CS 534: Artificial Intelligence Fall 2013 Syllabus

Instructor: Dmitry Berenson
Office: AK 121
Office Hours: By appointment
Email: dberenson [at] cs.wpi.edu

Time: Monday, Wednesday 4:00pm - 5:20pm

Location: Fuller Labs 320

Course Website: http://users.wpi.edu/~dberenson/courses/fall13ai

The instructor reserves the right to modify the course outline and policies mentioned in this syllabus at any time during the term.

Overview: Artificial intelligence is an extremely broad field with applications to many disciplines and many subfields. This course gives a broad survey of artificial intelligence, as opposed to focusing on any particular subfield of AI. The course will cover methods from search, optimization, probabilistic reasoning, and learning, among other topics. Homeworks show how to apply the above techniques to relevant problems. The final project gives students the opportunity to apply AI techniques to their research projects.

Prerequisites: Significant programming experience, knowledge of data structures, undergraduate linear algebra.

Course Layout: This course will consist of lectures, reading, and implementing and presenting a final project employing the ideas covered in the class. Most reading will be from a textbook, though other handouts may be used. Student will complete homeworks, a final project proposal, final project report, and final project presentation.

Lectures: Students are expected to attend all classes. It is essential that you carefully review any required reading before each class and be prepared to share your perspective. Class participation is essential.

Homework: Homework will be assigned throughout the semester. All homework will have a due date and no late homework will be accepted. Homework must be typed on single-sided, letter-size paper. All homeworks must be done individually unless the instructor explicitly states otherwise.
Projects: The principles learned in class will be applied in final projects. Projects are open-ended but must involve an AI technique covered in class (the instructor can give permission for students seeking to use other techniques). Students are encouraged to find an aspect of their research that involves AI and use that as the final project. Individual projects are encouraged (to tailor to the individual’s research) but group projects in teams of up to 4 students are also allowed.

Course Schedule: The course schedule is available on the course website.

Grading:

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<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>In-Class Participation and Preparation</td>
<td>10%</td>
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<tr>
<td>Homeworks</td>
<td>40%</td>
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<tr>
<td>Final Project Proposal</td>
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<td>Final Project Report</td>
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<td>Final Project Presentation</td>
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Academic Integrity: All work submitted for credit must be your own. Plagiarism is cheating and will be dealt with accordingly. You may not share your solutions to homework questions with others. Review WPI’s Academic Honesty Policies at: http://www.wpi.edu/Pubs/Policies/Honesty/policy.html

Student Disability Services: If you need course adaptations or accommodations because of a disability, or if you have medical information to share with the instructor, please make an appointment with your instructor within the first week of classes. If you have not already done so, students with disabilities, who believe that they may need accommodations in this class, are encouraged to contact the Disability Services Office (DSO), as soon as possible to ensure that such accommodations are implemented in a timely fashion. The DSO is located in Daniels Hall, (508) 831-5235.

References: