

COURSE DETAIL

DEVELOPMENTAL BIOLOGY AND GENETICS

Country

Sweden

Host Institution

Lund University

Program(s)

Lund University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Biological Sciences

UCEAP Course Number

163

UCEAP Course Suffix**UCEAP Official Title**

DEVELOPMENTAL BIOLOGY AND GENETICS

UCEAP Transcript Title

DEV BIO GENETICS

UCEAP Quarter Units

12.00

UCEAP Semester Units

8.00

Course Description

The course presents basic principles of developmental biology and genetics, focusing especially on model systems such as *Drosophila* and mice. It starts with an introduction to genetics covering meiosis, Mendelian crosses, linkage analysis, and population genetics. Furthermore, the course includes elementary hypothesis testing and discussion of the ethical aspects of using genomic tools in medicine. In the following weeks, the course deals with the most important processes of early embryonic development, such as fertilization, early cell division including cleavage patterns and asymmetries, axis formation, gastrulation, development of the nervous system, limb development and regeneration, organ formation, and the impact of the environment on embryonic development. Moreover, the course provides insights into the use of knowledge from developmental biology for the establishment of animal models in studies of disease and drug effects.

Language(s) of Instruction

English

Host Institution Course Number

BIMA82

Host Institution Course Title

DEVELOPMENTAL BIOLOGY AND GENETICS

Host Institution Campus

Medicine

Host Institution Faculty

Host Institution Degree

Host Institution Department

Biomedicine

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