

SACS / Core Curriculum Intellectual Competencies

Discipline:

LIST OF ALL COURSES REQUIRED AND IDENTIFIED COMPETENCIES

Competencies						Course Number	Course Title
1	2	3	4	5	6		
				x		1314	College Algebra
				x		1316	Trigonometry
				x		1324	Math for Business & Economics
				x		1332	College Math
				x		1333	Math for Measurement
				x	x	1342	Elementary Statistics
				x		1425	Business Calculus
				x		2318	Linear Algebra
				x		2412	Pre-Calculus
				x		2413	Calculus I
				x		2414	Calculus II

COMPETENCY REFERENCES

6 - COMPUTER LITERACY understand our technological society, use computer based technology in communication, solving problems, acquiring information

5 - CRITICAL THINKING Ability to apply both qualitative and quantitative skills analytically and creatively to subject matter to evaluate arguments and construct alternative strategies.

4 - LISTENING analyze and interpret various forms of spoken communication, possess sufficient literacy skills of writing, reading - above¹¹ grade level

3 - SPEAKING ability to communicate orally in clear, coherent, and persuasive language appropriate to purpose, occasion, and audience above¹¹ grade level

2 - WRITING the ability to produce clear, correct and coherent prose adapted to purpose, occasion and audience - above¹¹ grade level

1 - READING the ability to analyze and interpret a variety of printed materials - books, documents, and articles - above¹¹ grade level

Department Chair Constance Elko

Dean David Fonken

Core Area Exemplary Educational Objectives

Core Area: Mathematics

The objective of the mathematics component of the core curriculum is to develop a quantitatively literate college graduate. Every college graduate should be able to apply basic mathematical tools in the solution of real-world problems.

LIST OF ALL COURSES RECOMMENDED AND IDENTIFIED COMPETENCIES

Competencies							Course Number	Course Title
1	2	3	4	5	6	7		
x	x	x	x	x	x	x	1314	College Algebra
x	x		x	x			1316	Trigonometry
x	x	x	x	x		x	1324	Math for Business & Economics
x		x	x	x		x	1332	College Math
x			x	x		x	1333	Math for Measurement
x	x	x	x	x	x	x	1342	Elementary Statistics
x	x	x	x	x		x	1425	Business Calculus
x	x	x	x	x			2318	Linear Algebra
x	x		x	x	x	x	2412	Pre-Calculus
x	x	x	x	x		x	2413	Calculus I
x	x	x	x	x			2414	Calculus II

EXEMPLARY EDUCATIONAL OBJECTIVES

7 – To develop the view that mathematics is an evolving discipline, interrelated with human culture, and understanding its connections to other disciplines.

6 – To recognize the limitations of mathematical and statistical models.

5 – To interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences from them.

4 – To use appropriate technology to enhance mathematical thinking and understanding and to solve mathematical problems and judge the reasonableness of the results.

3 – To expand mathematical reasoning skills and formal logic to develop convincing mathematical arguments.

2 – To represent and evaluate basic mathematical information verbally, numerically, graphically, and symbolically.

1 – To apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling and solving real-world situations.

Department Chair Constance Elko

Dean David Fonken

Department	Math
Course Rubric	MATH
Course Title	College Algebra
Course Number	1314

II. MATHEMATICS The objective of the mathematics component of the core curriculum is to develop a quantitatively literate college graduate. Every college graduate should be able to apply basic mathematical tools in the solution of real-world problems.

exemplary educational objective	in syllabus	major emphasis	minor emphasis	no emphasis	attendance	class discussion	portfolio	project	paper	report	presentation	work performance	lab	test/quiz	comprehensive exam	peer evaluation	self evaluation	homework	pre/post test score	other
1. To apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling and solving real-world situations.	x	x				x								x				x		
2. To represent and evaluate basic mathematical information verbally, numerically, graphically, and symbolically.	x	x				x								x				x		
3. To expand mathematical reasoning skills and formal logic to develop convincing mathematical arguments.	x	x				x								x				x		
4. To use appropriate technology to enhance mathematical thinking and understanding and to solve mathematical problems and judge the reasonableness of the results.	x		x			x												x		
5. To interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences from them.	x	x				x								x				x		
6. To recognize the limitations of mathematical and statistical models.			x			x												x		
7. To develop the view that mathematics is an evolving discipline, interrelated with human culture, and understand its connections to other disciplines.			x			x												x		

Department	Math
Course Rubric	MATH
Course Title	Math for Business & Economics
Course Number	1324

II. MATHEMATICS The objective of the mathematics component of the core curriculum is to develop a quantitatively literate college graduate. Every college graduate should be able to apply basic mathematical tools in the solution of real-world problems.

exemplary educational objective	in syllabus	major emphasis	minor emphasis	no emphasis	attendance	class discussion	portfolio	project	paper	report	presentation	work performance	lab	test/quiz	comprehensive exam	peer evaluation	self evaluation	homework	pre/post test score	other
1. To apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling and solving real-world situations.	x	x				x								x				x		
2. To represent and evaluate basic mathematical information verbally, numerically, graphically, and symbolically.	x	x				x								x				x		
3. To expand mathematical reasoning skills and formal logic to develop convincing mathematical arguments.	x		x			x								x				x		
4. To use appropriate technology to enhance mathematical thinking and understanding and to solve mathematical problems and judge the reasonableness of the results.	x	x				x												x		
5. To interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences from them.	x		x			x								x				x		
6. To recognize the limitations of mathematical and statistical models.			x			x												x		
7. To develop the view that mathematics is an evolving discipline, interrelated with human culture, and understand its connections to other disciplines.			x			x												x		

