

MATH 1800 – SYLLABUS

COURSE TITLE: Analytic Geometry and Calculus I **SECTION:** 002
CREDIT: 5 credit hours **CLASS #:** 11878
TIME: MW 12:30 p.m. – 1:20 p.m. 424 SSB **SEMESTER:** Spring 2010
 TR 12:30 p.m. – 1:45 p.m. 424 SSB

INSTRUCTOR: Al Stanger
Office: 425 SSB Phone: 516-5190
E-mail: stangera@umsl.edu

OFFICE HOURS: Monday and Wednesday 11:00 a.m. – 12:00 p.m.
Tuesday 2:00 p.m. – 3:00 p.m.
or by appointment

TEXTBOOK: *Calculus* by James Stewart, 6th edition,
ISBN-13: 978-0-495-01160-6

COURSE DESCRIPTION: This course provides an introduction to differential and integral calculus. Topics include limits, derivatives, related rates, Newton's method, the Mean-Value Theorem, Max-Min problems, the integral, the Fundamental Theorem of Integral Calculus, areas, volumes, and average values. (Chapters 1 – 6 from the textbook; some sections will be skipped). The course is NOT based on using calculators. They may be helpful when solving homework problems, but will NOT be ALLOWED when taking quizzes or exams.

PREREQUISITE: you should have one 'algebra' AND one 'trigonometry' prerequisite from the table below (NOT all of them):

Algebra	Trigonometry
Either a score of 26 or higher on the ACT Math sub-test; ----- or a score of 26 or higher on the MMPT (Missouri Math Placement Test); ----- or a grade of C- or higher in Math 1030 (College Algebra).	Either a score of 7 or higher on the UMSL Trigonometry Placement Test; ----- or a grade of C- or higher in Math 1035 (Trigonometry).

MATH LAB: The Math Lab is open Monday and Thursday from 9:00 am to 7:00 pm, Tuesday and Wednesday from 9:00 am to 8:30 pm, Friday from 9:00 am to 1:00 pm and Sunday from 1:00 pm to 5:00 pm.

HOMEWORK: Attached is a homework assignment sheet with suggested homework problems. These suggested problems will not be turned in; however working the suggested homework problems is the best preparation for quizzes and tests. These problems all have answers in the back of the book. Doing lots of problems will give you the knowledge and skills to do well on the tests and quizzes. You are expected to spend at least two hours outside of class for each hour of class time; this means a minimum of two and a half hours daily!

QUIZZES: There will be 11 class quizzes and 4 take-home quizzes (10 points each). Class quizzes are closed-textbook/notes; calculators are not allowed; they will cover the same material as homework problems. Answers with no work will not be given any points; only fully worked out solutions will be given partial/full credit. The lowest score for class quizzes will be dropped; no score for the take-home quizzes will be dropped. There will be NO make-up for quizzes.

EXAM POLICY: There will be 4 tests and the mandatory comprehensive **Final Exam**. Dates of the exams are shown in the schedule. All exams are **closed books/notes**, and **calculators are NOT allowed**.

There will be NO tests dropped. Failure to appear for an exam will result in a grade 0 for that exam unless prior arrangements have been made. You will be allowed to take an exam at a different time (at the Campus Testing Center) **ONLY** in case of a serious trouble verified by some document (a doctor's excuse, a copy of a police report, a letter from a supervisor etc.).

The final exam will be given on Wednesday, May 12, 2010 from 12:15 to 3:15 p.m. (room to be announced)

MASTERY EXAM: A mastery exam will be given before the second test (see the schedule). This exam will consist of very basic but essential differentiation problems. Of the **8** problems on the exam, you **MUST** do **7 ABSOLUTELY** correctly. The exam can be retaken until "mastery" (the minimum skill level in differentiation) is achieved. You cannot get a grade of **C** or better in Math 1800 unless you pass the mastery test by **March 25** (regardless of your performance otherwise). The Mastery Test is NOT included into the grading scheme.

