

Mathematics 150 Calculus I Summer 2009

Time and Location: Online class. There are no scheduled meetings

Instructors: Steven E. Rigdon, SL1326, (618) 650-2193, srigdon@siue.edu
George Pelekanos, SL 1318, (618) 650-2342, gpeleka@siue.edu

Office Hours: **Rigdon:** TBA

Pelekanos: TBA

Prerequisite: MATH 125 or equivalent, with a grade of C or better.

Textbooks: *Calculus, 9th Edition* by Varberg, Purcell, and Rigdon with *MathXL*.
Student Solutions Manual (Be sure to get the 9th Edition). This book is available directly from prenhall.com.
Here is the detailed information if you want to get the book on-line. Be sure to get the book plus MathXL.

CALCULUS & MATHXL ONLINE 24 MONTH ACC PKG

© 2007 | Prentice Hall | Kit/Package/ShrinkWrap; | Instock
ISBN-10: 0131882716 | ISBN-13: 9780131882713

Grading Scheme:

Item	Points	Percentage	Grade
On-Line Homework	100	90% - 100%	A
On-Line Quizzes (6 @ 50)	300	80% - 90%	B
Midterm Exam	150	70% - 80%	C
Final Exam	250	60% - 70%	D
TOTAL	800	0 - 60%	F

Schedule for Quizzes:

There will be 6 on-line quizzes, which are labeled quizzes 0, 1, 2, 3, 4, and 6. (We cover chapters 1 – 4 and 6 in calculus I. Chapter 0 is prerequisite material.) You must receive 70% on each quiz in order to take the next quiz.

Quiz	Covers	Goal	Deadline
0	Chapter 0	Friday, May 29	Wednesday June 3
1	Chapter 1	Wednesday June 3	Wednesday, June 10
2	Chapter 2	Friday, June 19	Friday, June 26
3	Chapter 3	Friday, July 3	Friday, July 10
4	Chapter 4	Monday, July 13	Monday, July 20
6	Chapter 6	Monday, July 27	Monday, August 3

If you fail to meet the deadline, you will still be required to get the requisite score of 70% in order to take the subsequent quiz, but you will get no credit for quizzes taken after the deadline.

For example, suppose you successfully passed quizzes 0, 1, and 2 on or before the deadlines. But, for quiz 3, you scored only a 55% on your attempts before the deadline. In this case, your quiz 3 score will be recorded as a 55%, but you will not be able to take quiz 4 until you get a 70% on quiz 3. Thus, you must retake quiz 3 until you get the requisite 70% before you are allowed to take quiz 4.

Quizzes must be proctored. We will offering proctoring at SIUE from 3:00 – 6:00 on Monday, Wednesday and Friday afternoons. There is no fee for using the proctoring service at SIUE. If this does not work for you, you may arrange your own proctoring at a reputable site. At least two days before you use a proctoring site for the first time, you must give us the details, including the name of the proctor, the site, phone number, and e-mail address. It is your responsibility to pay any required fees. Some community colleges and libraries provide proctoring for free if you live in their district, while others charge fees. See

<http://www.ivc.illinois.edu/student/proctoring.asp>

for a list of sites in Illinois.

To Do Well in an On-line Calculus Course: Here are some suggestions for doing well in this class:

1. STAY ON SCHEDULE !! This syllabus contains an outline of the course, as if the course met three times per week. Normally, calculus is covered in a 15-week semester. Our summer course is only 10 weeks long, and there are two holidays, so more material would be covered in one class period in the summer than in a regular semester.
2. Read the textbook and worked out examples. Do the CONCEPTS REVIEW section in the calculus book itself, and then (only then) do the MathXL homework.
3. Be very careful when entering the solutions to MathXL. It is very picky about syntax.
4. Write clear and concise notes as you read the book and work through the worked out examples. This way, when you are studying for an exam, you will be able to understand what you have done.
5. If you have difficulty, see the instructors, the tutors in the Tutor Lab (SL1224), or another student in the class. The Tutor Lab hours will be posted early in the term. No appointment is necessary, and the service is provided free of charge. The *Student Solution Manual*, available in the Bookstore, may also be helpful. One of the features of MathXL is the “Ask Your Instructor”. When you are working on a problem, you will see this as a help option. Clicking on it will open up an e-mail with a link to the problem. When we see your question, we will also see a link to the problem. If you find errors, please report them to us.
6. Use whatever resources you can find on the internet. The site

<http://www.math.armstrong.edu/faculty/hollis/calcvideos/>

contains a number of nice videos that explain calculus. If you search around at google.com you may find some other nice tools.

Course Schedule:

Here is a guide to use in order to pace your work.

