Hanze

## Programme

**Qualification awarded**
Bachelor of Science

**Length of the programme**
48 months

**ECTS credits**
240

**Level of qualification**
Bachelor

**Mode**
Full-time

**Language**
Dutch, with parts in English

**School**
Institute for Life Science & Technology

**Locations**
Groningen

# Major Medical Diagnostics

**Profile of the programme**

*No content available*

**Learning outcomes**

Graduates in Biology & Medical Laboratory Research are employed as research or diagnostic technicians in biological and medical laboratories of universities, hospitals, research institutes, industry and public health organizations

The graduate of the Bachelor of Biology & Medical Laboratory Research programme can demonstrate that s/he has achieved the ability to:

Conduct experiments in the Applied Science domain in a way that ensures that demonstrably reliable results are obtained by:
- accurately managing both data and samples;
- making proposals for reagents and equipment and formulate recommendations for future research;
- practicing a range of laboratory techniques and computer software skills;
- establishing a work plan for a number of experiments and apply this plan effectively and efficiently, and make appropriate adaptations;
- conducting experiments accurately and responsibly within a predefined time period.

Perform research in the Applied Science domain which either helps to solve a problem or develop a method, or provides a greater understanding of a subject within his specific working environment, by
- explaining the aim of a study and the research methods used;
- demonstrating research and information retrieval skills and using relevant bibliographic literature;
- independently drafting a work plan and accounting for the preconditions;
- logically and orderly combining results and drawing conclusions in relation to the research question;

The graduate demonstrates various generic competences by:
- taking initiatives to contact colleagues in order to exchange information and communicate conclusions to different levels in the organisation;
- contributing to the guidance and/or development of colleagues;
- showing professional attitude by being a motivated, flexible and valuable colleague;
- interpreting professional and ethical dilemmas and making decisions accordingly;
- critically evaluating own points of view and actions and taking responsibility for them;
- improving his own performance by self-reflection and receiving feedback.

## Programme

| **Major Medical Diagnostics** | **credits** |
|---|---|
| | 60 |
| Theme 1 - Cells and Tissues | *15* |
| BOVP23MDANALIST - The Medical Technician | *5* |
| BOVP23MDCEL - The Cell | *5* |
| BOVP23MDWEEFSELS - Tissues | *5* |
| Theme 2 - Metabolic System | *15* |
| BOVP23MDSPIJSVRT - Digestion | *5* |
| BOVP23MDMICROBM - Microbiome | *5* |
| BOVP23MDURINEWEG - Urinary System | *5* |
| Theme 3 - Homeostasis and Regulation | *15* |
| BOVP23MDADEM - Respiration | *5* |
| BOVP23MDIMMUUN - Immune System | *5* |
| BOVP23MDHORMONEN - Hormones | *5* |
| Theme 4 - Blood and DNA | *10* |
| BOVP23MDBLOED - Blood | *5* |
| BOVP23MDERFELIJK - Heredity | *5* |
| Electives | *5* |
| *selection of following courses* | |

- LSVX23ANATOMIE - Human Anatomy and Physiology: The Human Body under the Magnifying Glass 5
- LSVX23CIRCUCHEM - Applied Circular Chemistry 5
- LSVX23FILOSOFIE - Science Philosophy and Ethics 5
- LSVX23HEALTHY - Healthy Ageing 5
- LSVX23LABVAARDIG - Introduction Laboratory Skills 5
- LSVX23OCTAVEMATL - Programming in Octave/MATLAB 5
- LSVX23PYTHON - Introduction Programming in Python 5
- LSVX24COMMUNICAT - Communication Skills 5
- LSVX24CREATIEF - Creative Writing 5
- LSVX24INDUSTRBIO - Introduction to Industrial Biotechnology 5
- LSVX24INFECTIE - Infectious Diseases 5
- LSVX24INLENERGIE - Introduction to the Energy Transition 5
- LSVX24INLPSY - Introduction to Psychology 5
- LSVX24KLIMAAT - Climate Change and Saline Soils 5
- LSVX24MEDICIJN - Drug Discovery 5
- LSVX24PERSPRJ - Personal Project Space 5
- LSVX25PATIENT - The patient fit and prepared 5
- LSVX25VOEDING - Healthy, Durable and Safe Food 5

Year 2 60

- Theme 5 - Medical Microbiology *15*
  - BOVH24MDPRMICRO - Practical Microbiology 5
  - BOVH24MDMEDMICRO - Medical Microbiology 5
  - BOVH24MDBEROEP1 - Professional Competences 1 5
- Theme 6 - Clinical Chemistry/Hematology *15*
  - BOVH24MDPRLABGEN - Practical Laboratory Medicine 5
  - BOVH24MDLABGEN - Laboratory Medicine 5
  - BOVH24MDBEROEP2 - Professional Competences 2 5
- Theme 7 - Medical Genetics *15*
  - BOVH24MDPRGEN - Practical Genetics 5
  - BOVH24MDMEDGEN - Medical Genetics 5
  - BOVH24MDBEROEP3 - Professional Competences 3 5
- Theme 8 - Pathology *10*
  - BOVH24MDPRHISCYT - Practical Histology and Cytology 5
  - BOVH24MDPATH - Pathology 5
- Electives *5*

  *selection of following courses*
  - LSVX23ANATOMIE - Human Anatomy and Physiology: The Human Body under the Magnifying Glass 5
  - LSVX23CIRCUCHEM - Applied Circular Chemistry 5
  - LSVX23FILOSOFIE - Science Philosophy and Ethics 5
  - LSVX23HEALTHY - Healthy Ageing 5
  - LSVX23LABVAARDIG - Introduction Laboratory Skills 5
  - LSVX23OCTAVEMATL - Programming in Octave/MATLAB 5
  - LSVX23PYTHON - Introduction Programming in Python 5
  - LSVX24COMMUNICAT - Communication Skills 5
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  - LSVX24INLPSY - Introduction to Psychology 5
  - LSVX24KLIMAAT - Climate Change and Saline Soils 5
  - LSVX24MEDICIJN - Drug Discovery 5
  - LSVX24PERSPRJ - Personal Project Space 5
  - LSVX25PATIENT - The patient fit and prepared 5
  - LSVX25VOEDING - Healthy, Durable and Safe Food 5

Year 3 60

- Theme 9 - Medical Diagnostics *15*
  - BOVH3THD09 - Project 1 7
  - BOVH3HKI - Hematology & Clinical Immunology 3
  - BOVH8PAT2 - Pathology 2 2
  - BOVH15MDVSL - Report Writing 2
  - LSVH7STB3A - Academic Counselling Year 3 - Part 1 1
- Theme 10 - Medical Diagnostics 2 *15*
  - BOVH3THD10 - Project 2 7
  - BOVH25DATANALYSE - Data Analysis 3
  - BOVH16MEG2 - Medical Genetics 2 3
  - BOVH23MDORGMAN - Organisation & Management 2
- Electives *30*

  *electives*

Year 4 60

| | |
|---|---|
| Practical placement | *30* |
| BOVH19MDSTAGE - Practical Learning Period | *28* |
| LSVH15KWALZ - Quality Assurance | *1* |
| LSVH15ARBO - Health & Safety | *1* |
| Final Project | *30* |
| BOVH15MDAFST - Final Project | *30* |

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