MATH 151 - SYLLABUS

Calculus I Fall 2009

Section	Professor	Day/Time	Location	Test/Review	Room	Time
1	Susan Goldstine	MWF 8:00	SH 134	T	SH 161	6pm
2	Alex Meadows	MWF 9:20	SH 161	W	SH 161	6pm
3	Sandy Ganzell	MWF 10:40	SH 134	T	SH 134	6pm
4	Alex Meadows	MWF 1:20	SH 161	W	SH 134	6pm
5	Casey Douglas	MWF 1:20	SH 109	T	SH 132	6pm

Text:

Single Variable Calculus (5th edition) by James Stewart.

Content:

This is the first of a two-semester sequence in differential and integral calculus. The semester is divided into five content periods, roughly corresponding to the first five chapters of the text. Below is an *approximate* timeline for the course. Note that all of the following is subject to change.

Chapter 1: Sections 1.1–1.3: Review of functions, graphs, composition of functions, and trigonometric functions. 1 week.
Chapter 2: Sections 2.1–2.6: Limits, rates of change, continuity. 3 weeks.
Chapter 3: Sections 3.1–3.9: Derivatives, the chain rule, applications. 3–4 weeks.
Chapter 4: Sections 4.1–4.5, 4.7, 4.8, 4.10: Maxima and minima, curve sketching, more applications, optimization, antiderivatives. 3–4 weeks.
Chapter 5: Sections 5.1–5.5: Areas, the definite integral, the Fundamental Theorem of Calculus, indefinite integrals, substitution. 3 weeks.
Finals Week (December 14–18): Final Exam.

Classes: Class time will be a mixture of lectures, discussions, working problems, and group work. You should prepare for each class by reviewing the material already covered and by reading ahead in the text. In addition, you should work as many of the problems as possible–more than are assigned by your professor. In class, you should speak up with your questions and comments. If you need additional help, see your professor or your TA.

Extra Credit: You can earn a 1% increase in your grade by attending and writing a one page report on one of the NSM Colloquium talks. This can be repeated for a total of 2% extra before calculating your final grade. Talks are for a general audience of science majors in the areas of Mathematics, Computer Science, Biology, Chemistry and Physics. The lectures are in Schaefer Hall room 106 most Wednesdays at 4:40. A schedule of talks and weekly reminders will be sent to all students via email.

Attendance: You are expected to attend all classes (subject to the attendance policy outlined in the catalog). All varsity athletes should discuss possible conflicts with their professor, agree on resolutions, and sign the form provided by your coaches.

Exams: Exams will be given during the evening review sessions. Make-up exams will be allowed in emergency situations only. If at all possible, notify your professor of the emergency *prior* to the exam.

SECTION 1 SYLLABUS

Instructor:	Prof. Susan Goldstine (rhymes with "line")
E-mail:	sgoldstine@smcm.edu
Phone:	x4366
Office:	Schaefer 171
Office Hours:	Monday, 1:30–2:30; Wednesday, 10:00–11:00; Friday 1:30–2:30 and by appointment. Drop-ins are welcome, as long as I happen to be free.
Course Web Page:	http://faculty.smcm.edu/sgoldstine/Math151f09.html PLEASE NOTE THAT THIS IS **NOT** ON BLACKBOARD.
TA:	Emily Brinker
E-mail:	ejbrinker@smcm.edu

Course Resources

This is a fast-paced course, and listening to the lecture will not be enough to ensure your success in it. Please make use of as many of the following resources as benefit you.

- **Your course notes.** The lectures take up fewer than four hours each week, and there is a lot of material to fit into them. Looking back over the notes you take in lecture will give you a chance to see the material again after you have had some time to assimilate it.
- **The homework.** Homework is designed to develop your understanding of the material and to help you prepare for the exams, not merely to give us something else to grade.
- **The textbook.** Your text is more than just a source of homework. It often explains the mathematics differently than I do, and you may find its explanation clearer than mine.

