Master’s programme in Drug Discovery and Safety
Specialization Biomarkers and Clinical Chemical Analysis
Study programme

General description
In the specialization Biomarkers and Clinical Chemical Analysis you will be involved in the development of new methods for analyzing living cells and finding proteins associated with particular diseases. Or you work on the quick and accurate measurement of large numbers of biological samples, for example to test for performance-enhancing drugs in sport. Another possibility is the development of high throughput systems for the study of interactions between drugs and proteins.

Programme components (EC)
The Master’s programme in Drug Discovery and Safety is a two-year programme starting in September. The specialization Biomarkers and Clinical Chemical Analysis contains the following components (EC):

- Compulsory courses (30)
- Compulsory choice courses (12) *
- Major research project (42)
- Literature thesis and colloquium (12)
- Ethics and academic skills (6)
- Elective: minor research project; traineeship abroad/company; optional courses (18)

Course overview

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<tr>
<th>Period</th>
<th>Month</th>
<th>Course (EC)</th>
<th>Category</th>
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| 1      | Sep–Oct   | Chemical biology (6)  
ADME processes and toxic side effects (6)
Principles of pharmacochemistry (6)
Omics-approaches in molecular clinical diagnostics (6)  
Protein analysis (6) | Compulsory course  
Compulsory course  
Introductory course*  
Compulsory choice**  
Compulsory choice** |
| 2      | Nov–Dec   | Drug induced stress and cellular response (6)  
High throughput-screening (6)  
Mass spectroscopy (6) | Optional course  
Compulsory choice**  
Compulsory choice** |
| 3      | Jan       | Drug action (6) | Compulsory course |
| 4      | Feb–Mar   | Computational design and synthesis of drugs (6) | Compulsory course |
| 5      | Apr–May   | Bio-analysis & clinical diagnostics (6) | Compulsory course |
| 6      | Jun       | | |

More information: www.vu.nl/dds

This overview can be subjected to alterations.
Every part of the programme, including the choice of optional courses, has to be discussed and agreed upon with the Master’s coordinator and approved by the examination board.

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*Compulsory course only for students without prior background in pharmaceutical sciences
**Compulsory choice: choose 2 out of 4 courses