COURSE #	SLO		FA 2015	Spr 2016	FA 2016	Spr 2017	FA 2017	Spr 2018	FA 2018	Spr 2019	FA 2019	Spr 2020	FA 2020	Spr 2021
MATH 080	1	A student will be able to perform fundamental arithmetic operations, including adding, subtracting, multiplying and dividing whole numbers	ASP											
	2	A student will be able to simplify and operate on fractions	ASP			X	X							
	3	A student will be able to solve simple application problems that may include ratios and proportions	ASP	X	X									
	4	A student will be able to verify solutions to algebraic equations		X	X									
MATH 087	1	A student will be able to identify their own learning style along with specific strategies for studying mathematics textbooks, taking mathematics lecture notes, and organizing course material utilizing their learning style												
	2	A student will be able to create organized homework models.	WE DO NOT OFFER THIS CLASS ANYMORE.											
	3	A student will be able to recall and utilize specific strategies for mathematics test-taking including techniques for reducing math anxiety.												
	4	A student will be able to identify the support services available on campus.												
MATH 088	1	A student will strengthen core skills with operations involving whole numbers, fractions, decimals, and percentages.	ASP			X	X							
	2	A student will be able to perform operations on integers, simplify and evaluate variable expressions, perform operations at the pre-algebra level on polynomials, convert units of measure.	ASP	X	X									
	3	A student will be able to construct a linear graph						X	X					
	4	A student will be able to solve a one variable first degree linear equation that model a situation.	ASP							X	X			
	5	A student will be able to translate a written statement into a mathematical statement	ASP	X	X									

COURSE #	SLO														
MATH 088L	1	A student will strengthen core skills with operations involving whole numbers, fractions, decimals, and percentages.	ASP												
	2	A student will be able to perform operations on integers, simplify and evaluate variable expressions, perform operations at the pre-algebra level on polynomials, convert units of measure.	ASP	X	X	We are not offering this class during budget crisis.									
	3	A student will be able to construct a linear graph													
	4	A student will be able to solve a one variable first degree linear equation that model a situation.	ASP												
	5	A student will be able to translate a written statement into a mathematical statement	ASP	X	X										
MATH 089	1	A student will strengthen core skills with operations involving whole numbers, fractions, decimals, and percentages.	ASP												
	2	A student will be able to perform operations on integers, simplify and evaluate variable expressions, perform operations at the pre-algebra level on polynomials, convert units of measure.	ASP	X	X	Not offering this class anymore.									
	3	A student will be able to construct a linear graph													
	4	A student will be able to solve a one variable first degree linear equation that model a situation.	ASP												
	5	A student will be able to translate a written statement into a mathematical statement	ASP	X	X										
	6	A student will be able to recall and utilize specific strategies for taking math tests including techniques for reducing math anxiety.													
MATH 090	1	The student will be able to solve linear, quadratic, rational and radical equations, linear systems and linear inequalities.	ASP	X	X										
	2	The student will be able to simplify and evaluate algebraic expressions.						X	X						
	3	A student will be able to interpret linear equations numerically, graphically and symbolically and be able to transition between them.								X	X				
	4	A student will be able to apply appropriate algebraic methods to solve word problems.				X	X								

COURSE #	SLO														
MATH 090L	1	The student will be able to solve linear, quadratic rational and radical equations, linear systems and linear inequalities.	ASP												
	2	The student will be able to simplify and evaluate algebraic expressions.			We are not offering this class during budget crisis.										
	3	A student will be able to interpret linear equations numerically, graphically and symbolically and be able to transition between them.													
	4	A student will be able to apply appropriate algebraic methods to solve word problems.													
MATH 097	1	A student will use geometric vocabulary and mathematical notation to describe geometric objects and sketch figures with given characteristics.			X not done					X					
	2	A student will be able use mathematical logic; using inductive reasoning to formulate reasonable conjectures and using deductive reasoning for justification, formally or informally.						X	X						
	3	A student will use geometric properties of figures in two or three dimensions to find related quantities.	ASP	X	X										
	4	A student will develop and evaluate conjectures about geometric objects and the relationships between them.				X	X								
	5	A student will translate written language into mathematical statements, interpreting information by sketching relevant diagrams and by applying algebraic techniques to solve geometric problems.	ASP	X	X										
MATH 103	1	A student will be able to categorize intermediate algebra problems and use appropriate theorems, formulas, and algorithms to simplify or solve them.	ASP	X	X										
	2	A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically, and symbolically at the intermediate algebra level and have the ability to transition between these representations.				X	X							X	
	3	A student will be able to apply appropriate algebraic methods to solve applications.						X							X

