Math 151: Calculus 1, Section 1

Spring 2010

Syllabus

Instructor: Prof. Susan Goldstine (rhymes with "line")

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Office Hours: Monday, 1:30–2:30 PM; Wednesday, 7:00–8:00 PM;
Friday, 12:00–1:00 PM; and by appointment.
Drop-ins are welcome, as long as I happen to be free.

Course Web Page: http://faculty.smcm.edu/sgoldstine/Math151s10.html
PLEASE NOTE THAT THIS IS **NOT** ON BLACKBOARD.

TA: Caitlin Grice

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How to Succeed in this Class

This is a fast-paced course, and to succeed you need to do more than listening in class. Please make use of as many of the following resources as you can.

- **Texts**
  - **Your course notes.** The morning classes 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 and during in-class activities 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 we do, and you may find its explanation clearer than ours. Plus, there are great pictures.

    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.
- **People**
  - **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, your TA holds a review section during the evening class. 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 academic integrity that follow.

About the Code of Student Conduct

As in all St. Mary's College classes, you are bound by the Code of Student Conduct as described in *To the Point*, which you can access online at `http://www.smcm.edu/judicial/tothepoint.html`. Any act of academic dishonesty is grounds for an automatic F in my class.

Below are the guidelines for academic honesty in this course.

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 constitutes **academic dishonesty**. Letting someone else copy your solution also constitutes academic dishonesty.

  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 the Code of Student Conduct, 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 academic integrity in this course, feel free to talk to me about it.

Course 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. 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.

Assessment

Homework

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

Your TA 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.

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.

Grading

Homework	10%
Test 1: Monday, February 15	25%
Test 2: Monday, March 8	25%
Test 3: Monday, April 12	25%
Final Exam: Monday, May 10	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%.