SPECIAL ACCOMMODATIONS: Students requiring special accommodations should meet with me during office hours so that we can discuss how to meet your needs this semester. Prior to our meeting be sure you have met with someone in the Disability Access Services Office in 144 MSC. Information about your disability will be regarded as confidential.

COURSE GRADE:

Your **course grade** will be based on:

Attendance/Class Participation/ Quizzes	160 points
Take Home Quizzes	40 points
Tests	500 points
Final Exam	300 points
Total	1000 points

The grade scale is as follows:

Score	Grade
≥ 900	A
899- 800	B
799 - 700	C
699 - 600	D
< 600	F

In some situations, '+' or '-' grades will be assigned.

There are NO individual make-up assignments at any time!!!

MYGATEWAY (<https://mygateway.umsi.edu/webapps/login>): Announcements and handouts are available on MyGateway. Be sure to check this source regularly.

DROPPING THE COURSE: If you choose to **drop** the course, you need to follow the proper drop procedure for getting excused from the course. A grade of F will be assigned to a student whose name is still on the final class roster and has not dropped the course officially. **This grade will not be changed retroactively. Delayed grades** can be given **only** for a situation where a student has completed all the work and has to miss the final exam because of an emergency.

Delayed grades have to be approved by the Department of Mathematics and Computer Science.

ACADEMIC DISHONESTY: When one takes credit for another's work or uses unauthorized devices (such as calculators) in the course, when they are expressly forbidden, it is cheating. This may occur during in class exams/quizzes or take-home exams/quizzes in this course. The code of student conduct is in the *UM-St. Louis Student Handbook*.

According to the University's Collected Rules and Regulations (Chapter 200: Student Conduct), the term **Cheating** includes but is not limited to: (i) use of any unauthorized assistance in taking quizzes, tests, or examinations; (ii) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports,

solving problems, or carrying out other assignments; (iii) acquisition or possession without permission of tests or other academic material belonging to a member of the University faculty or staff; or (iv) knowingly providing any unauthorized assistance to another student on quizzes, tests, or examinations.

When cheating is determined, a zero grade will be given on the specific exam/quiz and the student(s) who is/are involved in the cheating will be reported to the Department of Mathematics and the Office of the Vice Chancellor for Student Affairs.

Important dates:

Monday, January 25Last day to enroll for credit.
Monday, February 15Last day to drop with no grade.
Saturday, March 27Spring Break begins at 5:00 p.m.
Monday, April 5Classes resume 8:00 a.m.
Friday, April 9.....Last day to drop with EXCused grade.
Saturday, May 8Classes end 11:00 p.m.
Wednesday, May 12Final Exam (12:15 p.m. to 3:15 p.m.)

List of Suggested Homework Problems

(Only odd-numbered problems unless otherwise noted.)

