

CMPUT 366

Intelligent Systems:

Introduction to Artificial Intelligence

R Greiner

Dept of Computing Science

University of Alberta



Instruction Team

- Prof: R Greiner
 - Office hours: Tues, Thurs: 3:30-4:30, or by appointment
 - Phone: 492-5461
- TAs: Chonghai Wang Saman Vaisipour David Schnizlein
- Home Page: <http://ugweb.cs.ualberta.ca/~c366/>
 - Announcements
 - Assignments
 - Slides: <http://www.cs.ualberta.ca/~greiner/C-366/SLIDES>
- E-mail: c366@cs.ualberta.ca
- Check newsgroup:
http://webnews.srv.ualberta.ca/newsgroups.php?search_txt=&group=ualberta.courses.cmput.366

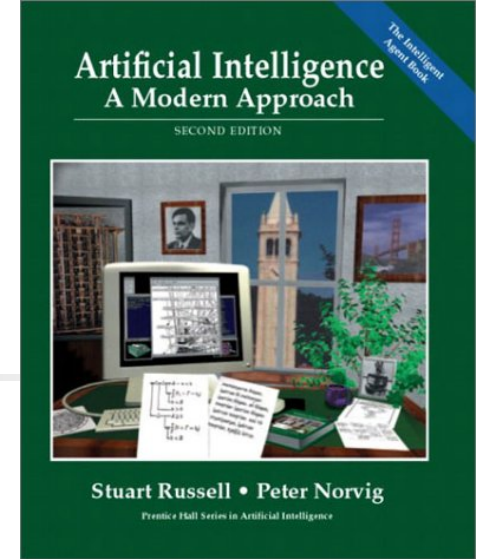
Textbooks

- Required

- S Russell and P Norvig,
Artificial Intelligence: A Modern Approach,
(2nd edition), Prentice Hall, 2003.

- Recommended

- D Poole, A Mackworth and R Goebel, *Computational Intelligence: A Logical Approach*, Oxford, 1998.
- Nilsson, *Artificial Intelligence: A New Synthesis*, Morgan Kaufmann, 1998.





Evaluation

- 4 Assignments
 - 18%, 18%, 18%, 12%
 - Solo! (see “Code of conduct”)
- Final Exam
 - 34%
 - Cannot be re-written
 - If deferred:
 - only Monday 14 Jan 2008, 9am



Homework Issues

- Both Programming / nonProgramming questions
- Programming Questions
 - Typically C, C++, JAVA, Matlab
 - If you want another language: check with TAs
 - Your implementations must run on lab machines (CSC 219)
 - Neat, well-documented ... include *convincing* examples and tests
 - The onus is on *you* to convince TAs that your code/idea works
 - Submit using 'ASTEP'
- NonProgramming Questions
 - Write legibly or type (better!)
 - Submit in class, or in "Box", or to ASTEP
- ... don't annoy the TAs!



Assignment Guidelines

- Submit on due date/time
 - Program (ASTEP) + Hard copy (class, box)
 - Late policy: 4 “excused days”; ≤ 2 for HW#1
 - If >4 days: 15% penalty / day (until solution posted)
- Use **Gradebook** to see...
 - Current marks, #Late days, Class statistics
- If question about marking:
 - See TA first... then prof, only if necessary
- Don't cheat... Code of Conduct



Academic Integrity

The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behavior (online at www.ualberta.ca/secretariat/appeals.htm) and avoid any behavior which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.



Policies on Integrity

- Do not cheat on assignments:
Discuss only general approaches to problem
- Do not take written notes on other's work
- Respect the lab environment.
- Do not:
 - Interfere with operation of computing system
 - Interfere with other's files
 - Change another's password
 - Copy another's program
 - etc.
- Cheating is reported to university whereupon it is out of our hands
- Possible consequences:
 - A mark of 0 for assignment
 - A mark of 0 for the course
 - A permanent note on student record
 - Suspension / Expulsion from university



Contacting us...

- Email to *c366* reaches
 - prof
 - all 3 TAs
- Newsgroup:
ualberta.courses.cmput.366
 - Remember: public!
- Meeting w/prof, TA: by arrangement



Other Issues

- Labs:
 - Only occasionally – just before HW is due
 - First hour, f'sure! Afterwards... maybe
 - Perhaps use for auxiliary material
 - Email 24/7, of course! Other arrangements
- Prerequisites
 - Programming skills (C++, Java, Matlab)
 - Elementary logic ... \forall , \exists , \Rightarrow
 - Elementary statistics, probability theory
- Questionnaire

AI Seminar !!!

- <http://www.cs.ualberta.ca/~ai/cal/>
- Friday noons, CSC 3-33
- Neat topics, great speakers, **FREE PIZZA!**



Course Overview

- Introduction: Rational agent
- Search-based Agents:
 - Blind Search, Informed Search, Constraint satisfaction, Stochastic Search, Games
- Logical agent
 - Reasoning, Propositional, Predicate Calculus, Planning
- Decision Theoretic Agent
 - Probabilistic reasoning, Belief Nets (Dynamic), ...
 - Utility, MDP, Dynamic Decision Nets
 - Game theory
- Learning

- If time permits:
 - Natural language and speech
 - Perception