MA 1114 — SINGLE VARIABLE CALCULUS II
WITH MATRIX ALGEBRA (4-0)
Syllabus

Prerequisite: MA1113 or equivalent.

Text: *Calculus (Early Transcendentals)*, 6th Edition, James Stewart (Brooks Cole 2008, ISBN 0-495-01166-5)

Text: *Linear Algebra with Applications*, 7th edition, Steven J. Leon, (Prentice Hall 2006, ISBN 0-13-185785-1)

HOURS	TOPIC	SECTION
2 - 2	Areas Between Curves, Volumes	S 6.1-6.2
2 - 4	Volumes by Cylindrical Shells	S 6.3
1 - 5	Work & Average Value of a Function	S 6.4-6.5
2 - 7	Trigonometric Integrals & Trigonometric Substitutions	S 7.2-7.3
1 - 8	Partial Fractions	S 7.4
1 - 9	Improper Integrals	S 7.8
1 - 10	Sequences	S 11.1
1 - 11	Series	S 11.2
1 - 12	Integral Test, p-series	S 11.3
1 - 13	Comparison Tests	S 11.4
1 - 14	Alternating Series	S 11.5
1 - 15	Absolute Convergence, Ratio and Root Test	S 11.6
1 - 16	Convergence Test Strategy	S 11.7
1 - 17	Power Series	S 11.8
1 - 18	Properties of Power Series	S 11.9
2 - 20	Taylor and Maclaurin Series	S 11.10
2 - 22	Applications of Taylor Polynomials	S 11.11
3 - 25	Complex Arithmetic	S App. H
2 - 27	Systems of Linear Equations	L 1.1
3 - 30	Row Echelon Form	L 1.2
3 - 33	Matrix Algebra	L 1.3
1 - 34	Elementary Matrices (skip Triangular Factorization)	L 1.4
1 - 35	The Determinant of a Matrix	L 2.1
1 - 36	Properties of Determinants	L 2.2
1 - 37	Cramers Rule	L 2.3
3 - 40	Eigenvalues and Eigenvectors	L 6.1
5 - 45	Exams, Review and Holidays	

MA/Ca   6/09