This is a sample syllabus for MGF1107. Students should reference the section syllabus provided at the beginning of the semester for specifics regarding assignments and grade assignments.

Topics in Practical Finite Math
(3 hours)
MGF1107
Traditional Delivery

Catalog Description
Topics include financial mathematics; linear and exponential growth; numbers and number systems; history of mathematics; elementary number theory; voting techniques; graph theory; game theory; geometry; and computer applications.

Prerequisite
MAT1033 with a grade of "C-" or better or a suitable mathematics examination placement score. Recommended: Two years of high school algebra.

Learning Objectives

- Students will apply knowledge of voting and apportionment methods in order to solve real world problems.
- Students will analyze whether a fair election has occurred according to the fairness criterion for voting methods.
- Students will analyze whether a new apportionment has demonstrated a paradox in a "state" or group losing a "seat".
- Students will model connections between objects, such as borders shared by states, using definitions from graph theory.
- Students will minimize cost of travel or distance traveled between different locations by using algorithms used in graph theory.
- Students will interpret the measures of central tendency for a data set.
- Students will interpret the measure of dispersion for a data set.
- Students will estimate percentage of data between, below, or above data points in a normal distribution using methods and inference rules from statistics.
- Students will demonstrate knowledge about monetary issues so that they can determine wise financial decisions in regard to credit card usage, mortgages, saving & investing, and taxes.

LIBERAL STUDIES FOR THE 21ST CENTURY:

This course has been approved to meet FSU's Liberal Studies Quantitative and Logical Thinking requirements and helps you become a critical analyst of quantitative and logical claims.

In order to fulfill the State of Florida's College mathematics and computation requirement the student must earn a "C–" or better in the course.

By the end of this course, students will:

1. Select and apply appropriate methods (i.e., mathematical, statistical, logical, and/or computational models or principles) to solve real-world problems.
2. Use a variety of forms to represent problems and their solutions.

Requirements

Lecture quick questions	5%
Homework	20%
Labs	15%
Quizzes	15%
Unit Tests	45%

Class Attendance

Students are required to attend lecture and lab in order to submit lecture quick questions and lab activities.

Late Work Policy

Lecture Quick Questions: The instructor will ask questions in lecture class to check for student comprehension and engagement. The instructor will drop the lowest six for each student in a MWF lecture class, or four for each student in a TR lecture class. Unexcused absences beyond six will receive a zero.

Missed Homework: Graded homework assignments delivered online and are available until a specified due date. Unexcused late or missed homework receives a zero. For excused absences, please contact the instructor as soon as possible, or in advance.

Missed Lab Activity: On non-test days, students will do a lab activity with an assigned group. It is expected that you attend the labs throughout the semester. In the event of an absence, you should still submit work for the lab activity (by the due date/time) if possible. A grade of "0" will be applied for an unexcused absence.

Misses Quizzes: Quizzes are available after lab for up to 48 hours. They are delivered online. A grade of "0" will be applied to quizzes for unexcused absences.

Missed Test: Tests are delivered online in lab. If a test is missed and excused with documentation, then a makeup exam will be arranged as soon as possible of the missed exam. Students must provide advance notice of absences (when possible) as well as relevant documentation regarding absences to the instructor as soon as possible following the illness or event that led to an absence.

One makeup test with a 20% penalty is allowed for an unexcused absence. Any subsequent unexcused absence from an exam will result in a “0” for that exam.

Regardless of whether an absence is excused or unexcused, the student is responsible for making up all work that is missed.

See the ``University Attendance Policy" below for acceptable reasons for an excused absence.

Grading Scheme

The following grading standards will be used in this class:

A = 91.50 and above

A- = 89.50-91.49

B+ = 87.50-89.49

B = 81.50-87.49

B- = 79.50-81.49

C+ = 76.50-79.49

C = 69.50-76.49

C- = 65.50-69.49

D = 59.50-65.49

D- = 55.50-59.49

F = below 55.50

Required Materials

MyMathLab online subscription to Thinking Mathematically by Blitzer, 7th edition
A physical copy of the textbook is not required.
A method for scanning documents.

