

Course: Basic Cell Biology and Metabolism

credits: 5

Course code BOVP23RCELMETABO
Name Basic Cell Biology and Metabolism
Study year 2026-2027
ECTS credits 5
Language Dutch, with parts in English
Coordinator J. de Keyzer

Modes of delivery Lecture
 Practical / Training
 Teaching method 1
 Tutorial

Assessments Analyse van Celgroei en Metabolieten -
 Other assessment
 Introductie in de Celbiologie - Computer,
 organised by STAD examinations

Learning outcomes

This module has the following learning outcomes:

You describe the properties and functions of biological macromolecules and cell structures and explain how, according to current scientific knowledge, they contribute to the functioning of a cell;

You use knowledge of cell biological and metabolic processes to answer simple theoretical biological questions and explain experimental results according to current scientific insights;

You analyse and visualise biological or biomedical data in a scientific way using a spreadsheet programme;

You perform, in cooperation with peers, biological and (bio)chemical analyses of cell growth and metabolites in a biological or biomedical laboratory on the basis of provided protocols and process the results independently in a scientific way in a digital logbook;

You reflect, both in writing and in conversation, on your own development and progress within the Biology and Medical Laboratory Research programme according to the programme guidelines.

DAS competencies

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

Content

This module covers the basics of cell biology. We look at what (macro-)molecules and cell structures prokaryotic and eukaryotic cells are made of. We also study the energy management and metabolism of cells. During the practical course, you will use the knowledge gained to explain research results. You also learn how to analyse and visualise research results using a spreadsheet programme.

This module is a compulsory part of the Biology and Medical Laboratory Research - Research programme.

Included in programme(s)

Major Biology and Medical Research

School(s)

Engineering, Life Sciences & ICT