

SYLLABUS

Class Hours: Daily 11:00 a.m. - 11:50 a.m.
Room No: SS 30
Class No: 1184

Instructor: Sharon Owens
Phone: 638-3641 ex-215
Office Hours: T,W,Th 10:00 am - 10:50 am @ Tutorial Center HE-58
or by appointment at my office FE 4D

Course Objectives:

Students will be able to: solve linear, quadratic, rational, and radical equations, systems of equations and inequalities; Graph linear equations and inequalities and to understand the relationship between a graph and the relationship that generates it; Understand, setup and interpret the solution of application problems.

Course Outline:

- **The Basics:** Notation and symbols; real numbers; addition/subtraction/multiplication/division of real numbers; properties of real numbers; subsets of real numbers; addition and subtraction with fractions.
- **Linear Equations and Inequalities:** simplifying expressions; addition/multiplication properties of equality; solving linear equations; formulas; linear inequalities.
- **Graphing and Linear Systems:** paired data and graphing ordered pairs; solutions to linear equations in two variables; graphing linear equations in two variables; intercepts; the slope of a line; finding the equation of a line; solving linear systems by graphing, elimination method, and substitution method.
- **Exponents and Polynomials:** multiplication/division with exponents; operations with monomials; addition/subtraction/multiplication/division of polynomials; binomial squares and other special products.
- **Factoring:** the greatest common factor and factoring by grouping; factoring trinomials; the difference of two squares; solving equations by factoring.
- **Rational Expressions:** reducing to lowest terms, addition/subtraction/multiplication/division of rational expressions; equations involving rational expressions; complex fractions.
- **Roots and Radicals:** definitions and common roots; properties of radicals; simplified form for radicals; addition/subtraction/multiplication/division of radical expressions; equations involving radicals
- **Quadratic Equations:** completing the square; quadratic formula; complex numbers; complex solutions to quadratic equations; graphing parabolas

Course Prerequisite:

Arithmetic Review (MATH 54) or equivalent and eligibility for English 26.

Textbook:

McKeague, Elementary Algebra, fifth edition. Saunders College Publishing.

Class Participation:

Your participation in the instructional process can be very important to your understanding the material in the course. Your participation may include presenting the solution for a problem to the class, answering questions on current topics, or working cooperatively with other students in the class on assignments. To gain maximum benefit from the class, all text material should be read prior to the meeting the instructor presents the material. The assignments should be completed after the material has been presented in class and prior to the next class meeting.

Homework and assignments:

Assignments are given for each of the chapters presented in the course. The assignments vary in length depending the material cover in class. Assignments provide students with the necessary practice to acquire the skills taught in the course and provide a means of monitoring student progress. Consistent and timely completion of written assignments is absolutely essential to the successful completion of the course. **Late assignment contribute significantly less to the learning experience and are NOT accepted.** Each homework worth **20 points** and will be graded on completeness, neatness, and effort of the entire assignment. Homework should be done on 8.5" by 11" lined paper, stapled on the upper right hand corner, with your name and chapter/section number on the upper right hand corner.

Attendance:

Students are expected to attend all class meetings, be on time, and be in class the **entire** class session. Students leaving the class before the end of class will be counted as being absent. I and your classmates would greatly appreciate that students take care of their personal needs (i.e., using the restroom, getting a drink) **before** the class begins.

Students may be dropped from a class if they fail to attend the first class session of the semester. Any student who misses **five** classes or more may be dropped from this class. College policies on attendance may be found in the Kings River Community College Catalog.

Attendance Grade: Each student will begin the semester with **twenty** attendance points. They will be averaged with your homework points. Each absence will result in the loss of **two** attendance points. You will continue to lose two points per absence after you have lost the twenty attendance points. These points will be taken from your earned homework points.

Tardiness: Two late arrivals to class will be counted as an absence, and each tardy will be a loss of **one** attendance point.

Quizzes:

There will be **unannounced** short quizzes (i.e. 5 - 10 minutes) in the class. Each quiz worth **ten** points. There are **no** makeup quizzes, so attendance is very important.

Tests:

There are chapter tests at end of each chapter worth 100 points. Early tests can be arranged with a **very good** reason. A more **difficult** late test can only be arranged if you have an excuse verified by an impartial party (i.e., a doctor or a court clerk). The final examination is **required** and is valued at 100 points also.

Grading:

70% of your final grade points are from the average test score (including the final examination)

20% of your final grade points are from the average of homework

10% of your final grade points are from the average of quizzes

Final grade is assigned using following scale:

90-100 points	A
80- 89 points	B
70- 79 points	C
60- 69 points	D
< 60 points	F

Important Dates:

Class begin:	Monday	01/12/98
Drop deadline date:	Friday	03/13/98
Final Examine:	Monday	05/18/98 10:30 a.m. - 12:00 a.m.

