



NORTHWEST FLORIDA STATE COLLEGE

MAC 1105C Course Syllabus

Course Name: College Algebra with Integrated Review

Course Number: MAC 1105C

Section (CRN): 20800

Credit Hours: 4

Instructor Name: William Cast

Instructor Email: Castw@nwfsc.edu

Course Curriculum

In this course, students will develop problem solving skills, critical thinking, computational proficiency, and contextual fluency through the study of equations, functions, and their graphs. Emphasis will be placed on quadratic, exponential, and logarithmic functions. Topics will include solving equations and inequalities, definition and properties of a function, domain and range, transformations of graphs, operations on functions, composite and inverse functions, basic polynomial and rational functions, exponential and logarithmic functions, and applications. This course will follow an embedded corequisite model in which prerequisite topics will be presented as they are needed in order to provide a foundation for the acquisition of College Algebra skills. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet requirements for general education. Students cannot obtain credit for both MAC1105 and MAC1105C.

Goals

The goal of this course is to give the student (1) a thorough background in algebra as a basis for the pre-calculus, trigonometry, calculus sequence and (2) algebra skills and concepts useful in any future mathematics course work. It is expected that the student will be able to understand the concepts of algebra as well as work a range of problems, from basic problems up to the more difficult application and conceptual problems.

Objectives

Student Learning Outcomes:

- *Students will solve an equation or an inequality using an appropriate technique.*
- *Students will define and describe functions, their properties, and graphs.*
- *Students will manipulate functions to simplify expressions and find new functions.*
- *Students will use transformations to write an equation for a function and to graph a function.*
- *Students will model and solve real world problems using functions.*
- *Students will demonstrate technology literacy by using a calculator to graph and analyze functions.*

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) 863-6500 Ext. 5747 or email me at northd@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. Learning Management System Usage Notification: Canvas Resources are available for students to learn more about using the Canvas learning management system we are using for this course. Since all assignments are submitted through Canvas and/or ALEKS (unless otherwise noted), access to a computer is required for this course. Students have free access to computers at all campuses. Canvas lists minimum computer specifications and supported browsers to ensure compatibility. The Chrome browser is recommended.
- d. ALEKS: Engages students with online tools used for formative assessments.

Expectations of the Student

- a. ACADEMIC INTEGRITY: Active and honest engagement in academic pursuits contributes to an environment conducive to optimal learning, aligning with the college's mission. Conversely, academic misconduct, such as cheating or plagiarism, undermines the integrity of the educational atmosphere and will not be tolerated. "Cheating" encompasses any unauthorized aid in completing coursework. Depending on the severity and frequency of such misconduct, sanctions may range from receiving a failing grade or zero on a test, assignment, or activity to course failure, or even suspension or dismissal from the program or college.
- 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.

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).