

- Read the case description and use Monte Carlo simulation to solve the problem
- Report in maximum of 2 pages
- The total value of the assignment is 6 points
- You can write your answers either in Finnish, Swedish or English.
- Deadline for this assignment is on Thursday, March 8th, 2018 at 16:00.
- Return your report via MyCourses

Assignment 1.1 – Monte Carlo Simulation

Use Monte Carlo simulation to solve the case study Piedmont Airlines (see file piedmont.pdf). Your report should include answers to following questions.

- a) Describe the advantages and disadvantages of the cases where
 - 1) too many full-fare seats were reserved vs.
 - 2) too few full-fare seats were reserved.
- b) Describe how you can simulate the number of sold full-fare tickets on a given flight using a fixed discount-seat allocation and the estimates of total demand and *diverter-stimulator* mix stated in the case.
- c) Determine the optimal number of full-fare seats to be reserved. What is the corresponding revenue?
- d) Compare your solution with the text of the written case study. If there are differences, why?
- e) Would it be possible to use analytical methods to solve the case study? How would you apply these methods?