

Broward College
MGF 1106 – Foundations of Mathematical Reasoning

Instructor:	Carlos Sotuyo	Term/Session:	Fall 2019, Session 1
Instructor's BC E-mail:	csotuyo@broward.edu	Reference No.:	649313
Office Hours:	2:30 pm – 3:00 pm Tues	Class Days:	Tuesday
Office:	BIng 69, 237	Class Time:	6:30 pm – 9:15 pm
Math Department Phone Number:	(954) 201-8920 (954) 201-8975 (FAX)	Classroom:	BIng 70, room 107
Emergency Phone Number:	(954) 201-4357 (Safety) (954) 201-4900 (Hotline)	Withdrawal Date: Credit to Audit Date:	Aug 26, withdraw 100% refund Oct 23, withdraw with W.

Academic Calendar at <http://www.broward.edu/calendar/Pages/term-dates.aspx>

Class web page: <http://www.imathesis.com/mgf1106.html>

COURSE DESCRIPTION:

This is a general education course which includes the college-level skills not included in the courses MAT0018C Developmental Math I, MAT0028C Developmental Math II, and MAT1033 Intermediate Algebra. The course will include topics in logic, geometry, set theory, probability, statistics and the history of mathematics. This course will also emphasize applications to real world situations and the integration of other disciplines, including, but not limited to business and physical sciences.

GENERAL OUTCOME:

Units	General Outcome
	The student shall be able to:
Unit 1. Sets	<ul style="list-style-type: none"> Demonstrate an understanding of sets, their properties, and some of their many uses
Unit 2. Logic	<ul style="list-style-type: none"> Demonstrate an understanding of logic concepts and apply the precepts of logic to problems
Unit 3. Geometry	<ul style="list-style-type: none"> Demonstrate knowledge of plane and solid geometry, and identify and apply geometric principles to solve problems with the aid of a calculator or statistical software
Unit 4. Systematic Counting and Probability	<ul style="list-style-type: none"> Understand counting techniques and apply methods for computing probabilities
Unit 5. Statistics	<ul style="list-style-type: none"> Apply basic statistical principles in various ways with the aid of a calculator or appropriate statistical software

PREREQUISITE:

MAT 1033 or STA 1001 with a grade of "C" or higher; or placement by the math department in conjunction with an academic adviser.

COURSE MATERIAL:

Textbook: *Mathematical Ideas*, 14th Edition, Miller, Heeren, & Hornsby, Pearson

Learning System: An online educational program titled MyMathLab (MML) that includes an electronic version of the textbook (e-book): Required

SUPPLEMENTAL MATERIAL: Scientific calculator

HOMEWORK:

Required homework assignments are posted on MyMathLab and will be counted towards your grade in this class. Register at www.pearson.com/mylab instructor’s course ID: sotuyo09908

ASSISTANCE:**Academic Success Center (ASC):**

The ASC centers at Broward College are here to ensure your success in this class. You will benefit from an array of academic support services provided in a comfortable, collaborative atmosphere specifically designed to advance your academic achievement: <http://www.broward.edu/studentresources/lrc/Pages/default.aspx>

Here are just some of the services provided at the ASC:

- Academic Support Labs (Science Center, Math Lab, Writing Center)
- Collaborative Project Space
- Open Computer Centers (Printing)
- Study Groups
- Textbook Reserves
- Tutoring by Certified Tutors (All subject areas)

Seahawk Support Program:

The Seahawk Support Program is a coordination between students, faculty, the Office of Student Success, and the ASC designed to support students in order to increase their chances of success. If you are contacted by a representative of the Office of Student Success or the ASC, please take full advantage of this excellent opportunity to improve your success in this course.

CELL PHONE POLICY:

Put your cell phone away on “silent-mode”. Cell phones, smart phones, iPod, and other similar devices are not allowed to be used as calculator during class time and Tests.

METHOD OF INSTRUCTION AND EVALUATION:

In this class, you will engage in structured in-class and out-of-class activities. You will achieve the course objectives through interactive lecture, in class practice problems, class participation, homework assignments, and assessments.

Assessment	Grade Points	Percent of Final Grade
5 Tests	600	60%
MyMathLab Homework	200	20%
Final Exam	200	20%
Total	1000	100%

GRADING POLICY:

Your grade will be determined by taking the average of your test scores, homework and Final Exam:

Grade	Grading Scale
A	90 – 100%
B	80 – 89.9%
C	70 – 79.9%
D	60 – 69.9%
F	0 – 59.9% or if a student commits an act of cheating/plagiarism
W	Official Withdrawal by the student by the withdraw date
WN	Administrative Withdrawal for Non-Attendance

COURSE WITHDRAWALS:

During the second week of class, professors are required to report students who have never attended, and these students will be administratively withdrawn. Following this attendance verification, it is the student's sole responsibility to withdraw from the course and to verify that the withdrawal is properly recorded through the Registrar's Office prior to the withdrawal deadline. The professor cannot process withdrawals for any reason other than the above-stated student non-attendance. A withdrawal is considered an attempt.

