[Introduction to Artificial Intelligence]

Course level: Master ([M1])  
Track(s): [CPS2, DSC, MLD]

ECTS Credits: 6

Course instructors: [Elisa Fromont]

Education period: [1st] semester

Language of instruction: English

Expected prior-knowledge: [Basis in Graph Theory and in particular graph search algorithms]

Aim and learning outcomes: This course presents the most common AI tools: first order logic, prolog programming, Constraint Logic Programming (CLP) and gives the basis to modeling AI problems and solving them using exact and heuristics algorithms (such as Iterative deepening search or A*)]

Keywords: [First Order Logic, Prolog, Constraint Programming, Graph search algorithms, A*, AO graphs]

Syllabus:
- Introduction to Logic (Propositional and First Order Logics and Inference Systems): 11h
- Introduction to AI (history, problems’ representation, heuristic and exhaustive search algorithms (depth, breadth, minimum cost, A*, AO, AO*): 13h
- Prolog programming language: 12h
- Constraint Programming: 4h
- Practical sessions (reverse classes) on Prolog and Constraint Logic Programming (CLP): 10h

Organisation and timetable: [Volume CM/TD/TP] Lectures (20h), tutorials (20h) and lab sessions (10h).

Form(s) of Assessment: 1 theoretical exam (2h, coeff 1/2), 1 MCQ exam (1h, coeff 1/4), 1 project: 2-player game programming in Prolog (coeff 1/4)

Literature and study materials:

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