NORTHWEST FLORIDA STATE COLLEGE

MAC 1105 Course Syllabus Spring 2026 CRN (20236)

Course Name: College Algebra with Integrated Review

Course Number: MAC 1105
Section (CRN): 20236
Building/Room: To Be Determined
Day/Time: Tuesday/Thursday 11:00am – 12: 15 pm.
Credit Hours: 3
Instructor Name: Mr. Bellen
Instructor Office Location: Niceville Campus

Instructor Email: bellena@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 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 Gordon Rule 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 on 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

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 supports 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.

Students who stop attending class or cannot pass the course due to attendance expectations stated in the syllabus may receive a failing grade of "FA." An "FA" grade is a failing grade in GPA calculations and may impact the receipt of federal aid in subsequent courses. Students traveling for college approved activities will not be penalized academically but will be responsible for missed work.

Class attendance is an integral part of the learning process for this course. Students are expected to attend class regularly, as well as to arrive and depart on time. Students with excessive absences (including tardies) may be withdrawn from the class. Note that although college policy provides for a certain number of class absences, that number covers all types of absences, including absences such as those due to documented illness or other emergency: Absences for illness or emergencies are not accommodated in addition to those allowable under the attendance policy. (See page 26 of the 2008-09 Catalog and Student Handbook.)

If you miss a class, it is your responsibility to find out what work you missed. You are responsible for that material. I will take attendance and report excessive absence to the Office of Enrollment Services. I may withdraw you from class if you miss too many classes without notifying me in advance. If you come in class after I have taken roll you will need to let me know after class that you were present. Otherwise, I will count you as absent from that class. Excessive Absence may even result in a failing grade.

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.

Course Description

On 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 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 College-Level Communications and Computation Skills requirements for general education. Students cannot obtain credit for both MAC1105 and MAC1105C.

Course readings will be derived from the western canon. In addition, and to the extent possible, the course will provide instruction on the historical background and philosophical foundation of western civilization and the American democracy.

Course Prerequisite

Students who are exempt from placement testing may enroll in this course with no prerequisites. Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:
(1) 114 or higher on the math section of the PERT OR
(2) successful completion of MAT 0022 or MAT 0028 with a grade of "C" or better or equivalent or higher mathematics course.

Course Materials

College Algebra & Trigonometry, the second edition, authors Julie Miller and Donna Gerken. A graphing calculator is required. Instructors will use, demonstrate, and instruct with the TI-83/84 series calculator. This is the calculator recommended and used by the math faculty for all math/statistics courses from MAC 1105 and above. Although some students may choose to use a different calculator, they are then responsible for reading/understanding the respective operating manuals of any other calculator they have chosen to use.

Student Learning Outcomes

- Students will be able to demonstrate an understanding and knowledge of the properties of functions, including graphs, domain and range, operations, and inverses.
- Students will be able to construct linear functions and interpret their characteristics such as slope and intercepts.

- Students will be able to identify and define a variety of functions such as quadratic, rational, absolute value, radical, exponential and logarithmic.
- Students will be able to model and solve application problems.
- Students will be able to identify different types of equations (including systems of equations) and inequalities and use appropriate methods to solve them.
- Students will be able to demonstrate technology literacy by using a calculator to graph and analyze functions.

Grading Procedures

Homework (ALKES)	Due within one week of assignment	20%
Tests	In class tests: Test-1 Test-2 Test-3	60%
Final Exam	In class final exam	20%

In class test dates will be announced in advance. All in class tests/exams will be graded and returned as quickly as possible.

Grading Scale: A 90 – 100%, B 80 -89%, C 70 – 79%, D 60 - 69%, F less than 60%.

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

No makeup exams will be given except in special cases where advance notice is given and appropriate documentation is submitted. Makeup tests will be given solely at the instructor's discretion. You cannot take more than one makeup test. A makeup test should be taken within one week of the scheduled test date.

Class Attendance

Students who stop attending class or are not able to pass the course due to attendance expectations stated in the syllabus may receive a failing grade of "FA." An "FA" grade is a failing grade in GPA calculations and may impact the receipt of federal aid in subsequent courses. Students traveling for college approved activities will not be penalized academically but will be responsible for missed work.

Class attendance is an integral part of the learning process for this course. Students are expected to attend class regularly, as well as to arrive and depart on time. Students with excessive absences (including tardies) may be withdrawn from the class. Note that although college policy provides for a certain number of class absences, that number covers all types of absences, including absences such as those due to documented illness or other emergency: Absences for illness or emergencies are not accommodated in addition to those allowable under the attendance policy. (See page 26 of the 2008-09 Catalog and Student Handbook.)

If you miss a class, it is your responsibility to find out what work you missed. You are responsible for that material. I will take attendance and report excessive absence to the Office of Enrollment Services. I may withdraw you from class if you miss too many classes without notifying me in advance. If you come to class after I take attendance you will need to let me know after class that you were present. Otherwise, I will count you as absent from that class. Excessive Absence may even result in a failing grade.

