# **COURSE DETAIL**

#### ADVANCED STATISTICS AND MACHINE LEARNING FOR BIOSCIENCES

## **Country**

United Kingdom - England

#### **Host Institution**

University College London

## Program(s)

University College London

#### **UCEAP Course Level**

**Upper Division** 

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

Statistics Computer Science

### **UCEAP Course Number**

170

### **UCEAP Course Suffix**

#### **UCEAP Official Title**

ADVANCED STATISTICS AND MACHINE LEARNING FOR BIOSCIENCES

## **UCEAP Transcript Title**

ADV STATS/BIO SCI

#### **UCEAP Quarter Units**

6.00

#### **UCEAP Semester Units**

4.00

### **Course Description**

In this course, students learn the skills to write Python code to implement statistical and machine learning algorithms that can be applied in a range of contexts. Each week the course covers an aspect of computer coding using examples and exercises that drawn on bioscience contexts. Topics will include: probability, maximum likelihood, Bayes theorem, supervised learning: regression and classification, unsupervised learning: dimensionality reduction and clustering, model evaluation and improvement, reinforcement learning, and neural networks and deep learning.

### Language(s) of Instruction

English

### **Host Institution Course Number**

**BIOS0040** 

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

ADVANCED STATISTICS AND MACHINE LEARNING FOR BIOSCIENCES

#### **Host Institution Course Details**

https://www.ucl.ac.uk/module-catalogue/modules/advanced-statistics-and-machine-...

## **Host Institution Campus**

University College London

# **Host Institution Faculty**

# **Host Institution Degree**

# **Host Institution Department**

**Biosciences** 

#### **Course Last Reviewed**

2022-2023

Print