UNIVERSITY OF CALGARY

FACULTY OF SCIENCE
Department of Mathematics and Statistics

Applied Mathematics 491   Numerical Analysis I

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

Syllabus

Topics	**Number of Hours**
Iterative solution of non-linear equation in one variable	9
Solution of linear systems: direct elimination, matrix factorization, iterative methods, matrix norms, convergence	16
Iterative solution of non-linear systems by fixed point iteration and Newton's method	6
The symmetric eigenvalue problem, Gershgorin's Theorem, the power method	5
TOTAL HOURS	**36**

Software for carrying out computational experiments was available on the University's main-frame computer through the provision of a "laboratory" equipped with terminals.

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