

Mathematics 1141
Calculus with Review II
Spring
4 credits

# **Catalog Description:**

This is the second of a two semester course sequence. The topics covered in Math 1141 will include differential calculus of one real variable, with review of important algebra and pre-calculus concepts. Math 1141 is a course designed with an emphasis on reviewing these fundamental pre-calculus skills as they apply to calculus.

# **Prerequisite:**

A grade of C- or above in 1140.

# **Exclusions:**

Not open to students with credit for 1151 or above, or 151.xx or above.

#### **Text:**

calculus with review developed by XIMERA

# **Topics List:**

V.25 V.26 V.27 V.28 V.29	Review of Limits Review of differentiation Linear approximation Concepts of graphing functions Implicit differentiation
V.29 V.30	Implicit differentiation Logarithmic differentiation
V.29	Implicit differentiation

#### Midterm 1

V1.31	Inverse Trigonometric Functions
VI.32	Derivatives of inverse trigonometric functions
VI.33	More than one rate
VI.34	Applied related rates
VI.35	L'Hopital's rule
VI.36	Antiderivatives
VI.37	Differential Equations

### Midterm 2

VII.38	Approximating the area under a curve
VII.39	Definite integrals
VII.40	Antiderivatives and area
VII.41	First Fundamental Theorem of Calculus
VII.42	Second Fundamental Theorem of Calculus
VII.43	Applications of integrals

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Midterm 3

VIII.44 The idea of substitution VIII.45 Working with substitution

Final