# **COURSE DETAIL**

### **OPTIMISATION FOR LARGE-SCALE DATA-DRIVEN INFERENCE**

## **Country**

Singapore

#### **Host Institution**

National University of Singapore

## Program(s)

National University of Singapore

#### **UCEAP Course Level**

**Upper Division** 

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

Statistics Computer Science

### **UCEAP Course Number**

138

### **UCEAP Course Suffix**

#### **UCEAP Official Title**

OPTIMISATION FOR LARGE-SCALE DATA-DRIVEN INFERENCE

## **UCEAP Transcript Title**

**DATA-DRIVEN INFEREN** 

## **UCEAP Quarter Units**

6.00

### **UCEAP Semester Units**

4.00

## **Course Description**

The course covers several current and advanced topics in optimization, with an emphasis on efficient algorithms for solving large scale data-driven inference problems. Topics include first and second order methods, stochastic gradient type approaches and duality principles. Many relevant examples in statistical learning and machine learning are covered in detail. The algorithms uses the Python programming language. The course requires students to take prerequisites.

## Language(s) of Instruction

English

#### **Host Institution Course Number**

DSA4212

### **Host Institution Course Title**

OPTIMISATION FOR LARGE-SCALE DATA-DRIVEN INFERENCE

**Host Institution Campus** 

**Host Institution Faculty** 

**Host Institution Degree** 

# **Host Institution Department**

Statistics and Data Science

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