

**Arab Academy for Science and Technology and Maritime Transport
Computer Science Curriculum
Course Syllabus**

Course Code: CS461	Course Title: Software Agents	Classification: E	Coordinator's Name: Prof. Dr. Aliaa Youssif	Credit Hours: 3
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Pre-requisites: CS366 (Introduction to Artificial Intelligence)	Co-requisites: None	Schedule: Lecture: 2 hours Tutorial-Lab: 2 hours		
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Office Hours:

Course Description:
A basic introduction to the analysis and design of intelligent agents, software systems which perceive their environment and act in that environment in pursuit of their goals. The module builds on previous AI modules and acts as an introduction to the problems of combining the techniques covered in these modules into a single intelligent agent with broad competence.

Textbook:
Wooldridge, *An Introduction to Multi-Agent Systems*, 2nd Edition, John Wiley.

References:

Wooldridge, *Reasoning About Rational Agents*, 1st Edition, MIT Press.

Course Objective/Course Learning Outcome:	Contribution to Program Student Outcomes:
1 Develop a basic understanding of the problems and techniques of building intelligent agents,	
2 Appreciate the trade-offs inherent in the design of agent-based systems.	
3 Be involved in a project involving the construction of a simple agent-based system.	
4 Develop analysis and design skills appropriate to more complex AI problems.	
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Course Outline:

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| <ol style="list-style-type: none">1. Introduction2. Intelligent Agents3. Deductive Reasoning Agents4. Practical Reasoning Agents5. Reactive and Hybrid Agents | <ol style="list-style-type: none">6. Multi-Agent interaction and reaching agreement7. Agent Communication8. Working Together9. Applications |
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Grade Distribution:

7th Week Assessment (30%)

12th Week Assessment (20%)

Year Work (10%)

Final Exam (40%)

Policies:

Attendance:

AASTMT Education and Study Regulations (available at aast.edu)

Academic Honesty:

AASTMT Education and Study Regulations (available at aast.edu)

Late Submission:

Late submissions are graded out of 75% (1 week late), 50% (2 weeks late), 25% (3 weeks late), 0% (more than 3 weeks late)