
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 the Thursdays of the scheduled weeks. A number of quizzes will be given on some of the Thursday recitation classes. A number of homework will be collected during some of the Thursday recitation classes as well. It is your responsibility to keep track of these assignments for points.

Course Grade: Here is a tentative point distribution for the course: 200 for the Final Exam, 100 each for Hour Exam, a combined total of no more than 120 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: **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 P.M., Monday, December 10, 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, January 26, 2018.

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 20–24	12.1 Functions of Two Variables	1–4, 6, 10, 11, 13, 14, 17, 21, 23, 25, 29, 30
	12.2 Graphs of Functions of Two Variables	1, 2, 3, 7, 8, 10, 12, 13, 15, 16, 19, 20, 23, 24
	12.3 Contour Diagrams	1, 2, 4, 5, 7–9, 13, 16, 17, 24, 27(a,b)
	12.4 Linear Functions	1–5, 7–10, 13, 21, 23, 26, 27
Aug 27–31	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, 11–14, 19, 23
	13.1 Vectors	1, 2, 5, 7, 12, 15, 24, 25, 29, 31, 32, 39(b), 40, 41
Friday, August 31, is the last day to drop without a W.		
Sep 3	Labor Day	(no class)
Sep 4–7	13.2 Vectors	1–5, 7, 10, 11, 13, 15–18
	13.3 The Dot Product	1, 5–19(odd), 23, 25–27, 29, 31, 33, 41, 43, 45
	13.4 The Cross Product	2, 3, 7, 9, 11, 14, 15, 17, 19, 20, 23, 27, 29, 31, 33
	Catch up/Review	
Sep 10–14	14.1 The Partial Derivative	1, 3, 5, 10–12, 17–19, 21, 22, 24, 25, 30
	14.2 Computing Partial Derivatives	1, 3–5, 9, 11, 18, 21–25, 31, 39–41, 44, 49
	14.3 Local Linearity	1, 2, 3, 5, 6, 7, 9, 11, 13, 18, 20, 22, 23
	14.4 Gradients and Directional Derivatives	1–8, 15, 17, 20, 21, 23–26, 29–33, 37
Sep 17–21	14.4 Gradients and Directional Derivatives	39, 45, 46, 49, 51, 53, 56–59, 67
	14.5 Gradients and Directional Derivatives	2, 3, 7, 9, 14, 17–19, 21, 25–27, 35, 37–41, 46, 47, 53, 56, 57a
	14.6 The Chain Rule	1, 2, 3, 5, 7, 9, 11–15, 17, 20
	14.7 Second-Order Partial Derivatives	1, 3, 6, 11, 13, 14, 16, 19–21, 23–31(odd), 34, 35, 37, 41, 44
Sep 24–28	Catch up/Review	
	15.1 Local Extrema	1–4, 6, 7–21(odd), 25–31(odd), 35
	Exam 1	
Oct 1–5	15.2 Optimization	2, 5, 7, 8, 9, 10–12, 15, 17, 19, 20
	15.3 Constrained Optimization	1, 3, 5, 6, 7, 9–13, 17–19, 22, 30, 31, 32
	16.1 The Definite Integral in the Plane	1, 3, 6–11, 13, 15, 22, 23
Oct 8–12	16.2 Iterated Integrals	1–4, 9–23(odd), 29, 33–38
	16.2 Iterated Integrals	42, 43–51(odd), 52, 54
	16.3 Triple Integrals	1–9(odd), 11–27(odd), 28–30, 33, 34, 37, 39, 41, 50
	21.2 Change of variables (optional)	1, 3, 4, 5–7, 9, 13, 15
	16.4 Double Integrals in Polar Coord.	1–8, 10–12, 14–17, 19, 21, 24, 25, 27, 28, 31
Friday, October 12, is the last day to change your grade option to or from Pass/No Pass.		
Oct 15–16	Fall Semester Break	(no class)
Oct 17–19	16.5 Triple Integrals in Cylindrical Coord.	1, 3, 4, 6, 7, 8, 9, 13–15, 21, 23, 27, 31, 33, 48, 57, 58
	16.5 Triple Integrals in Spherical Coord.	5, 10, 11, 24, 25, 29, 30, 32, 35, 43, 47, 65
Oct 22–27	17.1 Parameterized Curves	1–7, 10, 11, 13, 15, 19, 21, 26, 29, 33, 45–49(odd), 57, 62, 81a
	17.2 Motion, Velocity and Acceleration	1, 3, 5, 9, 10, 13, 15, 17, 21–23, 27, 30, 41
	17.3 Vector Fields	1–5, 7, 9, 11, 13, 15, 16, 20, 21–27(odd), 28, 30, 31, 33
	18.1 The Idea of a Line Integral	1–8, 11, 13, 15–21(odd), 25–28, 36, 46
Oct 29–Nov 2	Catch up/Review	
	18.2 Computing Line Integrals	1–23(odd), 26, 29–33(odd)
	Exam 2	
	18.3 Gradient Fields and Path-Indep.	1, 3, 4, 5, 9, 10, 13, 15, 17–21, 27, 29, 31, 32, 39
Nov 5–9	18.4 Green's Theorem	1–17(odd), 19, 20, 22, 26, 33
	Catch up/Review	
	19.1 The Idea of a Flux Integral	1–9, 13, 16–19, 21, 25, 26, 29–35(odd), 39
	21.1 Parameterized Surfaces	1–8, 10–13, 17, 15, 17
Friday, November 9, is the last day to withdraw from the course and receive a grade of W.		
Nov 12–16	21.3 Flux Through Parameterized Surfaces	1–3, 5–9, 11, 12 and Section 19.2: 13, 17, 23, 25, 47
	19.2 Flux Integrals through graphs	1–7, 9, 11, 29, 31, 41–43
Nov 19–20	19.3 The Divergence of a Vector Field	1, 3, 5–11(odd), 12, 17–20, 24
	19.4 The Divergence Theorem	1, 2, 7–9, 14–17, 19, 23, 28, 32
Nov 21	Student Holiday	(no class)
Nov 22–23	Thanksgiving Vacation	(no class)
Nov 26–30	20.1 The Curl of a Vector Field	1–5, 7, 11–15
	Catch up/Review	
	Exam 3	
	20.2 Stokes' Theorem	1–5, 7, 9, 11, 14, 17–19, 21, 23
Dec 3–7	Catch up/Review	
Final Exam, 6:00-8:00 P.M., Monday, December 10, Room TBA.		