

**Greg Langkamp - Seattle Central Community College
Math& 151 – Calc I: Differential (formerly Mat 124)
Course Syllabus Fall 2008 (Item #1338)**

Contact Information

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Concurrent Enrollment Required: All students taking this course must also register for CSC 102Q, which is a 3-week course on the Mathematica software program. Once you have completed this course, we will use the program in Mat 151. The course begins the second week of the quarter. Five sections of this course are being offered:

1161	CSC	102Q	01	M	1:15P	3:05P	Morales
1162	CSC	102Q	02	T	1:15P	3:05P	Morales
1163	CSC	102Q	03	T	3:15P	5:05P	Morales
1164	CSC	102Q	04	Th	1:15P	3:05P	Morales
1165	CSC	102Q	05	F	1:15P	3:05P	Morales

Prerequisites: PreCalculus II (Math& 142 or Mat 123) with a 2.2 or better (at SCCC), or SCCC placement exam. You must meet the prerequisite to stay in this class, or to overload this class.

If you met the prerequisite for this course by passing a placement test, be aware that the accuracy of such tests is fairly low. It may be the case that you were placed correctly, but perhaps you were placed either too high or too low. If you suspect that you are in the wrong course, please come and see me ASAP, and I'll try to help you get into the correct course.

Overload Policy: After I take attendance for 2 days, I will know how many seats are available for overloads. Those students on the electronic overload list who *attend the first 2 days* will have highest priority for overloading the course. There is no guarantee that anyone will be overloaded into the course.

Classroom: These course sections meet daily in the new science and math (SAM) building. No food or drink is allowed in the classroom. Water bottles with tight lids can be kept in your book bag under the desks. Please keep the classroom clean--if you make a mess, clean it up!

Course Materials Needed:

- a) Textbook: Stewart, *Calculus: Concepts and Contexts*, 3rd Edition, Thomson Brooks/Cole Publishers, 2005.
- b) Pencils and eraser, graph paper, small ruler, and colored pencils.
- c) USB Flash drive (a.k.a. thumb drive) to store computer files.
- d) TI-83/84 graphing calculator. Needed by the 2nd day of the quarter. Students using another model will have to spend time reading their manual to figure out their calculator. Some calculator models may not be allowed in this class because they are too powerful. These include, but are not limited to, the TI-89 and TI-92. Check with me ASAP!
- d) OPTIONAL: Student Solution Manual for Stewart text.

Internet Access: This course requires that you access the internet several times each week. A printer is not necessary, although may be useful. Students who do not have internet access at home will need to use computers in the SCCC computer labs, in a local library, etc

Calculators: It is also assumed that you have some experience using a graphing calculator. If not, then you should start learning and get help *immediately* in the 1st floor tutoring lab (SAM 100). There is also graphing calculator help at my website.

Renting Calculators: TI-83+ calculators are available to rent for \$20/quarter. You will need to pay \$20 to the school cashier (on the first floor of the main building), bring the receipt to me, and then fill out a contract. I will only rent you a calculator if you are enrolled in the class.

Course Contents: Chapter 1 is mostly review material from precalculus; we will cover parts of this chapter in the first week. Chapters 2 - 4 form the heart of the course, and we will cover most sections in these three chapters. There will be a large number of handouts with supplementary problems on various topics, including Taylor Polynomials.

WAMAP: This course will make use of WAMAP, an online course-management program and assessment tool. One feature in WAMAP is that it allows me to post class announcements and documents everyone to read. I plan to post the syllabus and other up-to-date course information, all of your grades for the quarter, handouts, and solutions to quizzes and tests. If you ever miss class, check the WAMAP site for the latest happenings! A second major feature of WAMAP is its internal email system. This system will allow me to email members of the class. You will be able to email me and/or other students in the class as well. WAMAP email is for class use only – not for other personal correspondence! A third feature of WAMAP is that it houses an enormous number of online math problems to use for practice or graded homework. I will register you in WAMAP for this course. More information to come during the first week.

Teaching/Learning format: I believe the best way for students to learn is to do the math, rather than listen to a teacher tell them how to do the math. As a teacher, I pursue this by keeping lecturing to a minimum, and preparing problems to work on in class. Along with this, a recent strategy adopted by many math teachers is to have students work in groups. The thought here is that students feels more comfortable asking questions and suggesting strategies in the company of peers, rather than all alone in front of class or directly with the teacher. (I know that I didn't like to shout out an answer for fear of it being "another stupid question.") I strongly support this classroom structure.

So what should you expect in class? Each day will vary somewhat, but in general, I'll take a few questions regarding the past night's homework. I then may lecture a little (but sometimes I don't) and then you'll be turned loose to work in groups on several problems. The only way that a group can work is for all students to attend. Since we sometimes start group activities immediately, it is unacceptable to arrive late to class. (I understand that there are occasional, unexpected crisis that prevent this.) Remember what a wise student once said: "Coming to class every day makes studying at home much easier."

Your success in this class depends on your active participation in the group process. Many of you have experience with this mode of learning from previous math courses at SCCC. If not, try it, don't fight it. Most students enjoy the chance to work with others, learn more, and make a few friends.

Workload for this course: You should expect to spend *on average* 2-3 hours per day for this course outside of class; this time will consist of reading your textbook, reading your class notes, doing homework problems from the textbook and WAMAP, studying for quizzes and tests, and preparing for special class days. On the first day of each week I will hand out a "Weekly Notes and Assignment" sheet.

