

CSC384 – Introduction to Artificial Intelligence, Summer 2019

Course Information (LAST UPDATED K 1 , 2019)

Sections: LEC0101/2001, LEC2001/2201

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| Instructors: | Sonya Allin | Alexandra Poole |
| Office : | Mondays 3-4 in BA 2283 | Shared with Sonya |
| Office Hour : | Wednesdays 5-6 in BA 3289 | |
| Email: | sonyaa@teach.cs.utoronto.ca | apoole@cs.toronto.edu |

Communication: Discussion and questions about assignments occur on Piazza. Questions about course material should be asked at office hours, at the start or end of lectures, or in tutorials. Course material questions cannot be efficiently answered electronically. Issues of a personal nature should be directed to the instructor via email or at an office hour. Please put [384] in the subject header.

Course Web Page: <http://www.teach.cs.toronto.edu/~csc384h/summer/>

Piazza Instance: <https://piazza.com/utoronto.ca/summer2019/csc384/>

MarkUs Instance: <https://markus.teach.cs.toronto.edu/csc384-2019-05>

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

Lectures & Tutorials

LEC5101: M 6:00 – 9:00pm Bahen Centre, 40 St. George Street, Room 1170

LEC5201: W 6:00 – 9:00pm Bahen Centre, 40 St. George Street, Room 1170

***** Plan to attend all 3 hours of contact time. *****

Textbooks

Recommended textbook (**not required**):

- Stuart Russell and Peter Norvig, Artificial Intelligence: A Modern Approach, 3rd edition, Prentice Hall, 2010
 - 2 copies on 24 hr reserved in the Engineering & Computer Science Library.
 - Lecture notes cover much of the course material.
 - If you're buying a book for long-term use, buy the 3rd edition, but the 2nd edition will be an adequate resource if you can access one more affordably.

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

Drop Deadline: July 15

Victoria Day: May 20, Canada Day: July 1, Civic Holiday: August 5

Summer Break: June 26 - 28

Last day of classes: August 12

Final exam period: August 15 – 22

Topics Covered:

1. Search (Uninformed, Heuristic, Game-tree)
2. Logical representations and reasoning (Constraint Satisfaction Problems, Knowledge Representation)
3. Representing and reasoning with uncertainty (Hidden Markov Models, Bayes Nets)

| Grading Scheme Item | Topic | Weight | Dates (subject to some Uncertainty!) |
|---------------------|----------------------------------|--------|-------------------------------------------------------------------------|
| Assignment 1 | Search | 11% | Out May 21, due June 4 @ 10:00pm |
| Assignment 2 | Game Tree Search | 11% | Out June 4, due June 18 @ 10:00pm |
| Midterm Test | | 16% | July 8 th (L5101)/July 10 th (L5201) during class |
| Assignment 3 | Constraint Satisfaction Problems | 11% | Out June 24, due July 19 @ 10:00pm |
| Assignment 4 | Reasoning with Uncertainty | 11% | Out July 18, due Aug 1 @ 10:00pm |
| Final Exam | | 40% | Exam Period |

Grading Summary: Assignments: 44%, Test: 16%, Final Exam: 40%

- 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 is 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

- Lateness is handled by a "grace day" system. Each student begins with three "grace days". An assignment handed in 1 minute to 24 hours late uses 1 grace day (i.e. 1 minute late is judged the same as 1 day late). Once you have exhausted your grace days, the penalty is 10% of the assignment total grade for each late day.
- Grace days are intended for use in emergencies (e.g., hard drive crash, 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.

Silent Policy: A silent policy will take effect 24 hours before an assignment is due. This means that no question about the assignment posed after that point will be answered, whether it is asked on the Piazza, by email or in person.

Illness

To be granted an assignment extension or other consideration due to illness (including issues of mental health) you must provide documentation. Complete and hand in this form:

[http://www.illnessverification.utoronto.ca/document/Verification of Student Illness \(VOI\) - March 7 2018 - AODA.pdf](http://www.illnessverification.utoronto.ca/document/Verification of Student Illness (VOI) - March 7 2018 - AODA.pdf)