ACADEMIC ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES:

If you are requesting academic accommodations, you must first register with Accessibility Resources (contact information is provided below). Accessibility Resources will evaluate your request and determine eligibility. If approved, you will be provided with an Accommodation Plan that you must deliver to me either electronically or in person. Once received, we will discuss which accommodations you are requesting for this class, and in accordance with Broward College policy 6Hx2-5.09 you will be provided with the appropriate accommodations. Students who wait until after completing the course, or an activity, to request accommodations should not expect any grade to be changed, or to be able to retake the course or activity.

South Campus; Miramar Centers; Pines Center; Weston Center: 954-201-8913

ATTENDANCE POLICY:

You are required to attend all classes. There will be no penalty for a student who is absent from academic activities because of religious holiday observances in his/her own faith, the student's serious illness, death in immediate family, or attendance to statutory governmental responsibilities. The students must notify the instructor of these absences, providing necessary documentation. It is the student's responsibility to make up the missed work.

STATEMENT OF ACADEMIC DISHONESTY:

Broward College expects its students to be honest in all of their coursework and activities. Breaches of academic honesty include, but are not limited to, cheating, plagiarism, misrepresentation, bribery, and the unauthorized possession of examinations, papers, or other class materials that have not been formally released by instructors. A student's academic work must be the result of his or her own thought, research, or self-expression. The term "cheating" includes but is not limited to, copying homework assignments from another student; working together with another individual on a take-home test or homework when specifically prohibited from doing so by the instructor, looking at test, notes or another person's paper during an examination when not permitted to do so. (See current BC catalog statement at www.broward.edu/catalog/).

Course Schedule/Suggested Homework:

Days	Date	Units	Sections and Topics
Day 1	8/20	Unit 1: Sets	2.1 Symbols and Terminology
		Unit 1	2.2 Venn Diagrams and Subsets
		Unit 1	2.3 Set Operations
		Unit 1	2.4 Surveys and Cardinal Numbers
Day 2	8/27	Review	
Day 3	9/3		Test 1
Day 4	9/10	Unit 2: Intro to Logic	3.1 Statements and Quantifiers

		Unit 2	3.2 Truth Tables and Equivalent Statements
		Unit 2	3.3 The Conditional and Circuits
Day 5	9/17	Unit 2	3.4 The Conditional and Related Statements
		Unit 2	3.5 Analyzing Arguments with Euler Diagrams
		Unit 2	3.6 Analyzing Arguments with Truth Tables
Day 6	9/24	Review	
Day 7	10/1		Test 2
Day 8	10/08	Unit 3: Geometry	7.1 Linear Equations (JIT Support) 9.1 Points, Lines, Planes, and Angles
		Unit 3	9.2 Curves, Polygons, and Circles
		Unit 3	7.3 Ratio, Proportion, and Variation (JIT Support) 9.3 The Geometry of Triangles: Congruence, Similarity, and the Pythagorean Theorem
		Unit 3	9.4 Perimeter, Area, and Circumference
		Unit 3	9.5 Volume and Surface Area
Day 9	10/15	Review	
Day 10	10/22		Test 3
Day 11	10/29	Unit 4: Counting methods, probability	10.1 Counting by Systematic Listing
		Unit 4	10.2 Using the Fundamental Counting Principle
		Unit 4	10.3 Using Permutations and Combinations
		Unit 4	10.5 Counting Problems Involving “Not” and “Or”
		Unit 4	11.1 Basic Concepts of Probability
		Unit 4	11.2 Events Involving “Not” and “Or”
		Unit 4	11.3 Conditional Probability and Events Involving “And”
Day 12	11/5	Review	
Day 13	11/12		Test 4
Day 14	11/19	Unit 5: Intro to Statistics	12.1 Visual Displays of Data
		Unit 5	12.2 Measures of Central Tendency
		Unit 5	12.3 Measures of Dispersion
		Unit 5	12.4 Measures of Position
		Unit 5	12.5 The Normal Distribution
Day 15	11/26	Review	
Day 16	12/03		Test 5
Day 17	12/10		Final Exam