

ADVANCED COURSE SYLLABUS**I. SEMESTER INFORMATION:**

COURSE INFORMATION: MGF 1107 Survey of Mathematics is a 3-lecture hour, 3 credit hour course. Topics covered include history of numbers, number theory, graph theory, mathematical modeling, transformation geometry.

CREDIT HOURS/CONTACT HOURS: 3 credit hours/3 contact hours per week

PREREQUISITE: Successful completion of MAT 0012 or acceptable math placement score.

CURRENT SEMESTER: Spring 2024

II. CONTACT INFORMATION:

INSTRUCTOR: Leo Lusk, Associate Professor of Mathematics; MS Mathematics, BS Mathematical Sciences, AAS Electronic Engineering

WORK EXPERIENCE:

- (1998 - Present) Associate Professor of Mathematics at Gulf Coast State College
- (1998 – 2012) Adjunct Professor of Mathematics at Northwest Florida State College
- (2000 – 2002) Adjunct Professor of Mathematics at FSUPC
- (1986 – 1998) Senior Lecture of Mathematics at West Virginia University
- (1984 – 1988) Lecturer of Mathematics at Jefferson Technical College

INSTRUCTOR TELEPHONE: 850 – 769 – 2854

INSTRUCTOR EMAIL: llusk@gulfcoast.edu

DIVISION CHAIR INFORMATION: Ms. Angelia Reynolds 850 – 872 – 3852

ACADEMIC TECHNOLOGY SPECIALIST/ADMIN ASSISTANT: Scott Spencer 850 – 747 – 3229

III. APPROVED COURSE MATERIALS & RESOURCES:**TEXTBOOK:**

- Branches and Roots of the Tree Mathematica (This is a free online textbook for the student available on Canvas beginning the first day of class. The student may print it or read it online.)

CALCULATOR:

- The Mathematics Division at Gulf Coast State College using only the TI-84 or TI-83 calculators in its courses. This maintains continuity throughout the students' academic time within the math curriculum.

IV. CURRICULUM:

COURSE DESCRIPTION: MGF 1107 Survey of Mathematics is a 3-lecture hour, 3 credit hour course. Topics covered include history of numbers, number theory, graph theory, mathematical modeling, transformation geometry.

LECTURES/QUIZZES: Lectures for this course will be delivered in a face-to-face (F2F) format in the assigned classroom for this course. Your homework quizzes, which are based on these lectures, will be in our current Learning Management System (LMS) which is CANVAS. The homework quizzes are the "Assignments" link. The student is strongly encouraged to do these quizzes several times and complete them well ahead of their scheduled deadline dates as no extensions are granted.

REVIEWS FOR TESTS: This course offers reviews for each test. The reviews will not count as any part of the students grade but can certainly have a positive impact on their grade. The reviews are essentially 'practice tests' giving the student a glimpse of what the test may be like.

TESTS: There will be five (5) chapter tests in this course. A calculator is permitted and encouraged to be used on every test. This course has no comprehensive final exam.

Besides the online quizzes and tests on our CANVAS Home page, the student you will find the textbook for this course; video instruction; additional course information. Your grade for this course will be determined by your scores on the quizzes and tests. Tests and quizzes are computer generated and are different but similar each student.

PEDAGOGICAL PRACTICES EMPLOYED:

- Active participation lectures and demonstrations which are inclusive of all students.
- Directed questioning throughout the lecture.
- Learning probes (statements/questions) such as "What would happen if we changed . . .?"; or "What kind of obstacles do you see that could this (problem) more difficult?" etc.
- Repetitive drill and practice homework quizzes for the students to take.
- Reviews designed to assist students in gauging their preparedness for a test.

