

Applied Mathematics 219

Multivariable Calculus for Engineers

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

*Syllabus*

<u>Topics</u>	<u>Number of Hours</u>
Techniques of Integration (parts, partial fractions, inverse substitutions)	6
Improper Integrals	1
Numerical Integration (Trapezoidal and Simpson's Rules)	1
Double Integrals (including Polar Coordinates)	5
Centres of Mass with Double Integrals	3
Vector Basics, Determinants	3
Vector Derivatives	2
Triple Integrals (including Spherical Coordinates, Centres of Mass)	5
Parametric Curves	3
Partial Derivatives, the Chain Rule	6
Extreme Values	1
	TOTAL: <u>36</u>

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