

CONTACT AND ADVICE

STUDENT HOTLINE CALL JUSTUS

☎ Mo to Fr 8:30-12 and 13-17 | ☎ +49 641 99 16400

CENTRAL STUDENT ADVISORY SERVICE

You can find more information about the counselling services as well as contact options and the current counselling hours at:

➔ www.uni-giessen.de/studium/zsb

INTERNATIONAL OFFICE

General Counselling of International Students:

☎ +49 641 99 12143 | +49 641 99 12174

✉ studium-international@uni-giessen.de

➔ www.uni-giessen.de/international-pages

ACADEMIC ADVICE

Prof. Dr. Hermann Müller

Department of Sports Science

Kugelberg 62, 35394 Giessen

☎ +49 641 99 25230

✉ Hermann.Mueller@sport.uni-giessen.de

FACULTY 06 – PSYCHOLOGY AND SPORTS SCIENCE

➔ www.uni-giessen.de/faculties/f06

APPLICATION

ADMISSION REQUIREMENTS:

BACHELOR'S DEGREE IN A RELEVANT FIELD OF STUDY OF AT LEAST 180 ECTS AND OTHERS AS APPROVED BY THE BOARD OF EXAMINERS

4	SEMESTERS – 120 CREDIT POINTS (CP)
WS	START IN WINTER SEMESTER (OCTOBER)
LA	LANGUAGE REQUIREMENTS

Application deadline: 15 June

JLU application portal:

➔ www.uni-giessen.de/studium/bewerbung

All applicants with a foreign university entrance certificate or a foreign bachelor's degree must submit their application via:

➔ www.uni-assist.de

No study fees are charged for this study programme. However, students have to pay a semester contribution for administration.

For further information on application and enrolment, you may contact:

Registrar's Office

Goethestr. 58, 35390 Giessen

Postal address: Postfach 11 14 40, 35359 Giessen

☎ +49 641 99 16400 (via Call Justus)

✉ international.admission@admin.uni-giessen.de

FURTHER INFORMATION

➔ www.uni-giessen.de/studium/master/hma



JLU

NEUE WEGE. SEIT 1607.

JUSTUS-LIEBIG-
UNIVERSITÄT
GIESSEN



MASTER OF SCIENCE (M.SC.)

HUMAN MOVEMENT ANALYTICS –
BIOMECHANICS, MOTOR
CONTROL, AND LEARNING

Study programme taught in English

 ZENTRALE
STUDIENBERATUNG

100 % Naturpapier | Auflage: 60 | Stand: Oktober 2024
Coverfoto: kentoh/123rf.com



The study programme gives students the opportunity to acquire competencies that will enable them to address basic and applied questions on the highest scientific level in health care and competitive sports, in orthopaedic and neurological rehabilitation, in ergonomics, and in occupational science.

WHAT MAKES US SPECIAL

The Master's study programme 'Human Movement Analytics – Biomechanics, Motor Control, and Learning (Master of Science)' imparts knowledge and competencies based on basic research in movement science, biomechanics, and neuroscience. It develops methodological competencies and opens up advanced research opportunities in the fields of movement analytics, biomechanics, behavioural science, and neurophysiologically oriented motor research. The curriculum focuses on the theoretical and methodological foundations for analysing human motion.

ADMISSION REQUIREMENTS

Applicants must hold a Bachelor's degree with at least 180 ECTS points, obtained in one of the following scientific fields:

- Physical Activity and Health
- Biomedical engineering or medical engineering
- Sports and Technology
- Physical therapy
- Psychology
- Cognitive sciences or Behavioral Sciences
- Neuroscience
- Biology (incl. modules in human biology and physiology)
- Teacher training programmes in sports combined with mathematics, physics or computer science

The board of examiners can recognize degrees in addition to the above.

COMPOSITION OF THE STUDY PROGRAMME

The study programme comprises three 'tracks' to be completed in the first two semesters. These are studied in more depth in the third semester within the framework of profile modules. The fourth semester is dedicated for working on the Master's thesis.

Data Analysis and Statistics (Track 1)

The contents of this track are strongly application-oriented and focus on the acquisition of competencies in computer-assisted data analysis.

Biomechanics and Neuromotor Control (Track 2)

Students acquire basic and in-depth knowledge of physical relationships in the dynamics and kinematics of human movements and of the organization of movement processes, especially from the areas of motor control and learning. They learn specific aspects of motor control from a behavioural, biomechanical, physiological, and neuroscientific perspective and how these relate to each other.

Movement Analytics (Track 3)

In the Movement Analytics track, students acquire competencies in capturing data on defined movement characteristics using current state-of-the-art measurement technologies.

Profile and elective modules

In the third semester, students must complete two profile modules (9 CP each) that use measurement projects to address topics from Tracks 1–3 in greater theoretical and practical depth, and two elective modules (6 CP each) in the natural and health sciences as well as in the methodological field. These contents can either be selected from courses offered by the Justus Liebig University or taken from suitable parts of study programmes at other universities. Thus, the third semester is explicitly designed as mobility window.

Master Thesis

Students write their Master's thesis (30 CPs) in the final semester. We support the writing of so-called external Master's theses that are completed in external institutions (clinics, authorities, industry).

CAREER OPTIONS

Professional fields that are open to graduates of this Master's programme include:

- Neurological clinics
- Research institutions
- Orthopaedics and rehabilitation technology
- Elite Sports, consulting and equipment development
- Occupational science/Ergonomics
- Media
- Independent developers of control and diagnostic devices in the field of sports and fitness

ORGANIZATIONAL ISSUES

- General Regulations for modularized and multi-stage study programmes at JLU (English Version for informative purposes. Only German versions of the modules are official and legally binding.)
 - ↳ www.uni-giessen.de/mug/7/7_34_00_1
 - ↳ www.uni-giessen.de/mug/7/7_34_00_1_engl
- Module Directory HMA
 - ↳ www.uni-giessen.de/de/mug/7/findex36.html/7_36_06_1_BMB

