

Syllabus for  
**GMGT 585—Quantitative Management**  
3 Credit Hours  
Fall 2010

I. COURSE DESCRIPTION

Quantitative Management is a study of the use of computer applications to improve business data analysis and decision-making skills. Excel and varied Excel Add-In software are used with an integrated business database to teach varied statistical, decision modeling, and simulation techniques related to managerial decision making.

Prerequisites: Prior computer course and permission of Graduate Business

II. COURSE GOALS

- A. In line with the purpose of this University, this course seeks to do the following:
  - 1. Contribute to the education of the whole person.
  - 2. Sharpen the communication, computation, and critical analysis skills of each student.
  - 3. Encourage the student in acquiring basic knowledge.
- B. In line with the purpose of the MBA program, this course is designed to prepare a student for an active role in the business world. Quantitative Management is part of a program to educate students who will be spiritually alive, intellectually alert, and physically disciplined to go into every man's world and be a positive influence on the business world.
- C. In line with departmental objectives, this course seeks to prepare students in the following areas:
  - 1. Critical thinking (skills in reasoning, objectivity, analysis, interpretation, research, and decision making relevant to the discipline).
  - 2. Communication (abilities in written, oral, and nonverbal communication).
  - 3. Broad interpretation of the dynamics of business within social and professional contexts.

III. STUDENT LEARNING OUTCOMES FOR THIS COURSE

- A. Terminal Objectives  
As a result of successfully completing this course, the student will be able to critically analyze business data using varied software applications and present their findings in a professional manner.
- B. Unit Objectives  
As a result of successfully completing all units of study, the student will be able to do the following:
  - 1. Use Microsoft Excel, Excel Add-Ins, and a variety of other windows-based statistical software to enhance critical thinking and aid in business decision-making.
  - 2. Use statistical principles and techniques of analysis for business decision-making.
  - 3. Develop and use deterministic and stochastic business decision models.
  - 4. Develop and use a variety of optimization models.
  - 5. Develop business simulation models.

6. Present statistical results in a professional manner

#### IV. TEXTBOOKS AND OTHER LEARNING RESOURCES

- A. Required Textbook  
Evans, James R. and Olson, David L. *Statistics, Data Analysis, and Decision Modeling*, (4<sup>rd</sup> Ed.). Upper Saddle River, NJ: Prentice Hall, 2007. ISBN 0-13-606600-3
- B. Required Materials
  1. PC with Internet Access and Web Browser
  2. ORU Novell login and e-mail account
  3. MS Excel Spreadsheet software or equivalent with required add-ins
  4. Access to other software utilized in the above text
- C. Recommended Materials  
Outside readings may be assigned as necessary.

#### V. POLICIES AND PROCEDURES

- A. Universities Policies and Procedures
  1. Attendance at each class or laboratory is mandatory at Oral Roberts University. Excessive absences can reduce a student's grade or deny credit for the course.
  2. Students taking a late exam because of an unauthorized absence are charged a late exam fee.
  3. Students and faculty at Oral Roberts University must adhere to all laws addressing the ethical use of others' materials, whether it is in the form of print, electronic, video, multimedia, or computer software. Plagiarism and other forms of cheating involve both lying and stealing and are violations of ORU's Honor Code: "I will not cheat or plagiarize; I will do my own academic work and will not inappropriately collaborate with other students on assignments." Plagiarism is usually defined as copying someone else's ideas, words, or sentence structure and submitting them as one's own. Other forms of academic dishonesty include (but are not limited to) the following:
    - a. Submitting another's work as one's own or colluding with someone else and submitting that work as though it were his or hers;
    - b. Failing to meet group assignment or project requirements while claiming to have done so;
    - c. Failing to cite sources used in a paper;
    - d. Creating results for experiments, observations, interviews, or projects that were not done;
    - e. Receiving or giving unauthorized help on assignments.By submitting an assignment in any form, the student gives permission for the assignment to be checked for plagiarism, either by submitting the work for electronic verification or by other means. Penalties for any of the above infractions may result in disciplinary action including failing the assignment or failing the course or expulsion from the University, as determined by department and University guidelines.
  4. Final exams cannot be given before their scheduled times. Students need to check the final exam schedule before planning return flights or other events at the end of the semester.
  5. Students are to be in compliance with University, school, and departmental

policies regarding Whole Person Assessment requirements. Students should consult the Whole Person Assessment handbook for requirements regarding general education and the students' majors.

- a. The penalty for not submitting electronically or for incorrectly submitting an WPA artifact is a zero for that assignment.
- b. By submitting an assignment, the student gives permission for the assignment to be assessed electronically.

B. Course Policies and Procedures

1. Evaluation Procedures

Grading Procedures

There are 550 points possible in the course as follows:

Midterm Exam	150 points
Final Exam	150 points
Homework	100 points
Quizzes	50 points
Term project	<u>150 points</u>
Total	600 points

Grading System

90% - 100	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
Below 60%	F

2. Excused Absences

No penalties will be assessed for absences administratively excused by the Executive Vice President or in situations where the student could not have avoided the absences.

