

## FACULTY OF SCIENCE Department of Mathematics and Statistics

## Applied Mathematics 217

## Calculus for Engineers and Scientists

(see Course Descriptions for the applicable academic year: <u>http://www.ucalgary.ca/pubs/calendar/</u>)

## Syllabus

Topics		<u>Number</u> of Hours
Limits and Continuity		7
Derivatives and their basic properties, rules of differentiation, the mean value theorem, L'Hospital's rule	<b>;</b>	6
Application of derivatives: related rates, graphing, maximization, linearization Newton's method	n,	6
Antiderivatives, the definite integral, the fundamental theorem, substitutions		6
Exponentials and logarithms, inverse functions, growth and decay, inverse trigonometric functions, hyperbolic functions		7
Applications of integration: areas, volumes of revolution, volumes by slicing, length, surfaces of revolution	arc	4
-	TOTAL	36

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95.11.21 Effective: Fall 1996 prerequisite to include new calc F2009 LPB:jlong