Instructor
John Oommen

Address
Herzberg 5372 (oommen@scs.carleton.ca; www.scs.carleton.ca/~oommen)

Phone
520-2600 (Ext. 4358)

Lecture Room/TA Room
Loeb C 264/HP 5336 (Tentative)

Teaching/Office Hours
Teaching: Monday/Wednesday 11:35 to 12:55 Hours
Office: Monday/Wednesday 14:00 to 15:00 Hours

Teaching Assistants (TBD)
1. Geetika Sharma (GeetikaSharma@cmail.carleton.ca)
   Office Hours: Wednesday 15:00 to 17:00 Hours
2. Jacob Boertjes (JacobBoertjes@cmail.carleton.ca)
   Office Hours: Thursdays 12:30 to 14:30 Hours
3. Tim Patton (TimPatton@cmail.carleton.ca)
   Office Hours: Monday 15:00 to 17:00 Hours
4. Yunkai Wang (YunkaiWang@cmail.carleton.ca)
   Office Hours: Tuesday 12:30 to 14:30 Hours
5. Christopher Blackman (christopherblackman@cmail.carleton.ca)
   Office Hours: Friday 14:00 to 16:00 Hours

Marking Scheme:
1. There will be 3 assignments, equally weighted, and totaling 50% of the final credit.
2. Since the assignments are mostly programming assignments, the students will demo them on
   the due date on the lab machines in the TA lab or their own laptops. You may program the
   assignment in any language you like.
3. There will be 1 final project carrying 30% of the final credit.
   - After a few weeks, students are expected to propose or ask for a suitable project.
   - The project will be due during the second-half of the examination period.
   - At a later date, which will be announced, all students will hand in a brief 1-to-2 page
     description/proposal of their chosen project.
4. There will be a final exam, not an in-class quiz, worth 20% of the final credit.
Assignment Regulations:
1. No LATE assignments will be accepted. But I believe that I am very reasonable!
2. Retain all your assignments for a proof of your mark.
3. In case your mark is erroneously entered, we will discuss this on a case-by-case basis.
4. Please go to the course website to clearly understand the consequences of “cheating”.

Text Book and Material
Text Book

Book: Additional Reading

Class Notes
The notes of the course will be posted before each lecture.

Course Contents
Goal
This course will introduce the students to the elementary concepts of Artificial Intelligence (AI).

Background:
The prerequisites of the course are as specified in the Calendar, or equivalent.

Material (Tentative):
2. Different types of Agents
3. Graph search as used in AI
4. Heuristic graph search solutions for problem solving “puzzles”
5. Heuristic graph search solutions for problem 2-player and multi-player games
6. Foundations of Classification Theory and Bayesian inference
7. Introduction to Decision Tree induction
8. Introduction to Dependence Tree models and Bayesian Networks
9. Introduction to Reinforcement Learning
10. Introduction to Neural Networks (NN): We will study at least three families of NNs

Since the area is so vast, this is a tentative list of topics that I will cover.