



MGF 1107E – 501 Liberal Arts Mathematics II

FALL 2021	Credit Hours 3
Modality:	Online
Instructor:	Dr. Elise A. Simmons
Email:	elise.simmons@fam.u.edu
Phone:	850-599-8403
Zoom and Face-to-Face (Office Hour)	Join Zoom Meeting https://fam.u.zoom.us/j/99172780849
Mondays & Wednesdays – 12noon to 2pm	Meeting ID: 991 7278 0849

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

1. E-mail.
2. the online discussion board,
3. Zoom Meeting: ZOOM Meeting ID: 991 7278 0849

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.com, 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.

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 the following: problem solving, financial mathematics, linear and exponential growth, numbers and number systems, history of mathematics, elementary number theory, voting techniques, and graph theory.

Course Goals

To develop the student's ability to relate algebra concepts to everyday life and apply skills to practical applications. To lay a solid foundation of knowledge and skills on which other mathematics can be improved and made more relevant. To assist students in better understanding the relationship between quantities and their causes and effects.

FAMU CANVAS Access

To access this course on FAMU CANVAS you will need access to the Internet and a supported Web browser (*Internet Explorer, Firefox, 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. You MUST bring your laptop with the download.

Course Structure

This course will be **delivered** through the course management system CANVAS where homework, quizzes and tests are posted on www.WebAssign.com. All homework, quizzes and tests are available at Cengage/WebAssign, and you will access these assignments at WebAssign that is linked through CANVAS.

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You need to have a Cengage account (contact FAMU Book Store about Cengage Unlimited) for Cengage.com and enroll in WebAssign through CANVAS to access the homework and quizzes in WebAssign.

For more help go to https://www.webassign.net/manual/student_guide/introduction.htm

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, and 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@famuedu
- View [CANVAS Guides](#) to learn more about using [CANVAS](#)

Grading Policy

Description	Percentages / Points
Tests (4)	50% / 500
Homework	8% / 80
Quizzes	10% / 100
Class Participation	7% / 70
Final	25% / 250

Grade Calculation: 50%(Test average) + 8%(Homework average) + 10%(Quiz average) + 7%(Class Participation average) + 25%(Final).

Letter Grade Assignment

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

Letter Grade	Percentage / Points
A	90-100 % / 900 - 1000
B	80-89 % / 800 - 899
C	70-79 % / 700 - 799
D	60-69% / 600 - 699
F	0-59% / less than 600

Grades will be posted in the Grade Center in CANVAS & WebAssign.

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, Activities/Projects, Homework, Quizzes, Class Participation and Final are given in WebAssign & CANVAS.

Homework and Quizzes: In each section, a prerequisite of a quiz is homework in the same section (ex. Homework in Section 2.1 and 2.2 are prerequisite for 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 follow the tentative pacing guide to help you stay on target and ahead of the deadlines. If you have any questions, please contact your instructor. The instructor could reschedule homework or quizzes posted on www.webassign.net, and it will be announced to the class.

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. If more than one test is missed, the score on the second test remains zero. The instructor will assess the student's online participation (work on homework and quiz) before granting a request for a makeup test. The instructor will determine how and when a makeup test is offered in the semester. All tests and the final will use LockDown Browser. Your instructor will let you know whether a test is administered in Canvas or WebAssign.

Chapters Covered (for MGF 1107):

Chapter 1 (The Nature of Problem Solving),
Chapter 4 (The Nature of Numeration Systems)
Chapter 5 (The Nature of Numbers) – **Exam 1**

Chapter 6 (The Nature of Algebra) – **Exam 2**

Chapter 10 (The Nature of Growth)
Chapter 11 (The Nature of Financial Management)
Chapter 15 (The Nature of Graphs and Functions)
Chapter 16 (The Nature of Mathematical Systems) – **Exam 3**

Chapter 9 (The Nature of Networks and Graph Theory)
Chapter 17 (The Nature of Voting and Apportionment) – **Exam 4**

Course Topics & Learning Objective by Chapter:

