

## FACULTY OF SCIENCE Department of Mathematics and Statistics

## Mathematics 114

## Multivariate Topics from Applied Mathematics 219

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

**Referenced Text:** "Calculus, a Complete Course", by Robert Adams, 4th edition (Addison-Wesley). (not necessarily a required text)

## Syllabus

<u>Topics</u>	<u>Textbook</u> Reference
Quadratic Surfaces	10.5
Double Integrals	14.1
Iteration of Double Integrals in Cartesian Coordinates	14.2
Double Integrals in Polar Coordinates	14.4
Triple Integrals	14.5
Change of Variables in Triple Integrals	14.6
Applications in Multiple Integrals	14.7
Mass, Moments and Center of Mass	7.4
Centroids (using double integrals)	7.5
If Time Permits: Functions of Several Variables (if time permits)	12.1
Partial Derivatives	12.3

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01.09.14

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