Florida A&M University

College of Science and Technology

Department of Mathematics

MGF1106 - Liberal Arts Mathematics I

MGF1106 Course/Instructor Information, Fall 2022 (2228)

Credit Hours:	**3**
MGF1106 Section	**HS2**
Modality:	**Face-to-Facee**
Instructor:	Edra Taylor_____
Email:	edrataylor@gmail.com __
Phone:	_____
Office Hour via Zoom:	Day and Time: _TBA_____

First day of class: *August 22, 2022*

Note: The best ways to reach us for content related questions are

1. *E-mail.* edrataylor@gmail.com
2. *the online discussion board,*
3. *Zoom Office Hour: click on ZOOM in the course Navigation.*

Prerequisites or Co-requisites

MAT 1033 or Suitable Placement Score

Required Text:

The Nature of Mathematics 13th edition *by* Karl Smith (Publisher: Cengage) with web access to www.webassign.net , for homework, quizzes and tests.

Software for MGF1106:

Required Technology

- Internet connection (DSL, LAN, or cable connection desirable)
- Access to CANVAS
- Web Camera
- Headset with microphone

LMS Access (Access to Learning Management System used by the university)

To ensure that you are using a supported browser and have required plug-ins please run the Check Browser (Links to an external site.) from your course.

FAMU CANVAS Access

To access this course on FAMU CANVAS you will need access to the Internet and a supported Web browser Windows (*Internet Explorer, Firefox), MacOS (Safari,* and *Google Chrome*). To ensure that you are using a supported browser and have required plug-ins please run the Check Browser from your CANVAS course.

IMPORTANT: Install the Respondus LockDown Browser on your laptop prior to taking the unit tests and final exam. Students who do not have this program downloaded on their laptops will NOT be able to take the unit tests and final exam.

Course Description:

This course is appropriate for liberal arts students who plan to concentrate in fields which require no specialized mathematics beyond the general education level. The content of this course includes: Set theory, logic, measurement, geometry, counting methods and probability and statistics.

Course Outcome:

Upon completion of MGF students will be able to:

1. identify sets and perform set operations: union, intersection, complement, and apply De Morgan's Law, and solve real life problems;
2. identify if a given sentence is a statement, connect statements using logical connections: and, or, negation, then form compound statement, build truth table;

3. identify and classify polygons and measure of angles, calculate sides of a right triangle using Pythagorean Theorem, similarity of triangles, solve real-life problem involving geometric concepts;
4. convert numbers to different bases, perform algebraic operation on numerals with different bases, identify ancient numeration systems and operations on them;
5. dependent and independent events and evaluate conditional probabilities, calculate the odds in favour or against an event;
6. evaluate sampling, frequency distributions and graphs, calculate Measures of Central Tendency, Measure of Dispersion, identify the Normal Distribution.

Course Structure

This course will be **delivered** through the course management system CANVAS where homework, quizzes, and tests are available at Cengage/WebAssign which is linked to Canvas.

For any information regarding Cengage/WebAssign, please click on the **Module**:

Welcome to Cengage Unlimited! Students Activate & Access Your eTextbook Here!

You will use your FAMNet username and password to login to the course from the FAMU CANVAS page.

In CANVAS, you will access modules, where information on course materials, instructions about activities in WebAssign and resources. At designated times throughout the semester, we will participate in a blend of self-paced and group-paced activities using CANVAS and alternative Internet-based technologies. Activities will consist of *chat, discussion forums, email or web posting*.

Technical Assistance

If you need technical assistance at any time during the course or to report a problem with CANVAS you can:

- Visit the Office of Instructional Technology page
- Contact the Office of Instructional Technology at 850-599-3460 or oit@famu.edu
- View CANVAS Guides to learn more about using CANVAS

Grading Policy

Description	**Point/Percentages**
Tests (3)	30%
Homework	20%
Quizzes	20%
Self-Check	15%
Final	15%

Grade Calculation: 30%(Test average)+20%(Homework average)+20%(Quiz average)+15%(Self-check average)+15%(Final).

Final grades assigned for this course will be based on the percentage of total points earned and are assigned as follows:

Grade Percentage

Letter Grade	**Percentage**
A	90-100 %
B	80-89 %
C	70-79 %
D	60-69 %
F	0-59 %

Incomplete: A grade of I, incomplete will not be given for any student who failed or missed a test and have a poor online activity. Poor online activity includes failure to submit assignments before the due dates. If you are not in a good academic stand, you need to contact your advisor and explain your situation before the withdrawal deadline (*11/04*/202*2*).

