Hanze

Minor

Qualification awarded
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Length of the programme
6 months

ECTS credits
30

Level of qualification
Bachelor

Mode
Full-time

Language
English

School
Institute for Life Science & Technology

Locations
Groningen

Minor Data Science for the Life Sciences

Profile of the programme

Bio-informatics for life science
Profile of the programme
The minor Bio-informatics for life science is offered in the second semester of the year, starting in February.

Are you interested in strenghtening your digital skills and learn techniques that will help you during your research and future career? Then the minor Bioinformatics for Life Science might be the right choice for you!

More and more, lab technicians encounter data and analysis challenges unsolvable (or unsuitable) for traditional means of storage and exploration (i.e. Excel). Therefore, this minor focuses on those computer skills that will help tackling data handling and analysis challenges in modern life science research. Subjects that will be dealt with are Next Generation Sequencing (NGS) technologies and their applications, and many aspects of data processing: storage strategies, exploration, visualization and analysis. Along the way, basic programming skills in R will be learned.

In the second half of the minor, we will switch to another –but related- domain of bioinformatics. This is the domain of digital experimentation, analysis, inference and visualization. We will use the (statistical) language R to explore this domain. The central topic will be genome-wide gene expression analysis using RNA-seq data (a NGS technology).

This minor is also an international exchange minor, so during the programme you will also learn to work in an international environment.

Learning outcomes

Learning outcomes
- Theoretical and project work in the field of diagnostic genome analysis and transcriptomics
- A toolbox of Bioinformatics which gives you the basic skills to handle large amounts of data and solve problems in modern Biomedical Sciences
- Working together with international students from different backgrounds

Programme

Minor Data Science for the Life Sciences	**credits**
Genomics	15
▫ BFVH24GENOMICS - Genomics Project	*5*
▫ BFVH24DAVUR - Data Analysis & Visualisation Using R	*5*
▫ BFVH24BIOINFORM - Bioinformatics	*5*
Data to Biology	15
▫ BFVH24TRANSCRIPT - Transcriptomics	*10*
▫ BFVH24MACHINE - Machine Learning	*5*

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