Introduction to Artificial Intelligence CSE 5290 Section 1

Fall 2022 TR 3:30 - 4:45 pm Olin Physical Sciences 140

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Office Hours: MW 2-4pm
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Class URL: cs.fit.edu/~dmitra/ArtInt

Course Objectives

The students will be able to

- Describe concepts and topics in artificial intelligence.
- Use problem-solving heuristics and search algorithms in the analysis of artificial intelligence problems and algorithms.
- Design of basic AI algorithms in logical reasoning, constraints processing, uncertainty reasoning, and machine learning.
- Develop basic data analytics skill.
- Improve team skills via group projects.

Required Texts / Materials: S. Russell and P. Norvig, Artificial Intelligence: Modern Approach. Pearson, third ed., 2010, and other materials provided with lectures.

Required Training (if applicable): Data structures, algorithmic paradigms, asymptotic rates of growth, complexity analyses, and coding skill in any high-level language.

Tentative Grading Policy (including late work policy): Take-homes/Quizzes (5-10): 15%, Coding exercises/Project: 45-50%, Exams (3-4) 35-40%. [Submit early! A few minutes late for Internet connectivity, etc., may be excused, but do not take chance. Late submissions will be progressively penalized. Communicate with me in such cases, do not sit idle expecting a zero.]

Course Attendance Policy: Three consecutive absences will be reported.

Where to Find Extra Help: Google; Academic support center; Computer Science help desk; Any faculty member; and Especially, your colleagues – computer science learning happens mostly outside class.

Academic Honesty Definitions & Procedures: Is located in the student handbook at https://www.fit.edu/policies/student-handbook/standards-and-policies/academic-honesty/

Title IX Statement: The university's Title IX policy is available at https://www.fit.edu/policies/title-ix/
Title IX of the Education Amendments of 1972 is a federal civil rights law that prohibits discrimination on the basis of sex in federally funded education programs and activities. Florida Institute of Technology policy also prohibits discrimination on the basis of sex.
Florida Tech faculty are committed to helping create a safe learning environment for all students that is free from all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you, or someone you know, have experienced or is experiencing any of these behaviors, know that help and support are available.

Florida Tech strongly encourages all members of the community to take action, seek support, and report any incident of sexual harassment or gender discrimination to Fanak Baarmand, Title IX Coordinator at 321-674-8885 or fbaarman@fit.edu.
Please note that as your professor, I am required to report any incidents to the Title IX Coordinator. If you wish to speak to an employee who does not have this reporting responsibility, please contact the Student Counseling Center at 321-674-8050.

Academic Accommodations: Florida Tech is committed to equal opportunity for persons w/disabilities in the participation of activities operated/sponsored by the university. Therefore, students w/documented disabilities are entitled to reasonable educational accommodations. The Office of Accessibility Resources (OAR) supports students by assisting w/accommodations, providing recommended interventions, and engaging in case management services. It is the student's responsibility to make a request to OAR before any accommodations can be approved/implemented. Also, students w/approved accommodations are encouraged to speak w/the course instructor to discuss any arrangements and/or concerns relating to their accommodations for the class. Office of Accessibility Resources (OAR): Telephone: 321-674-8285 / Email: accessibilityresources@fit.edu Website: https://www.fit.edu/accessibility-resources

Recording Disclosure (Privacy Waiver): This course may be recorded for use by students and/or faculty. Enrolled students are subject to having their images and voices recorded during the classroom presentations, remote access learning, online course discussions, and remote office hours/meetings. Course participants should have no expectation of privacy regarding their participation in this class. Recordings may not be reproduced, shared with those not registered in the courses, or uploaded to other online environments. All recordings will be deleted at the conclusion of the academic term.

Covid-19 University Policy: As per Florida Tech's "Return to Learn Fall 2020" policy, the "*use of face coverings [is] mandatory for students*." By attending this class in person students agree to follow all health guidelines listed in that document, as well as practicing social distancing in the classroom itself. Anyone with COVID-19 symptoms should stay at home and seek medical attention. Students failing to follow masking and social distancing will not be allowed to remain in class. For more information, please visit Florida Tech's Coronavirus Central at https://www.fit.edu/coronavirus/ (Links to an external site.).

Anticipated Weekly Subject Matter and Assignment Schedule:

	Weekly Topic	Assignment
Week 1	CS background	Pre-req quiz
Week 2	Blind search algorithms	Background quiz
Week 3	AI search algorithms	Grad projects assigned
Week 4	Local search algorithms	Search quiz
Week 5	Game search algorithms	
Week 6	Logic and reasoning	Logic Quiz
Week 7	First-order logic	Test-1
Week 8	Probabilistic reasoning and uncertainty	Grad projects phase-1 presentation/submission
Week 9	Probabilistic reasoning	Probabilistic reasoning quiz
Week 10	Machine learning (ML)	Test-2
Week 11	Machine learning	
Week 12	Machine learning	ML quiz
Week 13	Machine learning	Grad projects phase-2 presentation/submission
Week 14	Constraint Reasoning	Test-3
Week 15	Student presentations	Grad projects final presentation

Week 16	Ethics in AI	

This schedule is subject to change at the instructor's discretion.

FINAL EXAM Information:
https://www.fit.edu/policies/final-examination-schedules/examination-schedules/fall-final-examination-schedule/
Thursday, Dec. 16 3:30-5:30pm