

COURSE DETAIL

GENES, GENOMES AND EVOLUTION

Country

Australia

Host Institution

University of New South Wales

Program(s)

University of New South Wales

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Biological Sciences

UCEAP Course Number

130

UCEAP Course Suffix**UCEAP Official Title**

GENES, GENOMES AND EVOLUTION

UCEAP Transcript Title

GENES/GENOMES/EVOLU

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course examines cutting edge concepts in genetics, genomics and evolution: genome structure (the components and organization of genomes), genomics (genome sequencing and annotation), genome variation and the forces that shape it (mutation, recombination and genetic drift) and applications of genomics (conservation genomics, host-pathogen interactions, genome engineering, and systems biology). Multiple aspects of genome biology will be studied and integrated to understand how genomes function and evolve. Core concepts and methods in genomics, molecular evolution and gene regulation will be supported by an integrated set of workshops, science communication tasks and bioinformatics analysis. Modern research methods will be applied to the analyses of differential gene expression in RNA sequencing datasets.

Language(s) of Instruction

English

Host Institution Course Number

BABS3291

Host Institution Course Title

GENES, GENOMES AND EVOLUTION

Host Institution Course Details

Host Institution Campus

Host Institution Faculty

Biotechnology and Biomolecular Sciences

Host Institution Degree

Host Institution Department

Course Last Reviewed

2024-2025

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