

COMP SCI 839 section 001

Core Topics in Computing

COURSE INFORMATION

Core Topics in Computing

COMP SCI 839 001 (3 Credits)

2022 Fall [1232]

Description

Topics selected from advanced areas.

Prerequisite(s)

Graduate/professional standing

Instruction Mode

Classroom Instruction

Section Level Com B

False

Department: Computer Sciences

College: Letters and Science



2022 Fall [1232]

Term Start Date: Tuesday, 24-May-2022 **Term End Date:** Sunday, 25-Dec-2022

 [ADD TO CALENDAR](#)

Location and Schedule: Computer Sciences 1263 TR 9:30 AM-10:45 AM

CRN: 268191232

How Credit Hours are Met:

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This class meets for two 75-minute class periods each week over the semester and carries the expectation that students will work on course learning activities (reading, writing, problem sets, studying, etc.) for about 3 hours out of classroom for every class period. The syllabus includes more information about meeting times and expectations for student work.

Regular and Substantive Student-Instructor Interaction:

During each class period, the instructor and students will engage in discussion on weekly readings, the instructor will lecture and answer student questions, and students will present research papers relevant to the weekly reading. The instructor will provide regular feedback to students on their work and class participation.

INSTRUCTORS AND TEACHING ASSISTANTS (TAs)

Instructor



Josiah HANNA




✉ JPHANNA@CS.WISC.EDU

Instructor Availability and Preferred Contact:

Office hours will take place on Tuesdays at 11am (immediately following lecture) in the instructor's office (CS 5391). Additional meeting times are available upon request (a brief email will suffice) and I am also willing to meet by Zoom if preferred.

COURSE OUTCOMES, GRADING, and OTHER COURSE MATERIALS

Course Learning Outcomes (CLOs):

-  Explain fundamental RL concepts and apply fundamental RL algorithms.
-  Explain distinctions between advanced topics in RL research (e.g., deep RL) and the problems they aim to address.
-  Complete an RL research project including an implementation component and experimental analysis of that implementation.

Grading:



- Weekly Readings and Questions: 10%
- Discussion Leader: 10%
- Class Participation: 10%
- Final Programming Project: 40%
 - Project Proposal: 5%
 - Literature Survey: 10%
 - Final Report and Code: 25%
- Programming Assignments: 30%

Late Policy: All assignments are due when specified by the instructor. Late assignments will have 10% deducted for each 24 hours past the due date. This penalty is capped at 50% after which no credit is received except for weekly reading responses. Weekly reading responses may be turned in up to the final class day with a penalty of up to 50% off. In the event of illness or emergency that prevents an on-time completion, please contact the instructor prior to the deadline.

McBurney Center students should contact the instructor to specify any special requests for the exams or homework assignments together with the supporting documentation provided by the McBurney Center. I will do my best to accommodate the requests.

Course Website, Learning Management System and Digital Instructional Tools:

The most up to date course schedule and information is available at the course website:
https://pages.cs.wisc.edu/~jphanna/teaching/2022fall_cs839/

Discussion Sessions:

We will use Piazza for asynchronous questions and discussions. Please follow these guidelines for Piazza:

- Check if someone has posted the same / similar question before you.
- Use an informative "Summary" line to help others.
- If the answer to your question might help others, please make it a public question. Moreover, your classmates are a great resource and may be quicker to reply than the instructor.

Required Textbook, Software, & Other Course Materials:

Each week we will have weekly readings from the course textbook. It is required but available freely online.

Reinforcement Learning: An Introduction (2nd edition). Rich Sutton and Andy Barto. MIT Press, 2018. ISBN 9780262039246. (Available for free online: <http://incompleteideas.net/book/RLbook2020.pdf>)

Homework & Other Assignments:

Programming assignments and components of the final project will be submitted on Canvas.

Responses and questions to weekly readings should be submitted to the instructor by email by 4pm US CT on Monday of each week. Please ensure to include "CS839 Response mm/dd" where mm/dd is the date of the Monday when the reading is due. Using this subject line makes it more likely your response will not be overlooked.





Syllabus Statements

<https://guide.wisc.edu/courses/#SyllabusStatements>