

FACULTY OF SCIENCE Department of Mathematics and Statistics

Applied Mathematics 605

Differential Equations III

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

Syllabus

<u>Topics</u> Linear Systems	<u>Time</u> 7
Local Existence and Uniqueness theorems for Systems. Parameter Dependence	9
Flows, Stability theory, hyperbolicity, unstable/stable/countermanifold theorems	10
Hamiltonian systems	2
Global theory: periodic orbits, limit cycles, attractors	6
Poincare map, Poincare-Bendixson theorem	2
	36

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2005:08:01 Prerequisite change 2008:07:01 EC:jml