Text: *Calculus*, 5th ed, Hughes-Hallett et al., Wiley. ISBN 978-1-118-14155-7.

ACE Outcome 3:   This course satisfies ACE Outcome 3: "Use mathematical, computational, statistical, or formal reasoning (including reasoning based on principles of logic) to solve problems, draw inferences, and determine reasonableness." 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've mastered the material. The final exam will be the primary means of assessing your achievement of ACE Outcome 3.

Course Evaluation: The Department of Mathematics Course Evaluation Form will be available through your Blackboard account during the last two weeks of class. You'll get an email when the form becomes available. Evaluations are anonymous and instructors do not see any of the responses until after final grades have been submitted. Evaluations are important–the department uses evaluations to improve instruction. Please complete the evaluation and take the time to do so thoughtfully.

Schedule: The daily schedule and number/dates of tests are subject to change. It is your responsibility to keep track of appropriate dates for your section.

Daily Work: Do an initial reading of the section(s) expected to be covered before coming to class each day–even if you don't understand the details, that reading will help you to better understand the lecture. Rereading more carefully after the class can also be helpful. The exercises listed below represent a minimum assignment and should be done as the material is covered.

Quizzes: Your instructor will determine if, in addition to your hour exams, you will have quizzes.

Calculators: A graphing calculator is a useful tool for this course, and the TI-83, TI-84 and TI86 are recommended. However, no calculator having a built-in computer algebra system (CAS) will be permitted durung 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. Your instructor will decide to what extent calculators are allowed on hour exams and quizzes.

Final Exam: The time for the final exam is **6:00-8:00 PM, Tuesday, May 5, Room TBA**. The final exam will be a comprehensive exam. You are expected to arrange your personal and work schedule to allow you to take the exam at the scheduled time. Students with 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. A picture ID (driver's license or student ID) is required to take the final exam.

Advanced Placement: If this is the first college mathematics course that you have attempted, then you may be eligible for 10 hours of free credit for Math 106 and Math 107, provided you earn a grade of P, C or better in Math 208 this semester. To be considered for this credit, you should register with the Department of Mathematics, 203 Avery Hall, by Friday, February 27, 2015.

Department 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 that your grade was assigned incorrectly or capriciously, appeals should be made to (in order) the instructor, the department chair, the department grading appeals committee, and the college grading appeals committee.

ADA Language: Students with disabilities are encouraged to contact the instructor for confidential discussion of their individual needs for academic accommodation. It is the policy of the University of Nebraska-Lincoln to provide flexible and individualized accommodation to students with documented disabilities that may affect their ability to fully participate in course activities or meet course requirements. To receive accommodation services, students must be registered with the Services for Students with Disabilities (SSD) office, 132 Canfield Administration, 472-3787 voice or TTY.

