MATH 2183-011
Mathematical Reasoning
Summer I 2014

Instructor: Jason Parker
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Office Hours: TBA
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Meeting Times/Locations:
   M-F, 9:15am-10:45am in SCEN 202

Course Materials:
   Textbook: *Case Studies for Quantitative Reasoning, 3rd Edition*, Madison, Boersma, Diefenderfer
               and Dingman
   Calculator: TI-30XIIS or similar. Graphing calculator on par with the TI-84 is preferred
   Other: Soft-cover, slim folder for homework journal

Course Description:
   Students will develop the power and habit of mind to search out quantitative information, critique it,
   reflect upon it, and apply it in their personal and professional lives.

   A major source of materials for this course will be newspaper and magazine articles. We will read,
   analyze, interpret, and critique the mathematics and other quantitative information in the articles

Expected Learning Outcomes:
   Students should demonstrate mastery of a range of mathematical concepts useful in daily life and
   frequently encountered in the public media. Topics will include:
   - Using estimation and a variety of mental math techniques
   - Understanding and properly contextualizing large quantities
   - Percents and common mistakes in their usage
   - Measurements of growth, including absolute and relative change
   - Problem solving using guess-and-check, equations, and graphical information
   - Counting, probability, and odds
   - Condensed measures, such as mean and median
   - Compound interest
   - Units and conversions

Assessment of Learning Outcomes:
   Your grade in this course will be based on your homework journal, quizzes, a project, class
   participation and attendance, one midterm exam, and one comprehensive final exam as given by the
   following distribution:

Homework Journal	10%
Quizzes	15%
Project	15%
Attendance/Participation	10%
Midterm Exam	20%
Final Exam	30%

   Your final letter grade will be determined by the following scale:

A:	90 - 100%
B:	80 - 89.9%
C:	70 - 79.9%
D:	60 - 69.9%
F:	0 - 59.9%

Homework Journal:
    You will be required to keep all assigned homework in a journal to be handed in toward the end of the semester. Each assignment must be clearly labeled and include both the full question and solution for each problem you are asked to complete. You must show all work and include grammatically correct, detailed explanations of the methods and reasoning you use to receive credit.

Quizzes:
    We will have 5 weekly, in-class quizzes, one of which will be dropped at the end of the term. ***There will be no make-up quizzes!*** Quiz questions will frequently be drawn from homework questions, so it's a good idea to keep up with your homework journal so that you will be prepared!

Project:
    You will be required to submit a 5- to 10-minute video presenting your group's assigned topic to the class. The video could be as simple as a filmed version of a presentation you would give in person or as complex as a special-effects-laden cinematic masterpiece. The full project assignment and a rubric will be posted to Blackboard. Topics will be assigned toward the end of the first week. The project videos will be due in class on Thursday, June 26, 2014.

Attendance/Participation:
    Roll will be taken at some point during each class. If you miss a class, it is your responsibility to obtain notes and assignments from a fellow student. Unexcused absences will result in loss of points for participation and attendance. Excusable absences include U of A events, military duties, observation of holy days, and/or appearances in court.

    It is vital that you are in class the entire time and are participating in discussion. If you are not participating in discussion or group work, you will receive a zero for that day and may be asked to leave. You will also receive a zero if you leave class early.

Midterm and Final Exams:
    The midterm will be held in class on Friday, June 13, 2014. The comprehensive final will be held in class on Friday, June 27, 2014. If you have CEA accommodations and require extra time, arrangements can be made to allow you to take the exam either in the MRTC Testing Center in SCEN 203 or with the CEA. ***There will be no make-up exams!*** If you miss an exam, you will be given a zero. If you are late, you will not be given extra time.

    No books, notes, or other outside material will be allowed on the exam, and cell phones must be turned off and put away. A graphing calculator will be allowed, but you must still show all relevant work to receive credit. Be sure to support your solutions with grammatically-correct, full-sentence explanations of your methods and reasoning. Your work should be neat and well organized. If you forget your calculator, or if it has no batteries, there will be no spares on hand. You will not be allowed to share with anyone else, so you must either do without or go get yours. You will not be given extra time to make up for that you missed.

Academic Integrity:
    Academic honesty is essential! It is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards academic dishonesty as an extremely serious matter. Homework and examinations must be written independently. Outside of that, group discussion of all assignments is encouraged