



Peru State College
MATH 112 College Algebra
Syllabus – Spring – 2012

Instructor: E. Keith Sinkhorn, PhD
Office Hours: MW 2:00-4:00am, F 1:00-2:00pm
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Required Textbook:

College Algebra: Real Mathematics, Real People, 6th Ed, by Larson
ISBN-13: 978-1-111-57510-6

Required Software:

None required. Any software that might be used is available on campus.

Course Description & Objectives

This course is for students who specifically need algebra in certain pre-professional programs. It covers algebraic principles and processes and is not to be taken for credit by students who have completed Math 113 or Math 120.

Prerequisites: None.

The objectives of this course include:

1. Increasing the student's ability to apply mathematical concepts to real world situations,
2. Increasing the student's ability to think analytically and make better decisions,
3. Increasing the student's ability to model real world situations with mathematical models, and to use those models to gain insight into the real world.

At the beginning of the course, we will discuss how these objectives fit into the College's and School's mission and goals. The instructor reserves the right to modify any aspect of the course syllabus or content. Any modifications will be communicated to students in advance.

Expectations & Instructional Approach

Classes will include primarily lecture and small group work. The single, most effective strategy for learning mathematics is to remain engaged with the material over the entire semester. This includes investing an appropriate amount of time outside of class (I suggest about 4-6 hours each week) in preparing for lectures, completing assigned homework problems, and working with others (such as fellow students, the instructor, and a tutor). During my office hours, I am essentially an expert tutor on-call for you at no additional charge. I encourage you to take advantage of this early and often.

The Blackboard hybrid course shell for this course will include a discussion board for homework. This board is designed to be the “home base” for discussion of course related topics outside of our regular class meeting times. This item will be discussed in more detail in the assessment and grading section of this syllabus.

Attendance and participation are vital to the learning experience. Consequently, I expect you to be at each class having read the material and ready to participate in the day's discussions and exercises. Please be in class on time. In order to foster a climate conducive to learning, please join me in treating your classmates with respect. I encourage students to ask questions, seek my help when they need it, and help their classmates understand the material.

Assessment and Grading

Your grade will be determined by four exams, weekly quizzes, and participation in homework discussions.

Class Attendance:

As mentioned previously, attendance and participation are crucial to your learning experience. Your weekly quizzes will serve this purpose for most of the course, so I will know who is attending class. Poor attendance will adversely affect quiz scores and exam scores. Consequently, I see no need to penalize students twice for missing class by also assigning points for attendance.

Weekly Assignments:

Nearly every week there will be a quiz during the first course meeting of the week. This quiz will be over the assigned homework from the course material of the past week. During weeks where we have no need for a quiz, there will be another related activity.

Homework:

For each section of course material, I will assign a list of suggested homework problems. This list is for your benefit, since our lectures will focus on preparing you to solve problems of this kind. You should have completed or at least attempted each problem before the next class meeting. I will begin each class by asking for questions related to homework from the previous day(s).

Exams:

Exams will be closed book, timed, in-class exams. You will be allowed a single 8.5" x 11" sheet of paper for notes during the exam. The fourth exam will be a non-cumulative final exam given during the final exam period.

A calculator will be required for this course. I do not require a specific model, however you will need the graphical and table features of the TI-80 series of calculators.

In order to receive full credit for problems on quizzes and exams, I expect students to show enough work to demonstrate mastery of the course material. You are here to learn valuable quantitative problem solving skills. Technology can supplement and enhance these skills, but it cannot replace them.

Grading Scale

Your final grade will be based on the aforementioned exams, quizzes, and writing assignments. The grading scale is as follows.

A	≥90 and ≤100
B+	≥87 and <90
B	≥80 and <87
C+	≥77 and <80
C	≥70 and <77
D+	≥67 and <70
D	≥60 and <67
F	<60

Weights for each assignment are as follows.

Exams	80% (20% each)
Quizzes	20%

As instructor, I reserve the right to adjust the lower limit of each grade range downward at my discretion. For example, a final score equal to or greater than 90 will guarantee the student a grade of A. However, a final score of equal to or greater than 88 may also earn a grade of A.

College's Incomplete Coursework Policy

To designate a student's work in a course as incomplete at the end of a term, the instructor records the incomplete grade (I). Students may receive this grade only when serious illness, hardship, death in the immediate family, or military service during the semester in which they are registered prevents them from completing course

requirements. In addition, to receive an incomplete, a student must have completed substantially all of the course's major requirements.

Unless extenuating circumstances dictate otherwise, students must initiate requests for an incomplete by filling out an Incomplete Grade Completion Contract, which requires the signature of the student, instructor, and Dean. The Incomplete Grade Completion contract cites the reason(s) for the incomplete and details the specific obligations the student must meet to change the incomplete to a letter grade. The date by which the student agrees to complete required work must appear in the contract. The Dean, the instructor, and the student receive signed copies of the Incomplete Grade Completion Contract.