Dates	Sections/Topic	Exercises
Jan 12–16	12.1 Functions of Two Variables	1, 2, 5, 9, 11, 12, 15, 19, 23, 25, 29, 30
	12.2 Graphs of Functions of Two Variables	1, 2, 3, 5, 7, 8, 10, 11, 13, 15, 17, 19–22, 29, 31
	12.3 Contour Diagrams	1, 2, 4, 5, 7, 8, 9, 13, 16, 17, 20, 21ab
	12.4 Linear Functions	1–5, 7, 8, 9, 10, 11, 13, 21, 23, 26, 27
Jan 19–23	**Jan 19, Martin Luther King Day**	(no class)
	12.5 Functions of Three Variables	1–4, 8–11, 13, 15, 16–18, 23, 31
	12.6 Limits and Continuity	1, 2, 3, 6, 7, 9, 11–15, 17, 18, 23
	13.1 Vectors	1, 2, 5, 7, 12, 15, 24, 25, 28, 29, 31, 38b, 39, 40
Friday, Jan 23, is the last day to drop without a W.		
Jan 26–30	13.2 Vectors	1–5, 7, 10, 11, 21, 25, 28, 34
	13.3 The Dot Product	1, 5–19(odd), 23, 31, 33, 35, 39, 41, 43, 49, 56
	13.4 The Cross Product	2,3,7,9, 11–15, 16,19,21,22, 25–27, 32,34,35, 42–44
	Catch-up and Review	
Feb 2–6	14.1 The Partial Derivative	1, 3, 5, 9–11, 16, 17, 19, 20, 21, 22, 25
	14.2 Computing Partial Derivatives	1, 3–5, 9,11,15,18,21,23,26,27,35,36,38,39,43
	14.3 Local Linearity	1, 2, 3, 5, 6, 7, 9, 11, 13, 18, 20–22, 29, 31
	14.4 Gradients and Directional Derivatives	1–8, 15, 17, 22–25, 27, 29–31, 33
Feb 9–13	14.4 Gradients and Directional Derivatives	37,41,44,47,49–50,53–55,59,65,68–71,76,77
	14.5 Gradients and Directional Derivatives	2,3,7,9,14,17,19,21,25–27,35,39,42,45,49,53,57
	14.6 The Chain Rule	1, 2, 3, 5, 7, 9, 11–13, 15–18, 22,25,28,31,33
	14.7 Second-Order Partial Derivatives	1,3,6,11,13,14,19–27(odd), 30,33,35,40,44
Feb 16–20	Review	
	Exam 1	
	15.1 Local Extrema	1–3,6,7,9,11,13–15,17,19–23,25,26,29,30,31,32
	15.2 Optimization	2, 5, 7, 9, 11, 15, 17, 18–20, 23
Feb 23–27	15.3 Constrained Optimization	1, 3, 5, 6, 11–13, 18, 19, 22, 24, 28, 29, 31, 43
	Catch-up and Review	
	16.1 The Definite Integral in the Plane	1, 3, 5, 7, 9, 11–13, 19, 23, 26, 27, 30
	16.2 Iterated Integrals	1–4, 9–21(odd), 22, 27, 29, 31, 44
Mar 2–6	16.2 Iterated Integrals	32–35, 37, 47, 49, 51, 52
	16.3 Triple Integrals	1-9(odd),11–21(odd),22,25,27,32,35,51,56,57
	16.4 Double Integrals in Polar Coord.	1–8, 10–12, 14–16, 20,24,26,27,28,31,33,34
	16.5 Triple Integrals in Cylindrical Coord.	1, 2, 5, 9, 23, 25, 27, 35, 44, 52, 55, 56, 57
Friday, March 6, is the last day to change your grade option to or from Pass/No Pass.		
Mar 9–13	16.5 Triple Integrals in Spherical Coord.	3,7,10,11, 14–16, 21,25,28,29,31,33,40,63
	Catch-up and Review	
	17.1 Parameterized Curves	1–7,11,13,19,21,26,29,43–49(odd),53,55,57,69,70
	17.2 Motion, Velocity and Acceleration	1,3,7,8,10,13,15,17,23,25,27,29,33,35,37,41
Mar 16–20	17.3 Vector Fields	1–7, 9,11,13,15,16,20,21,23, 25–27, 29,31,33
	17.4 The Flow of a Vector Field	1, 3, 5, 7, 8, 9, 11, 15, 17, 18, 21, 22
	Review	
	Exam 2	
Mar 23–27	**Spring Break**	
Mar 30–Apr 3	18.1 The Idea of a Line Integral	1–8, 11,13, 15–21, 25,26,29,33,35,37,42,46
	18.2 Computing Line Integrals	1,3,5,9,10,11,16,17,19,20, 23–29(odd), 30,31
	18.3 Gradient Fields and Path-Indep.	1, 3, 5, 7, 8, 9–13, 18–23, 29, 31, 35, 39, 49
	18.4 Green's Theorem	1, 5–19(odd), 14, 21–23, 25–27, 33, 34, 38
Apr 6–Apr 10	Catch-up and Review	
	17.5 Parameterized Surfaces	1,3,5,7, 9–12, 13,17,18, 23–25, 27,30,33,39
	19.1 The Idea of a Flux Integral	1–9,11–15,19,20,27,29,32,33,35,36,41,43,46–47
	19.2 Flux Integrals Over Graphs	1, 3, 5, 6, 7, 10, 11, 13, 16, 18, 27
Friday, April 10, is the last day to withdraw from the course and receive a grade of W.		
Apr 13–17	19.2 Flux Integrals Over Graphs	
	Cylinders and Spheres	8, 9, 15, 17, 19, 21, 23; p.991: 37, 48
	20.1 The Divergence of a Vector Field	1,2,3,5,6,7,9,10,12,16,17,19,20,23,27,29
	20.2 The Divergence Theorem	1,2,3,5,7,9,10,15,16,17,20,21,29,33
Apr 20–24	20.3 The Curl of a Vector Field	1–5, 7, 9, 11–14, 17, 22, 29, 31, 35
	20.4 Stokes' Theorem	1–5, 7, 9–11, 13, 17, 19, 22–23, 25, 31
	Review	
	Exam 3	
Apr 27–May 1	Review for Final Exam	

The final exam is 6:00-8:00 pm, Tuesday, May 5, Room TBA.