  You may also find the odd answers in the back of the textbook useful. If you are not sure whether the assigned homework has given you enough practice, try some of the related odd problems, then check your answers in the back.
- **Me.** If you have any questions about the course or your progress in it, come to my office hours, make an appointment by email or phone, or come by my office (though in the last case I do not guarantee that I will be available). You do not need to have a specific question about a homework or exam problem. There is a tremendous difference between attending my lectures and talking to me one-on-one.

  Your TA. Each week that there is no exam in the evening, your TA holds a review section. Get as much out of this as you can by looking over your course notes and homework *before* you arrive so that you can better ask questions and engage in answers.
- **Your classmates.** Many people benefit from studying the material and working on the homework with peers, and I strongly recommend that you try this to see if you are one of them. However, please see the remarks on Intellectual Responsibility below.

About the Student Code of Rights and Responsibilities

Exams. Your work must be entirely your own, so no looking at other people's papers, no talking to each other or passing signals, no outside help whatsoever. Unless I *explicitly* allow other aids, you are only allowed whatever implements you need to read and write.

Homework. As mentioned in the Course Resources, you may work together with other students on homework. However, the work must be your own, even if you received substantial input from others. The following ground rules should clarify this.

- Working together does not mean that one of you does the first half of the homework set and the other does the second. Everyone should work on every problem.
- Each student must hand in his or her own problem set. You may not hand in a single packet as the work of multiple people.
- Each student must write up each problem *in his or her own words*. Working together means discussing the problems. Copying someone else's solution–*even when the source doesn't mind*– is plagiarism and a violation of intellectual responsibility.

  If you cannot solve a problem, and then your friend tells you a solution, it may be tempting to simply copy what your friend wrote. That would be *bad*. Instead, it is perfectly fine to have your friend explain his or her solution to you, even showing you the written work, before you go and write up your own solution *yourself*.
- Here's a good rule of thumb. At the very least, you should understand what you wrote. If you can't explain (to me, say) what the things you wrote actually mean, then you're on shaky ground.

Keep in mind that even if it were not a violation of student responsibility, it would still be a bad idea to copy someone else's homework solutions. Seeing or even transcribing a solution to a problem is very different than arriving at a solution by yourself or in a group, and is even different than taking someone else's idea and reformulating it for yourself. The first may seem like it prepares you for your exams and future courses, but trust me, it doesn't.

If you still have questions about what agrees or does not agree with the precepts of intellectual responsibility in this course, feel free to talk to me about it.

Assessment

Homework

Homework assignments will be due in class on **Friday** (unless announced otherwise). Note that your evening review is on Tuesday and my last office hour before the homework is due is on Wednesday. Starting your homework on Thursday night would be a **bad** idea.

The homework grader is a fellow undergraduate who has a lot of other work, just like you. Therefore, the following policy is in effect:

Any homework that is handed in between the class it is due and the following class will have its grade reduced by 20%. Any homework that is handed in between that class and the following class will have its grade reduced by 40%. **No homework will be accepted more than two class meetings after it is due.**

Exams

We will have three evening tests and a final exam. The dates for these exams are given in the grading table below.

Calculators are not permitted in any exams.

As indicated on the general syllabus for Math 151, *barring an incapacitating illness, religious conflict, or other such obstacle, there are* **no excuses** *for missing an exam.* If you do have such a conflict, please let me know as soon as humanly possible.

Extra Credit

As mentioned in the general syllabus, you can earn extra credit for attending Natural Science and Mathematics Colloquia for up to 2% added to your final course grade. Since some of you may have schedule conflicts with the regular NSM Colloquium time, we will offer a few alternate means of getting this extra credit.

To earn the extra credit, you need to write a brief summary of the talk you attended and submit it to me **by email** within one week of the event.

Grading

Homework	10%
Test 1: Tuesday, September 29	25%
Test 2: Tuesday, October 27	25%
Test 3: Monday, November 23	25%
Final Exam: Tuesday, December 15	25%
Total	**110%**

The item above that most hurts your grade will have its weight diminished by 10% of the course grade, to give a total of 100%.