Week	Monday	Wednesday	Friday
(1) May	25 Memorial Day	27 1.1 Introduction to Limits	29 1.2 Rigorous Study of Limits
(2) June	1 1.4 Limits Involving Trig Functions 1.5 Limits at Infinity; Infinite Limits	3 1.6 Continuity of Functions DEADLINE FOR CHAPTER 0 QUIZ	5 2.1 Two Problems with One Theme 2.2 The Derivative
(3) June	8 2.3 Rules for Finding Derivatives	10 2.4 Derivatives of Trig Functions 2.5 The Chain Rule DEADLINE FOR Chapter 1 QUIZ	12 2.5 The Chain Rule (continued) 2.6 Higher-Order Derivatives
(4) June	15 2.7 Implicit Differentiation	17 2.8 Related Rates	19 2.9 Differentials & Approximations
(5) June	22 3.1 Maxima and Minima 3.2 Monotonicity and Concavity	24 3.3 Local Maxima and Minima 3.4 Practical Problems	26 3.4 Practical Problems (cont.) 3.5 Graphing Functions DEADLINE FOR Chapter 2 QUIZ
(6) June/July	29 3.6 The Mean Value for Derivatives [Skip 3.7]	1 3.8 Antiderivatives (Indefinite Integrals)	3 3.9 Introduction to Differential Equations
(7) July	6 4.1 Introduction to Area 4.2 The Definite Integral	8 4.3 FIRST FUNDAMENTAL THEOREM OF CALCULUS MIDTERM EXAM – Chapters 1-3	10 4.4 Second Fundamental Theorem of Calculus DEADLINE FOR Chapter 3 QUIZ
(8) July	13 4.5 The Mean Value Theorem 4.6 Numerical Integration	15 6.1 The Natural Log Function 6.2 Inverse Functions and Their Derivatives	17 6.3 The Natural Exponential Function
(9) July	20 6.4 General Exponential and Log Functions DEADLINE FOR Chapter 4 QUIZ	22 6.5 Exponential Growth and Decay	24 6.8 The Inverse Trig Functions and Their Inverses
(10) July	27 6.9 The Hyperbolic Functions and Their Inverses	29 Review	31 Review
Final Exam Week August	3 DEADLINE FOR Chapter 6 QUIZ	The final exam must be taken on Wednesday August 5 or Thursday August 6	

Midterm Exam: The midterm exam will be on July 7 or 8 and it will cover Chapters 1 through 3. As with the on-line quizzes, you must arrange for proctoring. Details about appropriate calculators and other materials will be provided before the tests.

Final Exam: The final exam will be on August 5 or 6. As with the on-line quizzes, you must arrange for proctoring. Details about appropriate calculators and other materials will be provided before the tests.

Homework: Homework will be done on MathXL, a software package that is correlated with the textbook. The software automatically keeps track of your progress on the homework. Note that we will assign homework problems from Chapter 0 “Preliminaries”. Do these as soon as possible, but not at the expense of doing the Chapter 1 homework. [If necessary, do these in parallel with the Chapter 1 homework.]

When you receive the MathXL packet, it will contain an access code. To register, you will need this access code and a valid e-mail address (preferably your SIUE e-mail address). When you first log in, you will need this code. At some point you will need SIUE’s zip code, which is 62026. Select SIUE among the colleges listed and then select

MATH 150 Summer 2009 On-line

If you would like a brief tutorial, go to these URLs

http://media.pearsoncmg.com/cm/pmmg_mml_shared/Register/Register.html
http://media.pearsoncmg.com/cm/pmmg_mml_shared/Enroll/Enroll.html

The first time you run MathXL, you will have to run through the Installation Wizard. This will help you install all of the plug-ins that are required to run MathXL. Depending on how many of these you already have on your computer (like Adobe Reader, Flash Player, etc.), your download speed, and how computer savvy you are, this could take anywhere from 15 minutes to one hour. Here is a URL for some tutorials on MathXL.

<http://mathxl.com/support/tours.htm>

Discussion Board: In addition to MathXL, we will also be using BlackBoard. You can access BlackBoard by going to

<http://bb.siue.edu/>

Note that there is no “www” at the beginning. Your username and password are your SIUE e-ID number and password. Under “My Courses” you should see

MATH150 500 Calculus I – Summer 2009

This is our course. (Note the “500” which indicates the on-line course.) There is another MATH 150 course on BlackBoard this summer. We have set up a discussion board. Throughout the summer term, we will occasionally post questions, which you are free to answer. You may also post questions yourself. Your posts will be seen by both instructors and all other members of the on-line class. Your performance in the discussion board is not directly part of your grade, but you may find this helpful. For borderline grades, we may consider your participation in the Discussion Board.

Announcements: Most announcements will be posted in MathXL. Check you MathXL account often. We will sometimes send out notices by e-mail (through BlackBoard) to your SIUE account. Note that if you drop the course, your e-mail address will remain in BlackBoard’s list, so you will continue to receive e-mails from us.

Dedication and Time Commitment: In a regular class, students are expected to do two hours of work outside of class for every hour in class. MATH 150 (Calculus I) contains the same amount of material whether it is taken in the summer or a regular semester, whether it is on-line or in a regular class session. A 5-credit course should meet for $5 \times 15 = 75$ academic hours (an academic hour is 50 minutes), which is equal to 3750 minutes. Your out-of-class time commitment should be twice that, or 7500 minutes. This is 11,250 minutes total, or 18.75 hours per week. Depending on how quickly you pick up the material, it may take you longer.

Therefore,

**IF YOU DON'T HAVE
TIME TO SPEND AT
LEAST 20 HOURS PER
WEEK STUDYING
CALCULUS, THEN YOU
SHOULD RETHINK
WHETHER THE ON-LINE
COURSE IS FOR YOU.**

Cheating: Having someone do the course work for you is a serious offense, which can be punished by a failing grade on the assignment, a failing grade for the course, or expulsion from the university. If you take credit for work, make sure it is your own work.

Not all students will be taking exams at the same time, although most should take them the same day. Divulging information about an exam or receiving information about an exam is cheating, which can be punished by a failing grade on the exam, a failing grade for the course, or expulsion from the university.

Disclaimer: Although we intend to adhere to this schedule and grading criteria, these are subject to change in the event of unforeseen circumstances.