Math 107 University of Nebraska-Lincoln
Analytic Geometry & Calculus II Spring 2008

COURSE SYLLABUS

Text: *University Calculus* by Hass, Weir, and Thomas, ISBN: 0-321-35014-6.

Prerequisite Policy: Students must have completed Math 106 with a grade of C or better before taking Math 107. Any students who do not meet this requirement will be dropped from the course.

Advanced Placement Program: If this is the first college mathematics course that you have attempted, then you may be eligible for 5 hours of free credit for Math 106, provided you get a grade of C, P or better in Math 107 this semester. To be considered for this credit, you should register with the Department of Mathematics, 203 Avery Hall by the end of the third week of classes, i.e., February 1, 2008.

Calculator: A graphing calculator is a useful tool for this course. The TI-85 and TI-86 are recommended. However, NO CALCULATORS or other electronic devices will be permitted during any of the exams or quizzes.

Scheduling: A tentative schedule of assignments and exams is included in this syllabus. These details are presented as a guide. Your instructor may change the dates for each assignment and/or exam, modify the exercise list, and/or add assignments. It is your responsibility to keep track of the course details and schedule for your section.

Reading: There is a lot of content in this course, so it has a necessarily fast pace. You are expected to read the appropriate sections of the text BEFORE coming to the class meeting in which the topic is scheduled.

Exercises: You are expected to work the assigned exercises after the corresponding material is presented in class, and BEFORE the next class meeting (lecture or recitation).

Project and Other Assignments: This course will include a group project. Your instructor will decide on the specific requirements for your project report. There may also be other graded assignments (such as weekly quizzes) given at the discretion of your instructor.

Gateway Exam: This exam consists of 7 questions in which you are asked to carry out calculations without using calculators, notes, or tables. You must get at least 6 questions completely right to pass with full credit. If you are not satisfied with your performance on the Gateway Exam when it is first administered, you can go to the Mathlab (18 Avery Hall) or the Arts and Sciences College Testing Center (Burnett 127) for a retake (picture ID required). The final **deadline** for passing the Gateway is *Friday March 28, 2008*.

Math Resource Center: Students in Math 107 are encouraged to use the Mathematics Resource Center (MRC) in Avery 13B if they have questions related to this course, or as a place to meet and discuss group projects. The hours for the MRC are 12:30-8:30 p.m. Monday through Thursday, 12:30-2:30 p.m. on Friday, and 1:00-5:00 p.m. on Sunday.

Special Dates:

January 25, 2008 (Friday):	last day to withdraw from this course and not have it appear on your transcript.
March 7, 2008 (Friday):	last day to change your grade option to or from Pass/No Pass.
April 11, 2008 (Friday):	last day to drop this course and receive a grade of W. (No permission required.) After this date you cannot drop.

Final Exam Policy: Students are expected to arrange their personal and work schedule to allow them to take the final exam at the scheduled time. Students who have conflicting exam schedules may be allowed to take an alternate final, which is always given after the regularly scheduled final. No student will be allowed to take the final exam early. The final exam for this course is **Thursday, May 8, 6-8 pm**.

Departmental grading appeals policy: Students who believe their academic evaluation has been prejudiced or capricious have recourse for appeals to (in order) the instructor, the departmental chair, the departmental appeals committee, and the college appeals committee.

