Course: Survival of the Fittest — credits: 5

Course code	BFVP22SURVIVAL
Name	Survival of the Fittest
Study year	2023-2024
ECTS credits	5
Language	Dutch, with parts in English
Coordinator	W.A. Pool
Modes of delivery	Assignment Lecture Practical / Training Project-based learning
Assessments	Survival of the Fittest - Other assessment

Learning outcomes

This module has the following learning outcomes

You engage in professional discussions with fellow students about contemporary ethical issues in your field of work

You correctly name and describe the successive steps of mitosis and meiosis in a eukaryotic cell

You know the principles of evolutionary theory and can describe its connection to biodiversity.

You can describe a stable ecosystem and speculate on how it would respond to changes based on knowledge gained

You name the basic principles of epidemiology and the innate and acquired immune system

You can apply probability theory using Mendelian heritable traits

You can calculate for a Mendelian heritable trait, given the genotypes of the parents, the probability of the phenotypes of the offspring

You work in a team on a project in which you recognise, realistically prioritise, distribute, carry out and evaluate tasks

Content

This module covers a number of biological topics, with the overarching theme of 'survival of the fittest'. Students also work on a case study, in which this theme plays a major role. In the introduction to the module, all theoretical topics are touched upon and groups of students choose one of the provided cases (or set one up themselves, in consultation with the lecturer).

Each week, a biological subtopic is covered, which has a link to the cases. The topics are introduced through a workshop. An individual assignment accompanies each topic. Each group of students is required to give an oral presentation once on their case study and how it relates to one of the subtopics. Another aspect of the case study is presented via a poster at the end of the quarter.

In addition, an introduction to the ethics at play in the bioinformatics field is given. For each case group, a forum discussion is prepared and held on an ethical aspect that plays a role in the chosen case.

In consultation with the lecturer, you will set milestones and work towards them in a targeted manner. You will do this using the agile methodology (scrum). Working with a ticketing system to distribute and prioritise partial problems is also part of this.

Included in programme(s)

Bio-Informatics

School(s)

Institute for Life Science & Technology

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