

**Math 265, Calculus III** 4 credits  
**Fall 2011**  
**MWF 10:00 - 10:50 AM**  
**Walster 217**

**Instructor:** Lindsay Erickson, Minard 412A, 231-9455

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**Office Hours:** MWF 9:00-9:50AM and by appointment.

**Course Page:** <https://www.ndsu.edu/pubweb/~merchant/>

**Text:** *Multivariable Calculus: Early Transcendentals* (Sixth Edition) by J. Stewart.

**Bulletin Description:** Multivariate and vector calculus including partial derivatives, multiple integration, applications, line and surface integrals, Greens Theorem, Stokes Theorem, and Divergence Theorem. Prereq: MATH 166. Credit awarded only for MATH 259 or 265, not both.

**Topics:** Vectors, dot and cross products. Geometry of the space: equations of lines and planes, quadric surfaces, spherical and cylindrical coordinates. Vector functions: derivatives and integrals, arc length and curvature, applications. Functions of several variables: continuity, partial and directional derivatives, optimization, multiple integrals and applications. Vector Calculus: Line and surface integrals, Greens Theorem, Stokes Theorem and the Divergence Theorem.

**Course Objectives:** In this course, the concepts from Calculus I and II will be extended to functions depending on more than one variable: Differentiation of such functions (partial derivatives) and integration in higher dimensions (multiple integrals, line integrals, surface integrals) will form the core of this course. In preparation for these topics we will discuss functions of several variables as well as vector valued functions.

**Attendance Policy:** Attendance is expected. You are responsible for all the material covered in class and all the assignments and announcements made.

**Homework:** It is expected that the student complete exercises from the textbook following each lesson as homework. It is essential to do your homework in a timely fashion. The homework problems are not to be handed in. If you have trouble with exercises, please ask questions during recitation or office hours. Working problems is the best way to understand the material taught during lecture.

**Quizzes:** In general, a weekly quiz will be given during recitation. The quiz problems will be identical or similar to the problems covered in class and covered as exercises in your textbook. The lowest two quiz scores will not contribute to your final grade. There will be no make-ups for missed quizzes.

**Exams:** There will be three evening tests and a comprehensive final exam. Make-up exams will only be given in exceptional circumstances and require prior approval of the instructor or officially documented excuses (e.g, doctors

note for medical emergencies).

- *Exam 1* - Friday, September 23, in lecture.
- *Exam 2* - Friday, October 21, in lecture.
- *Exam 3* - Wednesday, November 16, in lecture.
- *Final Exam* - Monday, December 12, 8:00-10:00AM

**Calculators:** Calculators will not be allowed during quizzes and exams.

**Grading:**

- Quizzes are worth 25% of your final grade.
- Exams are each worth 15% of your final grade.
- The final exam is worth 30% of your final grade.

The standard 90-80-70-60 grading scale will be used. Do not expect any curving or linear scaling of grades.

**Special Needs:** Any students with disabilities or other special needs, who need special accommodations in this course are invited to share these concerns or requests with the instructor and contact the Disability Services Office as soon as possible.

Veterans and student soldiers with special circumstances or who are activated are encouraged to notify the instructor in advance.

**Academic Honesty:** The academic community is operated on the basis of honesty, integrity, and fair play. NDSU Policy 335: Code of Academic Responsibility and Conduct applies to cases in which cheating, plagiarism, or other academic misconduct have occurred in an instructional context. Students found guilty of academic misconduct are subject to penalties, up to and possibly including suspension and/or expulsion. Student academic misconduct records are maintained by the Office of Registration and Records. Informational resources about academic honesty for students and instructional staff members can be found at [www.ndsu.edu/academichonesty](http://www.ndsu.edu/academichonesty).