

# COURSE DETAIL

## MOLECULAR CELL BIOLOGY I

**Country**

Netherlands

**Host Institution**

Utrecht University - University College Utrecht

**Program(s)**

University College Utrecht

**UCEAP Course Level**

Lower Division

**UCEAP Subject Area(s)**

Biological Sciences

**UCEAP Course Number**

31

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

MOLECULAR CELL BIOLOGY I

**UCEAP Transcript Title**

MOLEC CELL BIOL I

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

This course is an introduction to the fundamental characteristics of life on earth. After completing this course students are able to: explain the major structural characteristics of the macromolecules, membranes and organelles and how this is related to their function; describe the general mechanisms and concepts by which cellular behavior is regulated, i.e. growth, cell division, development, metabolism, responses to internal and external signals; have a basic understanding of, and can work with, the basic principles of inheritance at the molecular, cellular, and organismal level, including the relationship between genotype and phenotype in parents and their, offspring, as well as its implication in biology and medicine; describe, compare and contrast, the general mechanisms of DNA replication, transcription and mRNA translation in prokaryotes and eukaryotes; explain the theory and practice of recombinant DNA technological techniques, such as PCR, cloning, DNA sequencing and DNA microarray; obtain basic skills in reflective essay writing, scientific writing, oral presentations, peer feedback and group work.

## Language(s) of Instruction

English

## Host Institution Course Number

UCSCIBIO11

## Host Institution Course Title

MOLECULAR CELL BIOLOGY I

## Host Institution Campus

Science

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Biology

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