

# COURSE DETAIL

## ARTIFICIAL INTELLIGENCE

**Country**

United Kingdom - England

**Host Institution**

London School of Economics

**Program(s)**

London School of Economics

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Statistics

**UCEAP Course Number**

123

**UCEAP Course Suffix****UCEAP Official Title**

ARTIFICIAL INTELLIGENCE

**UCEAP Transcript Title**

ARTIFICIAL INTELLIG

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

The course introduces students to basic principles of artificial intelligence (AI) systems. By AI, we refer to machines (or computers) that mimic cognitive functions that humans associate with the human mind, such as learning and problem solving. The course takes a practical approach, explaining the main principles and methods used in the design of AI systems. The course provides an introduction to main principles of deep learning, covering topics of neural nets as universal approximators, design of neural network architectures, backpropagation and optimization methods for training neural networks, and some special deep neural network architectures commonly used for solving AI tasks such as image classification, sequence modelling, natural language processing and generative models. If time allows, this course also provides an introduction to reinforcement learning problem formulation. Students gain practical knowledge to learn and evaluate deep learning and reinforcement learning algorithms (if time allows) using Python and open-source software libraries.

### Language(s) of Instruction

English

### Host Institution Course Number

ST311

### Host Institution Course Title

ARTIFICIAL INTELLIGENCE

### Host Institution Campus

London School of Economics

### Host Institution Faculty

### Host Institution Degree

### Host Institution Department

Statistics

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