

SUPPLY CHAIN MODELING AND OPTIMIZATION

OM 337 (# 03870)

SPRING 2007

TTH 11:00 a.m. -12:30 p.m. UTC 4.122

COURSE OUTLINE

JANUARY

| | | |
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| TH | 18 | INTRODUCTION TO THE COURSE |
| T | 23 | INTRODUCTION TO OPTIMIZATION FORMULATION OF LINEAR PROGRAMMING (LP) MODELS Reading: Class Notes <i>Operations Research Models and Methods (ORMM)</i> , Chapter 2, 17-36 |
| TH | 25 | GRAPHICAL SOLUTION OF LP PROBLEMS Reading: Class Notes <i>Operations Research Models and Methods (ORMM)</i> , Chapter 2, 17-36 |
| T | 30 | LP SOLUTIONS AND SENSITIVITY ANALYSIS Reading: Class Notes ORMM, Chapter 2, 37-47 |

FEBRUARY

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| TH | 1 | THE EXCEL ADD-IN for LP |
| T | 6 | LP SOLUTIONS AND SENSITIVITY ANALYSIS continued Reading: Class Notes ORMM, Chapter 2, 37-47 |
| TH | 8 | LP FORMULATION continued Reading: Class Notes |
| T | 13 | LP FORMULATION continued Reading: Class Notes |
| TH | 15 | LP FORMULATION continued Reading: ORMM, Chapter 2, 48-60, 66-77 |
| T | 20 | LP PROBLEM CLASSES continued CLASS DISCUSSION of LP PRACTICE PROBLEM SET |
| TH | 22 | LP PROBLEM CLASSES continued CLASS DISCUSSION of LP PRACTICE PROBLEM SET continued |

T 27 NETWORK FLOW PROGRAMMING MODELS
Reading: Class Notes
ORMM, Chapter 2, 60-65

MARCH

TH 1 FIRST EXAM REVIEW: Topics through February 22

T 6 FIRST IN-CLASS EXAM

TH 8 PRELIMINARY DISCUSSION OF **American Steel** CASE

M-S 12-17 SPRING BREAK

T 20 NETWORK FLOW PROGRAMMING MODELS continued
THE EXCEL ADD-IN for NETWORKS

TH 22 THE TRANSPORTATION PROBLEM
THE EXCEL ADD-IN for TRANSPORTATION PROBLEMS

T 27 FORECASTING
Reading: Class Notes
Assignment Due: Case: American Steel

TH 29 FORECASTING continued

APRIL

T 3 AGGREGATE PLANNING IN A SUPPLY CHAIN
Reading: Class Notes
Assignment Due: Case: Applichem

TH 5 AGGREGATE PLANNING USING LP
Reading: Class Notes
ORMM, Chapter 2, 56-60

T 10 CAPACITY PLANNING
Reading: Class Notes

TH 12 CAPACITY PLANNING continued
Assignment Due: Case: Red Tomato Tools

T 17 NETWORK DESIGN DECISIONS IN A SUPPLY CHAIN
FACILITY LOCATION AND CAPACITY ALLOCATION
INTEGER PROGRAMMING MODELS
Reading: Class Notes

TH 19 DECISION ANALYSIS
Reading: Class Notes

T 24 DECISION ANALYSIS continued
Assignment Due: Case: SportStuff.com

TH 26 SECOND EXAM REVIEW: Topics through April 24

MAY

T 1 SECOND IN-CLASS EXAM

TH 3 DISCUSSION OF FINAL EXAM
COURSE EVALUATION

W 9 FINAL EXAM DUE 5 pm