Vak: Data Analyse & Visualisatie met R — credits: 5

Vakcode	BFVH24DAVUR
Naam	Data Analyse & Visualisatie met R
Studiejaar	2026-2027
ECTS credits	5
Taal	Engels
Coördinator	M.E.F. Apol
Werkvormen	Werkcollege
Toetsen	Data Analysis & Visualisation Using R - Overige toetsing

Leeruitkomsten

This module has the following learning outcomes:

1. You use the R programming language correctly and efficiently, including its data types, functions and flow control elements. You are able to find, evaluate and select relevant packages for your workflow.
1. You write functions and scripts according to development standards and practices of the R language.
1. You are competent with the tidyverse packages (ggplot2, tidyr, dplyr, readr, lubridate, stringr) and use these packages to create single-statement workflows.
1. You develop data explorations on multivariate tabular data, focusing on the purpose of the data (i.e. outcome variable). You preferentially make use of the *tidyverse* packages, or packages built on top of these.
1. You develop and implement scientifically correct data visualizations making use of *ggplot2* or packages extending this.
1. You use RMarkdown to create your exploratory data analyses (EDAs), reports and presentations.

Inhoud

This course is an introductory course of the R programming ecosystem. You will learn the basics of programming in this language. Besides this, we will explore the most popular set of libraries, the *Tidyverse*. There are several foci in this course: (1) learning to program with R, (2) the concept of *literate programming*, in which you combine code, its output (often in the form of figures) and regular (formatted) text, (3) developing scientifically correct and attractive visualizations.
We assume basic knowledge of statistics (descriptive statistics, statistical tests such as t-test, basic plots such as box-plot) and of molecular biology, primarily the Central Dogma.

DAS competenties (DAS competences)

Since this is not a fixed part of any curriculum there are no DAS competences defined for the course.

Competentie	Niveau (I-IV)
Onderzoeken	
Experimenteren	
Beheren	
Adviseren	
Instrueren | Begeleiden | Doceren | Coachen	
Leidinggeven | Managen	
Zelfsturing	

Opgenomen in opleiding(en)

Minor Data Science for the Life Sciences

School(s)

Engineering, Life Sciences & ICT

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