

Course Descriptions Exchange 2023-2024

Course Title Artificial Intelligence
Course Code BENC2020
ECTS Credits 5,0
Assessment Whole/Half Grades

Period	Start	End	Mon	Tue	Wed	Thu	Fri
2	30-10-2023	15-12-2023		X		X	L

Level no level

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Language of instruction English

Goals * To convey the ideas that have emerged over the past fifty years of Artificial Intelligence research, and about two millennia of related work.
* To discuss the possibility of machines that think.
* To show how algorithms can be used to enable systems to think or act intelligently and to discuss state-of-the-art advances in the Artificial Intelligence community.

Description The course starts with an introduction to artificial intelligence and an explanation of algorithms that allow agents to search for optimal solutions in complicated environments. Also, algorithms and problems related to artificial intelligence and games, neural networks basics, but also the emerging field of computer vision are introduced and discussed. Towards the end of the course, a lecture regarding artificial intelligence and related ethics takes place, allowing students to see how computational techniques relate to handling biases and misconceptions.
The main part of the course explores the metaphor of an intelligent agent by introducing a number of state-of-the-art concepts, algorithms, and methods which enable computers (i.e., software and robots) to solve problems in a way which deserves to be called intelligent. Covered topics are explored and applied in exercises and tasks (mainly in-class, but also as homework).

Literature Russell, S., & Norvig, P. (2009, Third Edition). Artificial Intelligence. A modern approach. Prentice-Hall.

Prerequisites BENC1002 Calculus
BENC2001 Multivariable Calculus
BENC1004 Linear Algebra

Keywords

Teaching methods Lecture

Assessment methods Attendance / Assignment

Evaluation in previous academic year For the complete evaluation of this course please click <http://iwio-sbe.maastrichtuniversity.nl/rapporten.asp?referrer=codeUM>

This course belongs to the following programme / specialisation

Bachelor Business Engineering

Year 2+3 Elective Courses