COURSE DETAIL

GENETICS AND GENOMICS
Country Australia
Host Institution University of Sydney
Program(s) University of Sydney
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Biological Sciences
UCEAP Course Number 126
UCEAP Course Suffix
UCEAP Official Title GENETICS AND GENOMICS
UCEAP Transcript Title GENETICS & GENOMICS
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course brings together traditional genetic analysis and modern molecular biology to study genetics of all life forms from humans and other complex multicellular organisms through to single celled organisms such as bacteria. Students are introduced to complex modes of Mendelian inheritance, including those involved in human diseases. The molecular basis for different patterns of inheritance will be discussed. The interaction of genes and gene products are illustrated by the examination of the molecular genetics of development. The application of genomics to the study of genetic variation, molecular evolution and gene function in humans and model organisms is also described. In the practical sessions students investigate the genetics of a variety of prokaryotic and eukaryotic organisms in order to illustrate concepts covered in the lecture material. Students develop familiarity and competence with equipment used in molecular genetic analysis, bioinformatics, microscopy, and statistical tests.

Language(s) of Instruction
English

Host Institution Course Number
MBLG2072

Host Institution Course Title
GENETICS AND GENOMICS

Host Institution Course Details
http://sydney.edu.au/courses/uos/MBLG2072/genetics-and-genomics

Host Institution Campus
sydney

Host Institution Faculty

Host Institution Degree

Host Institution Department

Molecular Bioscience

Course Last Reviewed
2022-2023

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