

## Course Syllabus

### MBA630: Quantitative Management

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#### Course Description

This course focuses on the typical mathematical and quantitative reasoning skills needed in business management. Emphasis is on the practical application and problem-solving skills required of today's business professional as well as the investor and consumer. Students will use Excel spreadsheets to assist in mathematical analyses and quantitative reasoning assignments.

#### General Course Information

Number of Units/Weeks/Sessions	5/5/10
#Hours Lecture/#Hours Laboratory/#Hours HWs*	50/0/100
Prerequisite(s)	None
Co-requisites (s)	None
Course Developer(s)	Kimberly Lobera, PhD
Date Approved / Last Review	Feb. 2012 / Aug. 2014

\*Homework Projects

#### MBA Program Learning Outcomes

- Create Strategic Plans
- Solve Business Problems Using Quantitative Analyses

#### Learning Outcomes

- Test the basic vocabulary of statistics
- Apply concepts of probability distributions
- Determine relationships between two variables
- Use probability and combinations
- Apply statistical analysis to given data sets
- Determine acceptable ranges of computed results
- Use basic charting and graphical techniques
- Critically evaluate statistical results

#### Instructional Methods Employed in this Course

- Reading from required and suggested sources in preparation for lecture and discussion
- Lectures, some supported by PowerPoint media and handouts
- Examples from current events to support instructor or text-based content
- Whole class discussions, generally correlated with lecture topics
- Small group discussions, stimulated by instructor-provided case studies, scenarios and other materials
- Peer-to-peer activities, in which students are paired to work together on common projects usually requiring research

- Student presentations, either as individuals or small groups, to highlight the results of work completed on an assignment
- Build on prior learning of students to enhance richness of class activities

### **Information Resources for this Course**

#### ☐ **Textbook**

Anderson, David R.; Sweeney, Dennis J.; Williams, Thomas A. (2008). Modern Business Statistics with Microsoft Excel. 3rd Edition. Mason, OH: Cengage Learning. ISBN-13: 978-0324598278.

#### ☐ **Other Materials**

Waters, Donald (2007). Quantitative Methods for Business, 4th edition. Upper Saddle River, NJ: Prentice Hall. ISBN-13: 9780273694588.

McClave, James T., et al. (2007). Statistics for Business and Economics. Upper Saddle River, NJ: Prentice Hall. ISBN-13: 9780132409353.

Levine, David M. (2007) Statistics for Managers using Microsoft Excel, 5th edition. Upper Saddle River, NJ: Prentice Hall. ISBN-13: 9780136149903.

#### ☐ **Web Site Readings** Statistics Glossary <http://www.stats.gla.ac.uk/steps/glossary/> (Retrieved August 14, 2012.)

Social Science Research Network.  
<http://papers.ssrn.com/sol3/>  
 (Retrieved August 14, 2012.)

StatSoft, Inc. Electronic Textbook.  
<http://www.statsoft.com/textbook/stathome.html>  
 (Retrieved August 14, 2012.)

### **Table/Topics & Assignments**

#### **Types of Assignments:**

##### **Lecture -**

Considered Lecture Hours

##### **Classroom Discussion -**

Considered Lecture Hours

##### **In Class Critique -**

Considered Lecture Hours

**Delivering Oral Presentations -**  
Considered Lecture Hours

**In Class (IC) Exercise -**  
Considered Lecture Hours

**Reading -**  
Considered Homework (HW), work done outside of class

**WebClass lesson (non-online courses) -**  
Considered HW, work done outside of class

**Lab Work -**  
Considered Lab Hours

**Quiz, Midterm or Final -**  
Considered Lecture Hours

Session 1						
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	D
LEC 1A	Data & Statistics	3	0	0	0	
IC EX 1A	Team Data Sets Exercise	1	0	0	15	Session 2
IC EX 1B	In-class Participation	1	0	0	20	Session 1
HW 1A	Anderson Chapter 1	0	0	4	0	
HW 1B	Weekly Thesis Assignment 1	0	0	10	50	Session 3
HW 1C	Research Project	0	0	15	140	Session 8
HW 1D	Research Presentation	0	0	5	100	Session 9,10
HW 1E	Curricular Practical Training Activities	0	0	0	80	Session 8
Total Session 1		5	0	34	405	
Session 2						
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	D
LEC 2A	Tabular & Graphical Presentations	3	0	0	0	
IC EX 2A	Team Data Sets Exercise	1	0	0	15	Session 3
IC EX 2B	In-class Participation	1	0	0	20	Session 2
HW 2A	Anderson Chapter 2	0	0	7	0	

