

# COURSE DETAIL

## INTRODUCTION TO MOBILE ROBOTICS

**Country**

United Kingdom - Scotland

**Host Institution**

University of Edinburgh

**Program(s)**

Intern: Scotland, University of Edinburgh

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Computer Science

**UCEAP Course Number**

145

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

INTRODUCTION TO MOBILE ROBOTICS

**UCEAP Transcript Title**

INTRO MOB ROBOTICS

**UCEAP Quarter Units**

4.00

**UCEAP Semester Units**

2.70

## Course Description

A mobile robot is a machine controlled by software that uses sensors and other technology to identify its surroundings and move around its environment. This course provides a general understanding of mobile robotics and related concepts, covering topics such as sensing, computer vision (i.e., visual perception), state estimation (e.g., localization and mapping), and motion planning. The emphasis is on algorithms, probabilistic reasoning, optimization, inference mechanisms, and behavior strategies, as opposed to electromechanical systems design. Practically useful tools and simulators for developing real robotic systems are also covered in this course.

### Language(s) of Instruction

English

### Host Institution Course Number

INFR10085

### Host Institution Course Title

INTRODUCTION TO MOBILE ROBOTICS

### Host Institution Campus

University of Edinburgh

### Host Institution Faculty

### Host Institution Degree

### Host Institution Department

School of Informatics

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