

IE460 – Spring 2019

Homework 2 - Due date – March 8, 2019 – 17:00 pm

Information on Homework 2

- **Homework 2 is 2%. Make sure that you review course material before you start. Cite sources used if any.**
- **Grading Policy:** The homework grades will not be only based on the correctness of the answers provided, but on the perceived degree of effort on the returned assignment. This means that even without obtaining the correct answers one can obtain full credit. The grade scale will be “2” (full effort, all questions); “1” (some effort or full effort, some questions); “0” (no effort or no submission). The submissions that exceed expectations may get a bonus – grade will be “3” (extra effort). Note that “2” corresponds to a grade out of 100% - 2% of the overall grade in this case. Late submissions will not be accepted.
- The grading scale for each question is 2 points (close to full effort), 1 point (some effort), and 0 (no effort or no submission). Total points that would lead to your overall HW grade are given below:

Total Points	HW Grade
4+	3
3-4	2
1-2	1
0	0

- **Academic Dishonesty (taken from IE460 Course Information):** For assignments: Discussion of the course material and working in groups are effective ways of learning. However, this does not mean that you can copy the assignment from one of your friends. You can discuss with your friends, but you should be alone, without any written solution in front of you, when you actually prepare your assignment. It is extremely important to understand the value of this exercise in the process of learning. Any violation of the above understanding will result measures outlined in the student rules and regulations.
- **Submission Information:** An assignment submission box is to be placed in front of office EA325 about two days before submission date and is to be removed at the time of the deadline. You need to put your assignment in the designated box before the deadline. **Submission via e-mail is NOT accepted.**

Suggestions: Before you start solving the problems:

- 1) Review and Read Chapter 13 of your text book in detail before solving your homework (you may also want to review Chapter 5 of Nahmias and Olsen – the text you used for IE375). The way things are described in the new text may be a bit different than your previous text-books.
- 2) For each question, each part: Outline what you need to do in steps before you actually solve. You can use a spread-sheet to solve your problem, as long as your outline is detailed enough to specify your parameters, decision variables and formulas to apply.
- 3) Once you solve the homework problems you can now clearly understand Pasternack (1985).

Homework Problems:

1. Problem 1, Chapter 13 (p. 402) of the text-book, Chopra and Meindl (2016).
2. Problem 16, Chapter 13 (p. 404) of the text-book, Chopra and Meindl (2016). For part c) employ a mathematical formulation of the problem and compute its solution (Hint: You need to use a Lagrange formulation for the solution of the multi-item problem. Note that the formulation is actually stated in your text book – you may need to consult IE375 text book for its solution).