# Pensacola State College Section Syllabus MAC 1105\_P1385 College Algebra

Instructor: Ken Johnson

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Credits 3 cc

### Prerequisites

Appropriate placement score or completion of MAT 1033C with a grade of C or better.

### **Course Description**

Covers the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities, applications (such as curve fitting, modeling, optimization, exponential and logarithmic growth and decay.)

### Offered

FA, SP, SU.

## Distribution

Meets AA General Education Core, Mathematics requirement.

## Textbooks:

College Algebra; Miller; 9781266692246; 3rd; McGraw-Hill; 2023

#### **Supplemental Materials:**

Scientific Calculator.

#### **Special Requirements:**

There is a \$24.99 Lab Fee for Distance Learning courses and NO Lab Fee for Hybrid courses. Distance Learning and Hybrid Sections require an ALEKS access code. Use of ALEKS in face-to-face sections is at the discretion of the instructor. Contact your instructor to determine if ALEKS is required. For sections NOT requiring ALEKS the textbook listed is required. Student Expectations—Students enrolled in this course can expect the following:

- 1) clearly identified course objectives
- 2) productive class meetings
- 3) a positive learning environment
- 4) opportunities for appropriate student participation
- 5) effective instruction
- 6) positive and appropriate interactions
- 7) assistance with meeting course objectives during and beyond class hours
- 8) evaluation of student performance and appropriate and timely feedback
- 9) clear and well-organized instruction.

## **General Education Student Learning Outcomes:**

**Critical Thinking:** The student analyzes, evaluates, and, if necessary, challenges the validity of ideas, principles, or data in order to develop informed opinions, probable predictions, or defensible conclusions.

**Scientific and Mathematical Literacy:** The student properly identifies and applies scientific or mathematical principles and methods.

**Information Literacy:** The student effectively locates, evaluates, and applies information from a variety of sources.

## **Course Learning Outcomes:**

- 1. Solve linear, quadratic, rational, absolute value, and radical equations and inequalities, algebraically and graphically.
- 2. Use exponential and logarithmic properties to analyze functions and solve equations.
- 3. Analyze relations and functions.
- 4. Sketch and interpret graphs of linear, quadratic, rational, absolute value, radical, exponential and logarithmic functions.
- 5. Solve systems of equations and inequalities.
- 6. Setup and solve application problems related to the above concepts.

## **Methods of Evaluation**

A student's final numerical grade will be determined as follows:

25% – HOMEWORK AVERAGE. Homework assignments will be given every class period and will be posted on Canvas. It is mandatory that you keep a neat homework journal. Each day (except on test days) there will be a short assessment (only a few problems) where you will photo pages from your journal, each of which contain certain designated problems, and submit to Canvas. Your score on each assessment will be based on the accuracy of the designated problems plus your having done all the assigned homework. There will be NO MAKE-UP ASSESSMENTS and LATE SUBMISSIONS WILL NOT BE GRADED. During the semester there will be 4 extra credit homework problems.

50% – TEST AVERAGE. There will be 6 tests throughout the semester. Each test will cover the material presented in class since the last test. There will be NO MAKE-UP TESTS, but your final exam grade will replace your lowest test grade – if that is to your advantage.

25% – FINAL EXAM. The final is mandatory and cumulative.

ATTENDANCE FACTOR. For each absence exceeding 3, a student's final numerical grade will be reduced 1 point. That is, for 0–3 absences the final numerical grade will not be reduced; for 4 absences there will be a reduction of 1 point; for 5 absences a reduction of 2 points; for 6 absences a reduction of 3 points; and so forth.

### **Student Email Accounts**

Pensacola State College provides an institutional email account to all students enrolled in courses for credit. PirateMail is the official method of communication, and students must use Piratemail when communicating with the College. In cases where companion software is used for a particular class, email may be exchanged between instructor and student using the companion software.

### Flexibility

It is the intention of the instructor to accomplish the objectives specified in the course syllabus. However, circumstances may arise which prohibit the fulfilling of this endeavor. Therefore, this syllabus is subject to change. When possible, students will be notified of any change in advance of its occurrence.

### **ADA Statement**

Students with a disability that falls under the Americans with Disability Act or Section 504 of the Rehabilitation Act, it is the responsibility of the student to notify Student Resource Center for ADA Services to discuss any special needs or equipment necessary to accomplish the requirements for this course. Upon completion of registration with the Student Resource Center for ADA Services office, specific arrangements can be discussed with the instructor.

## **Equity Statement**

Pensacola State College does not discriminate against any person on the basis of race, color, national origin, sex, disability, age, ethnicity, religion, marital status, pregnancy, sexual orientation, gender identity or genetic information in its programs, activities, and employment. For inquiries regarding the College's nondiscrimination policies, contact the Executive Director of Institutional Equity and Student Conduct, 1000 College Blvd., Building 5, Pensacola, Florida 32504, (850) 484-1759.

#### **Security Statement**

Pensacola State College is committed to encouraging all members of the College community to be proactive in personal safety measures. In case of emergency, students should ensure that they are aware of the building exit closest to each of their classrooms, as well as all alternative building exits in case circumstances require using a different route.

#### **Emergency Statement**

In the case of severe weather or other emergency, the College administration maintains communication with appropriate state and local agencies and makes a determination regarding the cancellation of classes. Notices of cancellation will be made through the College's PSC Alert system and on the College's website.