

Spring 2013 - Math 131:504 Mathematical Concepts - Calculus

INSTRUCTOR: Sanghyun Lee
WEB PAGE: <http://www.math.tamu.edu/~shlee>
E-MAIL: shlee@math.tamu.edu
OFFICE: Blocker 505E
PHONE: -
OFFICE HOURS: TBA(Check the webpage!)

TIME/LOCATION: Section 504: TR, 08:00-09:15 am, Blocker 166

TEXT: *Single Variable Calculus: Concepts & Contexts*, 4th edition, by Stewart.

Note: When you registered for this class, you paid for an electronic version of the textbook and access to your online homework. Thus, you are not required to purchase a hard copy of the textbook (although there is a loose-leaf, 3 hole punched paper version available at the bookstores for a low price). For more information go to <http://www.math.tamu.edu/courses/eHomework> and click on "Student Information Page".

COURSE TITLE and DESCRIPTION: *Mathematical Concepts - Calculus*. Credit 3. Limits and continuity; rates of change, slope; differentiation: the derivative, maxima and minima; integration: the definite and indefinite integral techniques; curve fitting.

PREREQUISITES: High school algebra I and II and geometry. Credit will not be given for more than one of MATH 131, 142, 147, 151 and 171.

COURSE WEB PAGE: My course web page will be a source of communication to you aside from class, office hours, and email. There, you will find a course calendar, a link to the departmental web page for the course, as well as links to the Math 131 Help Session and Week in Review schedules.

EMAIL POLICY: Check your official TAMU email account EVERY day. You are responsible for any information I send via email. Also, because of privacy rights, I cannot discuss grades via email. **Note: Due to the large volume of students, there is no guarantee you will receive a same day reply to an email. Start your studying and/or homework in plenty of time so you can stop by my office hours or a Math 131 Help Session to be sure your questions are answered.** Also, please include your full name, course number (131), and section number in your email.

CELL PHONE POLICY: All cell phones must be turned OFF and out of sight during class (**NO TEXTING!**).

CALCULATOR POLICY: This course **REQUIRES** that you have a TI-83 or TI-84 (Plus or Silver edition) calculator or the TI-Nspire (non-CAS version). It will be allowed on most quizzes and exams. Calculator programs that may be provided for this course are for these calculators only. I will **NOT** discuss other calculators. **TI-89 and above calculators are NOT allowed.** Furthermore, the only programs that are allowed on your calculator are those I provide you with (if any) during class. All other programs must be erased from the calculator. You can save these to your computer and add them back to the calculator after your final exam if you wish.

GRADING POLICY:

Exam I	17%	
Exam II	17%	
Exam III	17%	
Comprehensive Final Exam	23%	A= 90 – 100%
Quiz Average	14%	B= 80 – 89%
Homework Average	9%	C= 70 – 79%
Attendance	3%	D= 60 – 69%
Total	100%	F= 0 – 59%

*****At the end of this semester, you will receive the grade you earned in the course according to the distribution above (no exceptions).**

MAKE-UP POLICY: No make-ups will be given without written evidence of an official University excused absence (see *University Student Rules*). In addition, you must notify me **NO LATER** than the end of the second working day after the missed assignment:

... the student must notify his or her instructor in writing (acknowledged e-mail message is acceptable) prior to the date of absence if such notification is feasible. In cases where advance notification is not feasible (e.g. accident or emergency) the student must provide notification by the end of the second working day after the absence. This notification should include an explanation of why notice could not be sent prior to the class. (Section 7.3 of the *University Student Rules*)

*****If no such notice is given, the rights to a make-up are forfeited.** Specifically, in the case of injury or illness, students are required to obtain a confirmation note from a health care professional affirming date and time of a medical office visit regarding the injury or illness. I will NOT accept the "Explanatory Statement for Absence from Class" form as sufficient written documentation of an excused absence.

LATE WORK POLICY: Late work (for which you do not have a University approved excused absence) will NOT be accepted. This includes all written and online assignments.

EXAMS: There will be three exams and a **comprehensive** final exam. You must bring a picture id (student id or driver's license) to the exam.

NO make-up exams will be given without a University approved excused absence (with written proof). If you have an excused absence for an exam, you must contact me **NO LATER** than the second working day after the exam to schedule a make-up exam (see *University Student Rules*).

Tentative Exam Schedule:

Exam I: Tuesday, 12, Feb. 2013

Exam II: Thursday, 21, Mar. 2013

Exam III: Thursday, 18th, Apr. 2013

Final Exam Schedule:

Section 504: 1pm-3pm, Monday, 6th, May. 2013

*****Any question regarding grading must be done the day an assignment is returned to you, or NO change will be made. If there is an adding mistake, you have one week from when the assignment is returned to you to have the correction made.**

QUIZZES/GRADED HOMEWORK: Quizzes will be given regularly throughout the semester. If you miss a quiz, you must have written proof of a University approved excused absence AND contact me **NO LATER** than the second working day after the quiz to schedule a make-up quiz (see *University Student Rules*). Some of the in-class quizzes will be announced a few days before they are given, while others will not be announced. Some quizzes and/or graded homework assignments will be completed online using your WebAssign computer account, while others may be given as take-home assignments. Please go to <http://www.math.tamu.edu/courses/eHomework/> to access your online homework.

