CSC384H1S – Introduction to Artificial Intelligence
Winter 2024

Contact Information

Section	LEC0101/2001 LEC0201/2101	LEC0301/LEC2201	LEC2501/5101
Instructor:	Chandra Gummaluru	Bahar Aameri	Kuldeep Singh Meel
Lectures & Tutorials	M, W, F 10- 11am M, W, F 12- 1pm	M, W, F 4- 5pm	Tue 6-9pm
Office Hours	See Quercus	See Quercus	See Quercus
Course Email:	csc384-2024-01@cs.toronto.edu		

__Course website__: All course material, including lecture slides, will be posted on Quercus.

All announcements will be made through Quercus and/or Piazza, and it is your responsibility to check them regularly.

Course Overview and Outcomes

This course provides a first and shallow introduction to artificial intelligence (AI). It is an excellent starting point for anyone curious about AI. In this course, you will learn about the theories and algorithms that capture some core elements of computational intelligence and become prepare to dive deeper into a particular topic in advanced artificial intelligence courses. Specifically, you will be learning about algorithms in 5 topics:

Outline The course will cover the following subjects:

1. Search (Uninformed, Heuristic, Local)
2. Game Tree Search (a.k.a. Adversarial Search)
3. Constraint Satisfaction Problems
4. Representing and Reasoning under Uncertainty
5. Symbolic Knowledge Representation and Reasoning

How to do well in this course: The following are necessary for doing well in the course, but might *not* be sufficient:

- Attend the *lectures* and *tutorials*, *ask* questions, *participate* in class discussions, and go to *office hours*.
- Review *lecture* material on a *weekly* basis, work on *tutorial* problem sets *ahead* of each *tutorial*.
- Start working on *assignments early*., make sure to *test* your programming assignments thoroughly, *improve* the efficiency of your implementation as much as you can.
- Spend (at least) 8-10 hours/week:
  - 2 hours in lectures
  - 1 hour in tutorial
  - 5-7 hours reviewing slides, working on tutorial problem sets and assignments.
- Check the course web page on Quercus and emails *regularly*, pay attention to the course *instructions*, *policies*, *announcements* and *deadlines*.
- For *deeper* understanding of the course material, read the *assigned readings* after each lecture.

Lectures and Tutorials: The course is scheduled to have three hours of meeting per week. At least two hours of each weekly meeting times will be used for delivering lectures. The third hour is mainly allocated for tutorials but some weeks we might use it for lecture. Students are expected to attend *all three hours* of weekly meeting times.

Recommended textbook (not required):
- Stuart Russell and Peter Norvig, Artificial Intelligence: A Modern Approach, 3rd edition, Prentice Hall, 2010.
- Lecture slides cover much of the course material.

Evaluation

Summary The following table summarizes the course-work percentages and due dates

Item	Due Dates	Weight
Assignment #1	Feb 012, 11pm	10%
Assignment #2	Mar 04, 11pm	10%
Assignment #3	Mar 18, 11 pm	10%
Quiz	Apr 01, 11pm	5%
Term Test	Feb 26, at 7:10pm (IMPORTANT: read the instructions below)	20%
Final Exam	TBD	45%

Details

- ***Assignments and Quiz***: worth *35%* in total.
  There will be three programming assignments and one take-home quiz.
  All assignments and the quiz are to be completed individually. They will be posted on Quercus, *at least two weeks* before the due dates. Start working on them *early*, so that you have an estimate of how much time you need to complete them, and to identify the parts that you need clarification and/or help with.
  IMPORTANT: See the "Policies and Other Instructions" section for information about late submission policies and remark requests.

- ***Mid-Term Test***: The term test is scheduled on Feb 26, 7:10pm. The duration will be *60-90 minutes.*

  IMPORTANT: If you are unable to attend the term test due to schedule conflicts, submit the *Test Conflict form* (you can find the form link on Quercus). In your request, explain why you cannot attend the test during the scheduled time and include **supporting documents** (e.g., screenshots of your weekly schedule). The **deadline** for requesting the make-up test is **Jan. 26, 2024.**
  IMPORTANT: If your request for the make-up test is not approved ahead of the term test, you will **not be permitted** to write the make-up test and will receive zero for the term test.

- ***Final Exam***: The final exam is *3 hours* and will cover *all* the topics discussed in the course. To pass the course, students must obtain **at least 40%** on the final exam.

Policies and Other Instructions

__Late Work:__

__Assignments and Quiz:__ Each student has *12 (twelve)* grace tokens, each worth a *12-hour* extension. You can use these for any assignment or the quiz, but not more than 4 tokens per any given assignment. Each token is "atomic", i.e., you cannot use ½ token for a 6-hour extension.

