

## COURSE DETAIL

### HUMAN MONOGENIC DISEASES

**Country**

Netherlands

**Host Institution**

Utrecht University

**Program(s)**

Utrecht University

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Biological Sciences

**UCEAP Course Number**

135

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

HUMAN MONOGENIC DISEASES

**UCEAP Transcript Title**

MONOGENIC DISEASES

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

This course reviews how genetic factors that influence human traits are identified. The traits focused on are human diseases, but the techniques can be applied to a wide field of subjects. The background knowledge necessary to understand and apply the different methods, the molecular laboratory techniques (theoretically), and the approaches to finding causal variants for human heritable diseases are taught. Students practice using the vast number of databases containing human genetic information. The subjects can roughly be divided into two main groups: Organization and evolution of genomes and genes and identification of mutations that influence human diseases. Requirements for admission include a knowledge of the structure and organization of DNA; the processes of meiosis and mitosis, including recombination; transcription and translation; gene expression; laboratory techniques such as PCR, restriction enzymes, and DNA-hybridization.

### Language(s) of Instruction

English

### Host Institution Course Number

BMW20621

### Host Institution Course Title

HUMAN MONOGENIC DISEASES

### Host Institution Campus

Utrecht University

### Host Institution Faculty

Medicine

### Host Institution Degree

### Host Institution Department

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