ELEMENTARY ALGEBRA

Date   12/05/2011

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COURSE NUMBER: MAT 152

PREREQUISITE(S):   MAT 032 or placement, RDG 032 or placement

CO-REQUISITE(S):   None

COURSE DESCRIPTIONS   This course includes the following topics: operations with signed numbers and algebraic expressions; solving linear equations; factoring; and an introduction to graphing.

TEXTBOOK(S):   Martin-Gay, K Elayn, *Beginning and Intermediate Algebra*
4th Edition. Upper Saddle River, New Jersey, Prentice-Hall, 2009.

REFERENCE(S):   None

OTHER REQUIRED MATERIALS, TOOLS, AND EQUIPMENT: Students need a loose-leaf notebook, paper, graph paper, pencils, ruler, and a scientific calculator. Calculators may **not** be used until after completion of Chapter 1.

METHOD OF INSTRUCTION: The course is taught through lectures, discussions, as well as individual and collaborative assignments. The Tutorial Learning Center (E-2) provides tutoring and supplementary materials to enhance the students' learning.

GRADING SYSTEM:
90	-	100	=	A
80	-	89	=	B
70	-	79	=	C
60	-	69	=	D
Below		60	=	F

GRADE CALCULATION METHOD:
Test Grades	=	70%
Homework, Quizzes, and Participation	=	10%
Final Examination (Cumulative)	=	20%
	=	100%

ATTENDANCE POLICY: The student is responsible for punctual and regular attendance in all classes, laboratories, clinical, practica, internships, field trips, and other required class activities. The College does not grant excused absences; therefore, students are urged to reserve their absences for emergencies. When illness or other emergencies occur, the student is responsible for notifying instructors and completing missed work if approved for late submission by instructors.

The student is tardy if not in class at the time the class is scheduled to begin and is admitted to class at the discretion of the instructor.

Instructors maintain attendance records. However, it is the student's

responsibility to withdraw from a course. A student enrolling in and attending at least one course session remains enrolled until the student initiates a withdrawal.

Withdrawal Policy: During the first 75% of the course, a student may initiate withdrawal and receive a grade of W. A student cannot initiate a withdrawal during the last 25% of the course. Extenuating circumstances require documentation and approval by the appropriate department head and academic dean.

Absences for Religious Holidays: Students who are absent from class in order to observe religious holidays are responsible for the content of any activities missed and for the completion of assignments occurring during the period of absence. Students who anticipate their observance of religious holidays will cause them to be absent from class and do not wish such absences to penalize their status in class should adhere to the following guidelines:

1. Observance of religious holidays resulting in three or fewer consecutive absences: Discuss the situation with the instructor and provide written notice at least one week prior to the absence(s). Develop (in writing) an instructor-approved plan, which outlines the make up of activities and assignments.

2. Observances of religious holidays resulting in four or more consecutive absences: Discuss the situation with the instructor and provide the instructor with written notice within the first 10 days of the academic term. Develop an instructor-approved plan, which outlines the make up of activities and assignments.

CLASSROOM CONDUCT: **ACADEMIC DISHONESTY**: Students are expected to uphold the integrity of the College's standard of conduct, specifically in regards to academic honesty. All forms of academic dishonesty including, but not limited to, cheating on assignments/tests, plagiarism, collusion, and falsification of information will call for disciplinary action. Disciplinary action imposed may include one or more of the following: written reprimand, loss of credit for assignment/test, termination from course, and probation, suspension, or expulsion from the College. For further explanation of this and other conduct codes, please refer to the Student Handbook.

CELLULAR PHONES AND PAGERS/BEEPERS: Cellular phones, pagers and beepers are not permitted to be turned on or used within the classroom. Use of these devices during classroom time will be considered a violation of the student code as it relates to "disruptive behavior."

CLASS/LAB PROCEDURES: Each instructor determines specific class policies and procedures about tests and quizzes. These are described in the instructor's information sheet.

ACCOMMODATIONS: Students who need special accommodations in this class because of a documented disability should notify Student Disability Services by calling (864) 592-4818, toll-free 1-800-922-3679; via email through the SCC web site at www.sccsc.edu/resources/disabilities; or by visiting the office located in the East Building Room 30-B on the SCC Central campus. Contacting Student Disability Services early in the semester gives the College an opportunity to provide necessary support services and appropriate accommodations.

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COURSE OUTCOMES & OBJECTIVES:

Upon satisfactory completion of this course, the student will be able to:

I.   Perform basic operations with signed numbers.
   A. Add real numbers.
   B. Subtract real numbers.
   C. Multiply and divide real numbers.

II.   Solve and graph basic linear equations.
   A. Simplify algebraic expressions.
   B. Solve equations using the addition-subtraction principle.
   C. Solve equations using the multiplication-division principle.
   D. Solve and graph linear equations.
   E. Solve for a specific variable.
   F. Plot ordered pairs on the rectangular coordinate system.
   G. Calculate the slope of a line.
   H. Employ special forms of linear equations.

III.   Solve application problems.
   A. Apply the steps for problem solving.
   B. Use formulas to solve word problems.
   C. Solve a formula or equation for one of its variables.

IV.   Perform operations with powers.
   A. Use the product and power rules for exponents.
   B. Use the quotient rule, and simplify expressions with zero exponents.
   C. Simplify expressions with negative exponents, and use scientific notation.
   D. Add and subtract polynomials.
   E. Multiply polynomials.
   F. Multiply binomials by inspection.
   G. Divide polynomials by monomials.

V.   Multiply and factor algebraic expressions.
   A. Factor out the greatest common factor.
   B. Factor trinomials of the form $x^2 + bx + c$.
   C. Factor trinomials of the form $ax^2 + bx + c$.
   D. Factor polynomials that are special forms.
   E. Determine the most appropriate strategy for factoring a polynomial.
   F. Solve equations by factoring

GENERAL EDUCATION OUTCOMES:

Upon satisfactory completion of this course, the students should be able to demonstrate

I.   their ability to express themselves effectively in quantitative and qualitative terms.

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