Total Session 2		5	0	7	35	
<b>Session 3</b>						
		0				
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	D
LEC 3A	Numerical Measures	3	0	0	0	
IC EX 3A	Team Data Sets Exercise	1	0	0	15	Session 4
IC EX 3B	In-class Participation	1	0	0	20	Session 3
HW 3A	Anderson Chapter 3	0	0	5	0	
HW 3B	Weekly Thesis Assignment 2	0	0	10	50	Session 5
Total Session 3		5	0	15	85	
<b>Session 4</b>						
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	D
LEC 4A	Introduction to Probability	3	0	0	0	
IC EX 4A	Team Data Sets Exercise	1	0	0	15	Session 5
IC EX 4B	In-class Participation	1	0	0	20	Session 4
HW 4A	Anderson Chapter 4	0	0	5	0	
Total Session4		5	0	5	35	
<b>Session 5</b>						
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	D
LEC 5A	Discrete Probability Distributions	2	0	0	0	
IC EX 5A	Team Data Sets Exercise	1	0	0	15	Session 6
IC EX 5B	In-class Participation	1	0	0	20	Session 5
HW 5A	Anderson Chapter 5	0	0	4	0	
HW 5B	Weekly Thesis Assignment 3	0	0	10	50	Session 7
EXAM 5A	Prepare for Mid-Term	1	0	0	0	
Total Session 5		5	0	14	85	
<b>Session 6</b>						
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	D
LEC 6A	Continuous Probability Distributions	2	0	0	0	
IC EX 6A	Team Data Sets Exercise	1	0	0	15	Session 7

IC EX 6B	In-class Participation	1	0	0	20	Session 6
HW 6A	Anderson Chapter 6	0	0	4	0	
EXAM 6A	Midterm Exam	1	0	0	100	
Total Session 6		5	0	4	135	
<b>Session 7</b>						
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 7A	Sampling & Distributions	1	0	0	0	
LEC 7B	Interval Estimation	1	0	0	0	
LEC 7C	Hypothesis Tests	1	0	0	0	
IC EX 7A	Team Data Sets Exercise	1	0	0	15	Session 8
IC EX 7B	In-class Participation	1	0	0	20	Session 7
HW 7A	Anderson Chapters 7-9	0	0	13	0	
HW 7B	Weekly Thesis Assignment 4	0	0	10	50	Session 9
HW 7C	Curricular Practical Training Assignment	0	0	0	0	Session 8
Total Session 7		5	0	23	85	
<b>Session 8</b>						
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 8A	Decision Analysis	3	0	0	0	
IC EX 8A	Team Data Sets Exercise	1	0	0	15	Session 9
IC EX 8B	In-class Participation	1	0	0	20	Session 8
IC EX 8C	Research Project	0	0	0	0	Session 8
HW 8A	Anderson Chapter 19	0	0	5	0	
Total Session 8		5	0	5	35	
<b>Session 9</b>						
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 9A	Research Presentation	4	0	0	0	Sessions 9 & 10
EXAM 9A	Prepare for Final	1	0	0	0	
Total Session 9		5	0	0	0	
<b>Session 10</b>						
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due

LEC 10A	Research Presentation	4	0	0	0	
EXAM 10A	Final Exam	1	0	0	100	
Total Session 10		5	0	0	100	