Textbook homework: For each section in the textbook I will assign a small sample of homework problems. Most of these problems are odd-numbered with answers in the back of the text and worked-out solutions in the Student Solution Manual. Each Monday I will collect homework from several of the sections. To note:

- I will grade your textbook homework based on completeness and presentation – not on accuracy.
- When submitting your homework make sure that all sections are placed in order and stapled together.
- For each section, keep all problems in order. Write the problem numbers clearly so that they are easy to find.
- Writing on both sides of the paper is fine, but do not crowd your work.
- The total number of points each week is 5.

You should attempt to do all the textbook problems. For group and classroom discussions to be effective, you must stay on top of the homework! Doing homework pays off -- I often base quiz and test problems on text homework.

WAMAP homework and preview problems: Each week you will get an WAMAP online homework assignment that is graded on accuracy. The online homework will be due on Mondays. Each homework set will correspond to the same sections that you are handing in from the textbook. Each WAMAP question will initially be worth 2 points, with partial credit possible (more on this later). The maximum overall grade for the WAMAP homework will be scaled to 50 points.

There will be a WAMAP “Preview Problem” for many of the sections in Chapters 2, 3, and 4. Preview problems are designed to encourage you to read a section before I lecture on the topic. Each problem is worth 1 point and you get unlimited attempts to answer the problem.

In WAMAP you are allowed two (2) “Late Passes.” Each Late Pass will allow you to postpone the due date for any one homework or preview assignment by 24 hours.

WAMAP practice problems: In addition to the homework and preview problems, there are a larger number of WAMAP practice problems that you may work on. Not mandatory, not for points.

Grading (subject to some modifications):

- Weekly Textbook Homework.....5 points each/ 50 total
- Weekly WAMAP Homeworkscaled to 50 points total
- WAMAP Preview problems..... scaled to 20 points total
- In-class worksheets (no makeups)..... 3-5 points each
- Quizzes (can drop lowest, or miss 1).....20 points each (sometimes w/ group)
- Projects (1 or 2 of them)..... 20-30 points each
- Tests (2 of them)..... 100 points each
- Final exam..... 150 points

Grades will be computed according to the formula: $Grade = 0.073(\text{percentage correct}) - 2.96$.

Note: This makes 95% correct = 4.0 , 89% = 3.5, 75% = 2.5, 61% = 1.5. Note: The prerequisite for Mat 151 is a 2.2 (about 71% correct).

Example: In the middle of the quarter, a student has quiz scores of 16, 18, and 12; a test score of 85, and a project score of 17. After dropping the lowest quiz score, the total is 136 out of a possible 160. The percent correct is $136/160 = 85.0\%$. The grade for the quarter is computed as $.073(85) - 2.96 = 3.2$

Policy on missing quizzes, tests, etc:

In general, by signing up for this course you are expected to attend every day and be present for quizzes, tests, and class problems. If you need to be absent during the quarter for any reason (work, home issues, illness, vacation, childcare, etc) your absence may lower your grade.

Late homework is not accepted. No make-up quizzes are allowed. If you are absent and cannot take a quiz, or cannot hand in weekly textbook homework for any reason – don’t worry, you can drop your lowest score for each. Additional missed quizzes or homework will receive a zero (0), no matter what the reason.

If you are absent on the day of a test, **YOU MUST CONTACT ME BEFORE THE TEST**. I will try to schedule a make-up test, providing that you have been attending class regularly and you can take the make-up at a reasonably convenient time.

Do not call me for assignments if you miss class. With over 90 students each quarter, this gets to be too much for me. Call or email someone in class, or check into WAMAP.

Special Accommodations : Students with documented disabilities who need course accommodations, have emergency medical information or require special arrangements for building evacuation should contact the instructor within the first week of class.

Final Exam :

Tuesday, December 9, 8–10am, room SAM101

Final Note: Information in this syllabus may be modified during the quarter.

Mat 151: Week #1 Notes and Assignments

This is a guide only, and is subject to change.

Day	Text Assignment	WAMAP
Mon 9/22	Section 1.1: Read as needed. Do #1, 21, 23-31, 61-63. Section 1.2: Browse. Appendix A: Browse.	
Tue 9/23	Section 1.3: Read as needed. Do #1-5, 9-17, 31, 35-39, 41-49, 53-55. Section 1.4: Browse if you want to.	
Wed 9/24	Section 1.5: Read as needed. Do #1, 3, 4, 7 -13, 15, 19. Appendix C: Read as needed. Do #1, 3, 5, 11, 13, 15, 29.	Log into WAMAP (see class handout)
Thu 9/25	Section 1.6: Read as needed. Do #1, 2, 5, 7, 9, 11, 15, 19, 21-23, 25, 31-34, 37, 40, 45-48. Section 1.7: none	Pre2.1 due Monday HW01 due Monday
Fri 9/26	No additional problems. In class we will work on textbook and WAMAP problems.	

Due Monday 9/29. Textbook sections 1.1, 1.3, 1.5, Appendix C, and 1.6. Consult the syllabus for information on writing up and submitting your textbook homework. *Note: the WAMAP homework is also due on Monday.*

Are you ready for Calculus? Quiz #1 on Monday.

Sections 1.1, 1.2, 1.3, 1.5, 1.6, and Appendix C