

Tallahassee, Florida 32307



COURSE SYLLABUS					
Course Number: MGF 1107		Course Title: Liberal Arts II			
Prerequisite(s): High School Algebra I & II					
Course Credit: 3		Course Hours: 3			
College: Science and Technology		Required Text: <i>The Nature of Mathematics 13th edition</i> by Karl Smith (Publisher: Cengage) with web access to www.webassign.com , for homework, quizzes and tests.			
Department: Mathematics					
Faculty Name:		Term and Year: Fall 2022 Place and Time:			
Office Location:		Telephone: e-mail:			
Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday

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.

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.

Course Policies

University's Americans with Disabilities Act (ADA) Policy Statement

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.

University's Non-discrimination Policy Statement

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.

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 State University, whether by faculty, students, or staff; or by others while on property owned by or under the control of the University.

Expectations/Attendance

University-wide policy requires all students to attend the first-class meeting of all classes for which they are registered. Students who do not attend the first-class meeting of a course for which they are registered will be dropped from the course by the academic department that offers the course. In order to enforce this policy, instructors are required to take attendance at the first-class meeting and report absences to the appropriate person in their department or school/college.

It is the student's responsibility to understand when they need to consider dropping a course. Refer to the FAMU Course Schedule for dates and deadlines for registration. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons includes: (1) documented and significant change in work hours, leaving student unable to attend class, or (2) documented and severe physical/mental illness/injury to the student or student's family. **Last day to Withdraw: November 4, 2022**

Attendance

Students are expected to be punctual. A student must be present for the entire class period in order to be marked present. If a student is absent from a class, an official excuse should be obtained from the student's dean's office and submitted within one week of the student's returning to class. Students are responsible for all assignments, quizzes and examinations at the time they are due and may not use their absence from class as a plea for extensions of time to complete assignments or for permission to take make-up examinations or quizzes. **There will be no make-up tests given.** As per the university's catalog, only two/three unexcused absences are allowed

for this course. Subsequent absences may result in the student earning a grade of F in the course. It is the responsibility of the student to keep track of the dates of the absences and to submit the official excuses on time.

Communication/ Critical Thinking/ Technology

The student will demonstrate competence in writing, reading and speaking about mathematics. The student will be expected to demonstrate critical thinking skills measured by the ability to apply mathematical methods to the solution of real-world as well as theoretical problems. Regularly check e-mails from the university.

The student will be expected to demonstrate proficiency in the use of technology measured by the ability to input data and interpret numerical results. The student will be expected to use WebAssign online system to turn in homework and quizzes. Computer facilities are available in the (1) Math learning lab, Dyson Pharmacy Building, Room 128 (2) Math Lab, Jackson Davis 105 and (3) the Media Center in the Coleman Library.

Academic Honor Policy/Plagiarism

It is your responsibility to know the university's policy on academic/intellectual dishonesty (Section 6C3-2.012(10)(s) of the FAMU Student Handbook). Students will be expected to adhere to standards of academic honesty and integrity, as outlined in the Student Academic Honesty Policy. All assignments must be original work, clear and error-free. All ideas/material that are borrowed from other sources must have appropriate references to the original sources.

Any student caught cheating in any manner is awarded the grade of F. No warnings are given; it is your responsibility to do your own work. All persons collaborating in cheating will receive the grade of F. 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. **A visible cell phone or any device which can access the Internet or a calculator during tests or the final exam will result in the student failing the exam.** Read more about FAMU's [Academic Honesty Policy & Procedures](#)

I Grade

The Mathematics Department makes every effort to place student in the correct course. It is expected that every student will pass this course the first time that he/she enrolls in this course. The Mathematics Department will not make any special effort to re-enroll any student for a second or subsequent time in this course.

The "I" grade is given at the instructor's discretion and then only to students whom are PASSING* and who are prevented from completing the course by UNAVOIDABLE circumstances not of their own doing. Students who have missed more than one test are not eligible for an "I" grade.

*Passing means: Getting at least a C on each test, online work and class quizzes. It should also be accompanied with almost a perfect attendance. Check your printout for course & sections number. If you are not attending the section for which you are officially enrolled, the instructor of the section for which you are officially enrolled will assign you an "F" grade on the final grade roll and that will be your FINAL GRADE.

