent Core VIII. Additional May fulfill diversity requirement	ECON 22061 is recommended to fulfill prerequisite requirement for FIN 36053	6
	Domestic Diversity Course Requirement Either domestic or global diversity must be from Kent Core	visit www.kent.edu/catalog/diversity	one course
	Global Diversity Course Requirement Either domestic or global diversity must be from Kent Core	visit www.kent.edu/catalog/diversity	one course
ELR	Experiential Learning Requirement Either course or non-course experience approved by the appropriate faculty member	visit www.kent.edu/catalog/elr	one course or activity
	Writing-Intensive Course Requirement Minimum C (2.000) grade	MATH 42091	fulfilled