MATH 182 - Calculus II (4 Credits)

DESCRIPTION:

Topics include further applications and techniques of integration with applications, polynomial approximations, sequences, and series. Prerequisite: Math 181 with a grade of C or better; or a satisfactory ACT/SAT/Placement Test score.

TEXT:

Calculus of a Single Variable; 9th Edition; Larson, Edwards

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

OUTLINE:

Ch 06 - All Sections
Ch 07 - Sections 7.1 - 7.4
Ch 08 - All Sections
Ch 09 - All Sections
Ch 10 - Sections 10.1, 10.2, 10.3 - 10.5

OUTCOMES:

a. Analyze differential equations.
b. Evaluate solids of revolution and arc lengths.
c. Perform integration techniques such as integration by parts, trigonometric integrals, trigonometric substitution, partial fractions, and using tables.
d. Analyze indeterminate forms and work with L'Hopital's Rule.
e. Evaluate sequences, series, tests of convergence/divergence, and Taylor Polynomials.
f. Find the slope of a tangent line to a polar graph and to a curve given by a set of parametric equations.
g. Find the arc length of a polar graph and of a curve given by a set of parametric equations.
h. Find the area of a surface of revolution (parametric and polar form).
i. Apply and extend all concepts.

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.

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

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