Math 1100-001
Summer 2008
A. McDonald

Course Syllabus

Instructor: Aaron McDonald
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Office Help: TBD

Class Meetings: Monday, Wednesday, Friday from 7:30 - 9:00 AM in LCB 225
Webpage: http://www.math.utah.edu/~amcdonal/teaching/summer08.html
Text: Mathematical Applications: For the Management, Life, and Social Sciences; Special Eighth Edition for the University of Utah, Volume II

Prerequisites: Successful completion of Math 1050 or Math 1090 with a grade of C or better

Grading: Your grade in this course will be based on homework, quizzes, and one comprehensive final exam. Additionally, you will need to submit a final review packet and perform at least one public display of mathematics (PDM) during class this semester. Quizzes will be given every Friday at the beginning of class. Make-up quizzes will only be given in extenuating circumstances, and only if I am notified before the testing date. It is your responsibility to keep yourself informed on course requirements and due dates.

The Breakdown:
- Homework: 30%
- Quizzes: 40%
- Final Review Packet: 10%
- Final Exam: 20%

Grading Scale:
- A: 93-100
- A-: 90-92
- B+: 87-89
- B: 83-86
- B-: 80-82
- C+: 77-79
- C: 73-76
- C-: 70-72
- D+: 67-69
- D: 63-66
- D-: 60-62
- E: < 60

Homework: Homework will be announced during class and listed on the course webpage. You are responsible for handing in homework before class begins on homework due dates. Late homework will not be accepted. Should you plan to be absent on a day homework is due, you should make the necessary arrangements to turn in your work before your absence. In consideration of those grading your work, please be legible and clear. At the end of the semester, I will drop your lowest homework score.

Final Exam: Friday, August 1, 2008 from 7:30 - 9:30 AM
Outside of Class Communication:
You need to have a valid email address registered with Campus Information System. I will send emails to the class using this service and expect that you will check it regularly so that you are up-to-date on course announcements.

Mathematics Tutoring Center:
The Mathematics Tutoring Center offers FREE, drop-in tutoring to students enrolled in Math 1100, among others. They will also arrange group tutoring sessions. The tutoring center is open 8:00 AM - 8:00 PM Monday through Thursday and 8:00 AM - 6:00 PM on Fridays. The tutoring center is closed on weekends, University holidays, and during semester finals. For more help, the University Tutoring Services office in SSB 330 offers inexpensive private tutoring, and a list of private tutors are available from the math department office.

Drop-in Computer Lab:
All students enrolled in a math class have access to the undergraduate computer lab located next to the Tutoring Center. The lab is open the same hours as the Tutoring Center. Computational packages such as Maple, Mathematica, and Matlab are available on these computers. These packages have many capabilities, such as performing basic algebraic and calculus operations, and are particularly well-suited for visualization and graphics.

Classroom Behavior:
Respectful behavior is expected in my classroom. Examples of disrespect include reading a newspaper or magazine in class, social chatting with your friend(s) during lecture, or text-messaging your buddies. If you choose to be disrespectful at any time during my class, you will be asked to leave.

ADA Statement:
The Americans with Disabilities Act requires that reasonable accommodations be provided for students with physical, cognitive, systematic, learning, and psychiatric disabilities. Please contact me at the beginning of the semester to discuss any such accommodation you may require for the course.

DISCLAIMER:
Policies stated within this syllabus are subject to change, following verbal announcement in class. Students are responsible for knowing the current version, always to be found on the course webpage.
It is no secret that we live in an ever-changing and fascinating world. Understanding the forces that lead to change and characterizing their relative effects are primary objectives in all sciences, including both finance and economics. Calculus can be thought of as the quantification of change. Derivatives help us to compute rates of change (i.e., how quickly a quantity is changing given current conditions), and integrals help us to calculate the accumulated results of this change. Without a doubt, calculus has been instrumental in advancing all sciences and is ingrained in modern scientific thinking. In this course, we shall address the following mathematical concepts:

1. Limits (9.1, 9.2)
2. Continuity (9.2)
3. Rates of Change (9.3)
4. Differentiation and Derivative Computation (9.3, 9.4, 9.8; 9.4-9.7, 11.1, 11.2)
5. Implicit Differentiation (11.3, 11.4)
6. Optimization (10.3, 10.4)
7. Curve Sketching (10.1, 10.2, 10.5)
8. Anti-differentiation and Indefinite Integral Computation (12.1; 12.2, 12.3)
9. Differential Equations (12.5)
10. Fundamental Theorem of Calculus and Definite Integral Computation (13.2; 13.2, 13.7)
11. Area Concept (13.1, 13.3)
12. Functions of Two Variables (as time allows) (14.1, 14.2)

As this course is a preparatory course for the Business School here at the University of Utah, we will also study how the above mathematical concepts can be used to make practical and educated economic and financial decisions.
Important Dates to Mark on Your Calendar

- Quiz 1, June 13\textsuperscript{th}, 2008
- Quiz 2, June 20\textsuperscript{th}, 2008
- Quiz 3, June 27\textsuperscript{th}, 2008
- Quiz 4, July 2\textsuperscript{nd}, 2008 (exception to the Friday quiz rule)
- Independence Day Holiday, July 4\textsuperscript{th}, 2008
- Quiz 5, July 11\textsuperscript{th}, 2008
- Quiz 6, July 18\textsuperscript{th}, 2008
- Quiz 7, July 25\textsuperscript{th}, 2008
- Submission of Final Review Packet, July 30\textsuperscript{th}, 2008
- Final Exam, August 1\textsuperscript{st}, 2008

Quiz topics will be announced in class one lecture period prior to the quiz date (i.e., typically on Wednesdays). A more thorough description of the Final Review Packet will be distributed in class roughly two weeks prior to its due date. Final exam topics will be drawn from the topics represented in the Final Review Packet.