Even if the student does not attend Peru State College, all incomplete course work must be finished by the end of the subsequent semester. Unless the appropriate Dean approves an extension and if the student does not fulfill contract obligations in the allotted time, the incomplete grade automatically becomes an F.

College's Academic Integrity Policy

The College expects all students to conduct themselves in a manner that supports an honest assessment of student learning outcomes and the assignment of grades that appropriately reflect student performance. It is ultimately the student's responsibility to understand and comply with instructions regarding the completion of assignments, exams, and other academic activities. At a minimum, students should assume that at each assessment opportunity they are expected to do their own original academic work and/or clearly acknowledge in an appropriate fashion the intellectual work of others, when such contributions are allowed. Students helping others to circumvent honest assessments of learning outcomes, or who fail to report instances of academic dishonesty, are also subject to the sanctions defined in this policy.

Instances of academic dishonesty may be discovered in a variety of ways. Faculty members who assign written work ordinarily check citations for accuracy, run data base and online checks, and/or may simply recognize familiar passages that are not cited. They may observe students in the act of cheating or may become aware of instances of cheating from the statements of others. All persons who observe or otherwise know about instances of cheating are expected to report such instances to the proper instructor or Dean.

In order to promote academic integrity, the College subscribes to an electronic service to review papers for the appropriate citations and originality. Key elements of submitted papers are stored electronically in a limited access database and thus become a permanent part of the material to which future submissions are compared. Submission of an application and continued enrollment signifies your permission for this use of your written work.

NSCS Board of Trustees Policy 4220 states that each College “. . . will establish a distance learning assessment policy that will include, at a minimum, a substantial culminating experience that is proctored.” Peru State College’s policy is that each course that is offered entirely online will feature a proctored final exam that substantially measures the extent the course’s stated learning objectives are achieved. Online course syllabi will clearly state that, regardless of grades earned previously, the proctored final exam must be passed in order to receive credit for the course. Courses which feature graded site-based activities (e.g., teaching demonstrations) and/or video-taped presentations that occur near the end of the term, and that are designed to substantially assess the achievement of learning objectives, can be considered in compliance with this policy. Project-based capstone and graduate courses utilizing real-time discussions held by web-cam, phone or in person with the faculty member as part of the assessment process can also be considered in compliance with this policy.

Should an occurrence of academic misconduct occur, the faculty member may assign a failing grade for the assignment or a failing grade for the course. Each incident of academic misconduct should be reported to the Dean and the Vice President for Academic Affairs (VPAA). The VPAA may suspend students for two semesters found to be responsible for multiple instances of academic dishonesty. The reason for the suspension will be noted on the student’s transcript.

A faculty member need present only basic evidence of academic dishonesty. There is no requirement for proof of intent. Students are responsible for understanding these tenets of academic honesty and integrity. Students may appeal penalties for academic dishonesty using the process established for grade appeals.

Title IX Compliance Notice

Peru State College is an equal opportunity institution. PSC does not discriminate against any student, employee or applicant on the basis of race, color, national origin, sex, disability, religion, or age in employment and education opportunities, including but not limited to admission decisions. The College has designated an individual to coordinate the College’s nondiscrimination efforts to comply with regulations implementing Title VI, VII, IX, and Section 504. Inquiries regarding non-discrimination policies and practices may be directed to Eulanda Cade, Director of Human Resources, Title VI, VII, IX Compliance Coordinator, Peru State College, PO Box 10, Peru, NE 68421-0010, (402) 872-2230.

Students requesting reasonable accommodation and tutoring services should

contact the Center for Achievement and Transition Services (CATS).

Tentative Course Schedule

Note that the following schedule is only for initial planning purposes. After each exam, I will update the schedule according to where we are in the course material.

Week	Sections	Notes
1	Chapter P	Pre-test and review
2	1.1-1.3	Graphs, lines, functions
3	1.4, 1.5	Graphs of functions, transformations
4	1.6, 1.7	Operations on functions and inverses (may take more time)
5	Exam 1	
6	2.1-2.4	Linear equations, graphical methods and complex numbers. Quadratics (2.4) may not be done by next week
7	2.5-2.7	Maybe skip or abbreviate 2.5 Solve other functions algebraically, 2.6 is inequalities, 2.7 is linear models and scatterplots
8	Exam 2	
9	5.1, 5.2	2D linear equations
10	3.1-3.3	Polynomials and the Fundamental Theorem of Algebra
11	3.4-3.6	Rational functions, asymptotes and graphs
12	4.1	Exponential functions
13	Exam 3	
14	4.2, 4.3	Logarithmic functions and properties of logs
15	4.4, 4.5	Solving exp and log equations, exp and log models
Final	Exam 4	