COURSE #	SLO			1	2	3	4	5	6	7	8	9	10	11	12
MATH 110	1	A student will be able to categorize intermediate algebra problems and use appropriate theorems, formulas, and algorithms to solve them.	ASP, AER (F08); ASP	X	X										
	2	A student will be able to use the appropriate technology to solve problems requiring intermediate algebra.								X					
	3	A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically, and symbolically at the intermediate algebra level and have the ability to transition between these representations.				X	X								
	4	A student will be able to communicate the mathematical process and assess the validity of the solution.						X							X
MATH 110L	1	A student will be able to categorize intermediate algebra problems and use appropriate theorems, formulas, and algorithms to solve them.													
	2	A student will be able to use the appropriate technology to solve problems requiring intermediate algebra.		We are not offering this class during budget crisis.											
	3	A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically, and symbolically at the intermediate algebra level and have the ability to transition between these representations.													
	4	A student will be able to communicate the mathematical process and assess the validity of the solution.													
MATH 120	1	A student will be able to employ both inductive and deductive reasoning appropriately.			X	X									
	2	A student will be able to construct visual representations of certain problems and then analyze those constructs to attain a solution.					X	X							
	3	A student will be able to identify patterns in observations presented in a problem and then predict other outcomes using the patterns they identified.									X	X			
	4	A student will be able to employ logic in solving a problem to arrive at a conclusion.							X	X					
	5	A student will be able to categorize given problems and then employ the correct procedures to solve the problems.												X	X

COURSE #	SLO													
MATH 125	1	The student will be able to use various problem solving strategies.				X not done			X					
	2	The student will be able to develop their number sense by demonstrating competence in using different numeration systems.					X not done		X					
	3	A student will be able to analyze and contrast the basic operations of the real number system.				X not done			X					
	4	A student will be able to demonstrate proportional reasoning when working with the rational numbers.					X not done		X					
MATH 126	1	The student will have knowledge of basic geometry vocabulary.							X					
	2	The student will be able to demonstrate the elementary concepts of statistics.							X					
	3	The student will be able to demonstrate the elementary concepts of probability.							X					
	4	The student will be able to think logically, using inductive reasoning to formulate reasonable conjectures and using deductive reasoning for justification, formally or informally.							X					
	5	The student will be able to write justifications for conjectures and geometric theorems.						X						
	6	A student will be able to demonstrate knowledge of geometric concepts in the K-8 curriculum.						X						
MATH 128	1	The student will be able to identify different strategies that children use to solve mathematics problems.							X					
	2	The student will be able to analyze children's mathematical thinking by watching videos and conducting interviews.							X					
	3	A student will be able to communicate children's ways of solving mathematical problems.							X					
MATH 150	1	A student will be able to analyze problems in applied mathematics including statistics, engineering, and the physical sciences and devise computer-based solutions for them.				Not offered any longer								
	2	A student will be able to design algorithms and develop structured and user-oriented computer programs using the fundamental programming concepts and constructs they learn in class.												

COURSE #	SLO														
MATH 160	1	A student will be able to categorize data set and use appropriate methods to find, summarize, and visually display statistics about the data set.	ASP, AER (F08)		X		x								
	2	The student will also be able to interpret visual display of statistical data			X		X								
	3	A student will be able to take sample statistics and use appropriate procedures, methods, and tests to make inferences about the population.	X												
	4	A student will be able to categorize probability problems and use appropriate theorems and formulas to solve them.	ASP, AER (F08); ASP												
	5	A student will be able to use the appropriate technology to analyze statistical problems.		X						X					
	6	A student will be able to interpret, communicate, and assess the validity of statistical processes and conclusions.			X						X				
MATH 160L	1	A student will be able to categorize data set and use appropriate methods to find, summarize, and visually display statistics about the data set.													
	2	The student will also be able to interpret visual display of statistical data													
	3	A student will be able to take sample statistics and use appropriate procedures, methods, and tests to make inferences about the population.					WE DO NOT OFFER THIS CLASS ANYMORE.								
	4	A student will be able to categorize probability problems and use appropriate theorems and formulas to solve them.													
	5	A student will be able to use the appropriate technology to analyze statistical problems.													
	6	A student will be able to interpret, communicate, and assess the validity of statistical processes and conclusions.													

COURSE #	SLO														
MATH 170	1	A student will be able to categorize trigonometric problems and use appropriate theorems, formulas, and algorithms to solve them.		X											
	2	A student will be able to use the appropriate technology to solve problems requiring trigonometry.		X											
	3	A student will be able to formulate, analyze, and differentiate trigonometric functions numerically, graphically, and symbolically and have the ability to transition between these representations.				X									
	4	A student will be able to communicate the mathematical process and assess the validity of the solution.		X not done				X							
MATH 175	1	A student will be able to categorize college algebra problems and use appropriate theorems, formulas, and algorithms to solve them.				X									
	2	A student will be able to use the appropriate technology to solve problems requiring college algebra.		X											
	3	A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically, and symbolically at the college algebra level and have the ability to transition between these representations.				X									
	4	A student will be able to communicate the mathematical process and assess the validity of the solution.		X											
	5	A student will be able to analyze and graph polynomial function.	ASP	X											
MATH 176	1	A student will be able to categorize precalculus problems and use appropriate theorems, formulas, and algorithms to solve them.	ASP	X									X		
	2	A student will be able to use the appropriate technology to solve problems requiring precalculus.									X				
	3	A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically, and symbolically at the precalculus level and have the ability to transition between these representations.				X									X
	4	A student will be able to communicate the mathematical process and assess the validity of the solution.						X							