Procedure for Resolving Faculty-Student

- a) Student first attempts to resolve issue with instructor.
- b) Student submits written notification of problem to department chair.
- c) Chair forwards student letter to instructor.
- d) Instructor responds in writing to chair.
- e) Chair meets with instructor and/or student if necessary.
- f) Chair forwards response/recommendation to Dean's office.
- g) Dean decides what further course of action is available to the student.

College of Science & Technology 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 Academic 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 to 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 an 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 from the CIS chairperson.

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**

Grading

Your course grade will be:

Four Tests	500 points / 50%.
WebAssign Homework	80 points / 8%
WebAssign Quizzes	100 points / 10%
Classwork / Attendance	70 points / 7%
Final Examination	250 points / 25%

The scale will be:

A = at least 90% or 900-1000 points
B = 80-89.9% or 800-899 points
C = 70-79.9% or 700-799 points
D = 60-69.9% or 600-699 points
F = less than 60% or less than 600 points

The Departmental Final Examination will be on December 5, 2022.

Final Exam

The departmental Final examination will be on Monday of final exam week – **December 5, 2022.**

Time and location will be sent by email from FAMUINFO. Regularly check email from the University.

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.

MGF 1107 - TR					
	Monday	Tuesday	Wednesday	Thursday	Friday
AUGUST	22 1st Day of Class	23 Syllabus & 1.1	24	25 1.2 & 1.3	26
	29	30 4.1 & 4.2	31	1 4.3 & 4.4	2
SEPTEMBER	5 No Class Labor Day	6 5.1 & 5.2	7	8 5.3 & 5.3	9 President's Convocation 10:10AM - 12:10PM Gaither Gymnasium
	12	13 5.5 & 5.6	14	15 5.6 & Review	16
	19	20 Test 1 (Chapters 1, 4 & 5)	21	22 6.1 & 6.2	23
	26	27 6.2 & 6.3	28	29 6.3 & 6.4	30
OCTOBER	3	4 6.5 & 6.6	5	6 6.7 & 6.8	7
	10	11 6.8 & Review	12	13 Test 2 (Chapter 6) Homework & Quizzes Due @ 11:59pm	14
	17	18 10.1 & 10.2	19	20 10.3 & 11.1	21
	24 Homecoming Week	25 15.1 & 15.2 Homecoming Week	26	27 15.3 Homecoming Week	28 Homecoming Convocation 10:10AM - 12:10PM
	31	1 16.1 & 16.2	2	3 16.2 & Review	4 Last Day to Withdraw
NOVEMBER	7	8 Test 3 (Chapters 10, 11, 15, 16)	9	10 9.1 & 9.2	11 No Class Veterans Day
	14	15 17.1 & 17.2	16	17 17.3 & 17.4	18
	21	22 17.4 & Review	23 THANKSGIVING HOLIDAY	24 THANKSGIVING HOLIDAY	25 THANKSGIVING HOLIDAY
	28	29 Test 4 (Chapters 9 & 17)	30	1 Final Exam Review	2 Last Day of Classes
DECEMBER	5 Final Exam TBA	6	7	8	9
	12 Grades due at 5pm	13	14	15	16

Assignment Guidelines

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.

WebAssign (WA)

WA is an online learning platform where students will complete homework & quiz assignments. Following the instructions in the Canvas orientation module to access WA. Please note that it is possible to get two weeks access to WA before needing to pay for the service.

WA is required for this course. Failure to be enrolled in the correct WA course can result in failing this course. Students who enroll in WA after the due date for any assignment, will receive a zero all assignments. You will sign up for WA through Canvas. Please note that it is possible to get free access to WebAssign for two weeks before needing to pay for the service.

Chapter Test

There will be five (4) major tests during the semester taken in class each worth 100 points (400 points total) 50% (12.5% each) at 60 mins. **THERE ARE NO MAKE-UP TESTS GIVEN FOR ANY REASON.**

Additional Free Tutoring

The university provides on demand tutoring after hours and on evenings/weekends through tutor.com. To logon to the service logon to Canvas, go to Tools on the left-hand menu, and look for the Tutor.com link. Then follow the on-screen instructions.

Weekly Schedule

Read sections in textbook (see pacing guide), take hand written notes, and review your notes. Complete the remaining WebAssign Homework and Quizzes by 11:59 pm on chapter exam day.

Holidays: Labor Day (9/5); Veterans Day (11/11); Thanksgiving (11/23 – 11/25)

In-Class Recording FAQs and Protocols

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 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.