QMB 6756
Managerial Quantitative Analysis II
Fall 2017, Module 4

Instructor: **A.Paul**
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The course, in a nutshell

This course provides an introduction to the concepts and applications of ManagerialQuantitative Analysis. The primary goal of this course is to complete the study of quantitative analysis techniques begun in QMB 6755. The main theme is the analysis of decision making under uncertainty.

Upon successful completion of this course, you will be able to:

1. Utilize probabilistic models to enhance effective decision making;

2. Analyze waiting line systems;

3. Effectively formulate and utilize Monte-Carlo simulation techniques

4. Understand issues involved in the successful implementation of analytics in actual practice.

Resources

Required Textbook: Nagraj Balakrishnan, Barry Render and Ralph M. Stair, *Managerial Decision Modeling with Spreadsheets and Student CD Package, 3/E.* ISBN-10/13: 0136115837 / 9780136115830.

Lecture notes and additional material will be posted online. **I often cover material that is outside the scope of the textbook in class**, and I **leave out several sections covered in the textbook**, so it is important for you to keep track of exactly what is covered in classs by consulting the online notes. **The online notes, and the notes you take in class, should be considered to be your primary learning resourc**e, with the

textbook as a secondary source. I do assign problems from the textbook for homework and for practice, so you need to have a copy of it.

Homework Exercises provide opportunities to practice the skills of modeling and analysis introduced in the course. The only way to learn this course well is to work out problems on your own, and so many practice exercises will be given. I encourage **active in-class learning**; this means that I expect you to come prepared to think and work out problems in class. **I will now and then dedicate the second period of class to a tutorial session in which students spend the time attempting to solve a problem or case which may be the basis of a homework assignment.**

Examinations

There will be 2 exams: **Exam 1 midway through the module** and the **Exam 2 in the last week of class**. They will involve basic theory and problem solving. The exams will test mainly your grasp of the material directly covered in class, but **some questions will involve novel and unfamiliar situations and will challenge your creativity and grasp of fundamentals**.

There is no formal class participation grade but I will make a note of students who participate regularly in class, solve problems that I pose to the class for in-class solving, etc., and may adjust their grade favorably in borderline cases.

Group HW Assignments

The class will divide into groups of 5 to 6 students each. There will be at least 3 group assignments, with exactly one submission required per group, for each assignment. **Group assignments may be initiated in class**; a problem will be introduced in class and **your group may be required to turn in the complete solution the same day or before the next class**.

GRADING

Final grades will be assigned using the following weights:

<u>Percent of Final Grade</u>

HW	30%
Exam 1	35%
Exam 2	35%

Overall letter grades will be *assigned by curve*. That is, the letter grade you receive will be determined by *your ranking among all students in your class*. Please note that – as per departmental policy - the average course grade will generally be no higher than B Plus (that is, 3.33).

Assurance of learning

Each program at the Warrington College of Business Administration has developed goals and objectives that express the most valued skills and knowledge that students should be able to demonstrate upon completion of the total learning experiences in that program. The following goals and objectives are mapped to **QMB 6756**
• Our graduates will be able to think critically and analytically in formulating business solutions.

Academic honesty

For any academic class activity, students must follow the University of Florida Student Honor Code (http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php).
Any violation of the honor code will automatically result in a grade of E (Fail) for this course and further sanctions that may include a suspension or expulsion from the University through the Dean of Students Office. All incidents will be reported to Student Conduct and Conflict Resolution at the University of Florida.

Class policies

I expect students in class to actively participate in class. If your laptop is switched on in class, it must be mainly to help you follow the lecture (perhaps by making notes on a Powerpoint slide).

Attendance is not compulsory but you are responsible for all material covered in class.

Assignments should be submitted on time. **I do not accept late submissions.**

There will be **no extra credit work available** at any time for any part of the coursework.

Makeup Tests: No makeup tests will be provided for this course, unless it is due to a University of Florida sanctioned excuse. Proper documentation will have to be provided in support, clearly indicating: (a) the name of the student, (b) the reason for absence and (c) the dates of the absence. This documentation must also be verified by the Dean of Students Office. Please inform the instructor at least one week prior to the scheduled test for a reschedule date. In case of a medical emergency, you please inform the instructor within one week after the test. Requests made after one week of the test date will not be honored.

By enrolling in this course you agree to abide by the course policies described above.

Tentative Class Schedule ***(<u>may change</u>; tune in regularly for updates)***

Week	Date	Topics	Textbook chapter **(*to supplement class notes*)**
1	Oct 24	Introduction, modeling uncertainty	
	Oct 26	Modeling uncertainty and risk	
2	Oct 31	Modeling uncertainty and risk	
	Nov 2	Modeling uncertainty and risk	
3	Nov 7	Queueing Models	Chapter 9
	Nov 9	Queueing Models	Chapter 9
4	Nov 14	Queueing Models	Chapter 9
	Nov 16	**Exam 1**	
5	Nov 21	Probability Models	
	<mark>Nov 23</mark>	<mark>Thanksgiving holiday</mark>	
6	Nov 28	Simulation Modeling	Chapter 10
	Nov 30	Simulation Modeling	Chapter 10
7	Dec 5	Simulation Modeling	Chapter 10
	Dec 7	**Exam 2**	