

## MATH 251 - ANALYTIC GEOMETRY & CALCULUS II

Instructor: Patrick Staley  
Office: 390D  
Office hours: 8:30-10:00AM Mon-Wed-Fri  
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Text: Calculus with Analytic Geometry Eight Edition, by Larson, Hostetler, and Edwards.

Prerequisites: Math 250 with grade of C or better.

Class Hours: 12:00-1:10PM Mon Wed Fri in room 344

Graphing Calculator Required: Recommended calculator is the TI-83+. The TI-84/85/or 86 are also OK for this class. Calculators with symbolic algebra capabilities, e.g. TI-89 or TI-92, are not allowed for exams. Some of the exams are no-calculator exams. Many in-class demonstrations involve Excel. You can improve your Excel skills with the follow-the-leader movies on [www.excel-tutor.com](http://www.excel-tutor.com).

Course Description: A continuing study of the calculus of real valued functions, infinite series, and analytic geometry including the following topics--

- Inverse trigonometric functions
- Hyperbolic functions
- Volume for Solids of Revolution
- Arc length
- Surfaces of Revolution
- Integration techniques
- L'Hopital's Rule
- Improper integrals
- Infinite series
- Power series
- Taylor series
- Conic sections
- Plane curves
- Parametric equations
- Polar coordinates

Attendance Policy: Students are expected to attend all lectures. If a student misses excessive class time, he/she may be dropped. Attendance is taken with a seating chart.

Electronic Devices: During lecture please turn off all phones, pagers, music devices, tape recorders, etc.

Special Accommodations: Southwestern College recommends that students with disabilities discuss academic accommodations with their professors during the first two weeks of class. An alternate form of this syllabus is available upon request.

Homework: There will be homework due nearly every class period. Repeated failure to complete homework assignments will result in the student being dropped for non-performance.

Grading Policy: Your final grade will be a composite of six or seven chapter tests and a Final Exam. The Final Exam is weighted as two chapter tests. Letter grades of A,B,C,D, or F are assigned to each chapter test and Final Exam. These are incorporated into the final grade based on the weight assignments A=4, B=3, C=2, D=1, and F=0. Excessive F scores (two) will result in a lower class grade regardless of the weighted average score. The final exam is comprehensive. There will be no make up tests.

Knowing the correct answer to an exam question is insufficient—the correct answer must be written on the answer sheet. Exam answers that confuse the grader will be marked wrong.

Example of Grading Algorithm: Assume chapter test grades of B,D,B,C,B,A, and final exam grade of A. Then class grade =  $(3+1+3+2+3+4+4*2)/8 = 3.0 = B$  (note that for the class grade A is 3.5 to 4.0, B is 2.5 to 3.5, C is 1.5 to 2.5, D is 1. to 1.5, and F is 0 to .99)

Website: <http://www.staley-classes.org> contains current notes to students including information on exams, an updated syllabus, the current grade sheet (password protected), practice problems, practice tests, answers to practice tests, electronic tutorials, and other relevant information. You will need Adobe Reader (5.0 or higher; instructions for downloading Adobe Reader are on the website). So that you receive website update notifications please send an email message to [stserv@list.mr-ideahamster.com](mailto:stserv@list.mr-ideahamster.com) with "subscribe M251S09" in the body.

Exclusion Policy: A student may be dropped from the class for excessive absences, non-performance, cheating, or disruptive behavior.

Cheating: Behavior indicative of cheating will be handled by an oral exam, the outcome of which will be one of: F grade on the exam, F grade for the semester, dropping the class, or reinstatement of the score. This penalty also applies to any accomplice.

Projected Schedule:

|                        |                            |
|------------------------|----------------------------|
| week 1 --Preliminaries | week 10 --Chapter 9        |
| week 2 --Chapter 5     | week 11 --Chapter 9        |
| week 3 --Chapter 5     | week 12 --Chapter 10       |
| week 4 --Chapter 7     | week 13 --Chapter 10       |
| week 5 --Chapter 7     | week 14 --Chapter 10       |
| week 6 --Chapter 8     | week 15 --Chapter 10       |
| week 7 --Chapter 8     | week 16 --catch up or      |
| week 8 --Chapter 8     | week 17 --computer project |
| week 9 --Chapter 9     | week 18 --Final Exam       |

Final Exam day/time: Monday December 14 1:00-3:00PM room 344

Initial Assignment: Buy the textbook; obtain a calculator; prepare for a preliminaries quiz by doing the [preliminaries quiz](#) on the [class website](#).