

Instructor: Ken Johnson Office: Building 1, Room 120I Email: kjohnson@pensacolastate.edu

Semester Hours: 3 credit hours

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

Course Description : 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.

Semester Offered : Fall, Spring, Summer.

Course Designations: Meets AA General Education Core, Mathematics requirement.

General Education Core Course Standard: Per Florida Statute 1007.25, "Mathematics courses must afford students a mastery of foundational mathematical and computation models and methods by applying such models and methods in problem solving."

Textbooks:

College Algebra (ALEKS 360 for College Algebra) Access Code; Miller and Gerken; 9781266688515; 3rd; McGraw-Hill; 2023

College Algebra (ALEKS 360 for College Algebra) Access Code; Miller and Gerken; 9781266692246; 3rd; McGraw-Hill; 2023

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 a CONNECT Math access code. Use of CONNECT Math in face-to-face sections is at the discretion of the instructor. Contact your instructor to determine if CONNECT Math is required. For sections NOT requiring CONNECT Math the textbook listed is required.

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.

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.

Academic Dishonesty Statement: Pensacola State College is committed to upholding the highest standards of academic conduct. All forms of academic dishonesty, to include plagiarism and

cheating, are prohibited. Penalties for academic dishonesty include but are not limited to one or more of the following: the awarding of no credit on the assignment, a reduction in the course grade, or the assignment of a final course grade of F and removal from the course. See the *College Catalog* for more details:

https://catalog.pensacolastate.edu/content.php?catoid=2&navoid=47#academic-honesty

Student Email Accounts: Pensacola State College provides an institutional email account to all students enrolled in courses for credit. This institutional email account is the official method of communication, and students must use this account 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 qualifies under the American with Disabilities Act Amendments Act of 2008 (ADAAA) must self-identify with the Student Resource Center for ADA Services (SRC/ADA). Disabilities covered by the ADAAA may include learning, psychiatric, physical disabilities, or chronic health disorders. Students can contact SRC/ADA if they are not certain whether a medical condition/disability qualifies. SRC/ADA is located on the Pensacola campus in building 6, room 603, <u>ADA-services@pensacolastate.edu</u>, 850-484-1637. Students may also complete the online intake form in the ADA Services app within the PSC apps dashboard.

Equity Statement: Pensacola State College does not discriminate against any person on the basis of race, ethnicity, national origin, color, gender/sex, age, religion, marital status, pregnancy, disability, sexual orientation, gender identity, or genetic information in its educational programs, activities, or employment. For inquiries regarding Title IX and the College's nondiscrimination policies, contact the Dean of Students at (850) 484-1759, Pensacola State College, 1000 College Blvd., Pensacola, Florida 32504.

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.