Assignments

Homework assignments are due within one week of being assigned for credit.

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 above.

MAC 1105 Course Syllabus Spring 20236

College Algebra with Integrated Review (CRN 20236)

Course Information

Course Name: College Algebra with Integrated Review

Course Number: MAC 1105

Section (CRN): 10332

Building/Room: Science Bld. (350) RM 202

Day/Time: Tuesday/Thursday 9:30 am – 10:45 pm

Credit Hours: 3

Instructor Name: Mr. Bellen

Instructor Office Location: Niceville Campus

Instructor Email: bellena@nwfsc.edu

Course Curriculum

This course is designed to help students develop essential skills in problem solving, critical thinking, computational proficiency, and contextual fluency, all through the study of equations, functions, and their graphs. Special attention will be given to quadratic, exponential, and logarithmic functions. The curriculum covers a variety of topics, including solving equations and inequalities, understanding the definition and properties of functions, exploring domain and range, transformations of graphs,

operations on functions, composite and inverse functions, basic polynomial and rational functions, and applications of exponential and logarithmic functions. The course employs an embedded corequisite model, presenting prerequisite material as needed to support the development of College Algebra skills. Students are required to use non-symbolic graphing calculators, with the TI-83/84 Series recommended. To satisfy Gordon Rule requirements for general education, students must earn at least a "C" in the course. Credit cannot be awarded for both MAC1105 and MAC1105C.

Course Goals

The primary goals of this course are to provide students with a thorough background in algebra, serving as a foundation for further studies in pre-calculus, trigonometry, and calculus, and to develop algebraic skills and concepts that are valuable in future mathematics coursework. Students are expected to grasp core algebraic concepts and to tackle a broad spectrum of problems, ranging from fundamental exercises to more challenging application and conceptual questions.

Objectives and Student Learning Outcomes

- Students will solve equations and inequalities using appropriate techniques.
- Students will define and describe functions, along with their properties and graphs.
- Students will manipulate functions to simplify expressions and create new functions.
- Students will apply transformations to write equations for functions and graph them.
- Students will use functions to model and solve real-world problems.
- Students will demonstrate technology literacy by using a calculator to graph and analyze functions.

Expectations of the Instructor and Course

- Office Hours: Adjunct instructors do not have designated offices on campus. You may email the instructor at bellena@nwfsc.edu. Time before or after class can be used to address questions or issues that cannot be covered during class sessions.
- Email Response Time: Responses to inquiries and questions can be expected within 24-48 hours of receipt, excluding weekends and holidays. Typically, emails are answered Monday through Thursday between 8:00 a.m. and 4:00 p.m.
- Learning Management System Notification: Canvas resources are available to help students familiarize themselves with the Canvas learning management system used for this course. All assignments must be submitted through Canvas and/or ALEKS unless otherwise specified, so access to a computer is necessary. Computers are available for student use at all campuses. Canvas provides details on minimum computer specifications and supported browsers; Chrome is recommended.
- ALEKS: ALEKS provides online tools for formative assessment and student engagement.

Expectations of the Student

- Academic Integrity: Students are expected to engage actively and honestly in academic work, contributing to a positive learning environment in line with the college's mission. Academic misconduct, including cheating and plagiarism, is strictly prohibited and undermines educational integrity. Cheating includes any unauthorized assistance on coursework. Sanctions for misconduct can range from failing grades on specific assignments or activities, to course failure, suspension, or dismissal, depending on severity and frequency.
- Attendance Policy: Consistent attendance and participation are vital for success in college. Students are required to attend all class meetings for registered courses. Failure to meet attendance expectations may result in a failing grade of "FA," which affects GPA calculations and could impact eligibility for federal financial aid in subsequent courses. Students participating in college-approved activities will not be penalized academically but are responsible for missed work.
- Class Attendance: Attending class regularly and arriving/departing on time are essential. Excessive absences, including tardiness, may lead to withdrawal from the class. The college's attendance policy covers all forms of absences, including those for illness or emergencies; additional accommodations are not provided for these. If a class is missed, students are responsible for catching up on missed work and material. Attendance will be tracked, and excessive absences will be reported to the Office of Enrollment Services. Students may be withdrawn if they miss too many classes without prior notification. If arriving after attendance is taken, students must notify the instructor after class to avoid being marked absent. Excessive absences may result in a failing grade.

Evaluation of Student Performance

Student performance in this course will be measured through a combination of summative assessments aligned with the learning outcomes. The grading scale is as follows: A (100-90), B (89-80), C (79-70), D (69-60), and F (59-0).

