

ISyE 4803-REV: Advanced Manufacturing Systems Modeling and Analysis
Instructor: Spyros Reveliotis
Fall 2019

Homework #3

Due Date: Monday, 10/21/19

Reading Assignment

- Sections 3.7, 5.1 and 5.2 of your textbook.
- Your notes from the class lectures.

Problem set:

- A. Solve problems 3.30, 3.31, 3.32, 5.1, 5.2 and 5.3 at the end of Chapters 3 and 5 of your textbook.

Some Remarks:

1. All the above problems can be addressed pretty easily by using an Excel spreadsheet for supporting the necessary computations.
2. I also want to remind you that the Erlang distribution mentioned in Problem 5.2 is covered in pg. 18 of your textbook.
3. For the problems from Chpt. 3, please, notice the impact of the manipulated variables on the performance measures of interest. The calculations and the corresponding plots requested by these problems intend to give you a “feeling” of the nature and the strengths of the aforementioned dependencies.