
ARTIFICIAL INTELLIGENCE in Fall 2018 (CS3026)

Course Code	CS3026	Professor(s)	Georgi Stojanov
Prerequisites	None	Office Number	SD-7
Class Schedule	TF: 15:20-16:40 in PL-4	Office Hours	Mondays & Thursdays 15h30-17h00 and by appointment
Credits	4	Email	gstojanov@aup.edu
Semester	Fall 2018	Office Tel. Ext.	

Course Description

This course is intended to introduce the students to the field of Artificial Intelligence. Below are the main questions and topics we will be looking into:

What is (Artificial) Intelligence?

How to achieve intelligent behavior via computational means?

What are the main paradigms of AI?

What are the computer languages especially created for research in AI?

What are the ethical issues with AI (self-driving cars, assistant robots, companion robots...)

What is the place of AI and what are its relations to other fields (Computer Science, Mathematics, Psychology, Cognitive Science and Philosophy).

AI today and tomorrow.

Course Learning Outcomes

General Education

This course cannot be used to fulfill the general education requirements.

Course Outline

The course is broadly structured under the following headings:

- Knowledge representation
- Inference and problem solving
- Learning
- Perception
- AI and robotics

Tentative weekly schedule:

Week 1

Course intro; What is AI; History; Knowledge representation.

Week 2

State spaces and search; Improving the search using heuristics and the A* algorithm

Week 3

Propositional and Predicate logic

Week 4

Resolution algorithm and PROLOG

Week 5

Inductive Logic Programming (ILP)

Week 6

Functional programming and LISP

Week 7

AI in Games

Week 8

Neural Networks

Week 9

Autonomous agents and Embodied AI

Week 10

Learning (supervised, unsupervised, reinforcement)

Week 11

Natural Language Processing

Week 12

Ethical issues and AI

Week 13

Cognitive Science, Philosophy, and AI

Week 14

Wrapping up

Textbooks

Title	Author	Publisher	ISBN	Required
Artificial Intelligence: A Modern Approach	Stuart Russel and Peter Norvig	Pearson	0136042597	No

Attendance Policy

Students studying at The American University of Paris are expected to attend ALL scheduled classes, and in case of absence, should contact their professors to explain the situation. It is the student's responsibility to be aware of any specific attendance policy that a faculty member might have set in the course syllabus. The French Department, for example, has its own attendance policy, and students are responsible for compliance. Academic Affairs will excuse an absence for students' participation in study trips related to their courses.

Attendance at all exams is mandatory.

IN ALL CASES OF MISSED COURSE MEETINGS, THE RESPONSIBILITY FOR COMMUNICATION WITH THE PROFESSOR, AND FOR ARRANGING TO MAKE UP MISSED WORK, RESTS SOLELY WITH THE STUDENT.

Whether an absence is excused or not is ALWAYS up to the discretion of the professor or the department. Unexcused absences can result in a low or failing participation grade. In the case of excessive absences, it is up to the professor or the department to decide if the student will receive an "F" for the course. An instructor may recommend that a student withdraw, if absences have made it impossible to continue in the course at a satisfactory level.

Students must be mindful of this policy when making their travel arrangements, and especially during the Drop/Add and Exam Periods.

Grading Policy

Assessment Components:

(30%) Class assignments, tests, and quizzes;

(30%) Home assignments;

(10%) Attendance and participation;

(30%) Final examination or project;

-1% for every late submission of homework.

Grade Scales:

[A+, A, A-] = [95, 93, 90] %

[B+, B, B-] = [86, 82, 78] %

[C+, C, C-] = [72, 63-71, 57-62] %

[D+, D, D-] = [56, 52, 48] % [F] = [47 or below] %

Other
