

**J. Sargeant Reynolds Community College
Course Content Summary**

Course Prefix and Number: SDV 101

Credits: 2

Course Title: Orientation to College Mathematics

Course Description: Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college, and to the mastery skills needed for precalculus (MTH 167). Covers topics such as services at the college, including the library; counseling and advising; listening, test taking, and study skills; and topical areas applicable to precalculus. Topics in mathematics may include, but are not limited to, factoring polynomials, arithmetic operations on polynomials, synthetic and long division of polynomials, using the rules of exponents to simplify algebraic expressions, and graphing calculator usage. Emphasizes study skills and strategies specific to students in math courses. Meets SDV requirements for graduation. Prerequisites: A placement recommendation for MTH 167 and completion of Algebra I, Algebra II, and Geometry or equivalent. Co-requisite: Enrollment in college-designated section of MTH 167. Lecture 2 hours per week.

General Course Purpose: To assist students in transitioning into and maintaining effectively in college, and to improve success rates of MTH 167 by providing students with a review of remedial material concurrent with MTH 167 objectives.

Course Prerequisites and Co-requisites:

Prerequisites: A placement recommendation for MTH 167 and completion of Algebra I, Algebra II, and Geometry or equivalent. Co-requisite: Enrollment in college-designated section of MTH 167.

Student Learning Outcomes:

Upon completing the course, student will be able to

- a. Factor polynomials using various factoring techniques;
- b. Add, subtract, and multiply polynomials;
- c. Perform synthetic division of polynomials;
- d. Perform long division of polynomials;
- e. Use the rules of exponents to simplify algebraic expressions;
- f. Effectively use the graphing calculator in various mathematical applications;
- g. Simplify rational expressions;
- h. Choose a career field and the academic program that will assist in pursuing the student's selected career goal(s);
- i. List and successfully apply two techniques relating to each of the following college transition areas:
 - note-taking;
 - test-taking;
 - reading comprehension;
 - time management;
- j. List five campus resources that assist students and how students may access the resources; and
- k. Select the appropriate academic program and course options for enrollment in subsequent terms.

Major Topics to Be Included

- a. Arithmetic of polynomials
- b. Factoring
- c. Simplification of algebraic expressions
- d. Critical thinking
- e. General study skills and styles
- f. Specific math study skills
- g. Career development
- h. Policies and procedures of the institution
- i. Academic advising

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