

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.

Calculator A graphing calculator is a useful tool for this course, and the TI-83, TI-84 and TI-86 are recommended. However, no calculator having a built-in computer algebra system (CAS) will be permitted during any of the exams or quizzes. 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 330.

Scheduling A tentative schedule is included in this syllabus. These details are presented as a guide. Your instructor may change the dates for assignments and/or exams.

Reading Please do the reading from the sections before coming to class each day. Your instructor will be planning class activities assuming you have done the reading. Math 107 covers a lot of material, so the pace is necessarily quite fast.

Mathematics 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 MTWR 12:30–8:30 pm, Fri 12:30–2:30 pm, and Sun 1:00–5:00 pm.

Gateway Exam This exam will cover techniques of integration. To get any credit on the Gateway Exam you must demonstrate a high level of proficiency and accuracy. The exam will consist of 7 questions. Of these you must get at least 6 completely correct to pass the exam. No partial credit will be given. You will not be allowed to use calculators or notes. The Gateway exam will be given in recitation on Sept. 16th. It is also possible to take the Gateway at the College Testing Center (Burnett 127) any time between September 13th and October 22nd. (A picture ID will be required.) You may attempt the electronic version of the Gateway Exam at most once a day.

Final Exam Students are expected to arrange their personal and work schedule to allow them to take the 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 is on Monday, December 13th, from 6-8 pm.** The room will be announced during the final week of class.

Prerequisites Students who take Math 107 must have passed Math 106 with a grade of P or C or better. 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 Friday, September 10th.

Date	Section	Assignment
August 23 M	5.4 The FTC	5, 8, 9, 14, 20, 25, 29, 30, 34, 35, 41, 44, 57, 74
25 W	5.5 Integration by Substitution	1, 2, 6, 8, 14, 19, 22, 23, 32, 37, 40, 51, 61, 64
27 F	7.1 Integration by Parts	1, 3, 6, 7, 8, 10, 13, 20, 21, 25, 28
August 30 M	7.2 Trigonometric Integrals	1, 4, 5, 7, 11, 16, 24, 25, 29, 34, 37
September 1 W	7.3 Trigonometric Substitutions	1, 4, 5, 7, 11, 15, 24, 25, 32
3 F	7.4 Partial Fractions	1, 3, 5, 10, 12, 16, 20, 21, 25, 31
September 3 is the last day to withdraw without the course appearing on your transcript.		
September 6: Labor Day		
September 8 W	7.5 Integration by Tables	15, 21, 37, 40
10 F	7.6 Numerical Integration	15, 19, 20
September 13 M	7.7 Improper Integrals	1, 2, 4, 7, 10, 13, 17, 24, 25, 35, 42, 51, 52, 55, 58
September 13 is the first day to take the Gateway Exam online.		
15 W	6.1 Volumes by slicing	1, 5, 8, 15, 17, 20, 23
16 R	Gateway Exam	
17 F	6.2 Volumes by cylindrical shells	2, 3, 9, 10, 15, 16, 17

September 20	M	6.3	Arc Length	1, 2, 3, 8, 9, 11, 17
22	W	6.5	Differential Equations	6, 8, 9, 12, 16, 23, 26, 35
24	F	6.6	Work	2, 5, 7, 8, 13, 17, 18, 23
September 27	M		Catch up	
29	W		Review	
30	R		Exam 1	
October 1	F	8.1	Sequences	4, 7, 11, 16, 19–27 (odd), 32, 36, 41–45 (odd) 50, 69, 75
October 4	M	8.2	Infinite Series	1, 3, 5, 7, 8, 13, 16, 21–26, 29, 36, 45, 48, 49, 51, 56
6	W	8.3	The Integral Test	2, 4, 6, 9, 11, 12, 16, 20, 25
8	F	8.4	Comparison Tests	2, 3, 4, 6, 10, 11, 20, 21, 25, 34, 35
October 11	M	8.5	The Ratio and Root Tests	1, 3, 4, 6, 7, 9, 12, 14, 15, 18, 21, 23, 27, 30, 41
13	W	8.6	Absolute Convergence	2, 3, 6, 9, 12, 13, 15, 20, 25, 26, 32, 36, 37, 45, 47
15	F	8.7	Power Series	2, 3, 6, 7, 9, 11, 13, 22, 23, 25, 27
October 15 is the last day to change your grade option to or from Pass/No Pass.				
October 18–October 19: Fall Break				
October 20	W	8.8	Taylor Polynomials	1, 3, 6, 8
21	R		Project Assigned	
22	F	8.8	Taylor & Maclaurin Series	11, 13, 15, 18, 22, 23, 25, 26, 27
October 22 is the last day to take the Gateway Exam online.				
October 25	M	8.9	Error Estimates	2, 5, 8, 15, 17, 19, 21, 23
27	W	8.9	Applications of Taylor Series	25, 27, 29, 33
29	F		Catch up	
November 1	M		Review	
2	T		Exam 2	
3	W	9.1	Polar Coordinates	30, 45, 53, 55
5	F	9.2	Graphing in Polar Coordinates	1, 4, 5, 7, 17–19, 21(a), 24(a)
November 8	M	9.3	Areas and Arc Lengths	2, 3, 7, 9, 13, 14, 17, 19, 23, 24
10	W	10.1	3D Coordinate Systems	38, 41, 45, 49, 53
12	F	10.2	Vectors	3, 6, 9, 10, 13, 15, 17, 21, 23, 25, 28, 33, 40, 41
November 12 is the last day you can withdraw from the class.				
November 15	M	10.3	The Dot Product	1, 3, 8, 13, 15, 27, 29, 31
17	W	10.4	The Cross Product	1, 3, 9, 15, 17, 23, 29, 35, 39
19	F	10.5	Lines and Planes in 3-Space	1, 2, 3, 6, 9, 16, 19, 21, 23, 27, 29, 33, 39
November 22	M	11.1	Vector Valued Functions	1, 4, 5, 8, 9, 11, 15, 16, 19, 21, 23(a, c)
23	T	11.2	Integrals of Vector Functions	2, 3, 4, 6, 7, 10, 11, 13, 17
Project Due				
November 24–November 28: Thanksgiving Break				
November 29	M	11.3	Arc Length of Curves in 3-space	1, 3, 5, 6, 9, 11, 12
December 1	W		Review	
2	R		Exam 3	
3	F		Catch up	
December 6	M		Catch up	
8	W		Review	
10	F		Review	

Departmental Grading Appeals Policy The Department of Mathematics does not tolerate discrimination or harassment on the basis of race, gender, religion, or sexual orientation. If you believe you have been subject to such discrimination or harassment, in this or any math course, please contact the department. If, for this or any other reason, you believe your grade was assigned incorrectly or capriciously, appeals may be made to (in order) the instructor, the department chair, the departmental grading appeals committee, the college grading appeals committee, and the university grading appeals committee.