

- Text** *University Calculus*, by Hass, Weir, and Thomas.
- Calculator** You are required to have a graphing calculator for this course. The TI-86 is recommended, but the TI-84, 85, 89, and 92 are all sensible options.
- Math Resource Center** Students in Math 106 are encouraged to use the Math Resource Center in Avery 13B if they have questions related to this course, or as a place to meet and discuss group projects. Hours for the MRC are MTWR 12:30–8:30 pm, F 12:30–2:30 pm, and Su 1:00–5:00pm.
- Math Placement** Students who take Math 106 must satisfy the requirements of the Math Placement Policy. You satisfy the policy if you satisfy one of the following conditions:
- You have passed UNL's Math 102 or 103 (or the equivalent course at UNO or UNK) with a grade of C, P or better.
 - You have passed the prerequisite courses in high school or at another college and have a qualifying score on the Math Placement Exam dated after October 2005. The Math Placement Exam will be given online at the College Testing Center (Burnett 127). For more details ask at the math office (Avery 203), or check the department web site (<http://www.math.unl.edu>).
 - You have a grade of D, D+, or C- in this course from UNL, UNO, or UNK.
- Gateway Exam** This exam will cover techniques of differentiation. To get any credit on the Gateway Exam you must demonstrate a high level of proficiency and accuracy. The exam will consist of 10 questions. Of these you must get at least 8 completely correct to pass the exam. No partial credit will be given. You will not be allowed to use calculators or notes. If you do not pass the Gateway exam when it is first administered (Thursday October 12th) you must go to either the College Testing Center or the Math department's computer lab (Avery 18) for a computer administered retake (A picture ID will be required.) You may attempt the electronic version of the Gateway Exam at most once a day. The deadline for passing the Gateway Exam is Thursday November 2nd.
- Final Exam** The final exam is on Thursday December 14th, from 6-8pm. The room will be announced during the final week of class. Students are expected to arrange their personal and work schedule to allow them to take the exam at the scheduled time. Calculators will be allowed on the final exam, as will a 3"×5" card of notes. No cell phones or other devices with a wireless capability will be allowed during any exam.

Date		Section	Topic
August 21	M		Intro to calculus
23	W	2.1	Rates of change and tangents to curves
25	F	2.2	Limit of a function and limit laws
August 28	M	2.4	One-Sided Limits and Limits at Infinity
30	W	2.5	Infinite Limits and Vertical Asymptotes
September 1	F	2.6	Continuity
Labor Day: September 4th			
September 6	W	2.7	Tangents and derivatives at a point
8	F	3.1	The derivative as a function
September 11	M	3.1/3.2	The derivative as a function/Differentiation rules
13	W	3.2	Differentiation rules
15	F	3.3	The derivative as a rate of change
September 18	M	3.4	Derivatives of trigonometric functions

	20	W	Review	
	21	R	Exam 1	
	22	F	3.5	The chain rule and parametric equations
September	25	M	3.5	The chain rule and parametric equations
	27	W	3.6	Implicit differentiation
	29	F	1.5	Inverse functions and logarithms
October	2	M	3.7	Derivatives of inverse functions and logarithms
	4	W	3.8	Inverse trigonometric functions
	5	R	Project 1 Assigned	
	6	F	3.9	Related rates
October	9	M	3.10	Linearization and differentials
	11	W	4.1	Extreme values of functions
	12	R	Gateway Exam	
	13	F	4.2	The Mean value theorem
Fall Break: October 16th-17th				
October	18	W	4.3	Monotonic functions and the first derivative test
	20	F	4.4	Concavity and curve sketching
October	23	M	4.7	Newton's Method
	25	W	Review	
	26	R	Exam 2	
	27	F	4.5	Applied optimization
October	30	M	4.5	Applied optimization
November	1	W	4.6	Indeterminate forms and L'Hopital's rule
	3	F	4.8	Antiderivatives
November	6	M	5.1	Estimating with finite sums
	8	W	5.2	Sigma notation and limits of finite sums
	9	R	Project 1 Due	
	10	F	5.3	The definite integral
November	13	M	5.4	The Fundamental Theorem of Calculus
	15	W	5.5	Indefinite integrals and the substitution rule
	17	F	5.6	Substitution and area between curves
November	20	M	6.1	Volumes by slicing and rotation about an axis
Thanksgiving Break: November 22nd-26th				
November	27	M	6.2	Volumes by cylindrical shells
	29	W	Review	
	30	R	Exam 3	
December	1	F	6.3	Lengths of plane curves
December	4	M	Catch up; exercises to be assigned	
	6	W	Review	
	8	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.