

Department of Mathematics
MATH 1700 Calculus 2, September - December 2007

INSTRUCTORS:

A01- Dr. S. Kalajdzievski, 434 Machray Hall, 474-6929, email: sasho@cc.umanitoba.ca

A02- Mr. W. Kortowski, 452 Machray Hall, 474-9191

TEXT: James Stewart, Early Transcendentals Single Variable Calculus vol. 2, 5th Edition, Brooks/ Cole
OR James Stewart, Early Transcendentals Single Variable Calculus combined vol. 1 & 2 5th Edition, Brooks/ Cole
OR James Stewart, Full Version Calculus, 5th Edition, Brooks/ Cole
(4th edition is also acceptable)
You will need to own this. A solution manual is also for sale; it is optional.

EVALUATION:

Midterm	30%
Friday, October 26, 5:30pm to 6:30 pm, location TBA	
5 Tutorial Tests (2% each)	10%
Final Examination	60%

LECTURES AND TUTORIALS:

You will have either three 50 minute, or two 75 minute, lectures per week (depending on your lecture section). In addition you will have one 50 minute tutorial per week. You must attend a tutorial section that is associated with your lecture section. The tutorials will be staffed by senior students (TAs).

VOLUNTARY WITHDRAWAL:

Wednesday November 14, 2007 is the last date for voluntary withdrawal without academic penalty.

The Department of Mathematics, the Faculty of Science and the University of Manitoba regard acts of academic dishonesty in quizzes, tests, examinations or assignments as serious offenses and may assess a variety of penalties depending on the nature of the offense.

Acts of academic dishonesty include bringing unauthorized materials into a test or exam, copying from another student, plagiarism and examination personation. Students are advised to read section 7 (Academic Integrity) and section 4.2.8 (Examinations: Personations) in the "General Academic Regulations and Requirements" of the current Undergraduate Calendar. *Note, in particular that cell phones and pagers are explicitly listed as unauthorized materials, and hence may not be present during tests or examinations.*

Penalties for violation include being assigned a grade of zero on a test or assignment, being assigned a grade of "F" in a course, compulsory withdrawal from a course or program, suspension from a course/program/faculty or even expulsion from the University. For specific details about the nature of penalties that may be assessed upon conviction of an act of academic dishonesty, students are referred to University Policy 1202 (*Student Discipline Bylaw*) and to the Department of Mathematics policy concerning minimum penalties for acts of academic dishonesty.

The *Student Discipline Bylaw* is printed in its entirety in the Student Guide, and is also available on-line or through the Office of the University Secretary. Minimum penalties assessed by the Department of Mathematics for acts of academic dishonesty are available on the Department of Mathematics web-page.

All Faculty members (and their teaching assistants) have been instructed to be vigilant and report incidents of academic dishonesty to the Head of the Department.

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September - December 2007
Course Outline

Section of Text	Pages of Text	Topic	Suggested Homework Questions (odd numbers unless stated otherwise)	
			Page	
4.4	307-315	L'Hôpital's rule	313	1-23, 27-53, 55, 57, 59
10.1	651-659	Curves defined by Parametric equations	656	1-15, 19, 21
10.2 (partial)	660-662	Parametric equations: tangents	666	1-7, 11-17, 29
10.3	669-679	Polar Coordinates	677	1-27, 29-42 (all), 55-63, 67
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5.1 & 5.2	369-393	The Definite Integral	378	3, 4, 5
			390	1-5, 17-21, 33, 41, 43, 45, 67, 68
5.3	394-404	The Fundamental Theorem of Calculus	402	3-35, 41, 49-54 (all), 59, 61
5.4	405-413	Indefinite Integrals	411	1, 4, 5-13, 17-37, 43-57, 61
5.5	414-422	The Substitution Rule	420	1-39, 43, 49-69, 79, 83
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6.1	436-443	Areas between Curves	442	1-21, 41, 45
10.2	662-663	Area for Parametric Curves	667	31-35, 36(a)
10.4	679-682	Area in Polar Coordinates	683	1-7, 17-27
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6.2	444-445	Volumes (general; discs and washers)	452	1-35, 55-61 (all)
6.3	455-459	Volumes (cylindrical shells)	458	3-25, 43, 45
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1.6 (partial)	72-74	The Inverse Trigonometric Functions and their Derivatives	77	63-72 (all)
3.6 (partial)	232-233		234	41-50 (all), 51, 52 (no checking)
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7.1	475-482	Integration by Parts	480	1-15, 19-35
7.2	482-489	Trigonometric Integrals	488	1-45, 61
7.3	489-496	Trigonometric Substitution	494	1-29, 41(pg 421), 38 (pg 403), 25 (pg 442)
7.4	496-505	Partial Fractions/ Rational Functions	504	1-29, 35, 39, 47, 53, 61
7.8	530-540	Improper Integrals	537	1-33, 37, 41, 49-55 (all), 57, 63
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8.1	547-553	Arc Length	552	1, 5-11, 15-19 (set up integral only), 31
10.2 (partial)	663-665	Arc Length of parametric curves	666	37-44 (all), 53
10.5 (partial)	682-683	Arc Length (polar)	684	45-48 (all)
8.2	554-560	Surface Area	559	1-7, 11-15, 25, 26
10.2 (partial)	665-666	Surface Area and Parametric Curves	667	57-61

