# CSC384 - Introduction to Artificial Intelligence, Winter 2022

## **Course Information**

Section	LEC0101/2001	LEC0201/2101	LEC0301/2201	LEC5101/2501
Instructor:	Sheila McIlraith	Sheila McIlraith	Elliot Creager	Chandra Gummaluru
Lectures & Tutorials	MWF 12-1pm	MWF 1-2pm	MWF 3-4pm	W 6-9pm
Office Hours	TBD	TBD	TBD	TBD

<sup>\*\*\*</sup> Plan to attend all 3 hours of contact time. The Friday time slot will regularly be used for lectures. \*\*\*

**Communication:** Questions and discussion should occur on Piazza. Issues of a personal nature should be directed to instructors via the forms posted on Quercus

Course Web Page: <a href="https://q.utoronto.ca/courses/250681">https://q.utoronto.ca/courses/250681</a>
<a href="https://piazza.com/class/ky3riyx5ss5xk">https://piazza.com/class/ky3riyx5ss5xk</a>

MarkUs: The link will be posted on Quercus before the due date of the first assignment

\*\* ANNOUNCEMENTS WILL BE MADE THROUGH PIAZZA AND THE COURSE WEB PAGE. IT IS YOUR RESPONSIBILITY TO MONITOR THESE FORUMS FREQUENTLY. \*\*

## Recommended textbook (not required):

- Stuart Russell and Peter Norvig, Artificial Intelligence: A Modern Approach, 3rd edition, Prentice Hall, 2010
  - Lecture notes cover much of the course material.

# Other Recommended books:

- Knowledge Representation and Reasoning. Brachman & Levesque. 2004.
- Computational Intelligence: A Logical Approach. Poole, Mackworth & Goebel, 1998.
- Artificial Intelligence Foundations of Computational Agents, Poole & Mackworth, 2010. Text and more available online: http://artint.info/.

# **Important Administrative Dates (Unofficial)**

Reading Week (no class): February 22 - 25 Drop Deadline: Monday, March 14

Last day of classes: Friday, April 8 Final exam period: April 11 – 29

# **Topics Covered:**

- 1. Introduction to Artificial Intelligence
- 2. Search (Uninformed, Heuristic, Game-tree)
- 3. Constraint satisfaction
- 4. Knowledge representation and reasoning
- 5. Representing and reasoning with uncertainty (Bayes Nets)

## **Course Grading Scheme**

Item	Topic	Weight	Tentative Date Out	Tentative Due Date
		400/	10	F. I
Assignment 1	Search	10%	January 19	February 3
Assignment 2	Constraint Satisfaction	10%	January 31	February 17
Midterm		15%	March 2	March 2
Take-home	Knowledge Representation	5%	March 7	March 14
Quiz 1				
Take-home	Probability and Uncertainty	5%	March 21	March 28
Quiz 2				
Assignment 3	Games	10%	March 14	April 6
Final Exam		45%	Exam Period	Exam Period

<sup>\*\*</sup> Assignment and test dates are tentative and may be updated \*\*

Grading Summary: Assignments: 30%, Quizzes: 10%, Midterm: 15%, Exam: 45%

- All assignments are to be done individually.
- You must receive at least 40% on the final exam in order to pass this course.

#### **Academic Offences**

Plagiarism -- or simply, cheating -- is taken to be the handing in of work not substantially the student's own. It is usually done without reference, but is unacceptable even in the guise of acknowledged copying. It is reprehensible, and the penalty will be severe.

It is not cheating, however, to discuss ideas and approaches to a problem. Indeed, a moderate form of collaboration is encouraged as a useful part of any educational process. Nevertheless, good judgment must be used, and students are expected to present the results of their own thinking and writing. Never copy another student's work -- it is plagiarism to do so, even if the other student "explains it to you first." Never give your written work to others. Sharing work with others for the purposes of plagiarism is also a violation. Do not work together to form a collective solution, from which individuals copy out the final solution. Rather, walk away and recreate your own solution later. Please read the faculty's Rules and Regulations regarding the code of behaviour on academic matters:

http://www.artsci.utoronto.ca/osai/The-rules/code/the-code-of-behaviour-on-academic-matters

#### **Late Policy**

- Late assignments will be handled based on a system of "grace days", as follows: Each student begins the term with five grace days. An assignment handed in from one minute to 24 hours late uses up one grace day. An assignment handed in 48:01 to 72 hours late uses three grace days.
- Once you have exhausted your grace days, the penalty is 10% of the assignment total grade for each day.
- The grace days are intended for use in emergencies (e.g., hard drive crash or TTC breakdown). Do not use them to buy an extension because of a busy week or you will be out of luck in a true emergency.

#### **Communication Policy**

General questions about the course organization, material, and assignments should be posted on the discussion board on <a href="Piazza">Piazza</a>. The discussion board will be monitored by the instructors and TAs, but can also be used for discussion among students.

For *personal issues* such as requesting special considerations use <u>this form</u>. Compose a short message and clearly describe a single topic.

Response time to Piazza posts and individual inquiries may be <u>24 hours or longer</u>; if you do not hear back as your expectation, attend the weekly office hours or TA help sessions.

#### Illness

In the event of an illness or other catastrophe, get proper documentation (e.g., medical certificate) when possible, but if you have grace days left, use them. If you need those days back later, give your documentation to the instructor at that time.