COMP 790: Stochastic Performance Modeling and Scheduling in Computer Systems

Homework 2: Intro to Queueing and Operational Laws

Released: January 22, 2026 Due: February 6, 2026

Instructions: This assignment is due at the start of class on the above due date. Collaboration is allowed, but please note your collaborators and turn in your own version of your answers. For more info on collaboration, see the course syllabus. Please utilize office hours if you get stuck! Office hours are Tuesday 10:00 - 11:30 and Thursday 4:00 - 5:30 in FB 336. All problems come from the course textbook unless otherwise stated. **Please staple this page to the front of your answers.**

Book Problems: 2.3, 3.16, 4.3, 5.1, 6.3, 6.4, 6.5, 6.6

For problem 4.3, in addition to the numbers requested in the problem, please report the language you used and how long your simulator took to run. If the language you use can generate exponential random variables, you may use this. Please do not use any other libraries for simulating stochastic processes.

Problems 2.3 and 4.3 are worth 2 points. All other problems worth 1 point.

Problem	Score
2.3	
3.16	
4.3	
5.1	
6.3	
6.4	
6.5	
6.6	
Total	

Name/onyen: _____

Collaborators (or write N/A): _____