

Syllabus

Course: MA 120 - 105
Calculus and Its Applications

Instructor: Kristine King
Office Hours: By appointment

Time: 9:30 – 10:45 Tuesday/Thursday
Fall 2009

H: 639-7485 **C:** 401-9734 (voice/txt)
Math Dept: 460-6264 (leave message with secretary)
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Tuesday	Thursday	Tuesday	Thursday
8/18 Introduction; Ch. 0.1; Pre-Requisite Wksht	8/20 Ch. 0.2, 0.4, 0.5	8/25 Ch. 0.6, 1.1	8/27 Ch. 1.1, 1.2; Quiz #1-in class; Pre-Requisite Wksht Due
9/1 Ch. 1.2, 1.3, 1.6	9/3 Ch. 1.6, 1.7	9/8 Ch 1.7, 1.8	9/10 Ch. 1.8, Review, Catch Up
9/15 Test #1	9/17 Ch. 2.1, 2.2	9/22 Ch. 2.2, 2.3	9/24 Ch. 2.3, 2.5 Quiz #2-in class
9/29 Ch. 2.5, 2.7	10/1 Ch. 2.7, Review, Catch Up	10/6 Test #2	10/8 Ch. 3.1, 3.2
10/13 Ch. 4.2, 4.3	10/15 Ch. 4.4, 4.5	10/20 Ch. 4.5, 5.1	10/22 Ch. 5.1, 5.2 Quiz #3-in class
10/27 Ch. 5.2, 5.3	10/29 Ch.5.3, Review, Catch Up	11/3 Test #3	11/5 Ch. 6.1
11/10 Ch. 6.3	11/12 Ch. 6.5	11/17 Review/Catch Up	11/19 Make-Up Quiz or Group work; Final Exam Review
11/24 No Class	11/27 Thanksgiving Day	12/1 Review for Final Exam	

Final Exam: Tuesday, December 8th @ 10:30 am – 12:30 pm
(Covers all sections discussed in class)

Each student is required to take the final exam. The exam has multiple choice questions with all chapters/sections discussed in class represented. A comprehensive review guide will be made available. If you must miss the final exam, contact me prior

to the exam date to take the exam early. Any student who misses the final exam and does not notify me on or before the day of the exam will receive a zero on the final exam.

Student Information

Text: Calculus & Its Applications, 12th edition, by Goldstein, Lay, Schneider and Asmar. Pearson Education, Inc., 2010.

Course Content: Introduction to calculus with an emphasis on problem solving and applications. Key concepts are presented graphically, numerically and algebraically, although the stress is on a clear understanding of graphs and tabular data. The course covers: algebraic, exponential and logarithmic functions, their properties and their use in modeling; the concepts of derivative and definite integral and their applications to marginal analysis, optimization and applications to optimization problems.

Goals of Course: This course is designed to offer a conceptual understanding of the derivative and the definite integral. The main ideas from differential and integral calculus are examined with an emphasis on the numerical and graphical aspects. The ultimate goal is to provide skills in interpreting numerical data and in modeling real-world phenomena where rates of change or total changes are involved.

Course Compass/MyMathLab: This is an optional, but highly recommended, on-line program coinciding with the text for this course. After registering, students will be able to do bonus assignments online as well as check their grades in this course. In addition, extra practice problems, online textbook, odd numbered homework answers, free tutoring, etc. are available on this site. Students using CourseCompass must be sure to keep up with availability dates for assignments.

Go to www.coursecompass.com

Click Register under Students

Course ID: king85218

School Zip Code: 36688

Instructor's Page: Additional course notes will be made available online. A handout listing relevant website addresses and information regarding bonus will be provided in class at a later date.

Homework: Homework is assigned on page 5 of this handout. It is recommended that homework be completed for practice for upcoming group work, quizzes and tests. Homework completed on course compass is eligible for bonus points on corresponding tests.

Quizzes: Quiz dates are listed on the first page of this handout.

Group Work/Participation: Group work will be assigned during class as lectures permit. Participation points and group work points will be part of the final grade for the course.

Tests: There will be three tests. Each test is worth 14 points and all students are expected to take the tests on the days they are scheduled. However, if you know ahead of time that you will not be present for a test, contact the instructor in advance so that you can take the test early. If you have missed a test, you may contact the instructor and request to take the test before the start of the next class meeting. You must ask the instructor before the next class begins in order to have the opportunity to take a missed test. If you do not take a test, then your final exam grade will replace your missed test score. Otherwise, if you have taken all three scheduled tests, your final exam grade will replace your lowest test score, provided the final exam score is higher.

Grades: Grades will be calculated as follows:

1. Pre-Requisite Worksheet = 3 points total (score of 23 to 25 = 1 pt;
score of 26 to 29 = 2 pts; score of 30 to 33 = 3 pts)
2. Quizzes = 3 quizzes @ 5 points each = 15 points
3. Group Work/Participation = 4 group work/participation @ 5 points each = 20 pts
4. Tests = 3 tests @ 14 points each = 42 points
5. Final Exam = 20 points total

Total Possible Points (not including bonus) = 100

90 - 100 = A

80 - 89 = B

70 - 79 = C

60 - 69 = D

59 or below = F

Posted Grades: The final grades for this course will be posted online on PAWS. Those students using CourseCompass will be able to see all of their grades during the semester and will be able to see their final grade sooner than it will appear on PAWS.

