

Roadmap: Applied Mathematics - Financial Mathematics - Bachelor of Science

AS-BS-AMTH-FMTH College of Arts and Sciences Department of Mathematical Sciences

Catalog Year: 2015-2016

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.

Critical	Course Subject and Title	Credit Hours	Min. Grade	Major GPA	Attribute	Notes
Semeste	r One [15 Credits]					
!	MATH 12002 Analytic Geometry and Calculus I	5	С		KMC	
	US 10097 Destination Kent State: First Year Experience ¹	1				
	Kent Core Requirement	3				
	Kent Core Requirement	3				
	Kent Core Requirement	3				
Semester	r Two [15 Credits]					
!	MATH 12003 Analytic Geometry and Calculus II	5	С			
	CS 13001 Computer Science I-Programming and Problem Solving			_		
	or	4		_		
	CS 13011 Computer Science IA-Procedural Programming (2) and	4	С	-		
	CS 13012 Computer Science IB-Object Oriented Programming (2)		С			
	Kent Core Requirement	3				
	Kent Core Requirement	3				
Semeste	Three [16 Credits]					
!	MATH 22005 Analytic Geometry and Calculus III	4	С			
	PHY 23101 General University Physics I	5			KBS	
	Foreign Language ²	4 - 5				
	Kent Core Requirement	3				
Semeste	r Four [15 Credits]					
!	MATH 21001 Linear Algebra With Applications	3	С			
!	PHY 23102 General University Physics II	5			KBS	
	Foreign Language ²	4 - 5				
	Kent Core Requirement	3				
Semester	r Five [15 Credits]					
!	ACCT 23020 Introduction to Financial Accounting	3				
!	MATH 32044 Introduction to Ordinary Differential Equations	3	С			
!	MATH 40011 Introduction to Probability Theory and Applications	3		-		
	MATH 42031 Mathematical Models and Dynamical Systems			_		
!	or MATH 42201 Introduction to Numerical Computing I	3	С			
	Kent Core Requirement	3				
Semeste	r 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 42039 Modeling Projects		C ⁴		WIC/ELR	
!	or MATH 42202 Introduction to Numerical Computing II	3				
	General Electives ⁵	3				
Semeste	r Seven [15 Credits]					
	MATH 40051 Topics in Probability Theory and Stochastic	2		_		
!	Processes	3				
!	MATH 42031 Mathematical Models and Dynamical Systems	3	С	_		
-	or MATH 42201 Introduction to Numerical Computing I			_		
	Kent Core Requirement	3				
	General Electives ⁵	6				
Semeste	r Eight [14 Credits]					
!	MATH 41021 Theory of Matrices	3	_ 4			
!	MATH 42039 Modeling Projects	3	C ⁴		WIC/ELR	
-	or MATH 42202 Introduction to Numerical Computing II					
!	Allied Area Electives ⁶	3				
	General Electives ⁵	5				

Graduation Requirements Summary

	Minimum Total Hours	Minimum Upper-Division Hours	Minimum Kent Core Hours	Minimum	
	Willimum Total Hours	30000 - 40000 level course	Millimum Rent Core Hours	Major GPA	Overall GPA
	120	42	36	2.000	2.000



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- 1. US 10097 is not required of transfer students with 25 credits (excluding College Credit Plus and dual-enrollment) 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 42039 to fulfill the writing-intensive requirement.
- 5. Minimum 6 upper-division credit hours. Credits required depend on meeting minimum 120 credit hours and minimum 42 upper-division credit hours.
- 6. Allied Area Electives (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 - 3)	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: Bachelor's degree-seeking students must meet Kent Core (general education requirements), diversity, writing-intensive and experiential learning requirements. For more information about these requirements, please read the following sections in the University Catalog: Kent Core - www.kent.edu/catalog/kent-core; Diversity Course Requirement - www.kent.edu/catalog/diversity; Writing-Intensive Course Requirement - www.kent.edu/catalog/wic; Experiential Learning Requirement - www.kent.edu/catalog/elr.

Attribute Legend: DD Diversity-Domestic; DG Diversity-Global; ELR Experiential Learning; KAD Kent Core Additional; KBS Kent Core Basic Sciences; KCM Kent Core Composition; KFA Kent Core Fine Arts: KHU Kent Core Humanities; KMC Kent Core Mathematics and Critical Reasoning; KSS Kent Core Social Sciences; WIC Writing Intensive