COURSE DETAIL

GENETICS SKILLS

Country
Netherlands

Host Institution
Maastricht University - Center for European Studies

Program(s)
Biological and Life Sciences, Maastricht

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Biological Sciences

UCEAP Course Number
112

UCEAP Course Suffix
L

UCEAP Official Title
GENETICS SKILLS

UCEAP Transcript Title
GENETICS SKILLS

UCEAP Quarter Units
2.00

UCEAP Semester Units

1.30

Course Description
This skills course allows students to obtain a basic introduction to techniques and methods in modern Genetics. The first skills take place at a designated skills laboratory at Chemelot campus; subsequent skills training topics "Genomes and Genomics" are taught in a computer landscape. These days integrate theoretical and practical information. Each student receives theoretical and practical in silico training in the morning, followed by a limited number of tasks to execute on the computer and answered in a skills report. The final skills consist of a student group presentation where the combined theoretical and practical skills on Genetics are applied to a pre-assigned task. This skills course covers the following: procedures to purify genomic DNA from eukaryotic cells and plasmid (circular) DNA from prokaryotic cells and perform quantitative analyses on each product; polymerase chain reaction (PCR) analysis; analysis of DNA products using restriction digestion, ligation and agarose gel electrophoresis; isolation of RNA from eukaryotic cells and apply reverse transcription to generate copy DNA; Western immunoblotting; genetic and genomic websites, general and specialized databases, and relationships of genes within and between databases; technical training for more advanced skills in molecular biology and the life sciences. Prerequisite for this course is Cell Biology.

Language(s) of Instruction
English

Host Institution Course Number
PRA2014

Host Institution Course Title
SKILLS: GENETICS

Host Institution Course Details
https://www.maastrichtuniversity.nl/meta/347369/genetics?print=1

Host Institution Campus
Maastricht University

Host Institution Faculty
Host Institution Degree
Host Institution Department Maastricht Science Program
Course Last Reviewed 2018-2019

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