
COURSE SYLLABUS

Text: *Calculus: Single and Multivariable, 6th ed.* by Hughes-Hallet, et al., ISBN: 978-0470-88861-2.

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 Canvas account during the last two weeks of class. You’ll receive an e-mail 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.

Scheduling A tentative schedule of assignments and exams is included in this syllabus. Your instructor may change the order of the topics, modify the list of exercises and introduce new assignments. It is your responsibility to keep track of the course details and the schedule for your section.

Daily Work/Attendance: 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. Class attendance is mandatory, which means absences many result in loss in point.

Hour Exams/Quizzes/Homework: All hour exams are given on either Wednesdays or Thursdays of the scheduled weeks. A number of quizzes will be given on recitation Thursdays. A number of homework will be assigned on lecture days that will be collected for credit on recitation Thursdays. It is your responsibility to keep track of these assignments which will not be transmitted electronically.

Course Grade: Here is a tentative point distribution for the course: 200 for the Final Exam, 100 each for three Hour Exams, a combined total of no more than 150 for quizzes and homework, 20 for class attendance. Your percentage number grade will be converted to a letter grade by a standard conversion table, e.g. 80–83.33 for B, 83.34–86.66 for B+, and 86.67–89.99 for A-, etc.

Calculators: Calculators will not be allowed on any exam in this course.

Communication Devices: Except for iClickers, no phones or any devices capable of wireless communication including smart-watches are permitted at any time. As a courtesy to others please **silence your phones (and switch off the vibrate mode)** when you come to class.

Final Exam: The time for the final exam is **6:00-8:00 pm, Wednesday, December 18, 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.

Retroactive Credit: 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 completed a Request for Retroactive Credit form with the Department of Mathematics, 203 Avery Hall, or the College of Arts and Sciences Academic and Career Advising Center, 107 Oldfather Hall, by Friday, September 27, 2019. Students who already have credit for Math 106 and Math 107 do not need to completed the form (if you dont know, please check with your advisor).

