Course: Professional Competences 2 — credits: 5

Course code	BOVH24MDBEROEP2
Name	Professional Competences 2
Study year	2025-2026
ECTS credits	5
Language	Dutch, with parts in English
Coordinator	J.C. Zweers
Modes of delivery	Tutorial
Assessments	Data: Statistiek en Viisualisatie - Other assessment Laboratoriumcompetenties - Written, organised by STAD examinations

Learning outcomes

- You will make an appropriate choice of an analytical method for a given experimental design, apply this method and present the results in an orderly fashion using appropriate software, including Excel and SPSS.
- You perform various uni- and multivariate linear and nonlinear regression methods, including model selection, and you engage in interpolation with reliability and detection limit (for calibration) and extrapolation with reliability (for standard addition) and interpret these results for a given data set.
- You understand and perform validation of measurement methods for continuous and nominal measurement values in order to advise on the method used.
- You perform correct and insightful calculations in the context of the laboratory, extracting from a more complex context the correct data and question to arrive at this calculation.

Content

The 'Data: statistics and visualization' section introduces you to regression analysis and explores the comparison of different measurement methods and how to statistically process the results. You will use both Excel and SPSS, practicing on assignments. You will also practice with clearly visualizing and organizing your data. At the end you make a final assignment individually and hand it in.

For the section 'Laboratory Competencies' you look back at the theory on mathematics and chemical calculation from year 1 and the lab experiences you have gained so far in the field of preparation and elaboration of practicals and the associated calculations. On the basis of these experiences we deepen your theoretical knowledge and calculation skills a little more, so that you are well equipped to prepare and carry out calculations in more complex experiments in year 2 and year 3. This part will be tested individually in writing by means of an examination with applied calculation problems such as you can expect in the laboratory in year 2 and 3.

Included in programme(s)

Major Medical Diagnostics

School(s)

Institute for Life Science & Technology

share your talent. move the world.

Although every effort has been taken to ensure the accuracy of the information in the ECTS Course Catalogue, we cannot guarantee that the content and the information contained in it is always up-to-date, complete or true. Accordingly, no rights can be derived from the contents of the catalogue.