Upon completion of

1. **Chapter 1 (The Nature of Problem Solving)** students will be able to:
understand and use inductive reasoning, use deductive reasoning, use estimation techniques to arrive at an approximate answer to a problem, apply estimation techniques to information given by graphs, develop mathematical models that estimate relationships between variables and solve problems using organization of the four- step problems-solving process.
2. **Chapter 4 (The Nature of Numeration Systems)** students will be able to:
Evaluate an exponential expression, write Hindu-Arabic numerals in expanded form, express a number's expanded form as a Hindu-Arabic numeral, understand and use the Babylonian numeration system, and use the Mayan numeration system,
3. **Chapter 5 (The Nature of Numbers)** students will be able to:
Determine divisibility, write the prime factorization of a composite number, find the greatest common divisor of two numbers, solve problems using the greatest common divisor, find the least common multiple of two numbers, solve problems using the least common multiple, define the integers, graph integers on a number line, use the symbols < and >, find the absolute value of an integer, perform operations with integers, use the order of operations agreement, define the rational numbers, reduce rational numbers, convert between mixed numbers and improper fractions, express rational numbers as decimals, express decimals in the form $\frac{a}{b}$. multiply and divide rational numbers, add and subtract rational numbers, use the order of operations agreement with rational numbers, apply the density property of rational numbers,

solve problems involving rational numbers, define the irrational numbers, simplify square roots, perform operations with square roots, rationalize denominators, recognize subsets of the real numbers, recognize properties of real numbers, use properties of exponents, convert from scientific notation to decimal notation, convert from decimal notation to scientific notation, perform computations using scientific notation, solve applied problems using scientific notation.

4. **Chapter 6 (The Nature of Algebra)** students will be able to:
Multiply binomials using the FOIL method, factor trinomials, solve quadratic equations by factoring, solve quadratic equations using the quadratic formula, solve problems modeled by quadratic equations, solve linear systems by addition, identify systems that do not have exactly one ordered-pair solution, solve problems using systems of linear equations, graph a linear inequality in two variables, use mathematical models involving linear inequalities, graph a system of linear inequalities, write an objective function describing a quantity that must be maximized or minimized, use inequalities to describe limitations in a situation, use linear programming to solve problem
5. **Chapter 9 (The Nature of Networks and Graph Theory)** students will be able to:
use the relationships in a graph, model relationships using graphs, use the vocabulary of graph theory, understand the definition of an Euler path, understand the definition of an Euler circuit, use Euler's theorem to solve problems, understand the definition of Hamilton paths and Hamilton circuits.
6. **Chapter 10 (The Nature of Growth)** students will be able to: graph exponential functions, use exponential models, graph logarithmic functions, use logarithmic models, graph quadratic functions, use quadratic models, determine an appropriate function for modeling data.
7. **Chapter 11 (The Nature of Financial Management)** students will be able to:
use express a fraction as a percent, express a decimal as percent, solve applied problems involving sales tax and discounts, compute income tax, determine percent increase or decrease, investigate some of the ways percent can be abused, calculate simple interest, use the future value formula, use the simple interest formula on discounted loans, and use compound interest formulas.
8. **Chapter 15 (The Nature of Graphs and Functions)** students will be able to:
plot points in the rectangular coordinate system, graph equations in the rectangular coordinate system, use function notation, graph functions, use the vertical line test, obtain information about a function from its graph, use intercepts to graph a linear equation, calculate slope, use the slope and y-intercept to graph a line, graph horizontal or vertical lines, interpret slope as rate of change, use slope and y-intercept to model data, decide whether an ordered pair is a solution of a linear system, solve linear systems by graphing, solve linear systems by substitution, s.
9. **Chapter 16 (The Nature of Mathematical Systems)** students will be able solve linear systems by graphing, solve linear systems by substitution, solve linear systems by addition, identify systems that do not have exactly one ordered-pair solution, solve problems using systems of linear equations, graph a linear inequality in two variables, use mathematical models involving linear inequalities, graph a system of linear inequalities, write an objective function describing a quantity that must be maximized or minimized, use inequalities to describe limitations in a situation, use linear programming to solve problems, against an event, identify independent events and evaluate the conditional probability.
10. **Chapter 17 (The Nature of Voting and Apportionment)** students will be able to
Use the plurality method to determine an election's winner, use the Borda count method to determine an election's winner, use the plurality-with-elimination method to determine an election's winner, use the pairwise comparison method to determine an election's winner, understand relationships in a graph, model relationships using graphs.

Activities / Projects: Students will be given an activity/project for each unit which will be discussed in more detail by the instructor.