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
Aug 26–30	12.1 Functions of Two Variables 12.2 Graphs of Functions of Two Variables 12.3 Contour Diagrams 12.4 Linear Functions	1–4, 6, 10, 11, 13, 14, 17, 21, 23, 25, 29, 30 1, 2, 3, 7, 8, 10, 15, 16, 18–20, 23–25 1, 2, 4, 5, 7–9, 13, 16, 17, 24, 27(a,b) 1–5, 7–11, 13, 21, 23, 26, 27
Sept 2	Labor Day Holiday	(no class)
Sept 3–6	12.5 Functions of Three Variables 12.6 Limits and Continuity Quiz 1, Thursday 13.1 Vectors	1–4, 8–11, 13, 15, 16–18, 23, 31 1, 2, 3, 6, 7, 9, 11–14, 19, 23 1, 2, 5, 7, 12, 15, 24, 25, 29, 31, 32, 39(b), 40, 41
Sept 9–13	13.2 Vectors 13.3 The Dot Product 13.4 The Cross Product Catch up/Review	1–5, 7, 10, 11, 16, 20, 30, 36 1, 5–19(odd), 23, 25–27, 29, 31, 33, 38, 40, 41, 43, 45 2, 3, 7, 9, 11, 14, 15, 17, 19, 20, 23, 27, 29, 31, 33, 39
Friday, Sept 6 is the last day to drop without a W.		
Sept 16–20	14.1 The Partial Derivative 14.2 Computing Partial Derivatives 14.3 Local Linearity Quiz 2, Thursday 14.4 Gradients and Directional Derivatives	1, 3, 5, 10–12, 17–19, 21, 22, 24, 25, 30 1, 3–5, 9, 11, 18, 21–25, 31, 39–41, 44, 45, 49 1, 2, 3, 5, 6, 7, 9, 11, 13, 18, 20, 22, 23 1–8, 15, 17, 20, 21, 23–26, 29–33, 37
Sept 23–27	14.4 Gradients and Directional Derivatives 14.5 Gradients and Directional Derivatives 14.6 The Chain Rule 14.7 Second-Order Partial Derivatives	39, 45, 46, 49, 51, 53, 56–59, 61, 67, 69–71, 75 2, 3, 7, 9, 14, 17–19, 21, 25–27, 35, 37–41, 46, 47, 53, 56, 57 1, 2, 3, 5, 7, 9, 11–15, 17, 20, 23, 24, 28, 33, 38 1, 3, 6, 11, 13, 14, 16, 19–21, 23–31(odd), 34, 35, 37, 41, 44
Sept 30–Oct 4	Catch up/Review 15.1 Local Extrema Exam 1 is Wednesday, Oct. 2 15.2 Optimization	 1–4, 6, 7–35(odd) 6:30–7:45, Louise Pound Hall 102 2, 5, 7, 8, 9, 10–13, 15, 17, 19, 20
Oct 7–11	15.3 Constrained Optimization Catch up/Review 16.1 The Definite Integral in the Plane Quiz 3, Thursday 16.2 Iterated Integrals	1, 3, 5, 6, 7, 9–13, 17–19, 22, 24, 30, 31, 32, 45 1, 3, 6–11, 13, 15, 22, 23 1–4, 9–23(odd), 29, 33–38
Oct 14–18	16.2 Iterated Integrals 16.3 Triple Integrals 21.2 Change of variables (optional) 16.4 Double Integrals in Polar Coord.	42, 43–51(odd), 52, 54, 55 1–9(odd), 11–27(odd), 28–30, 33, 34–37, 39, 41, 45, 50, 57 1, 3, 4, 5–7, 9, 13, 15 1–8, 10–12, 14–17, 19, 21, 24, 25, 27, 28, 30, 31, 33
Friday, October 18, is the last day to change your grade option to or from Pass/No Pass.		
Oct 21–22	Fall Break	(no class)
Oct 23–25	16.5 Triple Integrals in Cylindrical Coord. Quiz 4, Thursday 16.5 Triple Integrals in Spherical Coord.	1, 3–7, 9, 13–15, 21, 23, 27–37(odd), 48, 49, 57–59 8, 10, 11, 24, 30, 32, 39, 43, 47, 65
Oct 28–Nov 1	Catch up/Review 17.1 Parameterized Curves 17.2 Motion, Velocity and Acceleration Exam 2 is Thursday, Oct. 31 17.3 Vector Fields	 1–7, 10, 11, 13, 15, 19, 21, 26, 29, 33, 45–49(odd), 57, 62, 81 1, 3, 5, 9, 10, 13, 15, 17, 21–23, 25, 27, 30, 36, 41, 45 6:30–7:45, Louise Pound Hall 102 1–5, 7, 9, 11, 13, 15, 16, 20, 21–27(odd), 28, 30, 31, 33
Nov 4–8	18.1 The Idea of a Line Integral 18.2 Computing Line Integrals 18.3 Gradient Fields and Path-Indep. Quiz 5, Thursday 18.4 Green's Theorem	1–8, 11, 13, 15–21(odd), 25–28, 31, 32, 36, 46 1–23(odd), 26, 29–35(odd) 1, 3, 4, 5, 7, 8, 9, 10, 13, 15, 17–21, 27, 29, 31, 32, 38, 39, 48 1–17(odd), 19, 20, 22, 26, 27, 33, 34, 39
Nov 11–15	Catch up/Review 19.1 The Idea of a Flux Integral 21.1 Parameterized Surfaces 21.3 Flux Through Parameterized Surfaces	 1–9, 13, 14, 16–19, 21, 25, 26, 29–35(odd), 39, 48 1–8, 10–13, 17, 15, 17, 19, 20 1–3, 5–9, 11, 12
Friday, November 15 is the last day to withdraw from the course and receive a grade of W.		
Nov 18–22	19.2 Flux Integrals through graphs 19.2 Flux Integrals through graphs Quiz 6, Thursday 19.3 The Divergence of a Vector Field	1–6, 7, 9, 11, 13, 15, 19, 29, 31, 41–43, 47 16, 17, 21–23, 25, 27, 35, 37, 49, 51, 52 1, 3, 4, 5–11(odd), 12, 17–20, 24, 29, 36
Nov 25–26	19.4 The Divergence Theorem Catch up/Review	1, 2, 3–9(odd), 8, 14–17, 19, 23, 25, 28, 32
Nov 27–29	Thanksgiving Break	(no class)
Dec 2–6	Catch up/Review 20.1 The Curl of a Vector Field Exam 3 is Wednesday, Dec. 4 20.2 Stokes' Theorem	 1–5, 7, 11–16, 25 6:30–7:45, Henzlik Hall Auditorium 1–5, 7, 9, 11, 14, 17–19, 21, 23, 25–27
Dec 9–13	Catch up/Review	
Final Exam, 6:00–8:00 pm, Wednesday, December 18, Room TBA.		