



OUR CAMPUS

International Business, Engineering, Health & Life Sciences

The Schwenningen Campus with its three faculties (HFU Business School, Mechanical and Medical Engineering, Medical and Life Sciences) has seen rapid change over the past few years. Currently more than 2000 students are taking bachelor's or master's degrees with us.

Health & Life Sciences

The Schwenningen Campus of HFU has been a well-respected international centre for medical and biotechnological research and teaching since 1988 and we are proud of our home-grown expertise. Students benefit from ideal study conditions; experienced teaching staff, and modern laboratories and teaching facilities. Our study programmes cater for the increasing demand for academically trained staff in the areas of biotechnology, environmental problems, diagnostics, therapy and the prevention of human disease. Biotechnology and process engineering, as well as medicine and medical technology, are fields which make an important contribution to quality of life and the promotion of health.

The interdisciplinary approach of our programme ensures and enhances its practical relevance. And close cooperation with national and international scientific and business organisations ensures the continuous development of the study content.

The Faculty of Medical and Life Sciences offers the following study programmes:

Undergraduate programmes:
Applied Biology (BSc)
Molecular and Technical Medicine (BSc)

Postgraduate programmes:
Precision Medicine Diagnostics (MSc)
Technical Physician (MSc)
Sustainable Bioprocess Technology (MSc)

FIRST STEPS

How and where do I apply?

For information and advice:
Christopher Flaig
Furtwangen University
Jakob-Kienzle-Str. 17
78054 VS-Schwenningen
stg-mdt@hs-furtwangen.de
www.mls.hs-furtwangen.de

Please send application documents to:
Furtwangen University
Faculty of Medical and Life Sciences
Christopher Flaig
Jakob-Kienzle-Str. 17
78054 VS-Schwenningen

For further information on requirements and application process please visit:
www.pmd.hs-furtwangen.de

Application deadlines:

Winter semester
Non-EU applicants: 15 May
EU applicants: 15 July

Summer semester
Limited intake (by enquiry only): 15 January



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Precision Medicine Diagnostics

Master of Science
Taught in English



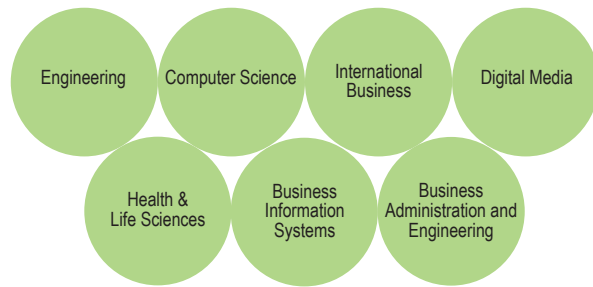
FURTWANGEN UNIVERSITY (HFU)

Reach new heights

As one of the most well-established universities of applied sciences in Baden-Württemberg, we are proud of our long tradition of high-quality teaching, applied research and international orientation. HFU is ranked among Germany's best universities by both our students, and by national and international businesses. With nine faculties across three campuses and almost 60 practical and innovative bachelor's and master's degree programmes, Furtwangen University offers a wide variety of academic opportunities.

Exciting portfolio of innovative degree programmes

- Courses geared to employers' needs
- Top quality teaching and outstanding research opportunities
- International focus of degree programmes
- Outstanding student support in a safe environment
- Broad career opportunities
- Prestigious research institutes
- System accreditation guaranteeing university-wide academic quality
- Possibility to combine high-performance sport and study at Elite Sports Partner University





PROGRAMME OVERVIEW

Precision Medicine Diagnostics

Work at the interface between medicine, the natural sciences and technology

This master’s degree provides multidisciplinary training at the interface between medicine, the natural sciences and technology. The study programme was designed to meet the demand for specialists in the field of precision medicine.

