

## QMB 4701: Managerial Operations Analysis I (Fall 2017)

### Contact Information

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| <b>Instructor:</b>   | <b>Kyung Sung Jung, PhD</b>                              |
| <b>Office:</b>       | STZ 364  |
| <b>Office Hours:</b> | Tuesday and Thursday 1030 am – 1130 am or by appointment |
| <b>E-Mail:</b>       | Through Canvas   |
| <b>TA:</b>           | Ju Bao   |
| <b>TA Office:</b>    | By appointment   |

### Course Website:

All information and materials pertaining to this course will be made available through the course website on the Canvas. With the exception of the in class tests, all graded materials will be submitted electronically using the course website on Canvas. Additional information regarding the submission policies for this class is provided below.

### Required Textbook:

Managerial Decision Modeling with Spreadsheets and Student CD Package, **3/E**  
Nagraj Balakrishnan, Barry Render and Ralph M. Stair, ISBN-10/13: 0136115837 / 9780136115830  
**The textbook is currently on reserve.** UF LIBRARY WEST General Collection -- HD30.25.R465 2013

### Course Objectives

This course provides an introduction to the concepts and applications of Management Science. The objective of management science is to solve decision-making problems that confront managers in organizations both in the public and private sector by developing mathematical models of those problems. Another important goal is to encourage a more disciplined thinking process in the way you approach management situations. As a result of this course you will become more confident in understanding and using models, both in other courses and on the job.

Details regarding the course contents, critical deadlines, etc. can be found at the end of syllabus, and will be found on the class website.

### Grading scheme:

|               |             |
|---------------|-------------|
| Assignments   | 15%         |
| Quizzes       | 10% = 5%*2  |
| Project       | 10%         |
| Participation | 5%          |
| Exam I, II    | 60% = 30%*2 |

The grades for this course will be based on a curve. This means the grade that you get for this course will depend on your relative rank in the class. As per college norms, the grading will maintain a maximum mean grade point average of 3.50 (for example, 20% A, 20% A-, 50% B+, 10% B is one possible distribution). Grades of C+, C and below can and will be given when student performance warrants.

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### Information on current UF grading policies for assigning grade points

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

**HELP RESOURCES:** For issues with technical difficulties with the e-learning system, please contact the UF Help Desk at: 1) [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu); 2) (352) 392-HELP or 3) <https://lss.at.ufl.edu/help.shtml>

### Class policies:

**Two Quizzes:** Quizzes should be individual submissions.

**Group assignments:** For Group assignment (Each group can have up to 3 members), students are free to discuss the assignments with group members, with me, and with the teaching assistant. The GROUP assignments are due at the beginning of the designated class day. The due date will be strictly enforced. Submit Assignment (**one file per group**) through Canvas. Note that in our class, there is NO individual assignment.

**Group Project** (Please see the **separate** document for the project): Choose a problem in your daily life you are interested about that could use the methods and tools we learned in QMB 4701 to optimize to make decisions or provide rational suggestions. Modify your model to fit into the software. Your model should have decision variables, objective function and constraints (3-7) clearly defined. Data could be get by field study, interview or from the internet. Organize them into your spreadsheet (with all relevant data, setup all the constraints and objective).

- **Project proposal:** It should include motivation, model description and source of the data. The length should be 1-2 pages. Try to be creative when you choose the topic or do the analysis. You are welcome to discuss about your topic after each class or during office hours.
- **Presentation:** The time for each group will be decided once all groups are finalized.
- **Final report:** don't forget to include the managerial insight (or interpretation of your results) and Excel file (QMB4701\_Group#\_Project).

**Exams and make-up exams:** The exams will be closed book. THERE WILL BE NO MAKEUP EXAMS. Conflicts for the exams must be resolved before the exam dates. You should contact me at least two weeks prior to the exam date and let me know in writing. Last minute requests will not be entertained. The only reasons for not being able to sit for an examination in its announced time should be part of University policy, or a documented medical excuse.

**“Re-grade” requests:** Any request to re-grade any component of your submissions (assignment or quiz or exam) has to be made within a week after the grade has been published online on the e-learning site. Given the size of the class, and the speed with which the course progresses, any request beyond this deadline cannot be considered. The only exception to this rule is a documented emergency.

**Class Attendance:** Attendance is not compulsory during regular classes but if you miss any class you would be responsible for all material that was discussed in class or was in the assigned readings for that class.

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You are expected to be punctual in class attendance and remain in the classroom for the entire class session, as you would in any business appointment, unless an urgent need arises or prior arrangements have been made with me. There will be no make-up quizzes.

Laptops and other electronic devices should be used with discretion and only as permitted for work directly related to the class session. Emailing, accessing the internet, and working on matters unrelated to the work at hand are inappropriate behaviors because they are disrespectful and distracting to the class and to the instructor.

**Discipline in class:** I would expect you to maintain the decorum of the class at all times. As with any other group activity, be acutely aware that your actions in class can have negative externalities that can collectively affect the performance of the entire group. Teaching policies (academic honesty, student illness, religious holidays, accommodating students with disabilities and others):

For an updated list of UF teaching policies, please visit <http://www.registrar.ufl.edu/staff/policies.html>.

**University Policy on Accommodating Students with Disabilities:** Students requesting accommodation for disabilities must first register with the Dean of Students Office (352-392-8565, <http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

**Academic integrity:** Academic integrity and honesty are essential in the development of a professional manager. This society is not willing to tolerate dishonest or otherwise unethical professional business managers. Students must attend to, and follow, the University of Florida code of student conduct, with special attention to academic integrity and academic honesty. They must never appropriate the ideas and work of others, including both academic sources and fellow students, without appropriate attribution or by claiming others work as their own. They must exercise complete honesty in following the conditions established by the instructor for examinations and other assignments. Finally, they must be honest with one another, be willing to be accountable for their own failures of honesty and integrity, and not tolerate such failures in classmates.

**Communication:** I will be available at my office during the office hours. I will also be available by appointment and I am very accessible via email. If you need to set up an appointment other than during my regular office hours, please send me e-mail Through Canvas.

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**Schedule:**

| Week |      |   | Topic   | Reading          | Remark/due     |
|------|------|---|---|------------------|----------------|
| 1    | 8/21 | M | Introduction to Managerial Decision modeling      | Chapter 1        |                |
|      | 8/23 | W | Linear Programming (LP) Models: Graphical Methods | Chapter 2        |                |
| 2    | 8/28 | M | LP Models: Using Computer Methods                 | Chapter 2        |                |
|      | 8/30 | W | LP Models: Using Computer Methods                 | Chapter 2        | <b>Quiz #1</b> |
| 3    | 9/4  | M | No class  |                  |                |
|      | 9/6  | W | LP modeling applications, Review                  | Chapter 3        |                |
| 4    | 9/11 | M | Transportation/ Network Models                    | Chapters 5       |                |
|      | 9/13 | W | <b>Exam I</b>                                     | Chapters 1, 2, 3 |                |
| 5    | 9/18 | M | Transportation/ Network Models                    | Chapter 5        |                |
|      | 9/20 | W | Network Models/Integer Programming                | Chapter 5,6      |                |
| 6    | 9/25 | M | Sensitivity Analysis                              | Chapter 4        | <b>Quiz #2</b> |
|      | 9/27 | W | Career fair.                                      |                  |                |
| 7    | 10/2 | M | Presentation                                      |                  |                |
|      | 10/4 | W | Presentation or Exam II                           |                  |                |
| 8    |      | T | <b>Exam II</b>                                    | Chapters 4,5,6   |                |

This is a draft schedule and subject to change at the Instructors discretion.