COURSE #	SLO															
MATH 177	1	Differentiate different teaching strategies and methodologies.					X								
	2	Differentiate different learning styles.					X								
	3	Solve intermediate algebra level word problems and deconstruct the various strategies that can be used to solve these problems.					X								
MATH 178	1	A student will be able to categorize matrix algebra problems and use appropriate theorems, formulas, and algorithms to solve them.												X	
	2	A student will be able to define and apply the concepts of limits, continuity, derivatives and antiderivatives to solve a variety of problems.			X										
	3	A student will be able to demonstrate understanding of the geometric relationship between a function, its first and second derivatives and its antiderivatives.					X								
	4	A student will be able to interpret and analyze information to develop strategies for solving problems in business and behavioral science involving related rates and optimization problems.						X							
	5	A student will be able to communicate the mathematical process and assess the validity of the solution.								X					
MATH 180	1	A student will be able to define and apply the concepts of limits, continuity, derivatives and antiderivatives to solve a variety of problems.	X	X											
	2	A student will be able to demonstrate understanding of the geometric relationship between a function, its first and second derivatives and its antiderivatives.			X	X									
	3	A student will be able to interpret and analyze information to develop strategies for solving problems involving related rates, optimization, work, volumes, arc length, and surface area.					X								
	4	A student will be able to communicate the mathematical process and assess the validity of the solution.							X						
MATH 198	1	Students will be able to recognize essential math skills and mathematical content and apply them to a related course.									X				
MATH 199	1	A student will be able to complete individual study, research, or projects in education.			X										

COURSE #	SLO															
	2	A student will be able to participate in conference sessions with the instructor of record.					Not currently being offered									
	3	A student will be able to develop the skills necessary to work independently (including self-monitoring, time management, and resource acquisition).															
MATH 245	1	A student will be able to evaluate and simplify basic logic.					X not done		X							
	2	A student will be able to define and apply the concepts from elementary number theory and elementary set theory.							X							
	3	A student will be able to apply direct and indirect methods of proof.									X					
	4	A student will be able to solve counting problems.												X		
MATH 280	1	A student will be able to choose and apply appropriate techniques of integration.				X not done			X							
	2	A student will be able to determine the convergence or divergence of sequences and series.			X											
	3	A student will be able to solve problems involving power series representations of functions.		X												
	4	A student will be able to analyze and graph polar equations, parametric equations, and conic sections.					X									
	5	A student will be able to solve problems using polar and parametric equations that involve tangent lines, arc length, and surface area.						X								

COURSE #	SLO														
MATH 281	1	A student will be able to use rectangular, polar, parametric, cylindrical and spherical coordinates to solve a variety of integrals and associated application problems.		X not done		X								
	2	A student will be able to analyze, graph and solve equations related to multi-variable functions.			X not done			X						
	3	A student will be able to evaluate, interpret and apply higher order partial derivatives.		X not done		X not done	X							
	4	A student will be able to analyze and interpret physical examples of vector fields and vector functions.			X not done			X						
MATH 284	1	A student will be able to characterize and solve a system of equations, and determine types of solutions and the existence of a solution.					X							
	2	A student will be able to classify matrices and their properties.							X					
	3	A student will be able to demonstrate and analyze the use of matrix algebra with its associated properties.									X			
	4	A student will be able to demonstrate and analyze the use of the determinant with its associated properties.					X							
	5	A student will be able to demonstrate and analyze the use of vector spaces, linear transformations, eigenvalues and eigenvectors.							X					
	6	A student will be able to analyze, identify, and use appropriate methods, definitions, and techniques in solving application problems.									X			
MATH 285	1	A student will be able to categorize differential equations and use appropriate theorems, formulas, and algorithms to solve them.						X						
	2	A student will be able to use the appropriate technology to solve problems requiring differential equations.								X				
	3	A student will be able to formulate, analyze, and differentiate mathematical conceptions requiring differential equations and manipulate them numerically, graphically, and symbolically as well as have the ability to transition between these representations.						X						
	4	A student will be able to communicate the mathematical process and assess the validity of the solution.								X				

COURSE #	SLO		
MATH 299	1	A student will be able to complete individual study, research, or projects in education.	Not currently being offered.
	2	A student will be able to participate in conference sessions with the instructor of record.	
	3	A student will be able to develop the skills necessary to work independently (including self-monitoring, time management, and resource acquisition).	