COSC 3P71 - Artificial Intelligence

Instructor: Brian Ross   Office: J306
bross@cosc.brocku.ca   Phone: 688-5550 ext. 4284
http://www.cosc.brocku.ca/Offerings/3P71/

Objective: An introduction to artificial intelligence: principles, philosophy, and applications.

Text: *Artificial Intelligence (3e),* P.H. Winston, Addison-Wesley, 1992.

Other reading: Assigned reading will be available at the library's reserve reading desk.

Outline: Topics to be studied may include:

- What is AI?   • Logic and theorem proving
- Problem solving   • Heuristics and game trees
- Search   • Machine learning
- Knowledge representation   • Genetic algorithms
- Vision   • Expert systems
- Natural language understanding   • Artificial life

Evaluation:

    Assignments: 30% (3)
    Midterm: 15%
    Project: 15%
    Final: 40%

Remarks:

A grade of 40% must be obtained on the final to pass the course.
A 25% penalty for assignments handed in 3 days after due date. Thereafter, 100% penalty.

Assignments may involve written and programming problems. Any programming language may be used, although some languages (Prolog, Lisp) may be more suitable than others.

The project will be due at the end of term (the deadline will be announced later). It involves either: (i) writing a 10-12 page paper on a topic in AI; or (ii) implementing a chess playing program using principles discussed in the course. The chess project may be done in groups of two. Turnitin.com will be used for the essay project. See the project handout for more information.