Department	Math
Course Rubric	MATH
Course Title	College Math
Course Number	1332

II. MATHEMATICS The objective of the mathematics component of the core curriculum is to develop a quantitatively literate college graduate. Every college graduate should be able to apply basic mathematical tools in the solution of real-world problems.

exemplary educational objective	in syllabus	major emphasis	minor emphasis	no emphasis	attendance	class discussion	portfolio	project	paper	report	presentation	work performance	lab	test/quiz	comprehensive exam	peer evaluation	self evaluation	homework	pre/post test score	other
1. To apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling and solving real-world situations.	x	x				x								x				x		
2. To represent and evaluate basic mathematical information verbally, numerically, graphically, and symbolically.																				
3. To expand mathematical reasoning skills and formal logic to develop convincing mathematical arguments.	x	x				x								x				x		
4. To use appropriate technology to enhance mathematical thinking and understanding and to solve mathematical problems and judge the reasonableness of the results.	x		x			x												x		
5. To interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences from them.	x	x				x								x				x		
6. To recognize the limitations of mathematical and statistical models.																				
7. To develop the view that mathematics is an evolving discipline, interrelated with human culture, and understand its connections to other disciplines.	x	x				x		x										x		

Department	Math
Course Rubric	MATH
Course Title	Elementary Algebra
Course Number	1342

II. MATHEMATICS The objective of the mathematics component of the core curriculum is to develop a quantitatively literate college graduate. Every college graduate should be able to apply basic mathematical tools in the solution of real-world problems.

exemplary educational objective	in syllabus	major emphasis	minor emphasis	no emphasis	attendance	class discussion	portfolio	project	paper	report	presentation	work performance	lab	test/quiz	comprehensive exam	peer evaluation	self evaluation	homework	pre/post test score	other
1. To apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling and solving real-world situations.	x	x				x								x				x		
2. To represent and evaluate basic mathematical information verbally, numerically, graphically, and symbolically.	x		x			x								x				x		
3. To expand mathematical reasoning skills and formal logic to develop convincing mathematical arguments.	x		x			x														
4. To use appropriate technology to enhance mathematical thinking and understanding and to solve mathematical problems and judge the reasonableness of the results.	x		x			x								x				x		
5. To interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences from them.	x	x				x								x				x		
6. To recognize the limitations of mathematical and statistical models.	x		x			x								x				x		
7. To develop the view that mathematics is an evolving discipline, interrelated with human culture, and understand its connections to other disciplines.			x			x												x		

Department	Math
Course Rubric	MATH
Course Title	Calculus I
Course Number	2413

II. MATHEMATICS The objective of the mathematics component of the core curriculum is to develop a quantitatively literate college graduate. Every college graduate should be able to apply basic mathematical tools in the solution of real-world problems.

exemplary educational objective	in syllabus	major emphasis	minor emphasis	no emphasis	attendance	class discussion	portfolio	project	paper	report	presentation	work performance	lab	test/quiz	comprehensive exam	peer evaluation	self evaluation	homework	pre/post test score	other
1. To apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling and solving real-world situations.	x	x				x								x				x		
2. To represent and evaluate basic mathematical information verbally, numerically, graphically, and symbolically.	x	x				x								x				x		
3. To expand mathematical reasoning skills and formal logic to develop convincing mathematical arguments.	x		x			x								x				x		
4. To use appropriate technology to enhance mathematical thinking and understanding and to solve mathematical problems and judge the reasonableness of the results.	x		x			x												x		
5. To interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences from them.	x		x			x												x		
6. To recognize the limitations of mathematical and statistical models.			x			x												x		
7. To develop the view that mathematics is an evolving discipline, interrelated with human culture, and understand its connections to other disciplines.			x			x												x		

Department	Math
Course Rubric	MATH
Course Title	Calculus II
Course Number	2414

II. MATHEMATICS The objective of the mathematics component of the core curriculum is to develop a quantitatively literate college graduate. Every college graduate should be able to apply basic mathematical tools in the solution of real-world problems.

exemplary educational objective	in syllabus	major emphasis	minor emphasis	no emphasis	attendance	class discussion	portfolio	project	paper	report	presentation	work performance	lab	test/quiz	comprehensive exam	peer evaluation	self evaluation	homework	pre/post test score	other
1. To apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling and solving real-world situations.	x	x				x								x				x		
2. To represent and evaluate basic mathematical information verbally, numerically, graphically, and symbolically.	x	x				x								x				x		
3. To expand mathematical reasoning skills and formal logic to develop convincing mathematical arguments.	x		x			x								x				x		
4. To use appropriate technology to enhance mathematical thinking and understanding and to solve mathematical problems and judge the reasonableness of the results.	x		x			x												x		
5. To interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences from them.	x		x																	
6. To recognize the limitations of mathematical and statistical models.						x												x		
7. To develop the view that mathematics is an evolving discipline, interrelated with human culture, and understand its connections to other disciplines.						x												x		