

## Vak: Programming 2

credits: 5

<b>Vakcode</b>	BFVM22PROGR2	<b>Werkvormen</b>	Werkcollege
<b>Naam</b>	Programming 2	<b>Toetsen</b>	TOETS-01 - Opdracht
<b>Studiejaar</b>	2022-2023		
<b>ECTS credits</b>	5		
<b>Taal</b>	Engels		
<b>Coördinator</b>	F. Feenstra		

### Leeruitkomsten

- Motivate the choice of data processing and storage strategy in terms of performance, maintainability, and future use, taking into account that the used technologies will likely change over time.
- Translate a data science problem independently into a software program
- Translate a mathematical algorithm into a python algorithm using vectorized principles if applicable
- Program a functional and correct visualization
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- Write test software for critical parts of the software

### Inhoud

The course starts with a quick introduction of the Python libraries used for data science. Every week the programming of loading data, cleaning data, analysing data and visualizing data will be practised. Different sources of data (timeseries data, signal data, subject related data) and datatypes (CSV, SQL, JSON, HTML, XML) will be used as a study case. The topic of maintainable code will also be discussed. There will be an emphasis on efficient data processing techniques and performance.

This module builds upon the basics of the preparatory course programming.

### Opgenomen in opleiding(en)

Master Data Sciences for the Life Science

### School(s)

Instituut voor Life Science & Technology

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