



Course Outline
MGF 1106
College Mathematics Fall13 Revised

General Course Information

Common Course Number: MGF1106

Course Title: College Mathematics Fall13 Revised

Prerequisite(s): Minimum grade of C in MAT0018C or MAT0022C or MAT0028C or appropriate score on an approved assessment.

Contact Hour Breakdown: CR 3 CLASS 3 LAB 0

Discipline: Mathematics

Catalog Description: Topics include systematic counting, probability, statistics, geometry, sets, logic, and the history of mathematics. Gordon Rule course. Minimum grade of C required if MGF1106 is used to satisfy Gordon Rule and general education requirements. Credit may not be given for both MGF1106 and MGF2106 nor for MGF1106 and MGF2202.

Major Topics/ Concepts/ Skills/ Issues

- Logic
- Probability
- Sets
- Statistics
- History of Mathematics
- Systematic Counting
- Geometry meeting the requirements of 6A-5.066(3) 1, Florida Administrative Rules for Education Majors. It will enable the teacher to support the instruction and measurement as listed by the Sunshine State Standards.
- College Readiness

Major Learning Outcomes with Evidence, Core Competencies and Indicators

Demonstrate an understanding of mathematical topics beyond algebra: sets, logic, probability, counting methods, geometry and statistics.	
Corresponding Evidence of Learning	
<ul style="list-style-type: none"> • Student will be able to recognize and apply different forms of statements, translate between verbal statements and symbolic forms. • Student will be able to read, interpret and display data using different types of representations. • Student will be able to determine the measurement of angles, the types of lines, angles and polygons and answer associated questions. • Student will be able to use set terminology and symbols to properly describe relationships among sets. • Student will be able to find probabilities of different types of events. 	
Core Competency: Think	
Indicators	Assessments
<ul style="list-style-type: none"> • analyze data, ideas, patterns, principles, perspectives • employ the facts, formulas, procedures of the discipline • draw well-supported conclusions 	<ul style="list-style-type: none"> • Knowledge recall quiz • Locally developed exam/objective • Locally developed multiple choice exam • Problem-solving quiz
Core Competency: Value	
Indicators	Assessments
<ul style="list-style-type: none"> • recognize values as expressed in attitudes, choices, and commitments 	
Core Competency: Communicate	
Indicators	Assessments

<ul style="list-style-type: none"> employ methods of communication appropriate to your audience and purpose 	<ul style="list-style-type: none"> Knowledge recall quiz Locally developed exam/objective Locally developed multiple choice exam Problem-solving quiz
Core Competency: Act	
Indicators	Assessments
<ul style="list-style-type: none"> implement effective problem-solving, decision-making, and goal-setting strategies 	<ul style="list-style-type: none"> Knowledge recall quiz Locally developed exam/objective Locally developed multiple choice exam Problem-solving quiz
Implement the fundamental methods of each topic in various applications of mathematics.	
Corresponding Evidence of Learning	
<ul style="list-style-type: none"> Student will be able to draw and interpret a Venn diagram. Student will be able to determine and explain whether a combination or permutation should be used for an application. Student will be able to apply formulas of perimeter, area, and volume to various shapes. Student will be able to apply concepts of distributions. Student will be able to apply concepts of tree diagrams and/or sample spaces to determine probability. Student will be able to use Euler diagrams and/or truth tables to determine the validity of an argument. 	
Core Competency: Think	
Indicators	Assessments
<ul style="list-style-type: none"> analyze data, ideas, patterns, principles, perspectives employ the facts, formulas, procedures of the discipline draw well-supported conclusions 	<ul style="list-style-type: none"> Knowledge recall quiz Locally developed exam/essay Locally developed exam/objective Problem-solving quiz
Core Competency: Value	
Indicators	Assessments
<ul style="list-style-type: none"> recognize values as expressed in attitudes, choices, and commitments 	
Core Competency: Communicate	
Indicators	Assessments
<ul style="list-style-type: none"> employ methods of communication appropriate to your audience and purpose 	<ul style="list-style-type: none"> Knowledge recall quiz Locally developed exam/objective Locally developed multiple choice exam Problem-solving quiz
Core Competency: Act	
Indicators	Assessments
<ul style="list-style-type: none"> implement effective problem-solving, decision-making, and goal-setting strategies 	<ul style="list-style-type: none"> Knowledge recall quiz Locally developed exam/objective Locally developed multiple choice exam Problem-solving quiz
Recognize the historical development of mathematical ideas and concepts.	
Corresponding Evidence of Learning	
<ul style="list-style-type: none"> Student will be able to present information about mathematicians and their contributions to the field/topic of mathematics. 	
Core Competency: Communicate	
Indicators	Assessments
<ul style="list-style-type: none"> Employ methods of communication appropriate to your audience and purpose. 	<ul style="list-style-type: none"> Group presentation Project Research paper

General Education Outcome Indicators

Demonstrate an understanding of mathematical topics beyond algebra: sets, logic, probability, counting methods, geometry and statistics.

CRITICAL THINKING

Effectively analyze, evaluate, synthesize and apply information and ideas from diverse sources and disciplines.

Indicators	Assessments
<ul style="list-style-type: none"> ● Develop a viable solution plan. ● Comprehend data. ● Analyze data. ● Draw well supported conclusions. 	<ul style="list-style-type: none"> ● A common question will be embedded in the final exam. A stratified random sample of students will be selected. The student artifacts will be evaluated using a common rubric.
Implement the fundamental methods of each topic in various applications of mathematics.	
QUANTITATIVE AND SCIENTIFIC REASONING - QUANTITATIVE Use processes, procedures, data, or evidence to solve problems and make effective decisions.	
Indicators	Assessments
<ul style="list-style-type: none"> ● Classify and utilize facts and formulas correctly. ● Construct a mathematical model. ● solve using appropriate procedures. ● Draw well supported conclusions. 	<ul style="list-style-type: none"> ● A common question will be embedded in the final exam. A stratified random sample of students will be selected. The student artifacts will be evaluated using a common rubric.

[College Curriculum Committee Website](#)

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