

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

**Calculator:** You are required to have a graphing calculator for this course. The TI-86 is recommended, but there are many other sensible choices. **Calculators that can do symbolic algebra, in particular, TI-89's, are not allowed on term tests or the final.** Check with your instructor if you are unsure if a particular calculator is allowed.

**Prerequisite:** To take Math 106 you must satisfy one of the following conditions:

- (1) 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.
- (2) 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 March 2007. The Math Placement Exam is given online at the College Testing Center (Burnett 127). For more details, ask at the department office (Avery 203) or check the web site (<http://www.math.unl.edu>).
- (3) You have a grade of D, D+, or C- in this course from UNL, UNO, or UNK.

**Schedule:** A tentative schedule of topics, exams, and assignments is given below. Your instructor may depart from this schedule. **It is your responsibility to keep track of schedule changes.** Further, you are responsible for reading the relevant sections of the text before the class in which they are covered and for reviewing the material, including doing any assigned problems, before the next class. You are responsible for the **entire content of each section listed**, unless your instructor announces otherwise.

**Math Resource Center:** You are encouraged to use the Math Resource Center in Avery 013B for questions or as a meeting place to work on the project. Hours are MTWTh 12:30-8:30 pm, F 12:30-2:30 pm, Su 1:00-5:00 pm.

**Gateway Exam:** This ten question exam covers differentiation techniques. You are **not** allowed to use a calculator or notes. You must answer eight of the ten questions exactly right to get full credit; no partial credit is given. If you do not pass the gateway exam when it is first given, **Thursday March 6**, then you can retake the gateway exam online at the Mathlab (Avery 018) or the College Testing Center (Burnett 127). A picture ID is required. You can only take the exam once per day. The last day to take the gateway exam is **Thursday, April 3**.

**Term Tests:** There will be three terms tests, given from 6:00 to 7:30 on **Monday, February 11**, on **Wednesday, March 26**, and on **Wednesday, April 23**. If at all possible, you should take the exams at these times. If you cannot take the exam at one of these times because of a scheduling conflict, please talk to your instructor well in advance of the test. The rooms for each recitation section will be announced in class.

**Final Exam:** The final exam is on **Thursday, May 8, 6:00-8:00pm**. Arrange your personal and work schedules in order to take the exam at this time. The room will be announced during the final week of class. Contact the department if you have conflicting exams; you may be allowed to take an alternate final, always given after the regular final.

**Grade Change/Drop Deadlines:**

**Friday, January 25, 2008:** Last day to drop Math 106 with no record

**Friday, March 7, 2008:** Last day to change to/from Pass/No Pass

**Friday, April 11, 2008:** Last day to withdraw from Math 106 with a grade of "W"

Anticipated Daily Schedule

Date	Section	Topic
Jan 14 M		Introduction to Calculus
Jan 16 W	2.1	Rates of change and tangents to curves
Jan 18 F	2.2	Limit of a function and limit laws
Jan 21 M	<b>Martin Luther King, Jr. Day—no class</b>	
Jan 23 W	2.4	One-sided limits and limits at infinity
Jan 25 F	2.5	Infinite Limits and vertical asymptotes

Date	Section	Topic
Jan 28 M	2.6	Continuity
Jan 30 W	2.7	Tangents and derivatives at a point
Feb 1 F	3.1	The derivative as a function
Feb 4 M	3.1/3.2	The derivative as a function/Differentiation rules
Feb 6 W	3.2	Differentiation rules
Feb 8 F	3.3	The derivative as a rate of change
Feb 11 M	<b>Review for Exam 1 Exam 1 6:00–7:30 pm</b>	
Feb 13 W	3.4	Derivatives of trigonometric functions
Feb 15 F	3.5	The chain rule and parametric equations
Feb 18 M	3.5	The chain rule and parametric equations
Feb 20 W	3.6	Implicit differentiation
Feb 22 F	1.5	Inverse functions and logarithms
Feb 25 M	3.7	Derivatives of inverse functions and logarithms
Feb 27 W	3.8	Inverse trigonometric functions
Feb 28 Th	<b>Project Assigned</b>	
Feb 29 F	3.9	Related Rates
Mar 3 M	3.10	Linearization and differentials
Mar 5 W	4.1	Extreme values of functions
Mar 6 Th	<b>Paper Gateway Exam</b>	
Mar 7 F	4.2	The mean value theorem
Mar 10 M	4.3	Monotonic functions and the first derivative test
Mar 12 W	4.4	Concavity and curve sketching
Mar 14 F	4.7	Newtons method
Mar 15-23	<b>Spring Break—no classes</b>	
Mar 24 M	4.6	Indeterminate forms and LHopitals Rule
Mar 26 W	<b>Review for Exam 2 Exam 2 6:00–7:30 pm</b>	
Mar 28 F	4.5	Applied optimization
Mar 31 M	4.5	Applied optimization
Apr 2 W	4.8	Antiderivatives
Apr 3 Th	<b>Last day to take the Gateway Exam</b>	
Apr 4 F	5.1	Estimating with finite sums
Apr 7 M	5.2	Sigma notation and limits of finite sums
Apr 9 W	5.3	The definite integral
Apr 10 Th	<b>Project Due</b>	
Apr 11 F	5.4	The fundamental theorem of calculus
Apr 14 M	5.5	Indefinite integrals and the substitution rule
Apr 16 W	5.6	Substitution and areas between curves
Apr 18 F	6.1	Volumes by slicing and rotation about an axis
Apr 21 M	6.2	Volumes by cylindrical shells
Apr 23 W	<b>Review for Exam 3 Exam 3 6:00–7:30 pm</b>	
Apr 25 F	6.3	Lengths of plane curves
Apr 28 M	<b>Catch up &amp; Review for final exam</b>	
Apr 30 W	<b>Review for final exam</b>	
May 2 F	<b>Review for final exam</b>	

**Department Grading Policy:** If you believe your grade was assigned incorrectly or capriciously, then appeals may be made to (in order) the instructor, the department chair, the department grading appeals committee, the college grading appeals committee, and the university grading appeals committee.

Further, the department 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 any math course, please contact the department.