The Master’s programme in Medical Natural Sciences is a unique opportunity for students who want to combine scientific subjects with practical application. For example, you will be able to:

- Develop new possibilities and techniques for medical diagnosis and treatment
- Research ways of using laser technology to treat various diseases
- Work on clarifying the molecular basis of various diseases

**Compulsory courses:**
1. Biomedical Modelling and Simulation (period 1)
2. Advanced Image Processing (period 2)
3. Physics of Organs I or Pathophysiology of Heart and Circulation or Soft Condensed Matter and Biological Physics or Bio-analysis and clinical diagnostics

**Restricted choice courses:**
- Physics of Organs II (6 EC)
- Dynamics of Biomolecules and Cells (6 EC)
- Parameter Estimation in Medical and Biological Sciences (6 EC)
- Elektronica & signaalverwerking (6 EC)
- Mass spectrometry (6 EC)
- Protein analysis (6 EC)
- High-throughput screening (6 EC)
- Proteomics in Biomedical Research (3 EC)
- Advanced Cardiac Diagnostics (3 EC)
- Life Cell Imaging (3 EC)
- Biomedical Optics (6 EC)
- Advanced Medical Technology (6 EC)
- Signal transduction in Health and Disease (6 EC)
- Drug induced stress and signaling (6 EC)

**Academic core (compulsory):**
- Ethics in Biomedical Research
- Scientific writing in English

*Both courses are scheduled in period 3*

**Research projects:**
1. Major research project: choose subject from research (39 EC)
2. Minor research project: choose subject from research (21 EC)

**Elective space:** extension research projects or literature thesis; extra courses (12 EC)

More information: [www.vu.nl/mns](http://www.vu.nl/mns)