COURSE DETAIL

INTRODUCTION TO ARTIFICIAL INTELLIGENCE
Country Germany
Host Institution Technical University Berlin
Program(s) Technical University Summer
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 110
UCEAP Course Suffix
UCEAP Official Title INTRODUCTION TO ARTIFICIAL INTELLIGENCE
UCEAP Transcript Title INTRO TO AI
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description
Artificial Intelligence (AI) is about creating algorithms to perform tasks in a way that we believe is intelligent. Modern AI algorithms play games (e.g. chess), prove theorems (e.g. verification), discover patterns in data (e.g. explanations), analyze complex sequences (e.g. DNA), make "life or death'' decisions (e.g. matching organs to patients), optimize distributions (e.g. food, refugees, housings), drive cars (e.g. Tesla), play soccer, etc. The goal of the course is that students gain an understanding of some of the fundamental methods and algorithms of AI, and an appreciation of how they can be applied to interesting practical problems. This course has three components: lectures, tutorials, and lab exercises. The lectures introduce selected basic topics such as search, game playing, decision making, planning, machine learning and probabilistic reasoning, and resource allocation. The tutorials allow students to apply algorithms on simple “toy” examples. The lab exercises provide to the students the opportunity to develop a small project in some area of AI: social choice, fair division, learning, planning, theorem proving, etc. The AI course also requires: basic programming skills: C++ or Java or PHP or Prolog (advanced programming skills are not necessary); basic LaTeX skills: a typesetting system; Basic knowledge: algorithms, mathematics.

Language(s) of Instruction
English

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Host Institution Course Details

Host Institution Campus
TUBS

Host Institution Faculty

Host Institution Degree

Host Institution Department
Course Last Reviewed

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