

# COURSE DETAIL

## LAB SKILLS: GENETICS

**Country**

Netherlands

**Host Institution**

Maastricht University - University College Maastricht

**Program(s)**

University College Maastricht

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Biological Sciences

**UCEAP Course Number**

114

**UCEAP Course Suffix**

L

**UCEAP Official Title**

LAB SKILLS: GENETICS

**UCEAP Transcript Title**

LAB GENETICS

**UCEAP Quarter Units**

2.00

**UCEAP Semester Units**

**Course Description**

This course introduces students to the basic principles and techniques in genetics, to develop basic competences in the planning and performance of experiments and the evaluation of results, as well as writing reports. The course covers topics such as DNA and RNA isolation/purification, spectrophotometry for nucleic acid quantification, amplification of specific genetic regions, gel electrophoresis and basic bioinformatics (commonly used databases, finding the genetic location of a specific gene and its gene sequences, design amplification primers for a specific genetic region, etc.) using online available tools. The emphasis is on genetic variation, which is relevant for human clinical diagnostic setting, evolution studies, etc. Furthermore, this course provides basic knowledge on Good Laboratory Practice (GLP) and Laboratory Safety Regulations. Students work in pairs. Lab experience is not required, although biological and chemical background knowledge at secondary school level is recommendable for full understanding of the provided techniques. If necessary, in the first lab session, pipetting skills are trained.

**Language(s) of Instruction**

English

**Host Institution Course Number**

SKI2088

**Host Institution Course Title**

LAB SKILLS: GENETICS

**Host Institution Campus**

University College Maastricht

**Host Institution Faculty****Host Institution Degree****Host Institution Department**

Skills

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