

# Mth070 Elementary Algebra

## Syllabus - Individualized Study Sections

Course Description: This course is for students with a background in solving linear equations and elementary graphing. The following topics are covered: linear equations, linear systems, linear inequalities in one and two variables, quadratic equations, negative exponents, scientific notation, and dimensional analysis in verbal, numerical, graphical and symbolic forms. These topics are explored with a graphing calculator and in traditional approaches.

Prerequisite: MTH060 Introductory Algebra or equivalent with C or better

Textbook: One textbook is required for this course. Choose from the following two books:

- *Elementary Algebra: Graphs & Authentic Applications, Custom Edition for Chemeketa Community College*, Jay Lehmann, ISBN 0-555-00000-1 (Available at the Chemeketa Bookstore)
- **or** *Elementary Algebra: Graphs & Authentic Applications*, Jay Lehmann, ISBN 0-13-220164-X. (Available from online vendors and occasionally available used at the Chemeketa Bookstore)

Both books contain the chapters that are covered in this course.

Calculator: A graphing calculator is required for this course. If you currently have a graphing calculator, check with your instructor regarding its compatibility with this course. If you do not have a graphing calculator, a Texas Instruments model TI-83 or TI-84 is recommended for most students. If you are planning on taking trigonometry, calculus (except Mth 241) or courses in physics or chemistry, a Texas Instruments model TI-86 or TI-89 is recommended.

Web Address: <http://newterra.chemeketa.edu/faculty/mathcenter/>

Class Procedures:

### A. Introduction:

1. This course takes place in the Mathematics Learning Center (MLC). This course is an individualized study program that allows students both pace flexibility and schedule flexibility. It requires self-discipline because you determine your own pace throughout the course. It is recommended that you work with other students in a small group. This way you learn to clearly communicate, both orally and in writing, the mathematical concepts you are studying. The ability to work and communicate with others is on the list of skills desired by business and industry.
2. You are responsible for a reading assignment and homework assignment for each section covered. You may come to the MLC at any time the center is open to ask questions over your reading and homework assignments. There is an instructor or lab assistant available during the MLC hours. You may do as much work outside of the MLC as you wish.
3. The course is divided into four modules and each module contains several sections. You receive a study guide for each module indicating the pages to study, assignments, and tests.
4. The suggested time line is designed to have you complete the course in one term. If you are industrious, you might complete the course earlier.

## Math 070 – Syllabus

### B. Assignments:

1. The homework assignments are self-checked using the answers in the back of the text and additional keys in the MLC. Rework any problems missed. Discuss any difficulties with an instructor. Continue with the next assignment after all corrections are made and all questions are answered. No homework is accepted for a module until the previous module tests are completed.
2. The review assignments are checked at the desk in the MLC. Rework any problems missed. Discuss any difficulties you have with an instructor. Full credit may be earned when you get all the problems correct. *Please notice that the review assignments are not sample tests. The review assignments are designed to get you started on your review for the test. Be sure to study the homework and the textbook readings for a more complete review.*

### C. Tests:

1. There is an Application test for each module. You have a maximum of two attempts on each module test. Retesting is optional. A different version of the test is used for the retest. The decision to retest must be made before taking the next module test or final exam. If two attempts are used, your grade is the average of the two scores. Calculators are required for these tests.
2. A Final Exam is taken after you have successfully completed all of the modules. The final exam must be taken to receive a passing grade in this course. Please see the due dates for the current term.
3. Tests for no more than one module may be taken in any one week.

### D. Evaluation:

1. Homework Assignments	31@ 1 point	31 points
Review Assignments	4@ 5 points	20 points
Application Tests	4@ 100 points	400 points
Final Exam	1@ 150 points	<u>150 points</u>
Total		605 points

2. Final grades are determined using the following scale. Percentages are calculated out of the total points possible.

A	90 - 100%	F	0-59% or if between 1 and 3 modules completed
B	80 - 89%	I	3 modules completed with at least a 65% average on tests.
C	70 - 79%	N	less than one module completed
D	60 - 69%		

3. To receive an Incomplete (I) for this course, you must take the module three test on or before the homework deadline date, and your average (mean) test score must be 65% or greater. Please see the due dates for the current term.
4. If you receive an 'I' grade, you have five weeks into the next term to complete the course and earn a letter grade to replace the 'I' grade. If your 'I' is earned spring term, you may complete your work either summer term or fall term. You do not need to register for the course again. If you receive an 'N' grade, you may register for the course the following term. You may continue from the point you have completed with the consent of your instructor. This requires paying for the course again. An 'N' or 'I' may affect financial aid and/or full time student status.

5. Any deviation from standard procedures must be handled by your instructor of record.

E. Academic Honesty:

If a student is caught cheating, the first offense will result in a score of zero on the test with no retake possible and the incident will be reported to the dean of students. A second offense will result in a failure grade (F) in the course and the incident will be reported to the dean of students.

Learner Outcomes: Upon successful completion of the course, students should be able to:

1. Create mathematical models of abstract and real world situations using linear equations, linear systems, linear inequalities, quadratic equations and square root equations.
2. Use inductive reasoning to develop mathematical conjectures involving linear equations, linear systems, linear inequalities, quadratic equations and square root equations. Use deductive reasoning to verify and apply mathematical arguments involving these algebraic concepts. Be able to distinguish between the concepts of inductive and deductive reasoning.
3. Use mathematical problem solving techniques involving linear equations, linear systems, linear inequalities, quadratic equations and square root equations. Techniques include the use of tabular, graphical, symbolic and narrative representations.
4. Make mathematical connections to, and solve problems from, other disciplines involving Linear equations, linear systems, linear inequalities, quadratic equations and square root equations.
5. Use oral and written skills to communicate about linear equations, linear systems, linear inequalities, quadratic equations and square root equations.
6. Use appropriate technology to enhance mathematical thinking and understanding, to solve mathematical problems involving linear equations, linear systems, linear inequalities, quadratic equations and square root equations, and judge the reasonableness of results.

Disability: If you have a documented disability that may impact your ability to succeed in this course, please contact Disability Services at 503-399-5192 (voice/TTY) or visit them in Building 2, room 109 on the Salem campus. They can help assess your educational needs and provide you with an action plan that includes recommendations on how we can best support you.

Diversity: We are enriched by the diversity of our students, staff, and community. We welcome diverse perspectives and encourage the free exchange of ideas. Chemeketa Community College provides an environment that celebrates the freedom to learn and the freedom to teach. In that celebration of teaching and learning it is appropriate that individuals and groups be viewed with regard to their potential to contribute within the learning environment. Each has dignity and value.