Attendance/Participation

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

You are required to attend this course as if we were face-to-face. *Participation means* keeping up with the Quizzes from each section along with homework to be completed.

Attendance Holds: Unless you register at 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. Please refer to the Registrar's website for more information.

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

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 **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.

TABLE 1 - MGF 1107E Liberal Arts II Online

	Monday	Tuesday	Wednesday	Thursday	Friday
AUGUST	22 1st Day of Class Syllabus / Introduction Post	23 Syllabus Introduction Post	24 1.1 Lecture, Homework & Quiz	25 1.2 Lecture, Homework & Quiz	26 1.3 Lecture, Homework & Quiz
	29 4.1 Lecture, Homework & Quiz	30 4.2 Lecture, Homework & Quiz	31 4.3 Lecture, Homework & Quiz	1 4.4 Lecture, Homework & Quiz	2 5.1 Lecture, Homework & Quiz
SEPTEMBER	5 No Class Labor Day	6 5.2 Lecture, Homework & Quiz	7 5.2 Lecture, Homework & Quiz	8 5.3 Lecture, Homework & Quiz	9 5.3 Lecture, Homework & Quiz President's Convocation Gaither Gymnasium 10:10am
	12 5.4 Lecture, Homework & Quiz	13 5.5 Lecture, Homework & Quiz	14 5.5 Lecture, Homework & Quiz	15 5.6 Lecture, Homework & Quiz	16 5.6 Lecture, Homework & Quiz
	19 Chapters 1, 4 & 5 Review	20 Test 1 (Chapters 1, 4 & 5) Homework & Quizzes Due @ 11:59pm	21 6.1 Lecture, Homework & Quiz	22 6.2 Lecture, Homework & Quiz	23 6.2 Lecture, Homework & Quiz
	26 6.3 Lecture, Homework & Quiz	27 6.3 Lecture, Homework & Quiz	28 6.4 Lecture, Homework & Quiz	29 6.4 Lecture, Homework & Quiz	30 6.5 Lecture, Homework & Quiz
OCTOBER	3 6.5 Lecture, Homework & Quiz	4 6.6 Lecture, Homework & Quiz	5 6.6 Lecture, Homework & Quiz	6 6.7 Lecture, Homework & Quiz	7 6.7 Lecture, Homework & Quiz
	10 6.8 Lecture, Homework & Quiz	11 6.8 Lecture, Homework & Quiz	12 Chapter 6 Review	13 Test 2 (Chapter 6) Homework & Quizzes Due @ 11:59pm	14 10.1 Lecture, Homework & Quiz
	17 10.1 Lecture, Homework & Quiz	18 10.2 Lecture, Homework & Quiz	19 10.2 Lecture, Homework & Quiz	20 10.3 Lecture, Homework & Quiz	21 10.3 Lecture, Homework & Quiz
	24 11.1 Lecture, Homework & Quiz Homecoming Week	25 11.1 Lecture, Homework & Quiz Homecoming Week	26 15.1 Lecture, Homework & Quiz Homecoming Week	27 15.1 Lecture, Homework & Quiz Homecoming Week	28 Homecoming Convocation Lawson Center 10:10AM Homecoming Week
	31 15.2 Lecture, Homework & Quiz	1 15.2 Lecture, Homework & Quiz	2 15.3 Lecture, Homework & Quiz	3 15.3 Lecture, Homework & Quiz	4 16.1 Lecture, Homework & Quiz Last Day to Withdraw
NOVEMBER	7 16.1 Lecture, Homework & Quiz	8 16.2 Lecture, Homework & Quiz	9 Chapters 10, 11, 15 & 16 Review	10 Test 3 (Chapters 10, 11, 15, 16) Homework & Quizzes Due @ 11:59pm	11 No Class Veterans Day
	14 9.1 Lecture, Homework & Quiz	15 9.2 Lecture, Homework & Quiz	16 17.1 Lecture, Homework & Quiz	17 17.1 Lecture, Homework & Quiz	18 17.2 Lecture, Homework & Quiz
	21 17.2 Lecture, Homework & Quiz	22 17.3 Lecture, Homework & Quiz	23 THANKSGIVING HOLIDAY	24 THANKSGIVING HOLIDAY	25 THANKSGIVING HOLIDAY
	28 17.4 Lecture, Homework & Quiz	29 17.4 Lecture, Homework & Quiz	30 Chapters 9 & 17 Review	1 Test 4 (Chapter 9 & 17) Homework & Quizzes Due @ 11:59pm	2 Final Exam Review Last Day of Classes
DECEMBER	5 Final Exam Time and Location TBA	6	7	8	9
	12 Grades due at 5pm	13	14	15	16

