MTH 101 **QUANTATITIVE LITERACY** **SPRING 2012**

Time and Place: 2-3:15 TR in Evans B11
Instructor: Roger G. Olson, Ph.D.
Office: Evans (Science) B18 Phone: Ext. 6295 Cell: (219) 921-3860 (Texting is best!)
Office Hours: T 10-11, 1-2, R 1:30-2 or email me for appointment, or talk after class

Course Catalog Description

This course covers the basic mathematical and technological tools used to analyze quantitative information through an emphasis on life-skills applications and analysis of current events. Topics include the interpretation of data, computation and estimation, logical reasoning, visual representation of data, statistical reasoning, basic probability, and financial concepts. Throughout the course, quantitative literacy skills will be used to interpret topics such as current events, public policy debates, news reports, personal financial decisions, and health care issues. *Prerequisite:* Student has met the college's Quantitative Literacy Entrance Requirement.

Course Goals

This course has three primary goals:

- to strengthen and expand a student's quantitative skills
- to improve a student's confidence in using these quantitative skills
- to encourage a student to see how these skills are connected to the world and how to apply the skills in decision-making and problem-solving in a student's life and career

Each topic will be presented through an example that includes the quantitative skill being taught, with an emphasis on how to analyze the issue. Since the course emphasizes applying quantitative skills to daily problem solving, learning mathematical formula for the sake of abstract knowledge has no place in this course.

Text

Bennett, Jeffrey and William Briggs. *Using and Understanding Mathematics: A Quantitative Reasoning Approach*. 5th Edition. New York: Addison-Wesley, 2011. Print.

Grading Summary

Criterion	Percent of Final Course Grade
Two exams (midterm: 10% and final: 10%)	20
Quizzes	15
Homework	15
Web Projects (5 @ 10% each)	50

Percentage Criteria for Final Course Grade

A	A-	B+	B	B-	C+	C	C-	D+	D
93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	60-66

Quizzes
Unless otherwise stated, there will be a weekly quiz on Mondays which covers the past week's material, homework, and reading assignments. Ten percent of your grade is based on these quizzes.

In Class Work
A variety of topics will be addressed through in-class work. This work will usually be done in small groups and be completed during class time. Fifteen percent of your grade is based on this work.

Homework
Homework will usually be due on Fridays. Students are encouraged to work together, but what you turn in must be completely your own work. These assignments make up fifteen percent of your grade.

Article Summaries
Each student will write three one or two page analyses of a current event utilizing quantitative reasoning skills, for example statistical analysis of an opinion poll.
The approximate due dates are October 3rd, October 31st, and November 28th. These three summaries together will compose thirty percent of your grade..

Midterm and Final Exams
The midterm and final exams will emphasize the application of quantitative skills to the analysis of current events and life-skills applications. Memorization and abstract use of mathematical formulae are not tested -- the exams focus on application of these tools to solve problems and discuss issues. The midterm is worth ten percent of the final grade, while the comprehensive final exam is worth twenty percent.

Attendance Policy
- You are allowed to miss up to three class periods during the semester without penalty
- Four absences = loss of 5% of total possible points
- Five absences = loss of an additional 10% of the total possible points
- Six absences (two weeks!) = failure of the course
- Habitual tardiness (more than once) will also count as absences

Make-up Assignments
- Arrangements can be made for alternative exam times for athletes or persons with other pressing engagements. Permission to take an exam at an alternative time will be granted on a case by case basis at the discretion of the instructor.
- Make-up quizzes can only be taken for excused absences (the first three). All make-up quizzes must be taken before the Wednesday class after they are originally given.
- In-class assignments can be made up for excused absences (the first three). See your instructor about making up in-class assignments.
- Absences do not change due dates of homework assignments or the semester project.

Cell Phones and Other Personal Entertainment Devices

Cell phones are not to be operated in the classroom at any time for any reason. Any student interacting with cell phone or related device during class will be asked to leave and will be penalized with an absence for the day (see attendance policy above). If your cell phone makes an audible sound during class, you may be asked to leave. Personal entertainment devices such as MP3 players are not to be operated in the classroom.

Note: If you have a disability that requires special accommodations for you to work at your full potential, please see your professor as soon as possible.

Tentative Schedule

Week	Selected Topics From...
1	Ch. 1 (*Thinking Critically*) and Ch. 2 (*Approaches to Problem Solving*)
2	
3	
4	Ch. 3 (*Numbers in the Real World*) and Ch. 11 (*Math and the Arts*)
5	
6	
7	Ch. 4 (*Managing Money*)
8	
9	Ch. 5 (*Statistical Reasoning*), Ch. 6 (*Putting Stats. To Work*), and Ch. 7 (*Probability: Living with the Odds*)
10	
11	
12	
13	
14	Chapter 12 (*Math and Politics*)
15	

Exam Dates

Midterm Exam: Friday, October 7th

Final Exam: Monday, December 12th at 2 p.m.