IMPORTANT: The grace token system is designed to provide some flexibility in cases where you require a minor deadline extension *due to extraordinary circumstances beyond your control*. We created this policy because we recognize that unexpected problems, illness, and disability-related barriers sometimes make it difficult to submit assignments on time. However, it's strongly recommended that you do **NOT** use your grace tokens to buy an extension, or you will be out of luck in a true emergency. More specifically, avoid using your grace tokens for reasons such as heavy course load, multiple assignments deadlines or tests in the same week, and catching up on missed work because these circumstances are neither unexpected nor outside of your control. If you constantly finding yourself in need of extensions, or have difficulty managing stress and time, either contact the course instructors, or your College Registrar, who can suggest wellness counselling, academic advising, and/or learning strategist services.

__Special Consideration Policies:__ You must use your **grace tokens** in cases where you require a minor deadline extension (2 days or less) due to extraordinary circumstances beyond your control. If you need a major assignment deadline extension (more than 2 days), cannot complete an assignment, or cannot write the term test due to extraordinary circumstances beyond your control, please submit a special consideration request as soon as possible (see the "Special Requests" section below). You must provide documentations supporting your request. You can find the list of acceptable documents here. Special consideration will be evaluated on a case-by-case basis and is not granted automatically. Sometimes, we cannot grant you exactly the special consideration you seek.

If you miss an assignment for an approved reason, the weight of the assignment will be shifted to the term test or final exam.

If you miss the term test for an approved reason, you will have the opportunity of writing a make-up test (date and time will be determined by instructors). If you can't attend the make-up test, the weight of the term test will be shifted to the final exam.

__Re-marking Requests:__ If you feel that a piece of your work has been graded unfairly, please submit a written request *within one week of receiving the work back. Explain your request clearly and briefly* and attach the work in question. Remark request for assignments must be submitted through MarkUs. Make sure to read and understand the feedback you received for your work before submitting a remark request. All remark requests will be processed within *one week* after the *remark request deadline* (i.e., *two weeks* after receiving the work back).

Discussion Board: *General* questions about the course organization, material, and assignments should be posted on the discussion board on Piazza.

The discussion board will be monitored by the instructors and TAs but can also be used for discussion among students. You may NOT discuss the assignment solutions on the board until *one week* after the due dates.

Special Considerations: To request special considerations please complete and submit the *Special Considerations form* (you can find the form link on Quercus). We will aim to respond to you within *2 business days*. Make sure to include supporting documentation with your request. Please read the new Student Absences page from the Faculty of Arts & Science carefully. It contains detailed information on the recognized forms of documentation and the circumstances under which you should use the Absence Declaration tool.

Email Policy: If you have an administrative issue, please message us at the *course email address* above. However, if you have a remark request or special consideration request, it is sufficient to fill out the respective online form. Please avoid sending us an email unless you must provide information that cannot be included in the Special Considerations form. Please use your *university email address* and put "[CSC384]" in the subject line of your emails. Compose a short message and clearly describe a single topic. Email response time may be *2 business days or longer*; if you do not hear back as your expectation, come to the weekly office hours of either instructors.

Academic Integrity: Academic integrity is a fundamental principle in higher education. Any breach of academic honesty is a serious academic offence which eventually can affect one's professional life dramatically. Suspected cases of academic dishonesty will be investigated based on the University's Integrity Policies, with no exception.

When discussing assignment problems with other groups, do NOT take any notes (paper or electronic) from the discussions. Your submissions must be developed and written solely based on *your own interpretation* of group discussions, otherwise it will be considered as plagiarism. For details on the meaning of plagiarism and how it can be avoided read this document.

In this course, you may use generative artificial intelligence (AI) tools (like ChatGPT and GitHub Copilot) as learning aids and to help complete the programming assignments. *You will NOT be permitted to use generative AI on the term test or final exam.* While some generative AI tools are currently available for free in Canada, these tools have not been vetted by the University of Toronto. They may not meet University guidelines or requirements for privacy, intellectual property, security, accessibility, and records retention. Generative AI may produce content that is incorrect, misleading, or inconsistent with the expectations of this course. They may even provide citations to sources that don't exist — and submitting work with false citations is an

academic offence. These tools may be subject to service interruptions, software modifications, and pricing changes during the semester.

Generative AI is NOT required to complete any aspect of this course, and we caution you not to rely on these tools to complete your coursework. Instead, we recommend treating generative AI as a supplementary tool only for exploration or drafting content — **always remembering to cite any resource you used to generate your answers**. Ultimately, you (and not any AI tool) are responsible for your learning in this course and for all the work you submit for credit. It is your responsibility to evaluate the content generated critically and to assess your learning independent of generative AI tools regularly. Overreliance on generative AI may give you a false sense of how much you have learned, which can lead to poor performance in this course, later courses, or your future career.