Dropping the course: If you are considering dropping this course, before doing so please speak with me or contact the Mathematics/Statistics Chair, Dr. S. Carter or the Assistant to the Chair, Dr. S. Mishra.

Attendance: Students are expected to attend every class session. It is the student's responsibility to **sign the class roll** for each class attended. If you miss signing the roll when it is passed around during lecture, make sure to sign it after class.

If a class is missed the student should contact the instructor or another class member to find out what material was presented. It is the responsibility of the student to inform the instructor when circumstances arise that cause the student to miss several classes so that makeup work can be arranged in a timely manner. Otherwise, several absences and missed work may result in failure for the course.

Tutoring: Free tutoring can be obtained in the math tutoring lab located in ILB 456. Also, students registered on www.coursecompass.com have access to free tutoring on textbook problems. PLEASE seek tutoring help at the first sign of difficulty.

Instructor availability: Instructor will be available from approximately 9:00 – 9:30 a.m. and 10:45 – 11:00 a.m. on class mornings either in the math department (ILB 325) or in this classroom. As the need arises, instructor will also be available for approximately 30 minutes after the 11:00 class from 12:15 – 12:45. If these times are inconvenient for students it is suggested that other arrangements be made with a fellow student, an outside tutor, the math tutoring lab (ILB 456) or online tutoring available on CourseCompass, if additional help is needed.

**The BEST way to reach me outside of class hours is to call me at home or on my cell phone. Leave a message with your name and phone number so that I can call or text you back. You may also e-mail me, although I do not check my e-mail messages as often as my phone messages.

Calculator: A graphing calculator is **highly recommended**, but not required for this course. Specifically, the TI-83 or TI-84 graphing calculator is recommended as the textbook gives examples using the family of TI-83/84 calculators. The instructor plans to use a TI-83 or TI-84 for class lectures with references to technology problems from the textbook. A student using a different graphing calculator is responsible for learning how to operate his/her own calculator. If you do not purchase a graphing calculator you may use your laptop in class and go to the website: <http://www.webgraphing.com/> and use this free calculator online during class. You must explore this site so that you can use it in class.

Courtesy: Please stow away all phones during class—no texting. Please be courteous to other students and the instructor during the lecture by being as quiet as possible so as not to cause distraction. And, please wait until the instructor dismisses the class before packing up books as this movement causes distraction to the instructor as well as to other students around you.

Disabilities: The University offers special services for students with disabilities. Students who register with Disabled Student Services and need special accommodations for this course should let the instructor know.

Changes to syllabus: Any changes deemed necessary in course assignments or dates on this syllabus will be announced in class.

Homework

Although homework is not graded, all students should complete each of the problems listed below in order to be prepared for upcoming group work, quizzes and tests. Those students using Course Compass to complete homework assignments are eligible for bonus points on corresponding tests. All the assigned problems can be found in either your textbook or on CoursesCompass.

Homework #1 problems	
Chapter 0.1	#1, 5, 7, 11, 22, 23, 25, 35, 37, 43
Chapter 0.2	#1, 5, 11, 15, 17
Chapter 0.4	#1, 5, 13, 15, 17, 25, 27, 39
Chapter 0.5	#9, 13, 17, 19, 21, 25, 43, 46, 55, 57, 61, 87, 89, 93
Chapter 0.6	#11, 15, 21, 23, 25, 28, 31, 33, 41
Chapter 1.1	#1, 6, 9, 27, 31, 41, 47, 51
Chapter 1.2	#1, 3, 21, 23, 25, 29, 37
Chapter 1.3	#1, 9, 11, 17, 19, 25, 27, 33, 37, 49, 51
Chapter 1.6	#3, 5, 7, 9, 13, 15, 19, 39, 42, 43, 57
Chapter 1.7	#5, 11, 15, 19, 21, 25, 31, 39
Chapter 1.8	#1, 3, 7, 9, 13, 14
Homework #2 Problems	
Chapter 2.1	#1, 3, 7, 11, 17, 31
Chapter 2.2	#1, 3, 5, 19
Chapter 2.3	#1, 3, 7, 17, 23, 25, 27, 29
Chapter 2.5	#1, 3, 5, 11, 15, 17
Chapter 2.7	#1, 7, 9, 11
Homework #3 Problems	
Chapter 3.1	#3, 5, 11, 13, 25, 52, 55
Chapter 3.2	#11, 13, 17, 45
Chapter 4.2	#5, 25, 26, 27, 37, 39, 43
Chapter 4.3	#1, 3, 13, 16, 17, 19, 23, 33, 34, 35
Chapter 4.4	#7, 13, 15, 19, 31, 41
Chapter 4.5	#1, 3, 4, 11, 14, 19, 21, 25, 33
Chapter 5.1	#1, 4, 5, 9, 11, 13, 17, 21, 25, 27
Chapter 5.2	#3, 5, 7, 10, 11, 13, 19, 21
Chapter 5.3	#1, 5, 13, 15, 19, 23
Homework #4 Problems	
Chapter 6.1	#3, 6, 7, 13, 14, 16, 17, 19, 23, 37, 41, 43, 45, 55, 61, 65
Chapter 6.3	#1, 4, 8, 9, 13, 17, 25, 29, 31, 32, 35, 39
Chapter 6.5	#1, 7, 11, 17, 19, 21, 23