Hanze

Course: Introduction to Microbiology — credits: 5

Course code	BOVP23RMICROBIO
Name	Introduction to Microbiology
Study year	2023-2024
ECTS credits	5
Language	Dutch, with parts in English
Coordinator	P.J. van der Veek
Modes of delivery	Lecture Practical / Training Project-based learning Tutorial
Assessments	Project en Presentatie Micobiologie - Other assessment VMT Certificering - Other assessment

Learning outcomes

This module has the following learning outcomes:

You work safely in a biological and medical laboratory with non-pathogenic micro-organisms according to nationally established VMT guidelines and can apply the regulations;

You apply concepts from descriptive statistics to your own data obtained from practicals and interpret them;

You identify bacteria from the family Enterobacteriaceae using biochemical tests and, with a group of fellow students, perform a simple literature study on the metabolism of the bacteria found;

You define and apply 'success factors' necessary for effective teamwork to complete an assignment according to set guidelines;

As a team, you present a study-related topic in the form of a structure given by the field for presenting research data to peers.

DAS competentcies

Competency	Level (I-IV)
Research	I
Experimentation	I
Development	
Management	I
Advise	
Instruction	I
Leadership	
Self-management	I

Content

This module covers some basic aspects of microbiology. First, you will learn how to work under VMT (Safe Microbiological Techniques) conditions in practice. This 3-day VMT course concludes with a test in which laws and regulations are also interpreted. After satisfactory completion of the course in terms of test, actions and logbook, you will receive the nationally recognised VMT certificate. The data from the course is used to get acquainted with descriptive statistics. You make assignments with types of errors, normal distribution and concepts such as mean, standard deviation, variance, error in the mean and confidence intervals, among others.

You will also delve into how the metabolism of bacteria works and how you can use it to identify different bacteria. Together with your project group, you will practically identify a bacterium from the Enterobacteriaceae family and make a presentation about the organism for your fellow students. You will be supported with background information and exercises in presentation and collaboration.

Included in programme(s)

Major Biology and Medical Research

School(s)

Institute for Life Science & Technology

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