

# CS440/ECE448 Lecture 36: Exam 3 Review

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# Outline

- Mechanics
- Topics
- Practice problems

# Mechanics

1. Today, May 1: Fill in the “When to take the exam” poll on Gradescope, if you wish
2. Friday, May 3: Check [prairietest.org](http://prairietest.org) to see where and when you should take the exam. You **WILL NOT BE ABLE TO TAKE THE EXAM** if you come to the wrong room – you will have to walk across campus to the right room.
3. Tuesday, May 7: Come to the exam room bringing only your computer, your ID, and your pencils.

# Today (Wednesday, May 1)

- If you have a preferred exam time (morning or afternoon), tell me at <https://www.gradescope.com/courses/701752/assignments/4366365> (Assignment: “When to take the final”)
- This must be completed by the end of May 1 if you want to use it.
- Your preference is NOT GUARANTEED!!!! Some people will get a non-preferred time
- If you have constraints (e.g., another exam) that limit your ability to switch, specify your constraints in the “Why” box.

# Friday, May 3

- Go to <https://prairietest.org>
- Click on this course
- Check to find out when and where you are taking the exam.
- If you don't see an exam assignment, please send e-mail to Prof. Hasegawa-Johnson.
- If you go to the wrong room on May 7, you **WILL NOT BE ABLE TO TAKE THE EXAM THERE**. You will have to walk across campus to the right room. So make sure you get the right room the first time.

# Tuesday, May 7

- Show up about 15 minutes early, so that you can be checked in by the time the exam starts.

# Bring your own device!

- Bring a laptop or tablet on which you will take the exam
- It should be a device with an internet connection, on which you can take exams at <https://prairietest.org>
- Cell phones are not guaranteed to work

# Bring your UIUC ID!!!

- You will need your ID to check in before taking the exam
- You will need your ID to check out, and then check back in again, if you need a bathroom break
- You will need your ID to check out if you finish the exam early
- If you have a non-UIUC ID, you will have to wait in the slow check-in line



# Bring your pencils!!!!

- We will provide scratch paper
- We will not provide pencils
- Bring your pencil

# Bring nothing else!!!!

- Your pockets should be empty, except ID and pencils
  - Cell phone is in your backpack
  - Earphones are in your backpack
  - Baseball cap is backward on your head, or in your backpack
- Backpack is at the side of the room, on the floor
  - NOT under your own desk

# Review

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# Topics covered on the exam

- 6 questions: topics from exam 1
- 6 questions: topics from exam 2
- 4 questions: reinforcement learning

# Reinforcement learning topics

- Model-based learning
  - Laplace-smoothed parameter estimates
  - Epsilon-first and Epsilon-greedy exploration strategies
- Model-free learning
  - TD-learning & SARSA
  - Policy gradient
- Speed of learning
  - Standard error
  - Exponential complexity of naïve RL

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# Practice problems

<https://courses.grainger.illinois.edu/ece448/sp2024/exams.html>