SUGGESTED THREE-YEAR GRADUATION PLAN

KENT STATE UNIVERSITY

Roadmap: Integrated Mathematics - Bachelor of Science in Education
EH-BSE-IMTH
Education, Health and Human Services
School of Teaching, Learning and Curriculum Studies
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
Post-Secondary Coursework or Credit By Examination Upon Entry as a Freshman: [32 Credit Hours]						
!	**CULT 29535 Education in a Democratic Society**	**3**	**C**			
!	**MATH 12002 Analytic Geometry and Calculus I**	**5**	**C**	■	**KMC**	
	PSYC 11762 General Psychology [1]	3			DD/KSS	
	Kent Core Composition[1]	6	C			
	Kent Core Humanities and Fine Arts[1]	9				
	Kent Core Social Sciences[1]	3				
	Kent Core Basic Sciences [1]	3				
Semester One [18 Credits]						
Requirement: pass Praxis Core Reading (156 score), Writing (162 score) and Mathematics (150 score); minimum 2.750 cumulative GPA by end of term; minimum 2.600 major GPA						
	COMM 15000 Introduction to Human Communication	3			KAD	
	ITEC 19525 Educational Technology	3	C			
	MATH 12003 Analytic Geometry and Calculus II	5	C	■	KMC	
	MATH 34001 Fundamental Concepts of Algebra	3	C	■		
	PHIL 21002 Introduction to Formal Logic	3			KMC	
	US 10097 Destination Kent State: First Year Experience [2]	1				
Semester Two [16 Credits]						
Requirement: minimum 2.750 cumulative GPA; minimum 2.600 major GPA						
Note: apply online for Advanced Study before the second Friday of the term						
!	**EPSY 29525 Educational Psychology**	**3**	**C**			
	MATH 22005 Analytic Geometry and Calculus III	4	C	■		
	MATH 30011 Basic Probability and Statistics	3	C	■		
	MATH 34002 Fundamental Concepts of Geometry	3	C	■		
	Kent Core Requirement	3				
Semester Three [16 Credits]						
Requirement: minimum 2.750 cumulative GPA; minimum 2.600 major GPA						
Note: apply for student teaching						
!	**ADED 32142 Principles of Teaching Adolescents**	**3**	**C**		**WIC**	
!	**CS 10051 Introduction to Computer Science**	**4**	**C**	■	**KMC**	
	MATH 21001 Linear Algebra With Applications	3	C	■		
	MATH 31011 Discrete Mathematics	3	C	■		
	SPED 23000 Introduction to Exceptionalities	3	C		DD	
Semester Four [15 Credits]						
Requirement: minimum 2.750 cumulative GPA; minimum 2.600 major GPA						
!	**ADED 32268 The Secondary School Mathematics Curriculum**	**3**	**C**			
	HED 42575 Health and Learning: Strategies for Students and Teachers	3	C			
	Group A [3]	6	C	■		
	Group B [4]	3	C	■		
Semester Five [12 Credits]						
Requirement: minimum 2.750 cumulative GPA; minimum 2.600 major GPA						
Note: Apply for graduation.						
!	**ADED 42268 Teaching of Mathematics in Secondary Schools**	**3**	**C**			
!	**ADED 42292 Field Work Practicum**	**3**	**C**		**ELR**	
	MATH 47021 History of Mathematics	3	C	■		
	Group B [4]	3	C	■		
Semester Six [12 Credits]						
Requirement: minimum 2.750 cumulative GPA; minimum 2.600 major GPA						
!	**ADED 42357 Secondary Student Teaching**	**9**	**S**		**ELR**	
!	**ADED 49525 Inquiry into Professional Practice**	**3**	**C**			

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Graduation Requirements Summary

Minimum Total Hours	Minimum Upper-Division Hours 30000 – 40000 level course	Minimum Kent Core Hours	Minimum	
			Major GPA	Overall GPA
121	39	36	2.600	2.750

1. See list of Kent Core courses that can be earned through AP, CLEP or CBE exams on page 3
2. US 10097 is not required of transfer students with 25 credits (excluding College Credit Plus and dual-enrollment credit) or students age 21+ at time of admission.
3. Group A: MATH electives (6 credit hours)

Choose from the following	
MATH 41001 Introduction to Modern Algebra I (3) *ELR/WIC*	MATH 41002 Introduction to Modern Algebra II (3) *ELR/WIC*
MATH 41021 Theory of Matrices (3)	MATH 47011 Theory of Numbers (3)
Any 30000-40000 level MATH elective (3)	

4. Group B: MATH electives (6 credit hours)

Choose from the following	
MATH 42021 Graph Theory and Combinatorics (3)	MATH 42024 Numbers and Games (3)
MATH 45021 Euclidean Geometry (3)	MATH 45022 Linear Geometry (3)
MATH 46001 Elementary Topology (3)	

Special Major Notes:

- Minimum C grade must be earned in both Kent Core Composition courses.
- Licensure Requirement (not required for graduation):
  Candidates seeking Ohio licensure are required to pass specific assessments in order to apply for licensure. See Ohio Department of Education-Educator Preparation website for more information on assessments specific to licensure type. Taking and passing the licensure tests prior to graduation is encouraged but not required.