I. Honor Code

The Florida Agricultural and Mechanical University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to ". . . be honest and truthful and . . . [to] strive for personal and institutional integrity at Florida Agricultural and Mechanical University." The University's Academic Honor Policy is located in the FANG Student Handbook, under the Student Code of Conduct- Regulation 2.012 section, beginning on page 55-56.

Please be aware that using social media to collaborate on and share course exams or assignments with other students that are not identified by the course instructor as group work is a violation of the FAMU Academic Honor Policy.

Any violation of the collaboration policies, including exchanging answers electronically, plagiarism or cheating on tests will be considered violations of the Academic Honor Code of FAMU.

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.

J. ADA Requirements

AMERICANS WITH DISABILITIES ACT:

To comply with the provisions of the Americans with Disabilities Act (ADA), please advise instructor of accommodations required to insure participation in this course. Documentation of disability is required and should be submitted to the Learning Development and Evaluation Center (LDEC). For additional information please contact the LDEC at (850) 599-3180.

K. Syllabus Change Policy

Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice

Netiquette Statement

Considering online classes will take place in a variety of settings, it is important to have a reference point for successful participation in this online environment.

Be mindful of the Core Rules of Netiquette taken from Virginia Shea's Book and Website - "<http://www.albion.com/netiquette/corerules.html>"

Rule 1: Remember the Human.

Rule 2: Adhere to the same standards of behavior online that you follow in real life.

Rule 3: Know where you are in cyberspace.

Rule 4: Respect other people's time and bandwidth.

Rule 5: Make yourself look good online.

Rule 6: Share expert knowledge.

Rule 7: Help keep flame wars under control.

Rule 8: Respect other people's privacy.

Rule 9: Don't abuse your power.

Rule 10: Be forgiving of other people's mistakes.

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.

In-Class Recording FAQs and Protocols When can a student record?

A student may record a class lecture for three specified purposes as outlined in House Bill 233/section 1004.097, Florida Statutes:

1. For the student's own personal educational use;
2. In connection with a complaint to the University where the recording is made; or
3. As evidence in, or in preparation for, a criminal or civil proceeding.

What can students record?

Students may audio or video record a class lecture for a class in which the student is enrolled. A class lecture is defined as an [educational presentation delivered by faculty or guest lecturer] OR [faculty-delivered educational presentation], as part of a Florida A&M University course, intended to inform or teach enrolled students about a particular subject. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

When are students allowed to record?

Students may record at any time during a class lecture, so long as the recording is made for one of the above listed specific purposes.

Do students need permission to record?

No. Students do not need to seek permission from the lecturer prior to recording a class lecture. However, the recording must be made in accordance with the three specified purposes.

Can a student share a recording with another student?

No. A recording of a class lecture may not be published without the [written] consent of the lecturer. Publish means share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of the recording, is considered to be published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, magazine, newspaper or leaflet.

Are students required to inform faculty that they are recording a class lecture?

No. Students may record a class lecture under the specified purposes listed above without informing the lecturer or receiving consent from the lecturer.

What happens if a student publishes a recording without getting written consent first?

If a student publishes a recording of a class lecture without the lecturer's written consent, and it is not in connection with a University complaint or as evidence in a criminal or civil legal proceeding, the student could face severe legal and/or disciplinary consequences. Per HB 233/section 1004.097, Florida Statutes, the unauthorized publishing of the recording allows the lecturer to take the student to court for damages, including attorney's fees, totaling as much as \$200,000. Additionally, the student may be referred to the Office of Student Conduct and Conflict Resolution for a potential violation of the Student Code of Conduct.

Does HB 233/section 1004.097, Florida Statutes, affect a student's accommodations granted through the Center for Disability Access and Resources (CEDAR)?

No. If a student has an accommodation through CEDAR to record class activities, the accommodation is for the student's own personal educational use. Accordingly, the student may not share the recordings without the lecturer's written consent.