

MGF1130 Syllabus

Mathematical Thinking

Course Description:

In this course, students will utilize multiple means of problem solving through student centered mathematical exploration. The course is designed to teach students to think more effectively and vastly increase their problem-solving ability through practical application and divergent thinking. This course is appropriate for students in a wide range of disciplines/programs.

Course Specific Learning Outcomes:

At the completion of this course, students will be able to:

1. Use rules of logic to evaluate claims you face and construct more convincing arguments of your own.
2. Logically analyze outcomes and statistics by numerically describing situations and their outcome likelihoods.
3. Use Venn Diagrams to visualize survey results, and to analyze and answer questions about overlapping categories of information.
4. Apply area and volume formulas to compute areas and volumes and solve 2D and 3D application problems.

FLDOE Student Learning Outcomes:

- Students will determine efficient means of solving a problem through investigation of multiple mathematical models.
- Students will apply logic in contextual situations to formulate and determine the validity of logical statements using a variety of methods.
- Students will apply mathematical concepts visually and contextually to represent, interpret and reason about geometric figures.
- Students will recognize the characteristics of numbers and utilize numbers along with their operations appropriately in context.
- Students will analyze and interpret representations of data to draw reasonable conclusions.

FSU Quantitative Thinking Student Learning Objectives:

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.

By the end of the 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.

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.

Course Assignments and Evaluation:

Homework, Quizzes, Unit Tests, Attendance, and Participation.

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." (Florida State University Academic Honor Policy, found at <http://fda.fsu.edu/academic-resources/academic-integrity-and-grievances/academic-honor-policy>.)

Academic Success

Your academic success is a top priority for Florida State University. University resources to help you succeed include tutoring centers, computer labs, counseling and health services, and services for designated groups, such as veterans and students with disabilities. The following information is not exhaustive, so please check with your advisor or the Department of Student Support and Transitions to learn more.

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) must communicate with the instructor to discuss and apply 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>

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. 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, Rm. 4100
(850) 644-7161
Available 24/7/365
Office Hours: M-F 8-5
<https://dsst.fsu.edu/vap>

Counseling and Psychological Services (CAPS)

Florida State University's Counseling and Psychological Services (CAPS) primary mission is to address psychological needs and personal concerns, which may interfere with students' academic progress, social development, and emotional well-being. The following in-person and virtual (tele-mental health) services are available to all enrolled students residing in the state of Florida:

1. Individual therapy
 2. Group therapy
 3. Crisis Intervention
 4. Psychoeducational and outreach programming
 5. After hours crisis-hotline
 6. Access to community providers for specialized treatment
- Call 850-644-TALK (8255) for more information on how to initiate services.

Counseling and Psychological Services
250 Askew Student Life Center
942 Learning Way
(850) 644-TALK (8255)
Walk-in and Appointment Hours:
M-F 8 am – 4 pm
<https://counseling.fsu.edu/>

Services at UHS are available to all enrolled students residing in Florida:

The mission of University Health Services (UHS) is to promote and improve the overall health and well-being of FSU students. UHS provides a coordinated continuum of care through prevention, intervention, and treatment. Services include general medical care, priority care, gynecological services, physicals, allergy injection clinic, immunizations, diagnostic imaging, physical therapy, and a medical response unit. The Center for Health Advocacy and Wellness (CHAW) assists students in their academic success through individual, group, and population-based health and wellness initiatives. Topics include wellness, alcohol and other drugs, hazing prevention, nutrition and body image, sexual health, and power based personal violence prevention. For more information, go to uhs.fsu.edu.

University Health Services
Health and Wellness Center
960 Learning Way
Tallahassee, FL 32306

Hours: M-F, 8 am – 4 pm
(850) 644-6230
<https://uhs.fsu.edu/>