COSC 461/561 - Artificial Intelligence

Class: COSC 461/561, Fall 2025, Tue Thu 5:30pm-7:10pm, PH 203

Instructor: S. Maniccam

Office hours: Tue Thu 9:50-10:50 12:50-2:50

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Course description: The course is about fundamentals of artificial intelligence. Students will learn about various concepts, algorithms, and applications in artificial intelligence. Students will write various artificial intelligence related programs. Main course topics:

Uninformed search	Probabilistic reasoning
Heuristic search	Neural networks
Game playing	Evolutionary algorithms
Constraint satisfaction	Swarm intelligence
Logical reasoning	Deep learning
Supervised learning	Reinforcement learning
Unsupervised learning	Other topics as time permits

Text: Artificial Intelligence, 4th edition, by S.Russell P.Norvig, Recommended

Lecture notes: Lecture notes will be important part of the course.

Programs, homeworks: There will be 4-5 programming assignments. Each program is 20 points. Programs are 70% of grade.

Examinations, Quizzes: There will be one examination. Examination is 100 points. There will be 4-5 announced/unannounced quizzes. Each quiz is 10 points. Examination and quizzes together are 30% of grade.

Grading: Grade will be determined by programming assignments (70%) and examination and quizzes (30%). 90-100% A range, 80-90% B range, 70-80% C range, 60-70% D range, 0-60% F. In addition, at least 50% in total programs, and at least 50% in total quizzes, and at least 50% in total exams are required to pass the course. Otherwise the grade will be F.

Prerequisite: COSC 311, COSC314

Attendance: Attendance is required for the full class period. Instructor may take attendance at any time or multiple times during a class. Coming late or leaving middle/early are counted as absence. After three absences, 2% of the total grade will be deducted for every absence up to 20% of the total grade. Students who are not present, come late, or leave middle/early are responsible for any course material/announcements given in the class, and they will not be available from the instructor afterwards.

Missed work, late submission, makeup, appeal: Missed assignments, exams, and quizzes will receive zero. Assignments must be submitted by the due time. Late assignments will be accepted up to twenty four hours with 25% deduction, and submission after twenty four hours will receive zero. There will be no make up for exams, quizzes, and assignments for any reason. Any questions about the graded material must be submitted to the instructor within one day after the graded material is returned.

Individual work in graded work: All graded work must be individual work by the student only, without any assistance or input from anyone or any source. Students should not in any way collaborate, help, or share their work with the other students in the class. Students should not use information from the internet, web, chatgpt, or other sources. Any student misconduct will result in F grade in the course and university disciplinary action against the student.

Other policies: Email communications must be via the university's emich email. Students will need a scanning app and access to a printer. Books, notes, computers, calculators, phones, and other devices are not allowed during exams and quizzes, and they should be placed in a bag away from the desk. Instructor will assign seating during exams and quizzes. Students should not leave the class room during exams and quizzes. Students should not engage in non course related activities during the class. Students do not have the permission to video/audio record the lecture/class.

Syllabus is subject to change. Students will be informed of any change.