

## Roadmap: Mathematics - Bachelor of Science AS-BS-MATH

College of Arts and Sciences
Department of Mathematical Sciences

Catalog Year: 2016-2017

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]					
!	Computer Programming elective <sup>1</sup>	3 - 4				
!	MATH 12002 Analytic Geometry and Calculus I	5	С		KMC	
	UC 10097 Destination Kent State: First Year Experience <sup>2</sup>	1				
	Kent Core Requirement	3				
	Kent Core Requirement	3				
Semeste	r Two [16 Credits]					
!	MATH 12003 Analytic Geometry and Calculus II	5	С			
!	PHY 23101 General University Physics I	5			KBS	
	Kent Core Requirement	3				
	Kent Core Requirement	3				
Semeste	r Three [16 Credits]					
!	MATH 21001 Linear Algebra With Applications	3	С			
!	MATH 22005 Analytic Geometry and Calculus III	4	С			
	Kent Core Requirement	3				
	Kent Core Requirement	3				
	Kent Core Requirement	3				
Semeste	r Four [15 Credits]					
!	MATH 41021 Theory of Matrices	3	С			
	Allied Area Electives <sup>3</sup>	6				
	Kent Core Requirement	3				
	General Electives	3				
Semeste	r Five [16 Credits]					
!	MATH 41001 Introduction to Modern Algebra I	3	C ⁴		WIC/ELR	
	Allied Area Electives <sup>3</sup>	3				
	Foreign Language <sup>5</sup>	4-5				
	General Electives <sup>5</sup>	6				
Semeste	r Six [16 Credits]					
!	MATH 41002 Introduction to Modern Algebra II	3	C 4		WIC/ELR	
	Allied Area Electives <sup>3</sup>	6				
	Foreign Language <sup>5</sup>	4-5				
	Kent Core Requirement	3				
Semeste	r Seven [13 Credits]					
!	MATH 42001 Introduction to Analysis I	3	C ⁴		WIC/ELR	
	Allied Area Electives <sup>3</sup>	3				
	CS or MATH elective (40000-level)	3				
	Kent Core Requirement	1				
	General Electives <sup>6</sup>	3				
Semeste	r Eight [13 Credits]					
!	MATH 42002 Introduction to Analysis II	3	C ⁴		WIC/ELR	
	CS or MATH elective (40000-level)	6				
	General Electives <sup>6</sup>	4				

## **Graduation Requirements Summary**

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

## 1. Computer Programming elective (3-4 credits)

Choose from the following:		
CS 10061 Introduction to Computer Programming (3)	CS 13001 Computer Science I-Programming and Problem Solving (4) or CS 13011 Computer Science IA-Procedural Programming (2) and CS 13012	
	Computer Science IB-Object Oriented Programming (2) *If CS 13011 and CS 13012 are chosen to fulfill this requirement, students must earn a minimum grade of C (2.000) in both courses.	
DSCI 15310 Computational Thinking and Programming (3)		



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2. UC 10097 is not required of transfer students with 25 credits (excluding College Credit Plus) or students age 21+ at time of admission 3. Allied Area Electives (18 credits): must be approved by major advisor

Choose from the following:	
BSCI 3/4xxxx BSCI upper-division courses (1 - 18)	CHEM 3/4xxxx CHEM upper-division courses (1 - 18)
CS 3/4xxxx CS upper-division courses (1 - 18)	ECON 3/4xxxx ECON upper-division courses (1 - 18)
GEOL 3/4xxxx GEOL upper-division courses (1 - 18)	MATH 3/4xxxx MATH upper-division courses (1 - 18)
MIS 3/4xxxx MIS upper-division courses (1 - 18)	PHY 3/4xxxx PHY upper-division (1 - 18)
PHIL 41035 Philosophy of Science (3)	PHIL 41038 Intermediate Logic (3)
PHIL 41045 Metalogic (3)	

- 4. A minimum C (2.000) grade must be earned in MATH 41001 or MATH 41002 or MATH 42001 or MATH 42002 to fulfill the writing-intensive requirement.
- 5. Fulfills College General Requirement.
- 6. Number of general elective credit hours required depends on meeting minimum 120 credit hours and minimum 42 upper-division hours.

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 – <a href="https://www.kent.edu/catalog/kent-core">www.kent.edu/catalog/kent-core</a>; Diversity Course Requirement – <a href="https://www.kent.edu/catalog/diversity">www.kent.edu/catalog/kent-core</a>; Experiential Learning Requirement – <a href="https://www.kent.edu/catalog/elr.">www.kent.edu/catalog/elr.</a>

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