BROAD-BASED GOALS OF THE COURSE:

- To develop the students mathematical problem-solving skills
- To enhance the student's calculation skills
- To deepen the students logical and deductive reasoning skills
- To present a larger picture of what mathematics is and to show the student that mathematics is more than just an academic discipline, it is a human endeavor

APPROVED STUDENT LEARNING OUTCOMES:

This course will teach the student about the following:

1. Derivation of the Hindu-Arabic numbers and about other numbering systems.
2. Selected topics/history from number theory.
3. Selected topics/history from graph theory.
4. Mathematical modeling problems which focus primarily on using your calculator.
5. Selected topics from transformation geometry including symmetry.

V. WHAT THE STUDENT CAN EXPECT OF THE INSTRUCTOR:

PUNCTUALITY/REGULARITY: The student can expect the Instructor to hold class as stated within the syllabus (see the "Daily Schedule") and to be punctual about starting and ending class on time.

AVAILABILITY: The student can expect the Instructor to hold 10 office hours of availability per week to meet with students to answer questions regarding course material. These office hours will be posted at the beginning of each semester both on the Instructors door (in this case SUW 257) and on the CANVAS shell for this course. If the student cannot meet during those posted times other arrangements can be made.

LEARNING MANAGEMENT SYSTEM EXPLAINED: The student can expect the Instructor to fully explain how they will use the College's current LMS: CANVAS, within this course. A walk-through the course layout in CANVAS can be expected, and clear explanation of how to access all course material therein: the textbook, lecture notes, video instruction, quizzes, review tests, and tests, will be given.

COMMUNICATION: The student should communicate with the Instructor primarily using the CANVAS email. The student can expect to receive a reply within a 12-hour window, with the exceptions of Saturday's, Sunday's, and holidays. The student may also call and leave a voicemail which will be answered when the Instructor is in their office.

VI. EXPECTATIONS OF THE STUDENT:

ACCOUNTABILITY:

The student will be held accountable for all material covered in this course. It is expected that the student does all their homework quiz assignments and is fully prepared for each test posting a good score. Extremely low scores will not be acceptable. "Extremely low" scores for this course will be defined as raw scores below 40%. No partial credit will be added to these scores.

ACADEMIC INTEGRITY:

Honest participation in academic endeavors fosters an environment in which optimal learning can take place and is consistent with the college's mission. Academic misconduct, including cheating or plagiarism, is destructive to the spirit of an educational environment and therefore will not be tolerated. "Cheating" includes, but is not limited to, the use of any unauthorized assistance in completing course work. "Plagiarism" includes, but is not limited to, the use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment. Sanctions for incidences of academic misconduct, depending on the severity of the incidence and/or its repetition, may range from receiving an F grade (or zero) for the test, assignment, or activity, to failure of the course, to suspension or dismissal from the program or the College.

ACCESSIBILITY STATEMENT:

Gulf Coast State College supports an inclusive learning environment and is committed to providing equal access for all students. This applies not only within the classroom setting, but within the design and quality of the website(s) used by the Instructor. If there are aspects of the instruction or design of this course that hinder your full participation, reasonable accommodations can be arranged. Prior to receiving accommodations, you will need to register with STUDENT ACCESSIBILITY RESOURCES. Appropriate academic accommodations will be determined based on the documented needs of the student. For information regarding the registration process, email sar@gulfcoast.edu or call 850-747-3243. Once registered, students should schedule an appointment with the professor as early in the semester as possible to share the verification form and make appropriate arrangements.

Because some students with a disability may be eligible to record lectures, in accordance with State Law the following "Lecture Recording Statement" will appear in the course syllabus:

LECTURE RECORDING STATEMENT:

In accordance with federal and state privacy laws, students may record class lectures for their own personal educational use, in connection with a complaint to the college, or as evidence in internal or external legal proceedings. Students may not publish or upload the recordings or any components thereof without the knowledge and written permission of the faculty member. Failure to obtain permission to publish could lead to the students' having to pay damages, attorney fees, and court costs. For more information about what can be recorded, please see the guidelines in the GCSC Student Handbook or contact Student Accessibility Resources (noted above). Class members will need to be made aware that their class may be recorded.

