COURSE SYLLABUS

Instructor: Nick Meyer

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Course Webpage: Canvas and https://nickmeyer.me/math208/s23/

Office: Avery Hall 313 or Zoom

Office Hours: Tuesdays: 9:30–10:30am; Wednesdays 2:00–3:00pm; or by appointment. Feel free to drop by at other times as well, as if I'm in my office, I'm typically happy to talk about the course.

Text: *Active Calculus - Multivariable + Vector*, S. Schlicker, M. Keller, N. Long, This is a freely available online textbook. See https://activecalculus.org/vector/

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.

Schedule and Attendance: You are required to attend each lecture of this course, and are expected to actively participate in lecture. A tentative schedule of the course and exam dates are included in this syllabus. The pace of this course is necessarily fast since it is a four credit course. It is your responsibility to keep track of the course details and the schedule of your section. You can also see the Faculty Senate Class Attendance Policy at this link. *Please note, if in-person classes are to be cancelled, you will be notified of an instructional continuity plan for this class via an announcement or message from your instructor in Canvas.*

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. When reading try to work through the activities. Rereading more carefully after the class will also be helpful. This textbook does not have as many exercises as a traditional textbook, so all problems in the assigned sections should be considered assigned problems. Your instructor may remove or add problems to your assignment during class. For Chapter 12, our textbook does not have enough problems, so additional problems will be assigned from another online textbook.

Grading: There is a total of 600 points in the course. <u>There is no extra credit in the course.</u>

- Three midterm exams, each 100 points: 300 points
- Final Exam: 200 points
- WebWork: 60 points
- Exit Tickets: 40 points
- The scale for the total 600 points will be
  A: 90-100%, A-: 87-89%, B+: 84-86%, B: 80-83%, B-: 77-79%, C+: 74-76%,
  C: 70-73%, C-: 67-69%, D+: 64-66%, D: 60-63%, F: 0-60%

Midterm Exams: There will be 3 midterns exams, each out of 100 points, for a total of 300 points. Please note that if your (Final Exam score divided by 2) is higher than your lowest midterm exam, it will replace that score.

WebWork: This is an online homework portal, which automatically grades your work. More details will be provided the first day of class. <u>WebWork must be accessed via Canvas.</u>

Homework: Homework is not collected, but the exams will be based closely on the assigned problems.

Exit Tickets: Students are expected to attend and participate actively in lecture. To facilitate this, your instructor will be giving exit tickets periodically throughout the semester. Each will be worth 5 points, and your highest eight scores will combined to give your overall exit ticket grade out of 40 points.

Final Exam: The time for the final exam is **6:00-8:00pm on Tuesday, May 16**. The final exam will be a comprehensive exam. More details/instructions will be provided by your instructor later during the semester. 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.

Calculators: Calculators are not allowed on any of the exams or quizzes in this course.

Retroactive Credit: If this is the first college mathematics course that you have attempted, then you may be eligible for 9 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, or the College of Arts and Sciences Academic and Career Advising Center, 107 Oldfather Hall, by Friday, April 21, 2023.

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, 117 Louise Pound Hall, 402-472-3787 voice or TTY.

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.

University-wide Policies: UNL wants all students to be aware of the following university-wide course policies and resources located at the following link: https://go.unl.edu/coursepolicies

Dates	Sections/Topic
Jan 23–27	9.1 Functions of Several Variables I 9.1 Functions of Several Variables II 9.1 Functions of Several Variables III
Jan 30–Feb 3	9.2 Vectors 9.3 Dot Product 9.4 Cross Product
Friday, Feb 3, is the last day to drop without a W.	
Feb 6–10	9.5 Lines and Planes in Space 10.1 Limits 10.2 First-order Partial Derivatives
Feb 13–17	10.3 Second-order Partial Derivatives 10.4 Linearization: Tangent Planes & Differentials 10.5 The Chain Rule
Feb 20–24	10.6 Directional Derivatives & Gradient I 10.6 Directional Derivatives & Gradient II 10.7 Optimization
Feb 27–Mar 3	10.8 Constrained Optimization Catch up/Review **Exam 1** 11.1 Double Integrals over Rectangles
Mar 6–10	11.2 Iterated Integrals 11.3 Double Integrals over General Regions 11.4 Applications of Double Integrals
Mar 13–17	**Spring Semester Break**
Mar 20–24	11.5 Double Integrals in Polar Coordinates 11.7 Triple Integrals 11.8 Triple Integrals in Cylindrical & Spherical Coordinates 11.9 Change of Variables (optional)
Friday, Mar 24, is the last day to change your grade option to or from Pass/No Pass.	
Mar 27–31	9.6 Vector-valued Functions 9.A Interlude: Limits and Continuity of Vector-valued Functions 9.7 Derivatives and Integrals of Vector-valued Functions
Apr 3–7	9.8 Arc Length & Curvature Catch up/Review **Exam 2** 12.1 Vector Fields
Apr 10–14	12.2 The Idea of a Line Integral 12.3 Using Parametrization to Compute Line Integrals 12.5 Path Independence and FTC for Line Integrals
Apr 17–21	12.7 The Curl of a Vector Field 12.8 Green's Theorem 11.6 Surfaces Defined Parametrically and Surface Area
Friday, Apr 21, is the last day to withdraw from the course and receive a grade of W.	
Apr 24–28	12.9 Flux Integrals I 12.9 Flux Integrals II 12.6 The Divergence of a Vector Field
May 1–5	Catch up/Review **Exam 3** 12.11 Stokes' Theorem
May 8–12	12.12 The Divergence Theorem Catch up/Review
Final Exam, 6:00–8:00pm, Tuesday, May 16.	