Section	Pages	Problems
1.1	21 – 23	1; 5 – 9; 21 – 37; 41; 43; 51 – 57; 61 – 69.
1.2	34 – 36	1; 3; 9; 13; 17; 19.
1.3	43 – 45	1; 3; 5; 9; 11; 17; 21; 31 – 47.
2.1	65 – 66	1; 3; 5; 7.
2.2	74 – 76	1 – 9; 13; 17; 25 – 31.
2.3	84 – 85	1; 2; 3 – 9; 11; 15; 19; 23; 27; 39; 41.
2.4	95 – 96	1; 3; 15 – 19; 23; 27; 39; 41.
2.5	105 – 107	3; 7 – 13; 15 – 19 ; 31 – 39; 43; 47.
3.1	119 – 122	1 – 7; 9 (a, b); 13; 17 – 21; 25; 27; 31; 37.
3.2	131 – 133	1 – 11; 17 – 27; 33 – 35.
3.3	144 – 146	1 – 41; 49; 53; 57; 59; 63; 65.
3.4	154 – 155	1 – 15; 17; 21; 23; 39 – 47.
3.5	161 – 163	1 – 53; 59; 61; 69.
3.6	169	1 – 19; 21 – 25.
3.7	179 – 181	1; 9; 13; 15; 27.
3.8	186 – 189	1; 3; 7; 9; 11 – 15; 19; 29; 41.
3.9	193 – 194	1 – 5; 11 – 25; 33.
4.1	211 – 212	1; 5; 9; 11; 15; 17; 23; 25; 29; 33; 37; 39; 47; 51.
4.2	219 – 220	1; 3; 5; 11; 13; 15; 17.
4.3	227 – 229	1; 3; 5; 9; 11; 13; 15; 21; 23; 29; 33; 39.
4.4	240 – 241	1; 3; 7; 9 – 29; 33; 35; 43.
4.5	248 – 249	1; 5; 9; 13; 19; 23; 31; 43.
4.7	262 – 267	1 – 11; 17; 21; 27; 33; 55.
4.8	272 – 273	1; 3; 5; 7; 13.
4.9	279 – 280	1 – 39; 51; 53.
5.1	298 – 299	1; 3; 5; 11; 13; 17.
5.2	310 – 311	1; 3; 5; 9; 17; 21; 23.
5.3	321 – 322	1 – 37.
5.4	329 – 330	1 – 15; 19 – 41; 49.
5.5	338 – 340	1 – 29; 35 – 49; 65 – 81.
6.1	352 – 353	1 – 7; 11; 13; 17; 19; 23.
6.2	362 – 363	1; 5; 7; 9; 13; 17; 19; 23; 24; 31; 49.
6.3	368 – 369	1; 3; 7; 9; 11; 15; 19; 21; 23; 27.
6.4	373 – 374	1; 3; 7; 9; 15; 19.
6.5	377	1 – 9; 13; 17.

Tentative Schedule

(All changes to the schedule will be announced in the class and posted on MyGateway.)

Week of	Sections.	Quizzes.	Reviews.	Tests.
01/18	1.1 – 1.3; 2.1.			
01/25	2.2 – 2.4.	Class Quiz #1 (Tues, 01/26).		
02/01	2.5; 3.1.	Class Quiz #2 (Tues, 02/02). THQ#1 is due Thurs, 02/04	Review 1 (Thurs, 02/04).	
02/08	3.1 – 3.4.	Class Quiz #3 (Thurs, 02/11).		Test 1 (Mon, 02/08).
02/15	3.4 – 3.6.	Class Quiz #4 (Thurs, 02/18).		
02/22	3.6 – 3.8.	Class Quiz #5 (Thurs, 02/25).		
03/01	3.8 – 3.9.	Mastery Exam (Tues, 03/02). THQ#2 is due Thurs, 03/04.	Review 2 (Thurs, 03/04).	
03/08	4.1 – 4.3.	Class Quiz #6 (Thurs, 03/11).		Test 2 (Mon, 03/08).
03/15	4.3 – 4.5.	Class Quiz #7 (Thurs, 03/18).		
03/22	4.7 – 4.9.	Class Quiz #8 (Thurs, 03/26).		
03/29	* * * * * S P R I N G B R E A K * * * * *			
04/05	5.1 – 5.3.	THQ #3 is due Tues, 04/06.	Review 3 (Tues, 04/06).	Test 3 (Wed, 04/07).
04/12	5.3 – 5.5.	Class Quiz #9 (Thurs, 04/15).		
04/19	5.5; 6.1 – 6.2.	Class Quiz #10 (Thurs, 04/23).		
04/26	6.2 – 6.4.	Class Quiz #11 (Thurs, 04/29).		
05/03	6.4 – 6.5.	THQ #4 is due Tues, 5/04.	Review 4 (Tues, 5/04). Review for the Final Exam (Thurs, 05/06).	Test 4 (Wed, 05/05).

**Final Exam is scheduled for Wednesday, May 12, 2010
from 12:15 to 3:15 p.m. (room to be announced).**