Component	Description	Percentage
Homework (ALEKS)	Due within one week of assignment	20%
Tests	In-class tests (Test-1, Test-2, Test-3)	60%
Final Exam	In-class final exam	20%

Test dates will be announced in advance, and all in-class tests and exams will be graded and returned promptly.

Grading Scale: A (90 – 100%), B (80 - 89%), C (70 – 79%), D (60 - 69%), F (below 60%).

Course Description

This course focuses on the development of problem-solving skills, critical thinking, computational proficiency, and contextual fluency through the study of equations, functions, and their graphs. Key emphasis will be on quadratic, exponential, and logarithmic functions, along with topics such as solving equations and inequalities, understanding the definition and properties of functions, domain and range, transformations, operations, composite and inverse functions, polynomial and rational functions, exponential and logarithmic functions, and related applications. The embedded corequisite model ensures prerequisite material is presented as needed to support College Algebra skill development. A non-symbolic graphing calculator, preferably the TI-83/84 Series, is required. To satisfy College-Level Communications and Computation Skills requirements, students must earn a minimum grade of "C." Credit cannot be earned for both MAC1105 and MAC1105C.

Course readings will be drawn from the western canon and, where possible, will include instruction on the historical background and philosophical foundations of western civilization and American democracy.

Course Prerequisite

- Students exempt from placement testing may enroll without prerequisites.
- Students not exempt from placement testing may meet the prerequisite by:
- Scoring 114 or higher on the math section of the PERT, or
- Successfully completing MAT 0022 or MAT 0028 (with a grade of "C" or better) or an equivalent or higher mathematics course.

Course Materials

Required textbook: College Algebra & Trigonometry, second edition, by Julie Miller and Donna Gerken. A graphing calculator is required; instructors will use and demonstrate the TI-83/84 series, which is recommended for all math/statistics courses from MAC 1105 onward. Students opting for a different calculator are responsible for learning how to use it.

Student Learning Outcomes

- Demonstrate understanding of the properties of functions, including graphs, domain and range, operations, and inverses.
- Construct linear functions and interpret their characteristics, such as slope and intercepts.
- Identify and define various types of functions, including quadratic, rational, absolute value, radical, exponential, and logarithmic.
- Model and solve application problems.
- Identify different types of equations (including systems of equations) and inequalities, and use appropriate methods to solve them.
- Demonstrate technology literacy through the use of a calculator to graph and analyze functions.

Grading Procedures

Component	Description	Percentage
Homework (ALEKS)	Due within one week of assignment	20%
Tests	In-class tests (Test-1, Test-2, Test-3)	60%
Final Exam	In-class final exam	20%

Test dates will be announced in advance. All in-class tests and exams will be graded and returned promptly. Grading scale: A (90 – 100%), B (80 – 89%), C (70 – 79%), D (60 – 69%), F (below 60%).

Incomplete Grades

At the instructor's discretion, an incomplete grade ("I") may be assigned when a student cannot finish the required work due to unforeseen extenuating circumstances, such as illness or TDY assignment. To be eligible for an "I," the student must have successfully completed a significant portion of the coursework and be able to finish the remaining work independently. If the remaining coursework is not completed by the established deadline, the "I" grade will automatically convert to an "F."

Make-up Work

Make-up exams are not generally provided except in special circumstances, where advance notice and appropriate documentation must be submitted. The instructor has sole discretion in granting make-up tests, and only one makeup test is allowed. Makeup tests should be completed within one week of the originally scheduled test date.

Class Attendance

Students who stop attending class or are unable to meet the attendance expectations outlined in the syllabus may receive a failing grade of "FA." This grade affects GPA calculations and may impact eligibility for federal aid in future courses. Students participating in college-approved activities will not be penalized academically but must make up missed work.

Attendance is a critical component of the learning process. Students are expected to attend all classes regularly and to be punctual. Excessive absences, including tardiness, may result in withdrawal from the class. The attendance policy encompasses all types of absences, including those for illness or emergencies; no additional accommodations are provided. Students are responsible for catching up on missed work. Attendance will be monitored, and excessive absences will be reported to the Office of Enrollment Services. Withdrawal from the class may occur if too many classes are missed without prior notification. If students arrive after attendance is taken, they must inform the instructor after class to be marked present. Excessive absences may result in a failing grade.

Assignments

Homework assignments must be submitted within one week of being assigned to receive credit.

1.3
1.4
1.5
1.6
1.7
2.1
2.2
2.3
2.4
2.5
2.6
2.7
2.8
3.1
3.3
3.5
3.8
4.1
4.2
4.3
4.4
4.5

9.1	
9.5	

Additional Expectations

If you have other expectations from your students, please add them here.

Summary of Student Performance Evaluation

Student performance is assessed using a variety of summative assessments that align with the stated learning outcomes. The grading scale is: A (100-90), B (89-80), C (79-70), D (69-60), and F (59-0). The breakdown of the final grade is provided above.