Degree program:	Bachelor of Arts with a Ma	ijor in Mathematics

## **Program Student Learning Outcomes**

- **1.** Students will be able to communicate effectively in written and oral forms, work successfully in teams, and understand ethical responsibilities.
- 2. Students will be able to think critically and be prepared for life-long learning.
- **3.** Students will be able to continue graduate studies in Mathematics or related field.
- **4.** Students will have a working understanding of the major disciplines in Mathematics, including Algebra, Analysis, Geometry/Topology, and Probability/Statistics. Students will also have the ability to read and write proofs and a working knowledge of mathematics software tools.
- **5.** Students will be able to apply quantitative reasoning to solve problems in a discipline other than Mathematics. With this knowledge students are enabled to enter the workforce in areas such as business, finance, engineering, computer science, actuarial science, government, statistics, or secondary education.

## Worksheet #2 - Program Checklist - List required courses and indicate level/s of delivery

I = Students are INTRODUCED to material

By putting (I, E, R or A) into Each Box Bachelor of Arts with a Major in Mathematics\_\_\_ **Degree Program:**  $\mathbf{E}$  = The material is EMPHASIZED and taught

	Degree Flogram E = The material is EMPHASIZED and taugh							
	Program-level outcomes addressed in depth  R = The material is REINFORCED with							
List of courses required for the degree	#1 Students will be able to communicate effectively in written and oral forms, work	#2 Students will be able to think critically and be prepared for	#3Students will be able to continue graduate studies in Mathematics or related	#4 Students will working underst the major discip Mathematics, in-	additional exp <b>A</b> = The Comp APPLIED	osure to the information petencies/Skills are being		
	successfully in teams, and understand ethical responsibilities.	life-long learning.	field.	Algebra, Analysic Geometry/Topolo and Probability/S Students will also ability to read and proofs and a work knowledge of ma software tools.	ogy, tatistics. have the d write king	other than Mathematics. With this knowledge students are enabled to enter the workforce in areas such as business, finance, engineering, computer science, actuarial science, government, statistics, or secondary education.		
MATH 2413		Ι	I	I				
MATH 2414		E	E	E				
MATH 2415		E	E	E				
COSC 1336	I	I				Ι		
COSC 1136	I	Ι				Ι		
MATH 3310		Ι	I	I				
MATH 3330		E	E	E				
MATH 3365		I	I	I		I		
MATH 4310		E	E	E				
MATH 4335		E	E	E				
MATH 4345	I	E	E	E		I		
Liberal Arts Elective (12 sch)						I		

Worksheet #3 - Order Courses by Outcome and Level of Delivery (Courses may be listed more than once)
Indicate level of delivery by checking the appropriate box) Add cells as necessary
Degree Program: \_\_Bachelor of Arts with a Major in Mathematics\_\_\_\_\_

Program-level outcome addressed (write out each program level outcome)	Level of Material Delivery (List classes in order of material delivery)		ist er of	Courses List courses (or groups of courses) in order of material delivery for each outcome (I, E, R and then A).	Curriculum Component/s (Class Activities) that Address Outcome	Means of Assessment	
	Ι	E	R	A	Courses may provide more than one level of material delivery.		
#1 Students will be able to	X				COSC 1336		
communicate effectively in	X				COSC 1136		
written and oral forms, work successfully in teams, and understand ethical responsibilities.	X				MATH 4345		
#2 Students will	X				MATH 2413		
be able to think		X			MATH 2414		
critically and be prepared for		X			MATH 2415		
life-long learning.	X				COSC 1336		
	X				COSC 1136		
	X				MATH 3310		
		X			MATH 3330		
	X				MATH 3365		
		X			MATH 4310		
		X			MATH 4335		
		X			MATH 4345		
#3 Students will be able to	X				MATH 2413		

			•		
continue graduate studies in		X		MATH 2414	
Mathematics or related field.		X		MATH 2415	
neid.	X			MATH 3310	
		X		MATH 3330	
	X			MATH 3365	
		X		MATH 4310	
		X		MATH 4335	
		X		MATH 4345	
#4 Students will have a	X			MATH 2413	
working understanding of		X		MATH 2414	
the major disciplines in Mathematics, including		X		MATH 2415	
Algebra, Analysis,	X			MATH 3310	
Geometry/Topology, and		X		MATH 3330	
Probability/Statistics. Students will also have the	X			MATH 3365	
ability to read and write		X		MATH 4310	
proofs and a working		X		MATH 4335	
knowledge of mathematics software tools.		X		MATH 4345	
#5 Students will be able to	X			COSC 1336	
apply quantitative reasoning	X			COSC 1136	
to solve problems in a discipline other than	X			MATH 3365	
Mathematics. With this	X			MATH 4345	
knowledge students are	X			Liberal Arts Electives	
enabled to enter the				Ziociai i itti Zioca ves	
workforce in areas such as					
business, finance,					
engineering, computer					
science, actuarial science,					
government, statistics, or					
secondary education.					

## **Worksheet #4 - Needed Modifications, if any, for Curriculum Alignment**

Goal: Degree programs are coherent in that they demonstrate 1) sequencing, 2. progression or increasing complexity, and 3) linkages between and among program core courses.

Curriculum Modifications Needed	Why Needed?			
We do not think that we need to modify this program at this time, but we will reconsider this question during Fall 2008.				