Roadmap: Applied Mathematics - Probability and Statistics - Bachelor of Science
AS-BS-AMTH-PSTT
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.

Critical	Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Type	Term Taken
Semester 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					
Semester 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					
Semester 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					
Semester 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					
Semester Five [15 Credits]							
!	**MATH 32044 Introduction to Ordinary Differential Equations**	**3**	■		■		
!	**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**	■		■		
	Kent Core Requirement	3					
	Kent Core Requirement	3					
Semester Six [15 Credits]							
!	**MATH 40012 Introduction to Statistical Concepts**	**3**	■		■		
!	**MATH 42091 Seminar: Modeling Projects [3] or MATH 42202 Introduction to Numerical Computing II**	**3**	■		■	**WIC**	
	Allied Area Elective [4]	3	■		■		
	General Elective [5]	6					
Semester Seven [14 Credits]							
!	**MATH 40041 Statistical Methods for Experiments or MATH 40042 Sampling Theory**	**3**	■		■		
!	**MATH 40051 Topics in Probability Theory and Stochastic Processes**	**3**	■		■		
!	**MATH 42031 Mathematical Models and Dynamical Systems *or* MATH 42201 Introduction to Numerical Computing I**	**3**	■		■		
	General Elective [5]	5					
Semester Eight [15 Credits]							
!	**MATH 41021 Theory of Matrices**	**3**	■		■		
!	**MATH 42091 Seminar: Modeling Projects [3] *or* MATH 42202 Introduction to Numerical Computing II**	**3**	■		■	**WIC**	
	Allied Area Elective [4]	6	■		■		
	General Elective [5]	3	■				

Graduation Requirements Summary

Minimum Total Hours	Minimum Upper-Division Hours	Minimum Kent Core Hours	Minimum	
			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. A minimum C (2.000) grade must be earned in MATH 42091 to fulfill the writing-intensive requirement.
4. Allied Area Elective (9 credits)

Choose from the following:	
BSCI 3/4xxxx Biological Science upper-division courses (1 - 9)	CHEM 3/4xxxx Chemistry upper-division courses (1 - 9)
CS 3/4xxxx Computer Science upper-division courses (1 - 9)	MATH 3/4xxxx Mathematics upper-division courses (1 - 9)
PHY 3/4xxxx Physics upper-division courses (1 - 9)	

5. Minimum 3 upper-division credit hours. Credits required depends on meeting minimum 120 credit hours and minimum 42 upper-division credit hours

University Requirements Summary

Type	Categories	Course(s) Satisfying Category	Remaining Requirements
KCM	**Kent Core I. Composition** Enrollment based on placement test	visit www.kent.edu/catalog/kent-core	6
KMC	**Kent Core II. Mathematics and Critical Reasoning** Enrollment based on placement test	MATH 12002	fulfilled
KHU	**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
KFA	**Kent Core IV. Fine Arts** Minimum one course from the fine arts; may fulfill diversity requirement	visit www.kent.edu/catalog/kent-core	3
KFH	**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	visit www.kent.edu/catalog/kent-core	6
KBS	**Kent Core VII. Basic Sciences** Must include one laboratory	PHY 23101, PHY 23102	fulfilled
KAD	**Kent Core VIII. Additional** May fulfill diversity requirement	visit www.kent.edu/catalog/kent-core	6
DD	**Domestic Diversity Course Requirement** Either domestic or global diversity must be from Kent Core	visit www.kent.edu/catalog/diversity	one course
DG	**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
WIC	**Writing-Intensive Course Requirement** Minimum C (2.000) grade	MATH 42091	fulfilled