

University of Indianapolis
School of Business
Course Syllabus

Course Information

Course Number and Title MBA 620 Quantitative Business Tools
Session and Year May 11 – Aug 1, 2009
Day/Time Tuesdays / Thursdays, 5:45pm – 8:45 PM
Location Esch Hall

Instructor Korlon Kilpatrick
Day Phone 857-222-6873 (mobile)
E-mail kilpatrickk@uindy.edu
Please start subject line with the course number (MBA620)

Office Hours By appointment

Textbook *Custom Textbook.* McGraw-Hill Primus. 2009.

Course Description

This course takes an integrated approach to the use of quantitative business tools. It emphasizes the application of statistical methods via modeling rather than derivation and use of statistical techniques. The course will primarily be dedicated to the construction of computer models, which will be used to solve business problems and to make management decisions. Microsoft Excel and a variety of plug-ins will be used for this class.

Course Objectives

At completion of the course, you should be able to:

1. Use Excel spreadsheets effectively for business analysis
2. Comprehend basic principles and techniques of applied mathematical modeling for managerial decision-making.
3. Apply analytic methods, recognizing their assumptions and limitations
4. Structure problems and perform logical analyses
5. Evaluate results from models and make appropriate recommendations

Required Materials

- Calculator – Please plan to bring it with you for each class period
- Access to Personal Computer and MS Excel spreadsheet program with Data Analysis, Solver and @Risk add-ins

Graded Events

| | |
|-------------------------------------|-----|
| Homework and Quizzes | 50% |
| Final exam | 40% |
| Class participation and preparation | 10% |

Grading Scale

| Letter Grade | Average | Letter Grade | Average |
|--------------|--------------|--------------|--------------|
| A | 92 - 100 | C | 72 - 77.9... |
| A- | 90 - 91.9... | C- | 70 - 71.9... |
| B+ | 88 - 89.9... | D+ | 68 - 69.9... |
| B | 82 - 87.9... | D | 62 - 67.9... |
| B- | 80 - 81.9... | D- | 60 - 61.9... |
| C+ | 78 - 79.9... | F | below 60 |

I reserve the right to make positive changes to the grading scale. I reserve the right to penalize lateness at 10% of the point value per day late. Papers and projects that are more than two weeks late or that are not turned in prior to

the week of final exams will not receive credit. In order to receive reconsideration, please bring questions or concerns, regarding graded material, to my attention within 1 week after your work has been returned to you.

Academic Dishonesty and Plagiarism

You must not adopt or reproduce ideas, words, or statements of another person without giving an appropriate acknowledgement to the source. You must give due credit to the originality of others and acknowledge an indebtedness wherever you:

- Quotes another person's actual words, either oral or written;
- Paraphrases another person's words, either oral or written;
- Uses another person's ideas, opinions, or theories; or
- Cites facts, statistics, or other illustrative material, unless the information is common knowledge.

Incidents of academic dishonesty and/or plagiarism will be handled as per the Student Handbook.

Homework

Homework assignment will not be accepted for credit after the start of class. Solutions will be reviewed during class, so you are encouraged to retain a copy of your work for your reference. Homework scores will be recorded for completion and not accuracy. Periodically, unannounced quizzes, which cannot be made up if missed, will be given to verify your preparation for class.

Exams

The exams are designed to evaluate the student's comprehension of material rather than just memorization. Questions may include short answer/essay, as well as problems. On exams, you will be responsible for all of the assigned readings.

If you must miss an examination, you must let me know about this prior to the exam. If you miss an examination without prior notice, you must email me and provide your reason why you missed the exam. It will be solely at my discretion whether you are may take a make-up exam. A penalty on the make-up exam may be administered.

Class Attendance, Preparation & Participation

Class attendance is an important part of the academic process, and you are expected to attend classes regularly and to manage your schedule in order to meet the demands of this course. Attendance will be taken at the beginning of each class period. You should report absences to me as soon as possible. You will be responsible for arranging makeup work, assignments, and tests to be completed prior to the absence or immediately upon return to class at my discretion. As per the student handbook, reasonable documentation or verification of claims regarding absences may be requested. You may be administratively withdrawn from class due to excessive absences.

Class preparation is critical to success in this course. You are expected to:

- (a) read the assigned material prior to arriving to class, as well as
- (b) review the solved problem illustrations in the chapter and
- (c) prepare a list of questions that you have about the topic.

Please note that the course topics build upon prerequisite knowledge of fundamental business concepts, algebra and basic spreadsheet skills. If you feel you may be deficient in any of these areas, you are encouraged to review them and/or seek tutoring outside of class.

Class participation is expected of each student. You are encouraged to ask questions and are expected to complete in class activities.

Course Schedule

| Class (Week of) | Chapter(s) | Topic |
|------------------------|--|---|
| May 11 | Kros, Ch. 1 Stewart, Ch. 7, 14 and 20 Hillier, Ch. 4 | Introduction to Business Modeling Advanced Excel functions Art of financial modeling and presentation |
| May 18 | Kros, Ch. 3 and 4 | Decision Analysis |
| May 25 | Kros, Ch. 5 | Simulation |
| June 1 | Kros, Ch. 5 | Simulation (cont'd) |
| June 8 | Kros, Ch. 6 | Linear Regression |
| June 15 | Kros, Ch. 7 | Forecasting – time series |
| June 22 | Kros, Ch. 8 | Linear Programming |
| June 29 | Kros, Ch. 8 | Linear Programming (cont'd) |
| July 6 | Kros, Ch. 8 | Linear Programming (cont'd) |
| July 13 | Brealy-Myers-Marcus, Ch. 18 | Pro Forma Development |
| July 20 | | Model Dissection Course Review |
| July 27 | | Final Exam (in class) |