Lecture Topics

Weeks 1-3
- Voting Methods
- Apportionment methods

Weeks 4-6
- Percents
- Simple Interest
- Compound Interest
- Income Taxes

Weeks 7-9
- Annuities
- Cars
- Mortgages
- Credit Cards

Weeks 10-11
- Graphs, Paths, Circuits
- Euler Paths & Circuits
- Hamiltonian Paths & Circuits
- Trees

Weeks 12-15
- Sampling, Frequency Distributions, & Graphs
- Measures of Central Tendency
- Measures of Dispersion
- The Normal Distribution
- Problem Solving with the Normal Distribution

University Attendance Policy

Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

Academic Honor Policy

The Florida State 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 State University." (For more details see the FSU Academic Honor Policy and procedures for addressing alleged violations (http://fda.fsu.edu/academic-resources /academic-integrity-and- grievances/academic-honor-policy) .)

Americans With Disabilities Act

Florida State University (FSU) values diversity and inclusion; we are committed to a climate of mutual respect and full participation. Our goal is to create learning environments that are usable, equitable, inclusive, and welcoming. FSU is committed to providing reasonable accommodations for all persons with disabilities in a manner that is consistent with academic standards of the course while empowering the student to meet integral requirements of the course.

To receive academic accommodations, a student:

(1) must register with and provide documentation to the Office of Accessibility Services (OAS);
(2) must provide a letter from OAS to the instructor indicating the need for accommodation and what type; and,
(3) should communicate with the instructor, as needed, to discuss recommended accommodations. A request for a meeting may be initiated by the student or the instructor.
Please note that instructors are not allowed to provide classroom accommodations to a student until appropriate verification from the Office of Accessibility Services has been provided.
This syllabus and other class materials are available in alternative format upon request. For more information about services available to FSU students with disabilities, contact the Office of Accessibility Services (Tallahassee Campus) (https://dsst.fsu.edu/oas)

874 Traditions Way
108 Student Services Building Florida State University Tallahassee, FL 32306-4167 (850) 644-9566 (voice)
(850) 644-8504 (TDD)
oas@fsu.edu (mailto:oas@fsu.edu)

https://dsst.fsu.edu/oas
Student Disability Services (Panama City Campus) (https://pc.fsu.edu/students

/student-disability -services) Office of Student Affairs 4750 Collegiate Drive
2nd Floor Barron Building (Room 215) Florida State University Panama City Panama City, FL 32405
(850) 770-2172 (office)

(866) 693-7872 (toll free)
Email: sds@pc.fsu.edu (mailto:sds@pc.fsu.edu) https://pc.fsu.edu/students/student-disability-services

Free Tutoring from FSU

On-campus tutoring and writing assistance are available for many courses at Florida State University. For more information, visit the Academic Center for Excellence (ACE) Tutoring

Services' comprehensive list of on-campus tutoring options - see the Academic Center for Excellence (ACE) Tutoring Services' website (http://ace.fsu.edu/tutoring) or

contact tutor@fsu.edu (mailto:tutor@fsu.edu) . High-quality tutoring is available by appointment and on a walk-in basis. These services are offered by tutors trained to encourage the highest level of individual academic success while upholding personal academic integrity.

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."

Confidential campus resources:

Various centers and programs are available to assist students with navigating stressors that might impact academic

success. These include the following:

Victim Advocate Program University Center A, Room 4100, (850) 644-7161, Available 24/7/365 Office Hours: M-F 8-5 https://dsst.fsu.edu/vap	University Counseling Center, Askew Student Life Center, 2ndFloor, 942 Learning Way (850) 644-8255 https://counseling.fsu.edu/	University Health Services Health and Wellness Center, (850) 644-6230 https://uhs.fsu.edu/