SUGGESTED HOMEWORK: A list of suggested homework problems will be posted on the course web page. These problems will not be collected for a grade, but it is **IMPERATIVE** that you do the assigned problems on the suggested homework problems list to prepare for the quizzes and exams. Visit me during office hours if you have questions about problems you do not understand, or attend a Math 131 Help Session.

ATTENDANCE: I **STRONGLY** suggest that you attend every lecture. Falling behind in this course can be very detrimental to your grade. **If you miss lecture, you must have an official University excused absence (with written proof) in order to hand-copy my notes (during office hours).** 3% of the grade will be about attendance, and will discuss how to evaluate the attendance.

HELP SESSIONS: The times and locations for Math 131 Help Sessions will be announced by the second week of classes and can be found on my course web page. The help sessions have drop-in hours where you can get help with your suggested homework, online homework, class notes, or other problems. These help sessions are an *excellent* source of help, especially if you are unable to attend my office hours.

WEEK IN REVIEW: The Math 131 Week in Review is held by a lecturer in the math department and will cover the material taught in class the previous week. The direct link to the Week in Review can be found on our course web page. There, you will find the times, locations, and practice problems for each review. You should print the practice problems and bring them with you to the Week in Review.

SCHOLASTIC DISHONESTY: Copying work done by others, either in-class or out-of-class, is an act of scholastic dishonesty and will be prosecuted to the full extent allowed by University policy. Collaboration on assignments, either in-class or out-of-class, is forbidden unless I grant permission. If you cheat on an assignment, you will receive a zero. Also, you will be reported to the University. Another form of cheating is typing formulas in the calculator or using programs that give you an advantage over classmates. If I catch anyone cheating this way, you will get a zero on the assignment and be reported to the University for cheating.

Remember the Aggie Code of Honor: **“An Aggie does not lie, cheat, or steal or tolerate those who do.”**

For more information about the Honor Council Rules and Procedures visit the web site: <http://www.tamu.edu/aggiehonor>

SCHOLASTIC DISHONESTY WILL NOT BE TOLERATED!

COPYRIGHT POLICY: All printed materials disseminated in class or on the web are protected by Copyright laws. One copy (or download from the web) is allowed for personal use. Multiple copies or sale of any of these materials is strictly prohibited.

STATEMENT ON DISABILITIES ACT: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit <http://disability.tamu.edu>

Note: I must have written proof of the necessary accommodations before a quiz or exam, not the day of.

LEARNING OBJECTIVES:

- Identify basic functions and use them to model real-life situations.
- Compute limits numerically, graphically, and algebraically, and apply them to the concept of continuity.
- Understand the limit definition of the derivative and calculate derivatives of various functions using the limit definition and differentiation formulas.
- Compare the graph of a function with the graphs of the function's first and second derivatives.
- Find the local and absolute extrema of functions, including optimization applications.
- Compute antiderivatives and understand the concept of integration as it relates to area.
- Use the Fundamental Theorem of Calculus to evaluate integrals, including the method of substitution.
- Apply integration as it relates to area between curves, the average value of a function, and further applications.

TENTATIVE WEEKLY SCHEDULE: (Any changes will be reflected on the calendar on our course web page.)

Week #	Lecture Section	Description
1.(1/14)	1.1, 1.2	
2.(1/21)	1.3, 1.5, 1.6	
3.(1/28)	2.1, 2.2, 2.3	
4.(2/4)	2.4, 2.5, Review	
5.(2/11)	Exam I, 2.6, 2.7	Exam 1 covering 1.1-1.3, 1.5, 1.6, 2.1-2.5
6.(2/18)	2.7 2.8, 3.1	
7.(2/25)	3.2, 3.3, 3.4	
8.(3/4)	3.7, 3.8, 3.9	
9.(3/11)	Spring Break	
10.(3/18)	4.2, Review, Exam 2	Exam 2 covering 2.6-2.8, 3.1-3.4, 3.7-3.9
11.(3/25)	4.3, 4.6	
12.(4/1)	4.8, 5.1, 5.2	
13.(4/8)	5.3, 5.4, 5.5	
14.(4/15)	6.1, Review, Exam 3	Exam 3 covering 4.2, 4.3, 4.6, 4.8, 5.1-5.5
15.(4/22)	6.5, 6.7, Review	
16.(4/29)	No Class	
(5/6)	Final Exam	Comprehensive Final Exam covering all previous sections as well as 6.1, 6.5, and 6.7