SYLLABUS

Class Hours: Daily 9:00 a.m. - 9:50 a.m.
Room No: SS 30
Class No: 1191

Daily 12:00 p.m. - 12:50 p.m.
SS 30
1195

Instructor: Sharon Owens
Phone: 638-3641 ex-215
Office Hours: T,W,Th 10:00 am - 10:50 am @ Tutorial Center HE-58
or by appointment at my office FE 4D

Course Objectives:

To help students become proficient in the basic concepts and techniques of intermediate algebra and to prepare students for trigonometry, statistics, and all other courses which have intermediate algebra as prerequisite.

Course Outline:

- **Basic Properties and Definitions:** sets, real numbers exponents, polynomials, factoring.
- **One-Variable Equations and Inequalities:** linear and quadratic equations in one variables, formulas, applications, linear inequalities in one variable, quadratic inequalities equations and inequalities with absolute value.
- **Two-Variable Equations and Inequalities; Functions:** graph in two dimensions, the slope and equation of a line, linear inequality in two variables, function notation, variation.
- **Rational Expressions:** basic properties and reducing to lowest terms; division of polynomials; multiplication, division, addition, and subtraction of rational expressions; complex fractions; equations involving rational expressions.
- **Rational Exponents and Roots:** rational exponents; simplified form for radicals; addition, subtraction, multiplication, and division of radical expressions; equations with radicals; complex numbers.
- **Quadratic Equations:** completing the square; the quadratic formula; solutions to equations; graphing parabolas.
- **System of Linear Equations:** system of linear equations in two and three variables; matrix and determinants; Cramer's rule.
- **More Functions and Graphs; Conic Sections:** relations and functions; classification of functions; the inverse of a function; the circle; ellipses and hyperbolas.
- **Logarithms:** properties of logarithms; common and natural logarithms; exponential equations and change of base.

Course Prerequisite:

Elementary Algebra (MATH 1) or equivalent and eligibility for English 26.

Textbook:

McKeague, Intermediate Algebra; Alternate Approach, second edition. Saunders College Publishing.

Class Participation:

Your participation in the instructional process can be very important to your understanding the material in the course. Your participation may include presenting the solution for a problem to the class, answering questions on current topics, or working cooperatively with other students in the class on assignments. To gain maximum benefit from the class, all text material should be read prior to the meeting the instructor presents the material. The assignments should be completed after the material has been presented in class and prior to the next class meeting.

Homework and assignments:

Assignments are given for each of the chapters presented in the course. The assignments vary in length depending the material cover in class. Assignments provide students with the necessary practice to acquire the skills taught in the course and provide a means of monitoring student progress. Consistent and timely completion of written assignments is absolutely essential to the successful completion of the course. **Late assignment contribute significantly less to the learning experience and are NOT accepted.** Each homework worth 20 points and will be graded on completeness, neatness, and effort of the entire assignment. Homework should be done on 8.5" by 11" lined paper, stapled on the upper right hand corner, with your name and chapter/section number on the upper right hand corner.

Attendance:

Students are expected to attend all class meetings, be on time, and be in class the **entire** class session. Students leaving the class before the end of class will be counted as being absent. I and your classmates would greatly appreciate that students take care of their personal needs (i.e., using the restroom, getting a drink) **before** the class begins.

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Attendance Grade: Each student will begin the semester with **twenty** attendance points. They will be averaged with your homework points. Each absence will result in the loss of **two** attendance points. You will continue to lose two points per absence after you have lost the twenty attendance points. These points will be taken from your earned homework points.

Tardiness: Two late arrivals to class will be counted as an absence, and each tardy will be a loss of **one** attendance point.

Quizzes:

There will be **unannounced** short quizzes (i.e. 5 - 10 minutes) in the class. Each quiz worth **ten** points. There are **no** makeup quizzes, so attendance is very important.

Tests:

There are chapter tests at end of each chapter worth **100** points. Early tests can be arranged with a **very good** reason. A more **difficult** late test can only be arranged if you have an excuse verified by an impartial party (i.e., a doctor or a court clerk). The final examination is **required** and is valued at 100 points also.

Grading:

70% of your final grade points are from the average test score (including the final examination)
20% of your final grade points are from the average of homework
10% of your final grade points are from the average of quizzes

Final grade is assigned using following scale:

90-100 points	A
80- 89 points	B
70- 79 points	C
60- 69 points	D
< 60 points	F

Important Dates:

Class begin: Monday 01/12/98

Drop deadline date: Friday 03/13/98

Final Examine: **Thursday 05/21/98**
8:00 a.m. - 10:00 a.m.

