

# COMP 790: Stochastic Performance Modeling and Scheduling in Computer Systems

## Homework 4: CTMCs and Queueing Systems

Released: March 1, 2026      Due: March 25, 2026

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**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 Monday 10:00 - 12:00 and Friday 10:00 - 12:00 in FB 336. All problems come from the course textbook unless otherwise stated. **Please staple this page to the front of your answers.**

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**Book Problems: 11.4, 11.9, 11.11, 13.5, 13.8, 13.10, 13.14, 14.3, 15.10**

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All problems are worth 1 point except 15.10, which is worth 2 points.

| Problem | Score |
|---------|-------|
| 11.4    |       |
| 11.9    |       |
| 11.11   |       |
| 13.5    |       |
| 13.8    |       |
| 13.10   |       |
| 13.14   |       |
| 14.3    |       |
| 15.10   |       |
| Total   |       |

Name/onyen: \_\_\_\_\_

Collaborators (or write N/A): \_\_\_\_\_