

MATH 116 - Technical Mathematics (3 Credits)

DESCRIPTION:

Concepts that will allow student to become proficient in the mathematics used in technical fields are the focal point of this course. Topics include manipulations of whole numbers, integers, fractions and decimals; measurement systems; an introduction to simple geometric figures; algebraic expressions; linear and quadratic equations; and fundamentals of trigonometry.

TEXT:

Technical Mathematics - Custom Edition for CSN, 5th Edition, Calter and Calter

NOTE: Full-time instructors have the right to use no text or a different text.

OUTLINE:

Ch 01 - Sections 1.1 – 1.9

Ch 02 - Sections 2.1 – 2.6, 2.9, 2.10, 2.11

Ch 03 - Sections 3.1, 3.2, 3.4, 3.5, 3.6

Ch 04 - Sections 4.1, 4.2 (discuss only the graph of linear functions)

Ch 05 - Sections 5.1 - 5.4 (discuss only the area and circumference of the circle), 5.5

Ch 06 - Sections 6.1 - 6.3

Ch 16 - Sections 16.1, 16.3, 16.5

Ch 17 - Sections 17.1, 17.2

OUTCOMES:

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| a. Manipulate whole numbers, integers, fractions and decimals. | h. Solve linear equations in one variable. |
| b. Investigate various systems of measurement. | i. Graph linear equations in two variables on a coordinate axis. |
| c. Convert percent to fractional and decimal notation and vice versa. | j. Solve simple quadratic equations using the Square Root Property. |
| d. Solve simple percent problems. | k. Obtain areas of simple geometric figures. |
| e. Set up and solve proportions. | l. Explore triangles and the fundamentals of trigonometry. |
| f. Become familiar with the Order of Operations. | m. Apply and extend all concepts. |
| g. Evaluate and simplify algebraic expressions. | |

EVALUATION:

Grades will be determined by student performance in one or more of the following areas: in-class tests, take-home tests, homework assignments, quizzes, special projects, papers, attendance, and class participation. Degree of importance and types of assessment used will depend on the instructor. However, at least 50% of the course grade used is to be determined by proctored individual exams/assessments.

This course satisfies or partially satisfies the Math component of a degree or certificate program at CSN.