TRIO STUDENT SUPPORT SERVICES (SSS) STATEMENT:

TRIO is a federally funded grant program which serves first generation students (neither parent has a 4-year bachelor's degree), low-income students, and/or students with disabilities achieve their academic goals. Student success is at the center of everything we do in our program. We offer academic advising, 24/7 online tutoring in most subjects, textbook and computer/technology loans, transfer and cultural trips, assistance with financial aid applications and scholarships, career exploration and dedicated computer lab and study area. All services are FREE to SSS program participants. Visit <https://www.gulfcoast.edu/current-students/trio/> to apply online or call (850) 913-2937 for more information. SSS is in the Student Union West (SUW), room 089.

ATTENDANCE: 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.

WITHDRAWALS: There are two types of withdrawals.

1. **STUDENT WITHDRAWAL** – Students wishing to withdraw from the course must complete a withdrawal form and submit the form to the Office of Enrollment Services before the scheduled withdrawal deadline as published in the college catalog. The last day to withdraw from any class is to be determined but is usually the week following midterms. Withdrawals cannot be processed beyond that date.

2. **ADMINISTRATIVE WITHDRAWAL** – Students who do not make academic progress in this course will be withdrawn. At least one quiz must be completed within the first few days of the class opening or the student will be withdrawn as a “NO SHOW”. A student missing two (2) tests can be withdrawn for failing to attend and make academic progress.

CONSEQUENCES OF WITHDRAWALS: Two withdrawals are permitted per credit course. After that, a grade will be assigned. Please be concerned about withdrawals. When admitting students into certain programs, universities may calculate withdrawals as grades. It is your responsibility to verify the effects of enrollment and/or withdrawal upon your financial assistance.

VII. MEASURE OF STUDENT PERFORMANCE:**TESTS:**

The student will have five (5) chapter tests to complete. (As mentioned before, this course has no comprehensive final exam.) Each of the five (5) chapter tests are weighted at 15%.

GRADE DETERMINATION:

The students five tests and overall quiz average determines the students weighted average and thereby their course grade. The weighted average is determined as follows:

WEIGHTED AVERAGE DETERMINATION:

$0.15 \times \text{Test 1 score}$
$0.15 \times \text{Test 2 score}$
$0.15 \times \text{Test 3 score}$
$0.15 \times \text{Test 4 score}$
$0.15 \times \text{Test 5 score}$
$0.25 \times \text{Quiz Average}$
Sum of the above = Weighted Average

**LETTER GRADE DETERMINATION
FROM WEIGHTED AVERAGE:**

Wt. Average	Grade
90 – 100	A
80 – 89.9	B
70 – 79.9	C
60 – 69.9	D
Less than 60	F

PARTIAL CREDIT:

Each test will have 25 questions or answers. The computer will grade your test upon submission. Following the submission of all tests your Instructor will review each test. At that time, partial credit points can be added to your test score for incorrect answers thereby improving the grade given by the computer. Note that partial credit points will not be given for unanswered questions or nonsensical answers to questions. How partial credit is applied will be shown in the course syllabus available at the beginning of the semester. The student should make a sincere attempt to answer every question.

MAKE UP WORK:

There is no make-up work for the online homework quizzes. All quiz assignments are expected to be completed by their assigned availability dates. No extensions will be granted for the quizzes. Once "CLOSED" they are "CLOSED". The quizzes are a fixed and important part of your grade. They are not subject to being 'dropped' or 'replaced'.

MAKE UP OF ONE TEST:

A student who misses taking one test may, at their Instructors discretion, make up that test. Make up tests will be given during what is traditionally known as "finals week" for the current semester. If a student misses a second test it will be at their Instructions discretion as to whether the student can also make up that test up. A third missed test will be a grade of zero (0).

RETAKE OF ONE TEST:

At their Instructors discretion a student may be permitted to retake one test in the hopes of improving their course grade. This retake will be given no later than "finals week" for the current semester.