

### Artificial Intelligence II

W 6.00am - 8.05pm 214 NE

Professor Simon Parsons

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Class web page:

http://www.sci.brooklyn.cuny.edu/~parsons/courses/7165-spring-2006/

# Course objectives

- To introduce you to some of the basic theory and techniques of autonomous agents and multi-agent systems.
- To give you experience of applying the theory.
- To give you practical experience of using the techniques.

## Introduce you to some of the basic theory...

- In particular, this course will teach you about:
  - Intelligent agents
  - Deductive agents
  - Practical reasoning agents
  - Reactive and Hybrid Agents
  - Multiagent Interactions
  - Reaching Agreements
  - Communication
  - Working together
  - Methodologies
  - Logics for multiagent systems

Give you experience of applying the theory...

- In other words there are homeworks.
- Some homeworks will be answering the usual questions
- Other homeworks will involve reading papers and writing about them.

# Give you experience of applying the techniques...

- In other words there is project work.
- The aim of the projects are to get you to use the techniques we will cover in lectures to build real agents.
- The project work will involve programming LEGO Mindstorms robots.
- This means some classes will involve practical work, programming.

### Resources

- Lectures
- Textbook
  - Wooldridge, An Introduction to MultiAgent Systems
- Lecture notes
- Web page
  - http://www.sci.brooklyn.cuny.edu/~parsons/courses/716-spring-2005/
- Me

### Lectures

- Our timetabled sessions run from 6.00am to 8.05pm
- I plan to take a break every week about half way through.
- The schedule of lecture topics will be posted on the class web page under "syllabus".

#### Office Hours

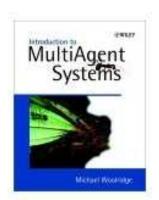
- There is one hour of office hours a week.
- I will be in my office for office hours 5pm 6pm before the class.
- I also run "virtual office hours", where I log onto IM and you can ask me questions.
- I'll be on IM using the screenname:

profSimonParsons

between 9pm and 12pm on Tuesday and Thursday.

### **Textbook**

An Introduction to MultiAgent Systems by Michael Wooldridge Wiley, 2002 ISBN 0-471-49691-X (paperback)



available from Amazon and (I hope) the college bookstore.

#### Assessment

- Out of 100 points
- Homework assignments (20 points total)
- 2 exams (50 points total)
  - midterm (20 points)
  - final exam (30 points)
- 2 projects (30 points total)
- Dates for midterm and final will be posted as soon as possible

#### A word about homeworks

- Should be done on your own, as much as possible
- Get help from me, friends but you must acknowledge all help received by citing the names of those who helped you.
- This not only protects you from being accused of cheating, but also protects you in case your helper gives you misinformation

### Homeworks: submission policy

- Homeworks are due on the day that they are due
- Here are the rules please know them well:
  - Hardcopies must be brought to class on Thursday and deposited on the desk at the front of the classroom.
  - If your hardcopy does not make it on the right day, I will mark it, but you will lose 10% for every day the homework is late.
  - If you must miss class, try to have a friend deposit your hardcopy.

#### Other submission details

- Submission details for projects will be posted on the class web page.
- Exceptions and extensions are possible, primarily based on MEDICAL EMERGENCIES.
- Circumstances must be documented and suitable arrangements will be made.
- You must consult me via email on an individual basis.
- This holds for all kinds of submission.

# Regrade policy

- If you feel that there was an error in grading your homework, project or exam, then you need to write on a piece of paper a description of the error.
- STAPLE the paper to your homework, project or exam and leave it with me to be regraded.
- Know that I mark with a list of expectations for each homework assignment, project and exam problem, knowing where to take off points so if your complaint is that too many points were taken off for one kind of mistake or another, then generally those types of things will not change in a regrade.

- If there is a genuine error in the marking, like I thought something was missing, but it is really there, then you will likely get points restored.
- HOWEVER, a regrade means that the entire assignment or exam will be remarked, so be aware that your mark can go DOWN as well as UP.
- Regrades take while to process, so be patient if you need the work to study from, then make a copy of it before you turn it in for a regrade.

### A word about lectures

- The slides I use will be placed on the web page.
- But they are NOT A SUBSTITUTE FOR COMING TO CLASS.
- I know, I used to skip classes too
- If you must miss a class, YOU are responsible for getting notes from someone who did come to class
- If you miss class you will not get any credit for the seminar section of the class.

- I will usually post lecture notes on the web before class BUT:
  - you learn better when you actually have to write things down yourself
  - just reading along with my notes makes you sleepy
  - everything I say is NOT in the lecture notes, but anything I say MIGHT be on an exam or in a homework, so you need to take notes on what I say
  - sometimes there are mistakes in the lecture notes which get caught during class; so you will only get the correct version if you come to class and take notes.

### A word about exams

#### Exams:

- The worst means of assessment apart from all the other means of assessment.
- The only way I know you are doing your own work
- The only way YOU know you are doing your own work
- Are not hard if you really know the material
- Notice my weighting scheme for exams
  - midterm: 20%
  - final exam: 30%

### A word about feedback

- Homeworks, projects and exams let me know how you are doing.
- In a way, they let me know how I am doing, as a reflection of how you are doing.
- But, I welcome feedback from you.
  - Email,
  - comments during office hours (real or virtual),
  - anonymous written notes.

## A word about academic integrity

- The work you submit for assessment should be completed ON YOUR OWN.
- You may get help from me, friends.
- You must acknowledge all help given.
- You should not download material from the web and submit it as your own work.
- You should not mail code or copy files.
- If someone asks you to do this, *JUST SAY NO!*.

### About the instructor

- Undergrad: University of Cambridge, Engineering, class of 1988
- Grad school: University of London, PhD 1993
- Previous teaching:
  - Queen Mary & Westfield College, London, UK.
  - University of Liverpool, UK.
  - Universidad Politechnica de Catalunya, Barcelona, Spain.
  - Universidad Nacional del Sur, Bahia Blanca, Argentina.
  - Columbia University.
- research interests:
  - Software agents;
  - Rational action; and
  - Multi-agent systems.

### About you.

- Please take out a piece of paper and write down...
  - Your name.
  - Your email address.
  - Which Masters program you are in.
  - How far through the program you are.
  - Why you are taking this course.
  - What you hope to get out of this course.
  - When would be a good time for virtual office hours
  - One sentence about one wonderful thing you did over the holidays.
- ...and give it to me before you take a break.