Math 0220 Calculus 1 (Section 1120)

Fall 2011, University of Pittsburgh

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Lectures: W.M.F. 12:00-12:50 pm in 138 Gardner Steel Conference Center (GSCC).
Office Hours: W.M.F. 1-2pm in 520 Thackeray Hall or by appointment.

Text

James Stewart, Essential Calculus, Early Transcendentals.
http://www.stewartcalculus.com/media/6_home.php

Homework and Quizzes

For each class, we assign some practice problems from the textbook (see the schedule table below). Although no homework will be collected and graded, you must do ALL of them by yourself before they are discussed in the recitation classes. This is the best way to prepare for quizzes and exams which are modeled on these problems.

The whole class is divided into 3 small groups for recitation classes on Tuesdays (12:00-12:50pm in THACK525, THACK627 and EBERL209 respectively). The 3 recitation instructors will help you go over the practice problems as well as review for quizzes and exams.

We will have **FIVE** quizzes in recitation classes which cover the material since the last quiz or midterm exam (see the schedule table below). There is no make-up quiz, instead we will drop your lowest quiz grade when calculating your final letter grade.

Labs

Each Thursday, you need to attend a lab session led by the recitation instructors (12:00-12:50pm in GSCC 126), which trains your problem solving skills via an online learning system called **LON-CAPA.**
(login : http://homework.math.pitt.edu/adm/roles;
instruction: http://www.math.pitt.edu/~athanas/4instructors/loncapadirections.pdf).

If you can not finish all lab problems in the session, you are allowed to bring them home.
Note: your performance in lab assignments counts for 10% of your final letter grade.

Exams

We will have TWO on-class midterm exams on Wednesday 10/5 and Friday 11/11 (please mark your calendar). No make-up midterm exam will be given. However, in the case of a *well-documented* medical emergency, your scores on the missing midterm exam will be the prorated by your another midterm exam and final exam.

The final exam will be held on December 15th, 12:00-1:50 pm.

All exams are closed-book and closed-notes. No formula sheets or graphic calculators are allowed during the exams.

Grades

Your final letter grade will be determined according to the following weights:

Quiz Average	15%
Lab Assignments	15%
Two Midterm Exams	40% (20% each)
Final Exam	30%

Note: According to the department policy, your final letter grade should not exceed your final exam grade by more than one letter grade. Also, beware that a grade of C or better in Calculus I is a prerequisite for Calculus II.

Courseweb

I will put announcements, quizzes answers, exams answers and other useful materials on the courseweb (log into my.pitt.edu, there is an access link on the right-hand-side).

For the general guideline for Calculus 1, see http://calculus.math.pitt.edu/syllabi/0220syllabus.html.

Tutoring

Walk in tutoring is available in the Calculus/Engineering Lab or help with computer work and in the Math Assistance Center (MAC) on the third floor of Thackeray Hall for assistance with pencil and paper work. Tutoring hours will be posted outside the lab and the MAC, as well as on the web at http://calculus.math.pitt.edu

Disability Resource Services

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the Office of Disability Resources and Services, 216 William Pitt Union (412) 624-7890 as early as possible in the semester.

Advices

1. You are expected to browse the new material before each lecture to get a sense: which parts seem easy to you and which need more attention during the class.

2. You can arrive a little bit later but enter the classroom quietly. Please do not make noise during the lecturing to distract your fellow students. You are not allowed to leave the class earlier unless you have a certified reason.

3. Please do each practice problem before the recitation class (solutions to the odd # problems are listed in the back of the textbook). Then you can bring your questions, concerns to the recitation class and get helped rather than sitting there copying the answers. Please make the most use of the recitation classes as well as office hours.

4. Make a solid progress in the course: Whenever you encounter difficulties, please visit my office hours as soon as possible. Do not wait until the exams are coming.

Schedule and Practice Problems

M	Tu	W	Th	F
8/29 **Sec1.1: Functions** 1-8, 10, 14-17, 19-51, 53-61		**8/31** **Sec1.2: Catalog of functions** 1-5, 9-13, 15-20, 21-34, 37, 38, 52-55		**9/2** **Sec1.3: Limits** 1-8, 11, 13, 16, 19, 20
9/5 **Labor Day: NO CLASS**	**9/6** **QUIZ 1**	**9/7** **Sec1.4: Calculating limits** 1-24, 28, 29, 31-37, 43-48, 56		**9/9** **Sec1.5: Continuity** 3-7, 13-16, 23, 24, 29-33, 35-42
9/12 **Sec1.6: Limits involving infinity**		**9/14** **Sec2.1: Derivatives and rates** 1-20, 23-37, 41-43		**9/16** **Sec2.2: Derivatives as fcns**

1-5, 9, 10, 13-31, 38, 39, 43, 45				1-12, 17-23, 27-31, 33, 39, 40
9/19 **Sec2.3: Derivative formulas** 1-26, 29-44, 49-52	**9/20** QUIZ 2	**9/21** **Sec2.4: Products and quotients** 1-30, 33-36, 41-44, 46, 51, 52		**9/23** **Sec2.5: Chain Rule** 1-40, 43-50, 57, 58
9/26 **Sec2.6: Implicit Differentiation** 1-26, 31, 39		**9/28** **Sec2.7: Related Rates** 1-38		**9/30** **Sec2.8: Linear Approximation** 1-24
10/3 **Review**		**10/5** # Midterm Exam 1 **on class**		**10/7** **Sec3.1: Exponentials** 7-18, 23-30
10/10 Fall Break: **the class moved to 10/11 !!**	**10/11** **Sec3.2: Inverses and logs** 3-26, 31-38, 43-54, 59-66, 69-74	**10/12** **Sec3.3: Derivatives of logs and exponentials** 1-42, 45-58		**10/14** **Sec3.4: Exponential growth and decay** 1-20
10/17 **Sec3.5: Inverse trig fcns** 1-10, 16-38	**10/18** QUIZ3	**10/19** **Sec3.6: Hyperbolic functions** 1-19, 26-41		**10/21** **Sec3.7: L'Hopital's Rule** 1-36, 46
10/24 **Sec4.1: Extrema** 3-10, 15-48, 64		**10/26** **Sec4.2: Mean Value Theorem** 5, 15, 17, 18, 23, 27, 29		**10/28** **Sec4.3: Shape of graphs** 1-10, 13-17, 21-42
10/31 **Sec4.4: Curve Sketching** 1-44	**11/1** QUIZ4	**11/2** **Sec4.5: Optimization** 7-17, 23, 46, 48		**11/4** **Sec4.6: Newton's Method** 1, 2, 4-7, 9-12
11/7 **Sec4.7: Antiderivatives** 1-20, 31-37, 46		**11/9** **Review**		**11/11** # Midterm Exam 2 **on class**
11/14 **Sec5.1: Area and distance** 1-5, 7-9, 11, 12		**11/16** **Sec5.2: Definite integral** 1-4, 7, 9-14, 29-36, 45-47		**11/18** **Sec5.3: Evaluating integrals** 1-32, 45-62
11/21 **Sec5.4: Fundamental Theorem of Calculus** 1-18, 25-28	**11/22** QUIZ 5	**Thanksgiving holidays: NO CLASS**		
11/28 **Sec5.5: Substitution** 1-50		**11/30** **Sec6.1: Integration by parts** 1-28		**12/2** **Sec6.2: Trigonometric integrals** 1-34
12/5 **Sec6.2: Trig Subustitutions** 37-62		**12/7** **Review**		**12/9** **Review**
		12/15 **Final exam: 12:00-1:50pm**		