Carnegie Mellon University

H. John Heinz III College


Instructor: Robert C. Hampshire, an assistant Professor of Operations Research and Public Policy in the H. John Heinz III College

Course grades will be based on:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework</td>
<td>30%</td>
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<tr>
<td>Class Participation</td>
<td>10%</td>
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<td>Midterm quiz</td>
<td>20%</td>
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<tr>
<td>Final exam</td>
<td>40%</td>
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Course Objectives

This course, along with its companion (90-775 Intermediate Management Science II: Decision and Risk Modeling) survey a variety of management science methods, particularly deterministic techniques, useful to managers and analysts in the public, healthcare, and non-profit domains. science techniques.

The four key course objectives are:

1. To become proficient in the quantitative modeling approach to problem solving;
2. To learn and apply a range of deterministic models/techniques to decision making problems, as well as what they are capable of, and what their limitations are;
3. To become proficient in employing Microsoft excel to facilitate modeling and problem solving;
4. To develop the ability to speak and write clearly about general concepts and principles of deterministic modeling.

Textbook
This course uses Cliff T. Ragsdale *Spreadsheet Modeling and Decision Analysis: A Practical Introduction to Management Science, Revised 5th* edition.

Additional Texts:

- Wayne L. Winston, S. Christian Albright, *Practical Management Science: Spreadsheet Modeling and Applications*
- Saul I. Gass, *An Illustrated Guide to Linear Programming*
- Robert Vanderbei, *Linear Programming*
- Mokhtar S. Bazaraa, John J. Jarvis, and Hanif D. Sherali, *Linear Programming and Network Flows*

**Blackboard**

Blackboard organizes this course. All course materials will be posted to Blackboard ([www.cmu.edu/blackboard](http://www.cmu.edu/blackboard))

**Recitations**

*Recitations are not merely problem sessions.* They are an opportunity to discuss the concepts and applications presented in the lectures amongst yourselves and with the TA. The recitations are intended to be interactive. Please come prepared to recitation!

TA’s will not bebug Excel spreadsheets via email!

**Assignments**

Because I am convinced that you can learn a great deal in this course by working with your fellow students, you are encouraged to work in teams of two or three.

Homework assignments will be made available on Blackboard each Tuesday. Begin preparing your assignment promptly. Formulate any questions you may have and email them to a TA. The Friday recitation will focus on problems similar to those on the assignment. The assignment will be due the following Tuesday before class. Submit assignments on Blackboard.

-  No “super-teams”! That is, no collaboration with other teams on homeworks.
• Submitted HW must be neat and well-organized; TA’s cannot award points to material they cannot decipher. Print homeworks with screenshots and the relevant formulas displayed. Questions should be answered in writing, not just the spreadsheet.

• Do not expect late assignments to be accepted. A score of 0 will be recorded if we don’t get your assignment on time.

• To facilitate returning your graded HW, make sure that your mailbox number is prominently displayed on your submitted assignment.

We will make every effort to make sure that assignments are graded fairly and accurately. If you feel that we have missed something, send email to the TA who graded the assignment indicating that you would like a reassessment and arrange a time with the TA for this consideration.

Recording Policy

Classroom activities may be taped or recorded by a student for the personal use of that student or for all students presently enrolled in the class only, but may not be further copied, distributed, published or otherwise used for any other purpose without the express written consent of Robert C. Hampshire

Academic Integrity

As part of the core curriculum of Heinz professional programs, this course is all about learning the skills and concepts that you will need in your career. Behaviors that obstruct learning can’t be tolerated. Tests and homework grades assess how much learning has taken place. Any form of cheating to avoid learning or to get a grade higher than earned by learning is wrong. There are no shortcuts to learning. We will enforce Heinz School mechanisms to ensure academic integrity. All must be accountable for what they actually have done and what they have learned. No one should seek an unfair advantage over their fellow students.