

**COGS 515 Artificial Intelligence for Cognitive Science
Spring 2015-2016**

Course description. This course is for graduate students interested in understanding fundamental techniques of artificial intelligence and how artificial intelligence relates to cognitive science.

Prerequisites. COGS 502 Logic and Programming or equivalent (knowledge of propositional and first order logic; intermediate level programming experience with Python, Matlab or at least one programming language).

Time and place. Monday, 08.40-11.30, S-03

Instructor. Asst. Prof. Dr. Cengiz Acartürk

E-mail. acarturk at-sign-here metu.edu.tr (individual reply to e-mails in 3 days)

Tel. 210-7704

Course website. <https://odtuclass.metu.edu.tr/>

Resources.

Russell, S. & Norvig, P. (2010). *Artificial Intelligence: A Modern Approach*. Third Edition. Prentice Hall, NJ.

Luger, G.F. (2009). *Artificial Intelligence. Structures and Strategies for Complex Problem Solving*. Sixth Edition. Addison Wesley.

Tentative weekly schedule.

Class	TOPIC
22 Feb	Introduction to AI and Foundational Issues
29 Feb	Intelligent Agents
7 Mar	Search I: Uninformed Search Strategies
14 Mar	Search II: Informed (Heuristic) Search
21 Mar	Search III: Local Search, Nondeterministic Search
28 Mar	Search IV: Adversarial search (games)
4 April	CSP (Constraint Satisfaction Problems)
11 April	MIDTERM EXAM
18 April	Logical Agents I: Propositional Logic
25 April	Logical Agents II: First Order Logic
2 May	Planning and Knowledge Representation
9 May	Stochastic Methods
16 May	AI in Language and Vision
23 May	AI in Philosophy
30 May	FINAL EXAM

Evaluation (tentative, to be decided upon discussion in the class)

Midterm Exam (40%)

Final Exam (50%)

Attendance and Participation (10%)

Please contact me if you need disability accommodations.

The course schedule, the course content and the grading schedule in this syllabus may be modified at any time by the course instructor. Such changes will be announced in class hours.