

OR 3800: Introduction to Management Science

Course Information

Staff Information



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Office Location: BA 363

Office hours: See Syllabus Information on Canvas

Web Link: www.bgsu.edu/business/asor/faculty_staff.html



Private Tutoring



Help may also be available from Math Stats Tutoring Center in the Learning Commons (south end of the first floor of the Jerome Library)

www.bgsu.edu/learning-commons.html

Prerequisites



MIS 2000 & STAT 2110 or 2200

- You may enroll if concurrently retaking STAT (to get a grade of “C” or better).
- Although prerequisite proficiency in Microsoft Excel is not presumed, some experience using computer spreadsheets is vital for student success.

Catalog Description



Introduces various quantitative approaches for modeling and solving business problems. Topics include linear programming models and solution methods, problem formulations via integer and goal programming, decision analysis under uncertainty, and computer simulation. (3 Credit Hours)

Textbook & Software Course Materials Required



Ragsdale, C.T., *Spreadsheet Modeling & Decision Analysis*, 7th Ed., 2014.

ISBN-13: 978-1-285-41868-1 or BGSU custom textbook: ISBN-13: 978-1-305-74491-2



- Earlier editions are OK, but have screenshot figures of older versions of Excel.
- Custom edition (½ the content at ½ the price) available at BGSU bookstore.
- No CD-Rom or software access code card is needed; software access codes and extensive further details are on a Canvas Module.
- Excel’s solver software required (which may preclude using a tablet computer).
- A PC is expected; be aware that Mac computers may work slightly differently.

Course Topics



Linear Optimization Modeling
Decision & Risk Analysis

Chapters 3, 6 & 7
Chapters 14 & 12

Course Goals



Help students acquire

- good spreadsheet engineering skills,
- a basic knowledge of OR/MS quantitative decision models,
- an ability to recognize when and where these models are applicable,
- an ability to identify data requirements for successful OR/MS implementation,
- an ability to use the results from quantitative analysis to support business decision-making & problem solving within & across functional business areas.

Student Learning Outcomes



Upon completion of the course, students will be expected to demonstrate

- Skillfully employ many intermediate and advanced features of Microsoft Excel and apply good spreadsheet engineering design principles,
- Formulate optimization models for better decision making in business,
- Design & build Microsoft Excel spreadsheet implementations of these models.

Student Assessment



Exam I: Chs. 3, 6, 7 – Linear Optimization	35%
Exam II: Chs. 14, 12 – Decision & Risk Analysis	35%
Homework Problems (5-6)	15%
On-line Quizzes (5-6)	10%
<u>Class Participation</u>	<u>5%</u>
Total	100%

Grade Scale



90-100% A 80-90% B 70-80% C 60-70% D 0-60% F
Note: only a grade of “D” or better in OR 3800 is required for BSBA graduation.

Classroom Policy



- You may either bring a personal laptop for class equipped with the requisite software or else check out a College of Business computer.
- Each class is the equivalent of more than 1 week of classes in a regular semester!
- Please turn off cell phones during class.
- Quizzes may test understanding of recent material and/or material in preparation for a forthcoming lecture.

Exam Policy



- Exams will be computer based.
- Each exam will consist of 2-4 word problems involving spreadsheet modeling.
- Each exam will be 120 minutes long; we will review briefly before each exam.
- Final exam is *not* comprehensive.
- No make-up exam will be given unless the instructor is
 - notified in advance (except in emergency situations) &
 - an acceptable written excuse is presented for rescheduling.

Homework Policy



- There will be weekly assignments.
- Problems, including spreadsheet shells to model them, will be posted on Canvas.
- Students will submit completed computer spreadsheets back via Canvas.
- Unexcused late submissions will not receive credit once solutions are posted.
- Homework may be completed with a homework partner, i.e. *one* other person.
- For your own benefit, please attempt to start each problem on your own.
- The learning curve is steep, so expect homework to be a (several hours) struggle.
- Start early! You may need time for your subconscious to work its creative magic!
- If you don't know where to start on a problem, start by thinking! It's hard!

Academic Honesty Policy



The instructor and students will adhere to the general Code of Academic Conduct as outlined of the [BGSU Student Handbook](#). Specifically, students will not cheat, fabricate, plagiarize or facilitate academic dishonesty. Students who passively engage in cheating (i.e. allowing others to cheat off of them) may receive the same consequences as the person copying. In group work, if your partner or teammates do all the work on an assignment, you should not be listed as a contributor and should receive no credit for that work. If you allow an assignment to be submitted listing you as a contributor, but you did *not* contribute, this is equivalent to plagiarism.

Communication Policy



- Announcements will be posted frequently on Canvas.
- Students should expect a response to an e-mail sent during normal business within 4 hours; by noon the following day if sent after hours or on the weekend.

Disability Policy



If you have a documented disability which might require modifications in a particular assignment, please contact me at least a week prior to the assignment's due date to assist you with its realignment. The Disability Services for Students Office is to help provide equal access and reasonable accommodations to students with disabilities attending BGSU. Students wishing to discuss their eligibility for such accommodations are encouraged to contact the office at 419/372-8495.