MAT 2130
Calculus with Analytical Geometry III

Instructor: Katie Mawhinney

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Office Hours: T-R 12-1, M-R 2-3, or by appointment

Text: Multivariable Calculus by Ostebee and Zorn (2nd edition)

Prerequisite: MAT 1120 with a grade of C- or better

Class Meetings:

- Section 101: 11:00-11:50 Monday and Wednesday in Walker 205 (Mac Lab), and Tuesday and Thursday in Walker 302
- Section 102: 3:00-3:50 Monday and Wednesday in Walker 205 (Mac Lab), and Tuesday and Thursday in Walker 106

Tentative Test Dates: September 18; October 23; November 27

Final Exam: Section 101- Friday December 7, 9:00-11:30 and Section 102- Thursday December 6, 12:00-2:30

Requirements:

- The text
- 3-ring binder and hole puncher to organize handouts and notes
- Print outs of your work (see http://pharos.appstate.edu/ for information about printing services and media cards)
- Access to MAPLE 9.5 or 10 or 11. On-campus access will be sufficient as long as you schedule your work time on campus, see me if you’re interested in purchasing a copy of MAPLE 11. MAPLE 10 or 11 can be found on all the computers in Walker Hall and in any Academic Computing Services Lab (See Dr. Jeff Hirst’s “Using MAPLE” link at http://www.mathsci.appstate.edu/jlh/ for other tidbits)
**Grades:** Quizzes 25%, Exams 40%, MAPLE Projects 15%, Cumulative Final Exam 20%

Quizzes will occur once or twice a week in lab (so Mondays and Wednesdays). Each quiz is worth 10 points. The quiz grade represents a homework grade. You should plan to do all of the homework suggested, as the quizzes will come directly from the homework problems!

Attendance is expected, thus NO LATE WORK OR MAKE-UPS ALLOWED for quizzes. Absences on test days require taking a make-up test early or a written, accepted university excuse.

MAPLE projects will include problems to be completed by hand and/or with MAPLE, that will be assigned and collected at different times throughout the semester.

**Objectives:** The goals of this course are to reinforce the calculus concepts learned in calculus I and II, to introduce the language of multivariable calculus, and to study parametric equations, vectors, vector-valued functions, functions of several variables, double and triple integrals, and vector analysis. The course also includes the use of the mathematics software MAPLE in studying these topics.

**Grading:** 92-100 A, 90-91 A-, 88-89 B+, 82-87 B, 80-81 B-, 78-79 C+, 72-77 C, 70-71 C-, 60-69 D, less than 60 F

**Additional Policies:** Material is covered quickly! **Expect to spend 1.5 to 2 hours outside of class for each credit hour of class.** You should explore each problem and write out your thinking in a way that could be shared with others. Working in a study group is highly recommended, though each student is responsible for doing his or her own work! Your MAPLE and by-hand work must be presented in your own unique style in order to distinguish your work as your own.

**Your name on your paper guarantees your adherence to the University’s Academic Integrity Code**

(see the Judicial Affairs website [http://www.judicialaffairs.appstate.edu/index](http://www.judicialaffairs.appstate.edu/index) for a copy of the Code).

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to tell me and contact the Office of Disability Services, 222 D.D. Dougherty, 262-3053/262-3056 (TTY) as early as possible in the term.