

ISDS 514: Decision Models for Business and Economics Spring 2017 – Section 3

Instructor: Dr. Vahideh Abedi

Class time & place: Thursdays 7 – 9:45 pm LH 319

Office Hours: **Mondays 5:30 - 7 pm & Thursdays 5 – 6:30 pm**

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Objective: The objective of this course is to familiarize students with how management science methods are used to support the decision-making process. We will be looking at

- Getting experienced with quantitatively formulating a business problem
- How to forecast the parameters of the problem using past data
- How to quantitatively analyze the problem using Management Science and Optimization techniques, and formulate viable recommendations
- Using appropriate Management Science software tools

Texts & Resources: Ragsdale, Spreadsheet Modeling & Decision Analysis, 7th edition. Cengage Learning.

Other course relevant material will be posted on the Titanium course portal.

Software: Microsoft EXCEL will be used extensively in this course.

Evaluation: **Exams:** There would be **3 exams** for this course. The exams are **not cumulative** with the last exam taking place at the official final exam period. As is also mentioned in the tentative course schedule, the tentative dates for the exams are as follows:

Exam 1: March 2	Exam 2: April 20	Exam 3: May 18
Time: regular class time	Time: regular class time	Time: 7:30 – 9:20 pm (final exam week)

The exams will be closed-books and closed-notes. However, **you would be allowed to bring up to 4 pages of guide notes of your own to the exam (either 4 single sided sheets or 2 double sided sheets). Additional to your guide notes, flowcharts and tables used in the course will be provided during the exam.**

Mini-projects: There will be about 6 mini-projects over the semester. Roughly speaking, there would be two of them before each exam. These are the best chance for you to evaluate your strengths and weaknesses on covered material *before* each of the exams. I will announce the questions and the deadline in advance. The submission of the mini-projects would be mainly made through the course portal.

Homework: Homework questions along with answers will be assigned on each topic. A select number of homework problems will be assigned to be handed in, but you are responsible to go over all homework problems. It is strongly recommended that you take your homework assignments very seriously; it is nearly impossible to do well in this course without working on the homework problems on a regular basis as the course progresses.

The final grade for the course is determined with the following weights. Opportunities for bonus points may be available with details being provided over the semester.

Average of the 3 exams	85%
Mini-projects	10%
Homework submission	5%

Letter grades will be assigned at the end of the semester with the following cut-off ranges.

A+	97 and above
A	94 – 96.99
A-	90 – 93.99
B+	85 – 89.99
B	80 – 84.99
B-	75 – 79.99
C +	70 – 74.99
C	65 – 69.99
C-	60 – 64.99
D	50 – 59.99
F	below 50

Assessment Statement – The main purpose of the degree program at the Mihaylo College of Business & Economics at California State University at Fullerton is to provide you with the knowledge and skills that prepare you for a successful career in business. In order to assist us in achieving this goal, we will use a number of assessment tools to track your progress throughout the College curriculum. Please expect to participate in College assessment activities in several of your courses while at CSU, Fullerton. As you do so, you will assist us in identifying our program's strengths and weaknesses as well as areas for potential improvement. In other words, you are making an important investment in the value of your degree.

Academic Dishonesty – Academic dishonesty includes such things as cheating, inventing false information or citations, plagiarism, and helping someone else commit an act of academic dishonesty. It usually involves an attempt by a student to show possession of a level of knowledge or skill which he or she does not possess. No academic dishonesty is tolerated in any examination. University guideline of academic dishonesty will be strictly followed.

<http://www.fullerton.edu/deanofstudents/judicial/pdfs/UPS300-021.pdf>

Attendance – You are expected to attend all lectures in this course. Regular attendance is by far the key to successfully complete most of the assessments in this course. Students are responsible for ALL missed lectures. Roll will be taken on a random basis.

Makeup exam – Absence at an exam results in a grade of zero for that exam. Make up exams are not permitted unless under extreme circumstances. If such a circumstance prevails, please notify me as soon as possible in order for the arrangements to be made. Documentation will be required.

Cell Phones – Please respect your classmates by turning off your cell phones in class. Stepping out of classroom to make or answer phone calls is a disruptive behavior.

Students with disability - The University requires students with disabilities to register with the Office of Disability Support Services (DSS), located in UH-101 and at (657) 278 – 3112, in order to receive prescribed accommodations appropriate to their disability. Students requesting accommodation should inform the instructor during the first week of classes about any disability or special needs that may require specific arrangements/accommodations related to attending class sessions, completing course assignments, writing papers or examinations. More information is available at <http://www.fullerton.edu/disabledservices/FSHBContents.htm>

In case of Emergencies: Please take the time to familiarize yourself with the required steps for campus emergencies: http://www.fullerton.edu/emergencypreparedness/ep_students.html

Tentative Schedule

In addition to required readings of chapters of the book in the table below, other required reading materials such as cases or articles will be announced throughout the semester.

Day	Topic	Required Reading
Basic Decision Making Tools		
Week 1	Introduction to business decision making & Mathematical modeling Linear Programming - basics	Chapters 1, 2
Weeks 2, 3, 4, 5	Linear Programming continued – methods, sensitivity analysis and applications Integer Linear Programming	Chapters 2, 3, 4
Exam 1: March 2	Exam 1 covers linear programming topic	
Weeks 6, 7, 8	Network Models	Chapter 5
Weeks 9, 10, 11	Forecasting Models – methods for stationary, trend and seasonal time series	Chapter 11
Exam 2: April 20	Exam 2 covers Network models & Forecasting topics	
Specialized Decision Making Tools		
Week 12	Decision Analysis	Chapter 14
Weeks 13, 14	Project Management models	Chapter 15
Weeks 14, 15	Inventory Models	Supplemental material
Exam 3: 18 May 7:30 – 9:20 pm in class	Exam 3 covers Decision Analysis, Project Management & Inventory topics	