Computer Science 502: Artificial Intelligence 1

David Poole

University of British Columbia

Fall 2013

Course Overview

- Now to November 6 — Lectures + Assignments
- November 13 — midterm exam
- November 18-27 — Student Presentations of Research Papers
- Mid December — Review paper due

The University is a community united by a commitment to studying and learning. Basic to the survival of our community are the principles of academic freedom, respect for each other, and equality of opportunity for all. Any form of harassment to students or other persons (including harassment on the basis of sex, race, religion, sexual orientation, or ethnic background) is a threat to these principles, and will not be tolerated.

Collaboration

- Collaboration among students can play a valuable educational role
- Any work you hand in must be your own work. You may be asked to explain your solution to a question.
- You must acknowledge any collaboration and any secondary sources used.
- Copying from any source, without explicit acknowledgment is considered to be plagiarism, which is a serious offense.
- Academic misconduct will be treated seriously.
- If it doubt, ask.

About Me

- Professor of Computer Science,
  Director of Laboratory for Computational Intelligence
- Research Interests:
  - Reasoning under uncertainty
  - Probabilistic Inference
  - Relational Probabilistic Models, Statistical Relational AI
  - Combining Logic and Probability
  - Decision Making Under Uncertainty
  - Preference Elicitation
  - Ontologies
  - Semantic science
  - Applications in Medicine, Geology, Computational Sustainability, Recommender Systems

What you should learn

- various AI techniques, representations, algorithms,...
- big picture of an intelligent agent in a complex environment, and common simplifying assumptions
- how to interpret high-level descriptions of algorithms: idea of algorithm $\longrightarrow$ pseudo-code $\longrightarrow$ code $\longrightarrow$ prediction of its behaviour
- how to critically read a research paper and to write a review paper
- to solve a complex problem, break it into smaller problems

Administration

- All slides, assignments, will be on the course web page: `http://cs.ubc.ca/~poole/cs502/2013/`
- We will use Connect for discussions and grades `http://connect.ubc.ca`
- Textbook is online: `http://artint.info`
- Schedule is over-ambitious — your help is needed to make it fit your needs. Give feedback. Ask questions.
- Do **not** assume that everything you need is covered in class. Read the textbook (before class).