

University of Southern California Viterbi School of Engineering
Daniel J. Epstein Department of Industrial and Systems Engineering
ISE 530: Introduction to Operations Research
Spring 201 I: Syllabus

Personnel	Instructor: Arpi Mardirossian Office Hours: TBD Email: arpi.mardirossian@gmail.com or mardiros@usc.edu TA: Naemeh Nejatbakhsh Esfahani Office Hours: TBD Email: nejatbak@usc.edu
Class Details	MW 3:30 pm – 4:50 pm in OHE 120
Course Text	“Operations Research, An Introduction” by Hamdy Taha, 8th Edition, Prentice Hall, 2003
Pre-requisite	ISE 220 and MATH 225
Course Overview	This course provides a comprehensive overview of the principles and practice of Operations Research. <i>Part I</i> is a brief introduction to the field, its history, and the role of models in the study operations. <i>Part II</i> focuses on deterministic models with an emphasis on linear programming, network flows, goal programming and deterministic inventory models. <i>Part III</i> focuses on stochastic models with an emphasis on stochastic inventory models, decision analysis, game theory, Markov chains, queueing theory and computer simulation.
Grading Method	Homework – 15% Project – 25% Midterm – 25% Final – 35%
Topics Covered	Linear Programming Goal Programming Integer Programming Network Models Inventory Models Algorithm Design Dynamic Programming Probability Decision Analysis Game Theory

Markov Chains
Queueing Systems
Computer Simulation

Academic Integrity

Each student is expected to: be responsible for his/her own learning; to solve and write up his/her own solutions; and, to credit all sources of material and collaborators to the formulating of a solution. Plagiarism, the use and passing off of the ideas or work of another as one's own, will be severely punished; see USC's **Academic Integrity Policy**:

You are expected to solve and write up your own homework, or you will be penalized for cheating. But you are encouraged to study and to work on assignments and homework together. This includes discussing solution strategies to be used on individual assignments. If you do study or work together on homework, be sure to credit your team of collaborators. However, all work submitted for the class is to be done individually.

All USC students are responsible for reading and following the Student Conduct Code. The USC Student Conduct Code prohibits plagiarism. Some examples of what is not allowed by the conduct code: copying all or part of someone else's work (by hand or by looking at others' files, either secretly or if shown), and submitting it as your own; giving another student in the class a copy of your assignment solution; consulting with another student during an exam. If you have questions about what is allowed, please discuss it with the instructor.

Students who violate University standards of academic integrity are subject to disciplinary sanctions, including failure in the course and suspension from the University. Since dishonesty in any form harms the individual, other students, and the University, policies on academic integrity will be strictly enforced. We expect you to familiarize yourself with the Academic Integrity guidelines found in the current SCampus: web-app.usc.edu/scampus. Violations of the Student Conduct Code will be filed with the Office of Student Conduct, and appropriate sanctions will be given.

Disability Policy Statement

Any Student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to the professor (or to TA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m. - 5:00 p.m., Monday through Friday. The phone number for DSP is (213)740-0776.