Syllabus for COMP364, Artificial Intelligence
Fall 2010
Dickinson College
Instructor: John MacCormick

Goals

- Understand, implement and experiment with several of the fundamental techniques used by computers to exhibit some aspects of intelligence (it's very cool stuff -- this is going to be fun!)
- Understand the basic philosophical and ethical issues relating to artificial intelligence
- Strengthen skills for implementing and analyzing algorithms
- Strengthen skills for reading, analyzing and presenting the contents of scientific literature
- Strengthen skills for conducting and presenting original scientific research

Teaching methods

- required reading in advance of most lectures
- lectures and class discussions covering textbook contents and other material
- in-class mini-labs using computers to experiment with concepts covered in lectures
- programming projects
- presentation on a published scientific paper
- self-directed research on a major final project
- quizzes to reinforce understanding of concepts

When and where

- Classes: Monday and Thursday 3:00–4:15pm, Tome 231
- Office hours: see the instructor's webpage

Book

Artificial Intelligence: A Modern Approach (Third edition)
by Stuart Russell and Peter Norvig, 2009
Publisher: Prentice Hall
ISBN: 0136042597

Assessment and grading

- Final grade will comprise:

Quizzes (3 x 10% each)	30%
Programming assignments (4 x 10% each)	40%
Presentation of a published paper	10%
Final project	20%

- **Quizzes:** There will be three quizzes, given in class on 9/23, 10/21, and 11/22. ~~Quizzes are closed-book: no materials may be consulted or brought into the exam.~~ Quiz 1 was closed-book. Quizzes 2 and 3 are open note. Any printed or written material may be consulted during the quiz. Electronic devices may not be used.[1] ~~The vast~~ A[2] majority of

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[1] changed 10/14/10
[2] changed 9/16/10

quiz questions will be ~~very~~[3] similar to the sample quiz questions provided on the course webpages. These sample quiz questions should be regarded as compulsory but ungraded homework, to be done immediately after the class in which they are provided.

- **Programming assignments:** There will be 4 programming assignments, due at the start of class on the dates given in the accompanying schedule. Programming assignments must be submitted electronically to Moodle as a single ZIP file of the relevant source code and any write-up.
- **Paper presentation:** Students will read, conduct background research on, and present the contents of a paper of their choice, selected from those published at the most recent AAAI conference. Presentations will take place on 11/8 (and 11/11 if required).
- **Final project:** Students will undertake a project on a topic of their own choosing. The project will involve original research or experimentation, substantial programming, a formal write-up, and a presentation in the final exam slot (2pm, 12/17).
- The first two programming assignments must be done in pairs, and students must work with a different partner for each of these first two programming assignments. All remaining assignments, the paper presentation and the final project may be done individually or in pairs, with no restrictions on choice of partner.

Amount of work

College policy recommends approximately 3 hours of independent work for every hour of class time. Our class meets for 2.5 hours per week. Therefore, you should expect to spend 7-9 hours per week (outside of class time) on this course.

Plagiarism, copying, and collaborating

The College's standard policy on plagiarism applies and you should be familiar with it, but here are some key points that apply particularly to this course:
- All work must be your own.
- Never copy work from someone else or allow your own work to be copied.
- You may not copy or consult assignment solutions from any source, including online repositories or solutions provided for previous instances of the course.
- If you use exact words taken from any source, you must use quotation marks and cite the source.
- Students are encouraged to help each other understand concepts, including concepts that apply to graded assignments. However, all work must still be your own. So if you discuss a problem with someone, you must destroy any written or electronic material that results from the discussion, and re-create it later on your own.
- Be especially careful not to copy computer code from another student, or from the Internet (excluding the exceptions given in the next bullet point). Sharing or copying computer code is easy and often tempting, but it is not permitted and will suffer the same penalties as any other form of cheating.
- In this course, you are permitted to copy snippets of code from two sources: (i) the Java tutorials and documentation on sun.com, and (ii) the course webpages, and any additional sources specifically permitted for a given assignment as listed on those webpages. However, you must clearly attribute any code copied from any source, whether or not you subsequently alter it.

Accommodations

The instructor will follow college policy on accommodations for students who need them.

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[3] changed 10/14/10

Late Work Policy

Each student is permitted a total of four no-penalty days of lateness over the entire semester; every subsequent day of lateness incurs up to a 25% penalty for the late assignment. Late days can be used only in whole day units. Late days cannot be used for the paper presentation or the final project. To use one or more late days on a given assignment, state clearly at the start of your submission how many days you are using, and the total used so far in the semester.