

NORTH FLORIDA COMMUNITY COLLEGE
COLLEGE ALGEBRA
MAC 1105

Course Description: Major topics of the course include the following: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratics and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; applications.

Text: Functions and Change, A Modeling Approach to College Algebra,
Crauder, Evans, Noell, HM 3rd Ed, 2007

Instructor: Phillip Taylor – email: taylorp@nfcc.edu phone: 850.973.1647
Office: Science Annex Office Suite (Bldg 5)

Grading: 90 – 100 = A, 80 – 89 = B, 70 – 79 = C, 60 – 69 = D, Below 60 = F

Academic Dishonesty: Representing or turning in the work of another as one's own is a serious offense, and will result in the student receiving an F in the course.

Evaluation: There will be 3 tests worth 25% of the grade each, for a total of 75%. There will be regular quizzes and assignments, some in class, some out of class, some announced, some not, worth 25% of the grade.

Makeups: If you know ahead of time you are going to miss a test, you may arrange with me to take it at an earlier time, if possible. Otherwise, the Final will count for missed tests. Quizzes, assignments, etc may not be handed in late or made up. Material may be slid under my office door during class.

Calculator: You will need a TI 82/83/84 calculator in this course. You will need to use it and bring it to class each day.

Absences: If you miss, call or e-mail me or another student to get assignments and information, as material will not be repeated in class on your return. The responsibility is yours.

Tardies: If you can't be here on time, or need to leave early, don't show up.

Class Rules: You are expected to act in a responsible, adult manner designed to help you learn College Algebra while not hindering anyone else's learning. Do not talk, use portable electronic devices, take a call, study or do work for another class, socialize, or do anything but come to class, pay attention and participate.

Exams: Dates for the Exams are: Feb 8, March 15, & April 26

ADA: Students requiring modifications due to a disability should register with the Office for Students with Disabilities in the Fine Arts Building.

Library: The library is a resource available to you in person and online.

Course Goals

1: Develop students' mathematical and analytic skills in the areas of Linear, Quadratic, Polynomial, Rational, Radical, Exponential and Logarithmic Functions

Evaluate functions given by formulas, tables, graphs, words and diagrams

Find Domain of functions

Compose & decompose functions

Determine if a function is one-to-one & find its inverse

Show that a pair of functions are/are not inverses

Solve related equations

Find the average rate of change of a function

2: Develop students' understanding of Graphs of Functions and Relations.

Recognize and relate functions given by formulas, tables, graphs, words and diagrams

Find Domain & Range from graph and interpret

Find intercepts, max/min from graph and interpret

Determine inc/dec and concavity from graph and interpret

Graph functions

Solve equations graphically

Perform basic graphical transformations

3: Develop students' problem solving and reasoning skills through the construction and interpretation of functions in an applied context.

Interpret the properties of graphs in context

Interpret the average rate of change in context

Draw reasonable conclusions about a situation from an applied function