3. Whole Person Assessment Requirements: None

4. Homework Problems

- a. Homework is considered late if not turned in during class on the due date. Ten percent (10%) per day is deducted for every day that the homework is late.
- b. Only students with academically excused absences may turn in homework late without a penalty.
- c. Homework problems are done using computer software programs. Although students are able to help each other, it is imperative that each student do their own work. Interpretations of the assignment results should not be identical to another students' assignment. If that occurs, then each student involved will receive a zero (0) on the homework assignment. Persistent violators will be reported to the department Chair or Dean.
- d. The lowest homework grade will be dropped before final grades are calculated.

5. Quiz

- a. Each class period (except during exams), a quiz will be given over basic concepts from the chapter covered in the previous class.
- b. Only students with academically excused absences may make up missed quizzes.
- c. The lowest quiz grade will be dropped before final grades are calculated.

6. Exams
  - a. You will need to bring a Scantron to the Midterm and Final.
  - b. Makeup exams must be taken when it is convenient for the professor.
  - c. All students who anticipate missing an exam will submit **in writing 24 hours in advance** of the exam to the department secretary the student's name and reason for missing the exam. Those students who are ill the day of the exam will notify the department secretary by phone (x7040) prior to the time of the exam. A doctor's written excuse will be expected on the student's returning to the classroom. Failure to comply with the above rules forfeits the rights of the student to make up the missed exam.
  - d. The late exam fee is strictly enforced.
  - e. Laptops, cell phones, MP3 devices, PDA's or other handheld devices **cannot** be used during the exam. **Points are deducted from the exam if caught using any of these devices or if your cell phone goes off for any reason.**
7. Cellular Phones, Pagers, MP3 devices, and other electronics
  - a. These devices **must be turned off** during class and **will not** be allowed during exams (see 6e above).
  - b. Browsing the web, checking e-mail, Facebook, etc., during class is unacceptable. Excessive warnings will result in a reduction of points.
8. Food and drink in the classroom
  - a. No food is to be consumed in classrooms during class.
  - b. Beverages are acceptable in lecture halls and classrooms as long as the student is quiet and no trash is left behind. However, if the class is held in the School of Business Computer Lab, no drinks will be allowed.

C. Other Information

1. Office hours will be announced in class and posted on the instructor's door.
2. Professor's Name: Ardith Baker  
Office: Graduate Center 3F14  
Telephone: 495-6669  
E-Mail: [abaker@oru.edu](mailto:abaker@oru.edu)

## VI. COURSE CALENDAR

Class	Unit	Chapter
1	Data and Business Decisions .....	1
2	Displaying and Summarizing Data .....	2
3	Probability Distributions & Applications .....	3
4	Sampling and Estimation .....	4
5	Hypothesis Testing and Statistical Inference .....	5
6	Regression Analysis .....	6
7	Forecasting .....	7
	Review for Midterm Exam	
<b>MIDTERM EXAM</b> .....		<b>1-7</b>
9	Statistical Quality Control .....	8
10	Building & Using decision Models .....	9
11	Risk Analysis and Monte Carlo Simulation .....	10
12	Decisions, Uncertainty, & Risk .....	11
13	Queues & Process Simulation Modeling .....	12
14	Linear Optimization .....	13
15	Integer & Nonlinear Optimization .....	14
16	Presentations	
	Review for Final Exam	
<b>FINAL EXAM</b> .....		<b>8-14</b>

# Course Inventory for ORU's Student Learning Outcomes

## ***Quantitative Management GMGT 585 Fall 2010***

This course contributes to the ORU student learning outcomes as indicated below:

**Significant Contribution** – Addresses the outcome directly and includes targeted assessment.

**Moderate Contribution** – Address the outcome directly or indirectly and includes some assessment.

**Minimal Contribution** – Address the outcome indirectly and includes little or no assessment.

**No Contribution** – Does not address the outcome.

The student Learning glossary at <http://ir.oru.edu/doc/glossary.pdf> defines each outcome and each of the proficiencies/capacities.

<b>OUTCOMES and Proficiencies/Capacities</b>		Significant Contribution	Moderate Contribution	Minimal Contribution	No Contribution
1	<b>Outcome #1 – SPIRITUALLY ALIVE</b>				
	<i>Proficiencies/Capacities</i>				
1A	Biblical knowledge			X	
1B	Sensitivity to the Holy Spirit			X	
1C	Evangelistic capability			X	
1D	Ethical behavior			X	
2	<b>Outcome #2 – INTELLECTUALLY ALERT</b>				
	<i>Proficiencies/Capacities</i>				
2A	Critical thinking	X			
2B	Analytical problem solving	X			
2C	Global and historical perspectives		X		
2D	Aesthetic appreciation			X	
2E	Intellectual creativity		X		
2F	Information literacy		X		
3	<b>Outcome #3 – PHYSICALLY DISCIPLINED</b>				
	<i>Proficiencies/Capacities</i>				
3A	Healthy lifestyle				X
3B	Physically active lifestyle				X
3C	Properly balanced nutrition plan				X
4	<b>Outcome #4 – SOCIALLY ADEPT</b>				
	<i>Proficiencies/Capacities</i>				
4A	Communication skills	X			
4B	Interpersonal skills		X		
4C	Appreciation of cultural and linguistic differences		X		
4D	Responsible citizenship		X		
4E	Leadership capacity		X		