Math 2210: Mathematical Methods in Decision Making
D Term 2015 WPI

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Office Hours: TBA
By Appointment

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TBA
By Appointment

Class Info: Lecture: Thursday, 10:00am – 10:50am, Stratton Hall 309
myWpi will be used to manage many of the course details.

Conference: Section D01: Wednesday, 10:00am – 10:50am, Stratton Hall 202

Textbook: *Introductory Operations Research*, by F. Hillier & G. Lieberman,
ISBN 978-0-07-352345-3 (e-book or hard copy)

Overview: This course introduces students to the principles of decision theory as applied to the planning, design and management of complex projects. It will be useful to students in all areas of engineering, actuarial mathematics as well as those in such interdisciplinary areas as environmental studies. It emphasizes quantitative, analytic approaches to decision making using the tools of applied mathematics, operations research, probability and computations. Topics covered include: the systems approach, mathematical modeling, optimization, and decision analyses. Case studies from various areas of engineering or actuarial mathematics are used to illustrate applications of the materials covered in this course.

Recommended background: MA 1024.

Suggested background: Familiarity with vectors and matrices. Although the course makes use of computers, no programming experience is assumed.

Grading: The final grades will be computed using:

HW / Quizzes	40%
Midterm Exam	30%
Final Exam	30%

Computing: Some assignments will require computing resources. Microsoft Excel will be used extensively.

Exams:

04/09/2014	Midterm Exam,	In Class
05/05/2014	Final Exam,	In Class

Quizzes: There will be occasional in-class quizzes. Some may be unannounced.

Make-up Policy:
Make-up exams will only be allowed in the event of a documented emergency. You are responsible for avoiding conflicts with the exams. Do not plan to leave campus for the term before the final exam. Quizzes cannot be made up.

Homework: There will be regular homework assignments. In general you are allowed to work together on homework assignments, but your solutions must be written up independently.

Late HW: Late assignments without prior consent of the professor will not be accepted and will receive a grade of 0. Extensions will be granted only in the event of unforeseen emergencies or extenuating situations that you discuss with the professor in advance.

Academic Honesty: WPI has an established academic honor code, described in *The WPI Student Judicial Policies and Procedures*. Each student is expected to familiarize him/herself with WPI's Academic Honesty policies, which can be found at http://www.wpi.edu/offices/policies/honesty.
All acts of fabrication, plagiarism, cheating, and facilitation will be prosecuted according to the university's policy. If you are ever unsure as to whether your intended actions are considered academically honest or not, please see Prof. Blais.

Disability Services: If you need course adaptations or accommodations because of a disability, or if you have medical information to share with me, please make an appointment as soon as possible. If you have not already done so, students with disabilities, who believe that they may need accommodations in this class, are encouraged to contact the Office of Disability Services (ODS), as soon as possible to ensure that such accommodations are implemented in a timely fashion. The DSO is located in 137 Daniels Hall, its phone number is (508) 831-4908, and its email is DisabilityServices@wpi.edu.

This syllabus is subject to change at the instructor's discretion