ITS336
Artificial Intelligence

Composed by Cholwich Nattee

Course Syllabus

Course Goal This course aims to introduce you to the field of Artificial Intelligence. The course covers basic topics in AI including searching, game playing, constraint satisfaction problems, logical agents, first-order logic and logic programming, uncertainty and probability, and machine learning.

Main Textbook Russell, S. & Norvig, P. (2010). *Artificial Intelligence: A Modern Approach (3rd Edition)*. Pearson/Prentice Hall.

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Evaluation

Attendance	10%
Assignments	20%
Midterm examination	35%
Final examination	35%

Topics

1. Introduction to AI

2. Searching – Problem formulation

3. Searching – Uninformed search

4. Searching – Informed search

5. Searching – Local search

6. Game Playing

7. Probability and Uncertainty

8. Bayesian Networks

9. First-order Logic

10. Logic Programming

11. Machine Learning

Additional References

1. Ertel, W. (2011). *Introduction to Artificial Intelligence.* Springer.

2. Bratko, I. (2001). *Prolog Programming for Artificial Intelligence.* Addison Wesley.

3. Michalewicz, Z. & Fogel, D. B. (1998). *How to Solve It: Modern Heuristics.* Springer.

Rules and Regulations

1. When I TALK, you LISTEN. Be respectful to your classmates and your instructor. Keep your voice down. No chitchatting. Do not disturb the class.

2. 15 minutes rule: if you attend the class 15 minutes or more after the scheduled class time, you may not earn attendance credit for that day. Therefore, the attendance will not be checked before 09:15 and 10:55.

3. According to TU regulations, you may not be allowed to take the final examination, if your attendance score is less than 70%.

4. You must attend your own section in order to gain your attendance credit.

5. All communication devices must be off or on silent mode during lecture.

6. You are not allowed to talk on the phone in class. In case of emergency, you have to take your phone call outside.

7. You may sleep in class, but do not snore during class time.

8. Videotaping, Taking a photograph, Voice recording and any other ways of recording the lecture are not allowed in class.

Should you fail to follow any of these rules, you may be asked to leave the classroom, and/or more penalties will be applied.

Academic Integrity

A fundamental tenet of all educational institutions is academic honesty; academic work depends upon respect for and acknowledgment of the work and ideas of others. Misrepresenting someone else's work as one's own is a serious offense in any academic setting and it will not be condoned.

Academic misconduct includes, but is not limited to, providing or receiving assistance in a manner not authorized by the instructor in the creation of work to be submitted for academic evaluation (e.g. papers, projects, examinations and assessments – whether online or in class); presenting, as one's own, the ideas, words or calculations of another for academic evaluation; doing unauthorized academic work for which another person will receive credit or be evaluated; using unauthorized aids in preparing work for evaluation (e.g. unauthorized formula sheets, unauthorized calculators, unauthorized programs or formulas loaded into your calculator, etc.); and presenting the same or substantially the same papers or projects in two or more courses without the explicit permission of the instructors involved.

A student who knowingly assists another student in committing an act of academic misconduct shall be equally accountable for the violation, and shall be subject to the sanctions and other remedies described in The Student Code. Sanctions shall include, but are not limited to, a letter sent to the Dean of Students of the University; a grade of 0 on the assignment, quiz or exam; a grade of F for the course.