Grades will be posted in the Grade Centre in CANVAS.

Viewing Grades in CANVAS

Points you receive for graded activities will be posted to the FAMU CANVAS Grade Book. Click on the *Grades* link on the left navigation to view your points.

Policy for Late homework and quiz or missed test, attendance withdrawal date:

Tests, Homework, Quizzes, Self-Check and Final are given in Cengage/WebAssign which you will access through Canvas.

Homework and Quizzes: In each section, before starting a quiz, you must complete homework in the same section (ex. Homework in Section 2.1 and 2.2 are supposed to be done before Quiz (2.1 & 2.2)).

No makeup for a missed quiz regardless of the excuse. No extension of due dates. There is a 10% penalty for late submission of homework. Please submit your homework in the week designated at a given module so that you are ahead of the deadline. Homework from each section covered by a self-check on that section should be submitted before the due date of the self-check (ex. Submit Homework from Sections 2.1 – 2.4 before the due date of Self-Check 1). Furthermore, you are strongly advised to use the suggested **Weekly Activity** posted on Module__If several assignments have the same due dates and if they are available over a longer period, then waiting till the eleventh hour is not a good idea.

Tests: A student who misses a test due to an avoidable reason can request a makeup test. However, a student **cannot** request a makeup test for **more than one missed test regardless of reasons**, and if more than one test is missed, the score on one of the tests remains zero. The instructor will assess the student's online participation (work on homework, quiz and self-checks) before granting a request for a makeup test. The instructor will determine how and when a makeup test is offered in the semester.

Test Dates:

Test 1: September 14, 2022

Test 2: October 12, 2022

Test 3: November 9, 2022

Final Exam: December 5, 2022.

Self-Check: Before each test there is a self-check test**.** The prerequisite quizzes for a given self-check need to be submitted to get access to the self-check. Please refer to the **Weekly Activity** posted on Module 0. **No makeup is given to a missed self-check.**

Attendance/Participation

Students are expected to participate in all online activities as listed on the course calendar.

You are required to access this course and regularly **a minimum of two times a week**. *Participation means* keeping up with the Quizzes from each section along with homework to be completed before each Self-Check.

Attendance Holds: (Change it for face to face class) Unless you register at Cengage/WebAssign and submit assignment, your attendance on the iRattler will not be recorded.

Deadline to Withdraw: The deadline to withdraw from this class is *November 4, 2022*. Note that this is a temporary schedule at the Registrar's website. You will have to double check if there is any change on this date. A Mid-Term grade will be posted on Canvas Grade prior to this date. For anyone who fails the course (with F) and who stops activities before the deadline to withdraw, a grade of WF will be assigned. Those who failed this course with F, but had activity past the withdrawal date will receive F. Please refer to the Registrar's website for more information.

Last day of classes*: December 2, 2022.*

Learning objective by chapter:

Upon completion of

1. **Chapter 2 (Set Theory)** After completing this chapter students will be able to:

describe sets, define empty sets, identify cardinality of sets, differentiate between finite or infinite sets equal and equivalent sets, use set operations (complement, union, intersections, difference and Cartesian products of two sets), number of subsets of a given set, use Venn diagram to describe relation among sets, illustrate De Morgan's law and solve problems using Venn diagram, define and identify infinite sets.

1. **Chapter 3 (Logic)** After completing this chapter students will be able to:

identify simple or compound statements, quantifiers, logical connectives, negations, write statements symbolically, construct truth table for compound statements, identify hierarchy of logical connectives, equivalence of statements, use truth table to classify statements as tautology and contradiction, write converse, inverse and contrapositive of a statement, decide if an argument is valid or a fallacy using truth table and Euler circles.

1. **Chapter 4 (Number Representation and Calculation)** After completing this chapter students will be able to:

convert numbers to different bases, perform algebraic operation on numerals with different bases, identify ancient numeration systems and operations on them and conversion to decimal numbers.

1. **Chapter 7 (Geometry)** After completing this chapter students will be able to:

evaluate measure of an angle using supplementary and complementary angles and transversal lines, identify types of triangles, determine if two triangles are similar by finding the ratio of their sides and measure of their angles, solve right triangles utilizing Pythagorean theorem and definition of trigonometric functions, find sum of measures of angles of a polygon and angle measures of a regular polygon.

1. **Chapter 12** (**Counting Methods and Probability Theory)** After completing this chapter students will be able to:

use the fundamentals of counting principles and determine the number of outcomes of selections, distinguish between permutation and combination.

1. **Chapter 13 (Probability)** After completing this chapter students will be able to:

evaluate probabilities using permutations and combinations, evaluate the probability that an event will occur, probability of one event or a second event occur, be able to identify and use the odds in favor or the odds against an event, identify independent events and evaluate the conditional probability.

1. **Chapter 14 (Statistics)** After completing this chapter students will be able to:

work on sampling, Frequency Distributions, and Graphs; Measures of Central Tendency; Measure of Dispersion; The Normal Distribution.

Course Outline/Schedule

Important Note:

This is a tentative schedule for the course, and the instructor may change it without any prior notice.

Refer to the **Weekly Activity** (about **course calendar)** for specific meeting dates and times. Activity and assignment details will be explained in detail within each week's corresponding learning module. If you have any questions, please contact your instructor. The due dates for

each homework and quiz is available on WebAssign. It is the student's responsibility to keep track of due dates of assignments. The instructor could reschedule homework or quizzes.

Policy Statement on Non-Discrimination

It is the policy of Florida Agricultural and Mechanical University to assure that each member of the University community be permitted to work or attend classes in an environment free from any form of discrimination including race, religion, color, age, disability, sex, marital status, national origin, veteran status and sexual harassment as prohibited by state and federal statutes. This shall include applicants for admission to the University and employment.

Academic Honor Policy Statement

Florida A&M University is committed to academic honesty and its core values, which include scholarship, excellence, accountability, integrity, fairness, respect, and ethics. These core values are integrated into this academic honesty policy. Being unaware of the Academic Honesty Policy is not a defense for violations of academic honesty. Additional detail on FAMU Academic Honesty Violations are provided in University Policy 2.012 (10.)(s). If you have any questions, please see your Academic Advisor.

University Americans with Disabilities Act (ADA) Statement

The Florida A&M University Americans with Disabilities Act (ADA) Policy Statement sates that "Individuals who need a reasonable accommodation must notify the Office of Equal Opportunity Programs at 599-3076." It is the responsibility of the FAMU Equal Opportunity Programs (EOP) Office, through the ADA Coordinator, to ensure the Florida A&M University is in compliance with the Americans with Disabilities Act. If you have any questions, please contact your Academic Advisor or the University EOP Officer, Equal Opportunity Programs, 674 Gamble Street, Tallahassee, FL 32307, (850) 599-3076.

Disclaimer: This syllabus is intended to provide student guidance on the type of content and activities that will be covered in this course throughout the semester. It will be followed to the extent possible. However, modifications may be made to supplement and/or enhance student learning.

Procedure for Resolving Faculty-Student Conflict

1. Student first attempts to resolve issue with instructor.
2. Student submits written notification of problem to chair.
3. Chair forwards student letter to instructor.
4. Instructor responds in writing to chair.
5. Chair meets with instructor and/or student if necessary.
6. Chair forwards response/recommendation to Dean's office.
7. Dean decides what further course of action is available to the student.

College Grievance Deadlines

Intent to Grieve Form

Students must submit Intent to Grieve Forms, online, within two weeks of grades being made available for students to view in accordance with the University Registrar's calendar. Students cannot submit an Academic Grade Grievance without submitting an Intent to Grieve Form unless they receive an exception from the Associate Dean.

Grievances submitted to the College of Science and Technology Grievance Committee for fall semester grade disputes must be communicated to the College of Science and Technology Dean's Office by the deadlines listed below. These will only be reviewed if an Intent Grieve Form was filed by the stated deadline or an exception is provided by the Associate Dean allowing the student to submit a grievance without filing and Intent to Grieve Form.

- Biology, Chemistry, Math, Physics courses – student must submit the grievance no later than March 1st (or next business day).
- CIS courses – No later than three weeks after the student receives notification of the outcome of the Academic Complaint Process (ACP) from the CIS chairperson.

Sexual Harassment Policy

Sexual harassment is a form of discrimination based on a person's gender. Sexual harassment is contrary to the University's values and moral standards, which recognize the dignity and worth of each person, as well as a violation of federal and state laws and University rules and policies. Sexual harassment cannot and will not be tolerated by the Florida A & M University, whether by faculty, students, or staff; or by others while on property owned by or under the control of the University.