COURSE SYLLABUS

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

ACE Outcome 3: This course satisfies ACE Outcome 3. You will apply mathematical reasoning and computations to draw conclusions, solve problems, and learn to check to see if your answer is reasonable. Your instructor will provide examples, you will discuss them in class, and you will practice with numerous homework problems. The exams will test how well you have mastered the material.

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. Friday, September 9.

Calculator: A graphing calculator can be useful for this course, and the TI-83, TI-84 and TI-86 are recommended. However, calculators that have a built-in computer algebra system (CAS) **will not be permitted** during any of the exams. Examples of CAS calculators include the TI-89, TI-92, TI-Nspire, HP-40, HP-41, Casio ALGEBRA FX 2.0, Casio ClassPad 300, and Casio ClassPad 330. Under no circumstances will a calculator on a phone, or any other communication device, be permitted.

Scheduling: A tentative schedule of topic coverage and exams is included in this syllabus. These details are presented as a guide. Your instructor may change the dates for the exams and/or project, 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 in which the topic is scheduled.

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 correct to pass with full credit. If you are dissatisfied with your performance on the Gateway Exam when it is first administered, you can go to the Arts and Sciences College Testing Center (Burnett 127) for a retake (picture ID required). The **deadline** to pass the Gateway is **October 28**.

Math Resource Center: Students in Math 107 are encouraged to use the Mathematics Resource Center (MRC) in Avery 13B for help with 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:

September 2, 2011 (Friday):	last day to withdraw from this course and not have it appear on your transcript.
October 14, 2011 (Friday):	last day to change your grade option to or from Pass/No Pass.
November 11, 2011 (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 permitted to take the final exam early. You will be allowed to bring a 3 inch by 5 inch note card with notes to use during the final exam. The final exam for this course is scheduled for **Wednesday, December 14, 6-8 pm** (room to be announced).

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