

## COURSE DETAIL

### CELL BIOLOGY OF DISEASE

**Country**

Ireland

**Host Institution**

University College Dublin

**Program(s)**

University College Dublin

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Biological Sciences

**UCEAP Course Number**

149

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

CELL BIOLOGY OF DISEASE

**UCEAP Transcript Title**

CELL BIO OF DISEASE

**UCEAP Quarter Units**

5.00

**UCEAP Semester Units**

3.30

## Course Description

This course provides perspective about how a number of both common and rare diseases arise, and explores the associated changes that are seen at the cellular and tissue level. The course uses a number of specific examples of diseases that arise from single point mutations (for example skeletal deformities such as Smith-McCort dysplasia), as well as complex disease that arise from wider sets of gene alterations (for example various cancer types). Lectures are complemented by a series of laboratory classes that expose students to key aspects of how molecular cell biology approaches are used to understand and combat various diseases. Students gain experience with advanced disease models, three-dimensional spheroids, and their characterization by microscopy, as well as how they can be used to assess the efficacy of bioactive compounds. In addition, the laboratory classes teach students how molecular biology methods can be used to diagnose a disease and guide treatment.

### Language(s) of Instruction

English

### Host Institution Course Number

CELB30130

### Host Institution Course Title

CELL BIOLOGY OF DISEASE

### Host Institution Campus

University College Dublin

### Host Institution Faculty

Biology & Environment Science

### Host Institution Degree

### Host Institution Department

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