Tentative Schedule

Date			Section and Topic		Exercises	
Jan	14	M	5.4	Fundamental Theorem of Calculus	p.351:	5, 8, 9, 14, 20, 25, 29, 30, 34, 35, 41, 44, 57, 74
	16	W	5.5	Integration by Substitution	p.358:	1, 2, 6, 8, 14, 19, 22, 23, 32, 37, 40, 51, 61, 64
	18	F	7.1	Integration by parts	p.453:	1, 3, 6, 7, 8, 10, 13, 20, 21, 25, 28
	21	M		**Martin Lurther King Day-No Lecture**		
	23	W	7.2	Trigonometric Integrals	p.460:	1, 4, 5, 7, 11, 16, 24, 25, 29, 34, 37
	25	F	7.3	Trigonometric Substitutions	p.463:	1, 4, 5, 7, 11, 15, 24, 25, 32
				Last day to drop without a W		
	28	M	7.4	Integration by Partial Fractions	p.469:	1, 3, 5, 10, 12, 16, 20, 21, 25, 31
	30	W	7.5	Integration by Tables	p.476:	15, 21, 37, 40
Feb	1	F	7.6	Numerical Integration (Trapezoidal Rule only)	p. 484:	15, 19, 20
	4	M	7.7	Improper Integrals	p.495:	1, 2, 4, 7, 10, 13, 17, 24, 25, 35, 42, 51, 52, 55, 58, 66
	6	W	6.1	Volumes by slicing	p.399:	1, 5, 8, 15, 17, 20, 23
	8	F	6.2	Volumes by cylindrical shells	p.406:	2, 3, 9, 10, 15, 16, 17
	11	M	6.3	Arc Length	p.413:	1, 2, 3, 8, 9, 11, 17
	13	W	6.5	Separable Differential Equations	p.428:	6, 8, 9, 12, 16, 23, 26, 35
	14	R		**Paper Gateway Exam**		
	15	F	6.6	Work	p.433:	2, 5, 7, 8, 13, 17, 18, 23
	18	M		Catch up/Review		
	20	W		Review for Exam 1		
	21	R		**EXAM 1**		
	22	F	8.1	Sequences	p.511:	4, 7, 11, 16, 19, 21, 23, 26, 27, 32, 36, 41, 43, 45, 50, 69, 75
	25	M	8.2	Infinite Series	p.522:	1, 3, 5, 7, 8, 13, 16, 21, 23, 24, 25, 26, 29, 36 45, 48, 49, 51, 56
	27	W	8.3	The Integral Test	p.527:	2, 4, 6, 9, 11, 12, 16, 20, 25
	28	R		**Project Assigned**		
	29	F	8.4	Comparison Tests	p.532:	2, 3, 4, 6, 10, 11, 20, 21, 25, 34, 35
March	3	M	8.5	The Ratio and Root Tests	p.536:	1, 3, 4, 6, 7, 9, 12, 14, 15, 18, 21, 23, 27, 30, 41
	5	W	8.6	Alternating Series/Absolute Convergence	p.542:	2, 3, 6, 9, 12, 13, 15, 20, 25, 26, 32, 36, 37, 45, 47
	7	F		**Review of Series**		
				Last day to change to or from Pass/No Pass		
	10	M	8.7	Power Series	p.552:	2, 3, 6, 7, 9, 11, 13, 22, 23, 25, 27
	12	W	8.8	Taylor Polynomials	p.558:	1, 3, 6, 8
	14	F	8.8	Taylor & Maclaurin Series	p.558:	11, 13, 15, 18, 22, 23, 25, 26, 27
	16–23			**Spring Semester Break**		
	24	M	8.9	Error Estimates using Taylor Polynomials	p.567:	2, 5, 8, 15, 17, 19, 21, 23
	26	W	8.9	Applications of Taylor Series	p.567:	25, 27, 29, 33
	28	F		Catch up/Review		
				Deadline for passing the Gateway Exam.		
	31	M	9.1	Polar Coordinates	p.581:	1, 4, 6(a, d, h), 8, 9, 11, 13, 17, 24, 26, 27, 30,45, 53, 55
April	2	W		Review for Exam 2		
	3	R		**EXAM 2**		
	4	F	9.2	Graphing in Polar Coordinates	p.585:	1, 4, 5, 7, 17-19, 21(a), 24(a)
	7	M	9.3	Areas and Arc Lengths in Polar Coordinates	p.589:	2, 3, 7, 9, 13, 14, 17, 19, 23, 24
	9	W	10.1	Three-Dimensional Coordinate Systems	p.617:	1, 3, 6, 9, 13, 15, 17, 20, 22, 29, 35, 38, 41, 45, 49, 53
	11	F	10.2	Vectors	p.626:	3, 6, 9, 10, 13, 15, 17, 21, 23, 25, 28, 33, 40, 41
				Last day to drop with a W		
	14	M	10.3	The Dot Product	p.634:	1, 3, 8, 13, 15, 27, 29, 31
	15	T		**PROJECT DUE**		
	16	W	10.5	Lines in 3-Space (Planes are omitted)	p.650:	1, 2, 6, 16, 19
	18	F	11.1	Vector Valued Functions/Their Derivatives	p.670:	1, 4, 5, 8, 9, 11, 15, 16, 19, 21, 23(a, c)
	21	M	11.2	Integrals of Vector Functions	p.676:	2, 3, 4, 6, 7, 10, 11 13, 17
	23	W		Review for Exam 3		
	24	R		**EXAM 3**		
	25	F	11.3	Arc Length of Curves in 3-space	p.681:	1, 3, 5, 6, 9, 11, 12
	28	M		Catch up/Review		
	30	W		Catch up/Review		
May	2	F		Catch up/Review		
May	8	R	**FINAL EXAM, 6pm-8pm**			