

Artificial Intelligence



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Course Contents

- The theoretical and practical issues for all disciplines of Artificial Intelligence (AI) will be considered
 - AI is interdisciplinary !
- Foundational Topics to be Covered
 - Intelligent Agents
 - Search, Advanced Search, Adversarial Search (Game Playing), Constraint Satisfaction Problems (CSP)
 - Propositional and Predicate Logic, Inference and Resolution
 - Rules and Expert Systems
 - Probabilistic Reasoning and Bayesian Belief Networks
 - Others (Hidden Markov Models, Graphical Models, Neural Networks, Genetic Algorithms, etc.)

Textbook and References

- Textbook:
 - S Russell and P. Norvig. ***Artificial Intelligence: A Modern Approach***. Prentice Hall, 2003
<http://aima.cs.berkeley.edu/>
- References:
 - M. Negenevitsky. ***Artificial Intelligence: A Guide to Intelligence Systems***. Addison-Wesley, 2005
 - Nils J. Nilsson. ***Artificial Intelligence: A New Synthesis***. Morgan Kaufmann, 1998
 - B. Coppin. ***Artificial Intelligence Illuminated***. Jones and Bartlett, 2004
 - E. Alpaydin, ***Introduction to Machine Learning***, MIT Press, 2004
 - T.M. Mitchell. ***Machine Learning***. McGraw-Hill, 1997

Grading (Tentative)

- Midterm or Final: 30%
- Homework: 25%
- Project/Presentation: 30%
- Attendance/Other: 15%