

CS6601 Syllabus

Course Information

Course Prefix and Number: CS6601
Course Name: Artificial Intelligence
Instructor: Ploetz, Thomas

Course Description

CS6601 is a survey of the field of Artificial Intelligence and will often be taken as the first graduate course in the area. It is designed to be challenging and involves significant independent work, readings, and assignments. The course covers most of the required textbook [Artificial Intelligence A Modern Approach 4th edition](#), which is a keystone of Georgia Tech's Intelligent Systems PhD qualifier exam.

Course Learning Outcomes

By the end of this course and upon successful completion, students will have achieved the following goals:

- **Foundation:** Students will build a strong foundation in classic AI techniques like game playing, search, constraint satisfaction, logic and planning, machine learning, graphical models, etc.
- **Skills:** Students will be able to propose, evaluate, and implement solutions to problems requiring AI techniques.
- **Integration:** Students will be aware of where AI intersects with other disciplines, primarily machine learning and perception.
- **Assessment:** Students will have experienced different flavors of problems and solutions, and have developed a taste for some; you should also have confidence in how and where AI can be applied in problems relevant to society.

Required Course Materials

The course textbook is available as a hardcover and rental [Artificial Intelligence: A Modern Approach \(AIMA, Fourth edition\)](#) by Stuart Russell and Peter Norvig (also as ebook available via [CourseSmart edition](#)). The textbook will be supplemented by video lectures and peer-reviewed papers whose links will be provided with the course material.

Grading Policy

Six individual coding assignments, out of which five count towards final grade (students can drop one assignment). The five counting assignments (four of the six overall) together carry 55% of the overall class grade.

Ten challenge questions assessments, out of which eight count towards final grade (students can drop two assignment). The eight counting assignments (out of the ten overall) together carry 5% of the overall class grade.

Two exams, midterm and final exam, together carry 35% of the overall grade (15% midterm, 20% final).

Two introductory assignments carry the remaining 5% of the overall grade: A0 – an introductory coding assignment: 2%; and a plagiarism quiz: 3%. The plagiarism quiz on academic integrity must be passed with at least 80% before its deadline. Not passing these assignments in time will prevent students from continuing in the class.

The class is graded on a letter scale with:

- The cutoff for an A will be at most 90%.
- The cutoff for a B will be at most 80%.
- The cutoff for a C will be at most 70%.
- The cutoff for a D will be at most 60%.
- Anything below corresponds to not passing the class.

Description of Graded Components

Assignments, quizzes, and exams are all individual assignments. No collaboration is allowed. Exams and assignments are open notes (class material plus additionally provided material).

Attendance Policy

This will be an active classroom, where you will be expected to participate. I have noticed a drastic difference in the exam performance between students who regularly attend class and those who don't.

Academic and Research Honesty/Integrity Statement

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review the [Georgia Tech's Honor Code](#) and the [Student Code of Conduct](#).

Any student suspected of cheating or plagiarism on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Core IMPACTS

Not applicable.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs [contact the Office of Disability Services](#)

Student-Faculty Expectations Agreement

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. The articulates some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class. [Expectations of Advisors and Advisees](#)