# **COURSE DETAIL**

## **FUNDAMENTALS OF MACHINE LEARNING**

## **Country**

United Kingdom - England

#### **Host Institution**

University of Sussex

## Program(s)

University of Sussex

#### **UCEAP Course Level**

**Upper Division** 

## **UCEAP Subject Area(s)**

**Computer Science** 

#### **UCEAP Course Number**

123

### **UCEAP Course Suffix**

#### **UCEAP Official Title**

FUNDAMENTALS OF MACHINE LEARNING

## **UCEAP Transcript Title**

MACHINE LEARNING

## **UCEAP Quarter Units**

6.00

#### **UCEAP Semester Units**

4.00

### **Course Description**

This course introduces the important field of machine learning. Students use a systematic approach, based on the following three key ingredients: tasks, models, and features. The course introduces both regression and classification, and studies emphasise concepts such as model performance and learnability. As part of this course students learn techniques such as linear regression, single and multiple layer perceptron classification, kernel-based models (including RBF and SVM), decision tree models and random forest, and Naïve Bayes classification and k-means clustering. Students are also introduced to techniques for pre-processing the data (including PCA).

### Language(s) of Instruction

English

### **Host Institution Course Number**

G6061

#### **Host Institution Course Title**

FUNDAMENTALS OF MACHINE LEARNING

# **Host Institution Campus**

University of Sussex

# **Host Institution Faculty**

# **Host Institution Degree**

# **Host Institution Department**

**Informatics** 

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