

Course: Blood

credits: 5

Course code	BOVP23MDBLOED	Modes of delivery	Assignment
Name	Blood		Practical / Training
Study year	2026-2027		Tutorial
ECTS credits	5	Assessments	Analyse van Bloedwaarden - Other assessment
Language	Dutch, with parts in English		Hart, Bloedvaten en Bloed - Computer, organised by STAD examinations
Coordinator	S.A.B. Hermesen		

Learning outcomes

You name and describe the structure and function of bone tissue and the heart and blood vessels and explore cardiovascular systems while dissecting them to learn the anatomy and physiology of the heart, blood vessels and circulation in humans.

You will master the principles of determinations of various blood values, including blood coagulation, haemoglobin, haematocrit and blood groups, perform these determinations according to your own work plan and the general clinical chemical standards as the basis of haematology.

You and other students create a diagnostic case on aspirin coupled with an acid-base titration to determine the amount of aspirin and apply statistics to solve the case as an example of a drug determination in the laboratory and its clinical relevance.

You apply basic statistical skills by comparing laboratory results using difference tests, assessing their reliability and visualising these results in graphs in a correct, clear and unambiguous way, analysing the results.

You describe the physiological and chemical functions of buffers in blood and explain the balance and disturbances in this balance in physiological situations.

You handle patient material and patient data consciously and make ethical considerations according to appropriate guidelines on their use.

DAS competencies

Competency Level (I-IV)

Research I

Experimentation I

Development

Management I

Advise

Instruction

Leadership

Self-management I

Content

This module focuses on bone tissue and blood. In medical diagnostics, many parameters are measured in blood. You examine the composition and properties of blood. You dissect the heart and blood vessels and learn their anatomy and physiology and how blood cells are created in the bone marrow. You learn about the formation and breakdown of bone tissue. You differentiate different cell types in blood and determine, among other things, the haematocrit value and haemoglobin concentration and, as part of statistics, apply difference tests to laboratory results. Because you will be working with blood, you will also learn to work with biological material and the ethical aspects associated with it.

Included in programme(s)

Major Medical Diagnostics

School(s)

Engineering, Life Sciences & ICT