Hanze

Course: The Cell — credits: 5

Course code	BOVP23MDCEL
Name	The Cell
Study year	2025-2026
ECTS credits	5
Language	Dutch, with parts in English
Coordinator	S.A.B. Hermsen
Modes of delivery	Assignment Practical / Training Tutorial
Assessments	Cellen en Celdeling - Other assessment Centrale Dogma en Biomoleculen - Computer, organised by STAD examinations

Learning outcomes

You name and describe the anatomy and physiology of the cell and the different cell organelles and you distinguish under a microscope between pro- and eukaryotic cells as the basis of general cell biology.

You explain the successive steps of the central dogma as the basis of molecular biology in both prokaryotes and eukaryotes and you recognize and illustrate the different phases of mitosis by visualizing these phases in the cells of onions with a fellow student during the practical.

You know the structure of different macromolecules (sugars, proteins, DNA/RNA) and you explain their function in a cell/organism as the basis of biochemistry.

You name the function and construction of neurons, the action of neurotransmitters such as acetylcholine and the action of sodium/potassium pumps of the cell.

You collaborate effectively and record agreements verifiably for social, communication and information skills to produce a multimedia group product on cells or cell division.

DAS competencies

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

Content

During this module, you will study the structure of the prokaryotic and eukaryotic cell in both theory and practice. In the process, you will learn about the functions of different cell organelles and macromolecules.

You study the cell organelles in a group and present them to classmates. With the same fellow student, you visualize the different phases of mitosis during the practical. You work out classwork in a logbook during a tutorial under the guidance of a teacher.

The central dogma and macromolecules are tested at the end of the module by means of a digital test.

Included in programme(s)

Major Medical Diagnostics

School(s)

Institute for Life Science & Technology

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