

CS 486

Alexander Maguire
amaguire@uwaterloo.ca
20396195

January 6, 2015

1 Administration

John Doucette j3doucet@uwaterloo.ca

Office Hours: Thursdays 10:15-11:15 DC 2580

<http://www.cs.uwaterloo.ca/klarson/teaching/W15-486>

Required Text: Russell, Norving - AI: A Modern Approach (3rd Edition)

Additional Text: AI: Foundations of Computation Agents, Poole and Mackworth

1.1 Evaluation

6 Assignments: 60%

Final: 40%

Project (optional): up to 5% (group of 3)

Assignments will be accepted after 48h, but never afterwards.

Daily quizzes, related to material. Work in pairs or trios. John says this is for pedagogical reasons and he seems to know what he's talking about, so that's pretty cool!

Do the assigned readings EVERY DAY before class. Expect 15 to 30 minutes.

2 Introduction

Unlikely to be on the exam.

What is AI?

Definitions differ along two axes:

1. reason vs behavior
2. human vs rational

Human-side: Turing test. yada yada yada. Straw vulcan. yada yada yada.

Insight: *Historically, humans have always thought the brain was like the most technologically advanced computation system they had available. Like a printing press, loom, or telephone exchange.*

Refresh
basic
statistics

2.1 Rational Agents

By definition, anything that exists in an environment, with a body, sensors, actuators, and a logic unit. Properties of a task environment involve

1. fully observable vs partially observable
2. deterministic vs stochastic
3. episodic (end condition) vs dynamic
4. discrete vs continuous
5. single vs multiple agents

2.2 State of the Art

BOOOORING