Reasons to study Precision Medicine Diagnostics at HFU

- Multidisciplinary programme with innovative approach at interface of medicine, natural sciences and technology
- Excellent career prospects in diverse fields
- Qualification for leading positions in hospitals, industry and research institutes
- Broad-ranging collaborative projects with various research institutes
- Prestigious, well-established university
- State-of-art equipment and laboratory facilities on Schwenningen Campus and in affiliated institutes
- Small class sizes and individualised support

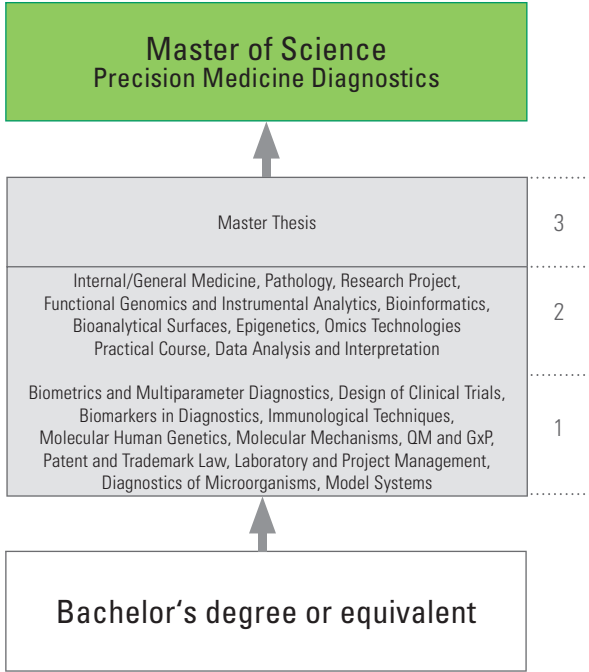
Entry requirements

First degree (bachelor’s, master’s, “Diplom” or equivalent) in natural sciences, medical sciences or related discipline with a minimum of 210 credits; fluent English (CEF B2)

Duration of programme

The study programme lasts 3 semesters. In individual cases where students lack a specific requirement, additional pre-semester courses can be taken.

PROGRAMME STRUCTURE



PROGRAMME CONTENT

Practical relevance and project work

Challenging modern natural science and medical content with a strong practical relevance is taught in small groups.

Precision Medicine today

Precision Medicine is an emerging approach to treatment which takes into account individual genetic/genomic features as well as environmental influences and lifestyles. It also carries out data mining on recorded clinical data. As precise diagnosis and prognosis rely on multiple genomic and environmental parameters, sophisticated computational and statistical procedures are an extremely important component of this approach. This is reflected in our study programme and our graduates are specialists in the field of medical diagnostics.

Curriculum

Our curriculum provides both an excellent grounding in the natural sciences, enabling graduates to work in any relevant medical area, and practical training in all commonly used diagnostic methods. Our master’s degree gives our students cutting-edge expertise in diagnostic methods which can be applied across a wide range of fields.

Skills acquired

Students will be taught innovative throughput technologies and will study subjects from the area of personalised medicine, such as biomarker applications in diagnostics and prognostics, and biomarkers for patient stratification and therapy control. The course also covers various methods used in the fields of transcriptomics, proteomics, metabolomics and immunology.

YOUR CAREER OUTLOOK

This master’s degree provides excellent opportunities in a wide range of career areas. It qualifies you for leading positions in hospitals, industry and research institutes.

The multidisciplinary approach of Precision Medicine Diagnostics, as well as the focus on developing expertise, as opposed to gaining purely theoretical knowledge, opens a range of employment pathways, including in the growing healthcare market.

- **Clinics, hospitals and large medical care units**
Diagnostics, personalized medicine, research and development, planning and coordination of clinical trials, patient stratification, companion diagnostics, experimental and clinical pharmacology
- **Medical laboratory units**
Diagnostics, research and development, supervision of small laboratories, project management
- **Pharmaceutical industry and food industry**
Quality control, hygiene monitoring, research and development, project management, supervision of small laboratories, product management and sales
- **Research institutes, universities**
Research and development in the field of natural sciences, companion diagnostics, project management, design, execution and documentation of experiments
- **Government authorities and public services**
Diagnostics, hygiene monitoring, quality control

PhD programme

The Precision Medicine Diagnostics master’s degree qualifies students for admission to a PhD programme.