

# COMP0160: Perception and Interfaces

## Overall Course Overview

Module Lead: Prof Ifat Yasin  
Module Deputy Lead: Dr. Matthew Caldwell

Module Lead: Prof Ifat Yasin  
Office hour – Details in Moodle

# Module Aims

I will provide a high-level overview of the structure of the course and the modes of delivery and study.

The aims of this module are:

- 1) To provide an understanding of the underlying theories, and methods of measuring human perception and its uses within computing.  
and
- 2) To describe how perceptual principles are used in the design and evaluation of interfaces/environments.

# Intended Learning Outcomes of the Module

After completing this course, students will be expected to be able to:

- 1) Explain how humans perceive and interpret sensory information.
- 2) Understand the relevance of perception in computing (e.g., robotics, virtual environments, machine learning, sensor design, interfaces)
- 3) Appreciate the importance of perception in the design of interfaces/environments.
- 4) Apply perceptual techniques to both the design and evaluation of interfaces/environments.

# Expectations

- Perception
- Relevance to interfaces, devices and sensors
- Prior knowledge & experience
- Introductory level topics

# Modes of Delivery and Teaching Staff

## Lectures:

The lectures will be pre-recorded and available on the COMP0160 Moodle site to view. There will be one 2-hr in-person, on-campus lecture per week.

## Practical sessions:

The 2-hour practical sessions will be held on campus, in-person (details of the campus location is in the timetable).

Lecturers: Prof. Ifat Yasin (6 lectures), Dr. Matthew Caldwell (1 lecture), Dr. David Swapp (1 lecture), Prof. Tobias Ritschel (1 lecture), Prof. Anthony Steed (1 lecture).

Practical Sessions: Dr. Matthew Caldwell

TAs: Contact details in Moodle

**No recording/photography is permitted without approval from the Lecturer of the session.**

# Lecture Layout

The pre-recorded lectures will be available in Moodle

The lecture content for week 1 to week 10 is correspondingly labelled as Lecture 1 to Lecture 10.

Some lectures may be presented in parts (e.g. Part 01, 02 ...) whilst other lectures may be presented as a whole.



# Reading List

**Readings (books and research articles) may be labelled as “Essential” or “Recommended”.** These readings are a good starter for understanding some of the main topics.

## **Books:**

The book list is presented in the COMP0160 Moodle Tab “Reading List” and can also be found by directly accessing the library search pages.

Most books are available as e-books.

You may also find other books that are useful too.

## **Research Articles:**

Published research articles may also be recommended throughout the lectures. Details of such articles will be provided in the individual lectures.

The advised literature is a starting point. You are welcome to seek other literature to supplement the recommended reading, which may also help with the understanding of the topics.

**Details of the book chapter and research articles will be provided in the individual lectures.**

# Practical Sessions

Weekly practical sessions will involve creative task building/exercises that will build on, and complement, the lecture-based learning. Feedback on progress with the tasks will be provided during the practical sessions.

The tasks and exercises for the practical sessions, in conjunction with the lecture material will be relevant for answering the set coursework and exam.

# Coursework

There is 1 piece of coursework (CW) worth 30 %

There is 1 exam worth 70%

The submission deadline and feedback target dates can be found under the “Assessment” tab of the Moodle page.

# Communication

## Moodle Forum:

The Moodle forum can be used to post questions, for example questions relating to the coursework and practical work.

If there is a personal communication then you can always contact:

Module Lead: Ifat Yasin (i.yasin@ucl.ac.uk)