Wednesday 05/20/98
10:30 am - 12:00 p.m.

SYLLABUS

Class Hours: M W 2:30 p.m. - 3:45 p.m.
F 2:30 p.m. - 4:20 p.m.

Room No: FE 4E
Class No: 1483

Instructor: Sharon Owens
Phone: 638-3641 ex-215
Office Hours: T,W,Th 10:00 am - 10:50 am @ Tutorial Center HE-58
or by appointment at my office FE 4D

Course Objectives:

This class is the second programming course in college or university curriculum. It covers "Algorithms and Data Structures" using C language. Students will:

- understand the classic data structures used in all nontrivial programs
- be able to analyze computing problems, design and develop computer programs to those problems
- be able to test and debug programs

Course Outline:

- Overview of ANSI C: Structure of a C program; Variables, values, and types; Expressions; Statements; Functions.
- Data Type in C: Enumeration types; Data and Memory; Pointers; Arrays; Records Dynamic allocation.
- Libraries and Interfaces: The concept of an interface; Random numbers; Strings; The standard I/O library; Other ANSI libraries.
- Introduction to recursion: Factorial function; Fabonacci function; Other examples of recursion.
- Recursive Procedures: The Tower of Hanoi; Generating permutations; Graphical applications of recursion.
- Algorithmic Analysis: The sorting problem; Computational complexity; Using recursion;; Standard complexity classes; Quick sort algorithm; Mathematical induction.
- Abstract Data Type: Stacks; Defining a stack ADT; Using/Implementing the stack abstraction.
- Efficiency and ADTs: Concept of an editor buffer; Defining the buffer abstraction; Implementing the editor using arrays; Implementing the editor using stacks; implementing the editor using linked lists.
- Linear Structures: Stacks; Queues.
- Symbol Tables: Defining a symbol table abstraction; hashing; Using functions as data; Mapping functions; Iterators; Command dispatch tables.
- Recursive List: The recursive formulation of a list; Defining an abstract list type; Using lists to represent large integers
- Trees: Family trees; Binary search trees; Balanced trees.
- Expression Trees: The interpreter; The abstract structure of expressions; parsing and Evaluating an expression.
- Sets: sets as a mathematical abstraction; Designing a set interface; Implementing the set package.
- Graphs: The structure of a graph; Implementation strategies for graphs; Extending the graph abstraction; Graph traversals; Finding minimum paths.

Course Prerequisite:

Programming Concepts and Methodology I (CSCI 40).

Textbook:

Eric Roberts, Programming Abstractions in C, Addison-Wesley Publishing Company, Inc.

Homework and assignments:

Assignments are given for each of the chapters presented in the course. The assignments vary in length depending the material cover in class. **Late assignment contribute significantly less to the learning experience and are NOT accepted.** Each homework worth **10 points** and will be graded on completeness, neatness, and effort of the entire assignment.

Programming Assignments (Lab Projects):

Programming projects are assigned for each chapter and they are due before the chapter test. Turn in your programming projects on a floppy disk along with the print out of the programs, program input, and output. Program projects are graded using following criteria: documentation, readability, test cases, and technical aspects. Each homework worth **40 points**.

Computer Lab:

Computer lab is in room FE 4. Computers (IBM compatible) and HP laser printers are used in this lab. Turbo C++ is installed on all PCs. **Students need to have at least two floppy disks (3.5" High Density, 1.44 MB) ready for programming assignments.**

Attendance:

Students are expected to attend all class meetings, be on time, and be in class the **entire** class session. Students leaving the class before the end of class will be counted as being absent. I and your classmates would greatly appreciate that students take care of their personal needs (i.e., using the restroom, getting a drink) **before** the class begins.

Students may be dropped from a class if they fail to attend the first class session of the semester. Any student who misses **six** classes or more may be dropped from this class. College policies on attendance may be found in the Kings River Community College Catalog. Two late arrivals to class will be counted as an absence.

Tests:

There are chapter tests at end of each chapter worth **100 points**. Early tests can be arranged with a **very good reason**. A more **difficult** late test can only be arranged if you have an excuse verified by an impartial party (i.e., a doctor or a court clerk). The final examination is **required** and is valued at 100 points also.

Grading:

50% of your final grade points are from the average test score (including the final examination)
40% of your final grade points are from the average of programming assignments
10% of your final grade points are from the average of homework

Final grade is assigned using following scale:

90-100 points	A
80- 89 points	B
70- 79 points	C
60- 69 points	D
< 60 points	F

Important Dates:

Class begin:	Monday	01/12/98
Drop deadline date:	Friday	03/13/98
Final Examine:	Monday	05/18/98
	1:00 p.m. - 3:00 p.m.	