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

Kent Core Courses That Can Be Earned Through Exams

LEGEND: G – Global Diversity; **D** – Domestic Diversity; **LAB** – Laboratory

				Minimum **AP** score	Minimum **CLEP** score	Minimum **CBE** score
	COMPOSITION					
	ENG	11011	College Writing I (3)	3	50	C
	ENG	21011	College Writing II (3)			C
	MATHEMATICS AND CRITICAL REASONING					
	CS	10051	Introduction to Computer Science (4)	3		
	MATH	10041	Introductory Statistics (4)	3		C
	MATH	11010	Algebra for Calculus (3)		50	
	MATH	11012	Intuitive Calculus (3)			C
	MATH	12001	Algebra and Trigonometry (5)		50	C
	MATH	12002	Analytic Geometry and Calculus I (5)	3	50	C
	MATH	14001	Basic Mathematical Concepts I (4)			C
	MATH	14002	Basic Mathematical Concepts II (4)			C
	HUMANITIES AND FINE ARTS					
	Humanities in Arts and Sciences					
	ENG	22073	Major Modern Writers: British and United States (3)	3	50	
G	HIST	11050	World History: Ancient and Medieval (3)	3		C
G	HIST	11051	World History: Modern (3)	3		C
D	HIST	12070	Early America: From Pre-Colonization to Civil War and Reconstruction (3)	3	50	C
D	HIST	12071	Modern America: From Industrialization to Globalization (3)	3	50	C
	HIST	1xxxx	European History (3)	3		
	Fine Arts					
	ARCH	10012	Global Architectural History II (3)			C
	ARTH	22006	Art History: Ancient and Medieval Art (3)	3		
	MUS	22111	The Understanding of Music (3)			C
G	MUS	22121	Music as a World Phenomenon (3)			C
	SOCIAL SCIENCES					
	ECON	22060	Principles of Microeconomics (3)	3	50	C
	ECON	22061	Principles of Macroeconomics (3)	3	50	C
	GEOG	10160	Introduction to Geography (3)			C
G	GEOG	17063	World Geography (3)			C
D	GEOG	17064	Geography of the United States and Canada (3)			C
G	GEOG	22061	Human Geography (3)	3		
G	POL	10004	Comparative Politics (3)	3		
D	POL	10100	American Politics (3)	3	50	
D	PSYC	11762	General Psychology (3)	3	50	
D	PSYC	20651	Child Psychology (3)		50	
D	SOC	12050	Introduction to Sociology (3)		50	
	BASIC SCIENCES					
	BSCI	10001	Human Biology (3)			C
	BSCI	10002	Life on Planet Earth (3)			C
	BSCI	10110	Biological Diversity (4)	3	50	
	BSCI	10120	Biological Foundations (4)	4	50	
LAB	BSCI	11010	Foundational Anatomy and Physiology I (3)			C
LAB	BSCI	11020	Foundational Anatomy and Physiology II (3)			C
	BSCI	20020	Biological Structure and Function (5)			C
	CHEM	10030	Chemistry in Our World (3)			C
	CHEM	10050	Fundamentals of Chemistry (3)			C
	CHEM	10052	Introduction to Organic Chemistry (2)			C
	CHEM	10054	General and Elementary Organic Chemistry (5)			C
	CHEM	10060	General Chemistry I (4)	3	50	C
	CHEM	10061	General Chemistry II (4)	5	50	C
LAB	CHEM	10062	General Chemistry I Laboratory (1)	4		
	GEOL	11040	How the Earth Works (3)			C
	GEOL	11042	Earth and Life Through Time (3)			C
	GEOL	21062	Environmental Earth Science (3)	3		C
	GEOL	21080	All about the Oceans (3)			C
	PHY	11030	Seven Ideas that Shook the Universe (3)			C
	PHY	12201	Technical Physics I (3)			C
	PHY	12202	Technical Physics II (3)			C
	PHY	13001	General College Physics I (4)	3		C
	PHY	13002	General College Physics II (4)	3		C
	PHY	13011	College Physics I (2)			C
	PHY	13012	College Physics II (2)			C
LAB	PHY	13021	General College Physics Laboratory I (1)	3		
LAB	PHY	13022	General College Physics Laboratory II (1)	3		
	PHY	21040	Physics in Entertainment and the Arts (3)			C
	PHY	21430	Frontiers in Astronomy (3)			C
	PHY	23101	General University Physics I (5)	3		C
	PHY	23102	General University Physics II (5)	3		C

Visit the following websites for more information on the AP (http://www.kent.edu/transfercenter/advanced-placement.cfm); CLEP (www.kent.edu/career/testing/clep.cfm); and CBE (www.kent.edu/registrar/info/cbe.cfm) at Kent State.
Visit www.kent.edu/catalog/kent-core for the full Kent Core course list.

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