### Course Hours Summary

Session	Topic	LEC Hours	LAB Hours	HW Hours
1	Data & Statistics	5	0	34
2	Tabular & Graphical Presentations	5	0	7
3	Numerical Measures	5	0	15
4	Introduction to Probability	5	0	5
5	Discrete Probability Distributions	5	0	14
6	Continuous Probability Distributions	5	0	4
7	Sampling Distributions, Estimations & Hypothesis Tests	5	0	23
8	Decision Analysis	5	0	5
9	Research Presentation	5	0	0
10	Research Presentation - Final	5	0	0
Total		50	0	107

### Table/Point Breakdown

Session	Assignment	Possible Points	Percent of Grade
1,3,5,7	Weekly Thesis Assignments 1-4	200	20%
8	Curricular Practical Training Assignments	80	8%
1-8	Team Data Sets Exercise 1-8	120	12%
1-8	In-class Participations 1-8	160	16%
1	Research Project	140	14%
1	Research Presentations	100	10%
6	Mid-Term Exam	100	10%
10	Final Exam	100	10%
Total		1000	100%

## Weekly Thesis Assignments

The primary purpose of the Weekly Thesis Assignments is to prepare each graduate student at Coleman University for the final Master's Thesis.

Each week, students will submit additional progress toward his or her chosen thesis topic. Progress toward the thesis will include a minimum of three (3) pages of new content toward the thesis and cite no fewer than three (3) scholarly sources.

Each weekly submission should include a highlighted section indicating the new

content from the previous week. New content could either be completely new material, or revision to existing material based on feedback provided by your Thesis Mentor or Teaching Assistant.

At the end of Week 3, each student will provide an in-progress review submission to his or her Thesis Mentor via WebClass in the Thesis In Progress section. The Thesis Mentor will provide feedback regarding the framework and approach each student is taking and provide general guidance regarding completion. This in addition to the Weekly Thesis Assignment submission is graded by the course Teaching Assistant.

## Your Grades for this Course

Your final grade for this course will be based on an assessment by the Instructor of your performance on a number of course activities, which may include objective tests, classroom exercises, laboratory demonstrations, project papers, or other types of activities. The chart below indicates in what activities you will engage, how many possible points can be earned for each activity, and the percentage of your final grade that will be accounted for by each activity.

Students in this course should be graded following Coleman University assessment practices and policies. A point system is used in the University to indicate student performance on various required activities or projects. For this course, it is recommended that points be distributed as follows:

### Coleman University Grade Assignment Policy:

Percent	Letter Grade	Grade Points
94-100	A	4
90-93	A-	3.67
87-89	B+	3.33
84-86	B	3
80-83	B-	2.67
77-79	C+	2.33
74-76	C	2
70-73	C-	1.67
67-69	D+	1.33
64-66	D	1
60-63	D-	0.67
N/A	INC	0
N/A	W	0
60 or above	CR	0
59 or below	NC	0

N/A	I	0
N/A	W	0
N/A	AU	0
N/A	TR	0
N/A	WV	0

Legend	
CR = Credit	NC = No Credit
I = Incomplete	W = Course Withdrawal
AU = Audit	TR = Transfer Credit
WV = Waiver	

## Academic Accommodation / Adjustment Policy:

In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA), Coleman University offers accommodations to students with documented physical, psychological, and/or cognitive disabilities. Coleman University will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to offer equal educational opportunities to qualified disabled individuals.

To qualify for an academic accommodation under ADA, the student must provide adequate documentation of a disability. Students seeking academic accommodations should contact the campus ADA Coordinator at 858-966-3953 or via email at [ada@coleman.edu](mailto:ada@coleman.edu). The ADA Coordinator will review the documentation provided and verify ADA coverage. Students covered under ADA must meet with the ADA Coordinator at the beginning of every term to determine the appropriate academic accommodations. Failing to meet with the ADA Coordinator at the beginning of every term may impact the availability of accommodations.

After the academic accommodations have been determined, the students' instructors will be notified by the ADA Coordinator. If any problems or concerns regarding the provision of accommodations occur, the student must inform the ADA Coordinator. If the student feels accommodation is not being made appropriately, the student may follow the published Student Grievance Procedures.