



Catalog Description:

Differential and integral calculus of one real variable.

Prerequisite:

Math Placement Level L, or C- or better in: 1150, or in both 1148 & 1149; or in 150 or 1144.

Exclusions:

Not open to students with credit for any higher numbered math class.

Text:

Calculus I developed by Ximera

Topics List:

§1	Understanding Functions		<i>Midterm 2</i>
§2	Review of famous functions		
§3	What is a limit?	§24	Linear approximation
§4	Limit laws	§25	Optimization Section
§5	(In)determinate forms	§26	Applied optimization
§6	Using limits to detect asymptotes	§27	L'Hopital's rule
§7	Continuity & Intermediate Value Theorem	§28	Antiderivatives
§8	An application of limits	§29	Approximating the area under a curve
		§30	Definite integrals
			<i>Midterm 3</i>
§9	Definition of the derivative		
§10	Derivatives as functions	§31	Antiderivatives and area
§11	Rules of differentiation	§32	First Fundamental Theorem of Calculus
§12	Product rule and the quotient rule	§33	Second Fundamental Theorem of Calculus
§13	Chain rule	§34	Applications of integrals
§14	Higher order derivatives and graphs	§35	The idea of substitution
§15	Implicit differentiation	§36	Working with substitution
§16	Logarithmic differentiation		
§17	Derivatives of inverse functions		<i>Final</i>
§18	More than one rate		
§19	Applied related rates		
§20	Maximums and minimums		
§21	Concepts of graphing functions		
§22	Computations for graphing functions		
§23	Mean value theorem		