NORTHWEST FLORIDA STATE COLLEGE

MGF 1130 Course Syllabus

Course Name: Mathematical Thinking
Course Number: MGF 1130
Section (CRN): 10871
Credit Hours: 3
Instructor Name: Ramses Diaz
Instructor Office Location: (DS - 501) / 217
Instructor Email: diazr3@nwfsc.edu

Course Curriculum

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.

Goals

The goal of this course is to (1) give the student exposure to new mathematical concepts and problem-solving strategies and (2) allow students to explore how math can be used in a variety of settings.

Objectives

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.

Expectations of the Instructor and Course

a. Office Hours: I am available 10 hours each week for office hours. I am also available at other times. You can call me at 850-200-4118 or email me at **diazr3@nwfsc.edu** to schedule an appointment. My office hours will be posted on my office door and on Canvas after the semester begins.
b. Email/voicemail response time of the instructor: You can anticipate responses to inquiries and questions within 24-48 hours of receipt, except on weekends and holidays. I generally reply to emails Monday - Thursday from 8:00 a.m. to 4:00 p.m.
c. Canvas: Learning Management System will be used to calculate the overall course grade and post assignments.

d. MyOpenMath: Engages students with online tools used for formative assessment.

Expectations of the Student

a. Students are responsible for adherence to all college policies and procedures, including those related to academic freedom, cheating, classroom conduct, computer/network/email use and other items included in the Northwest Florida State College Catalog and Student Handbook. Students should be familiar with the rights and responsibilities detailed in the current Northwest Florida State College Catalog and Student Handbook. Plagiarism, cheating, or any other form of academic dishonesty is a serious breach of student responsibilities and may trigger consequences which range from a failing grade to formal disciplinary action. NWFSC prohibits the use of AI (Artificial Intelligence) tools, such as ChatGPT, to generate text that students represent as their own independent creation.
b. Attendance Policy: Regular attendance and participation are significant factors that help to promote success in college. Students are expected to attend ALL class meetings of all courses for which they are registered.

Attendance Confirmation

Active participation and academic engagement are expectations of enrollment in this course. Faculty confirm each student's attendance in class after the schedule adjustment period ends. Students who have not attended class or otherwise engaged academically in the course through the submission of an academic assignment or through participation in a curricular activity may be withdrawn from the course for nonattendance.

Students who are withdrawn for nonattendance or nonparticipation early in the course may request to be reinstated in the course by contacting their instructor by email. Reinstatement in the course is at the instructor's discretion during the first three weeks of class and is not guaranteed. Reinstatement requests occurring after this three-week period may be submitted to the instructor for consideration; however, additional administrative approval will be required to grant the reinstatement. If you are withdrawn from a course due to nonattendance and are not granted reinstatement in the course, please contact a Student Success Navigator for assistance.

A. Students are expected to attend all of their scheduled classes, as attendance is one of the strongest predictors of success.
B. Because this is a pre-professional program, students are expected to demonstrate the same professionalism in the classroom as is expected in the workplace.
C. Students are expected to participate regularly in this class.
D. This class may involve frequent class discussions and group work. Students will neither benefit from these activities nor contribute to the class as a whole if frequently absent. Therefore, 3 absences may result in the penalty of zero points in the participation element of the final course grade. Please note that your instructor may drop students who have 3 consecutives absences.

How Student Performance Will be Measured

This course uses various summative assessments to measure student performance towards the student learning outcomes listed above. The final grade will be calculated using a ten-point scale. A breakdown of the final grade is shown below.

How Student Performance Will be Measured

This course uses various summative assessments to measure student performance toward the student learning outcomes listed above. Grading Scale: A (100-90), B (89-80), C (79-70), D (69-60), and F (59-0).

A breakdown of the final grade is shown below.

Grading Scheme and Procedures

You will achieve the course objectives through interactive lecture, in class practice problems, class participation, homework assignments, and assessments. The grade for this course will be based on homework, five equally weighted exams, and a Final Exam.

Assessment	Percent of Final Grade
Homework	10%
4 Exams	70%
Final Exam	20%
Total	100%

Average of 90 - 100%	A
Average of 80 – 89.9%	B
Average of 70 – 79.9%	C
Average of 60 – 69.9%	D
Average below 60%	F

$$Grade = 0.7 \cdot \frac{Q1 + Q2 + Q3 + Q4}{7} + 0.2 \cdot Final + 0.1 \cdot Homework$$

Incomplete Grades

At the discretion of the instructor, an incomplete grade ("I") may be awarded when the student is unable to finish the required work because of unforeseen extenuating circumstances such as illness or TDY assignment. To receive an "I" grade, the student must have successfully completed a significant portion of the required coursework and be able to finish the remaining work without attending class. An "I" grade will automatically convert to a grade of "F" if the student does not complete the remainder of the coursework by the established deadline.

Make-up Work

If a student misses an exam, the final exam grade will be used to replace this grade. For any further missing exams, the grade will be zero. **There will not be any make-ups**.