



DEPARTMENT OF FOOD AND NUTRITION,
AND SPORT SCIENCE

International Master In Sport Science

120 ECTS

Overall goals

- The international master courses in sport science targets students with a bachelor degree in sport science, food and nutrition, medicine, nursing, physiotherapy or equivalent who wants to develop their academic knowledge and skills.
- The structure and content of the included master courses are designed and coordinated to provide the student the knowledge and skills to be able to perform independent scientific work and to master the methods and equipment required, as well as to plan and realize the future career.
- The emphasis of the master courses is on critical thinking and evaluation, and scientific argumentation as well as on practical skills.
- Both quantitative and qualitative research approaches are considered.
- The master thesis completes the achievement of the master degree, and may consist of a theoretical work or a project involving practical measurements, either as part of existing institutional research projects or based on own ideas.

Year 1

Year 2

Fall

IKA301
Measurement methods 1: Diet and physical activity

7.5 ECTS (50% speed)

IKA302
Measurement methods 2: Movement, strength, body composition and physical capacity

7.5 ECTS (50% speed)

IKA303
Critical analysis in health promotion

7.5 ECTS (50% speed)

IKA304
Sports medicine in health and performance

7.5 ECTS (50% speed)

MHA201
Subject specialisation

7,5 ECTS
(25% speed)

MHA301
Research perspectives and methods

7,5 ECTS
(25% speed)

Internship

15 ECTS
(50% speed)

Spring

Qualitative research methods

7.5 ECTS (100% speed)

Applied quantitative data analysis

7.5 ECTS (100% speed)

Optional course (s), 15 ECTS

IKA202
Master thesis

30 ECTS (100% speed)

Measurement methods 1

Diet and physical activity

(*Mätmetoder 1: kost och fysisk aktivitet*)

7.5 ECTS (50% speed)

Overall goal

Gain deeper understanding and practical skills in performing and evaluating measurement of diet, food habits and physical activity.

Contents

- **Theoretical lectures** for understanding and training in critical thinking concerning methodological use of different subjective and objective methods and analysing techniques.
- **Practical experiments** to design and perform measurements and to evaluate reliability, validity and usability of different methods.
- **Presentation seminars** to debate and evaluate outcomes of the practical experiments, as well as to train in scientific argumentation and critical thinking.
- **Skill training** in using measurement devices, methods, softwares, creating datasets, searching databases and reading scientific papers.

Measurement methods 2

Movement, strength, body composition and physical capacity
(Mätmetoder 2: Rörelse, styrka, kroppssammansättning och fysisk kapacitet)
7.5 ECTS (50% speed)

Overall goal

Gain deeper understanding and practical skills in performing and evaluating measurement of movement, strength, body composition and physical capacity.

Contents

- **Theoretical lectures** for understanding and training in critical thinking concerning technical, physiological and mathematical background of different devices and approaches.
- **Practical experiments** to design and perform measurements and to evaluate reliability, validity and usability of different methods.
- **Presentation seminars** to debate and evaluate outcomes of the practical experiments, as well as to train in scientific argumentation and critical thinking.
- **Skill training** in using measurement devices, methods, softwares, creating datasets, searching databases and reading scientific papers.

Critical analysis in health promotion

(Kritisk analys i hälsopromotion)

7.5 ECTS (50% speed)

Overall goal

Gain knowledge about contemporary definitions and theories of health, health education and health promotion, and to critically analyse their relevance for the promotion of healthy diet, food habits and physical activity.

Contents

- **Contemporary definitions and theories** of health, health education and health promotion are introduced and analyzed, specifically in relation to the promotion of healthy diet, food habits and physical activity.
- The **link between theory and strategy** and the methodological rigor of health promotion interventions will be analyzed.
- The emphasis of the course is on the **ability to analyze and evaluate** concepts, theories and methods in health promotion, as well as on the ability to argue and take an advocacy role on issues related to health promotion.

Sports medicine in health and performance

(Idrottsmedicin inom hälsa och prestation)

7.5 ECTS (50% speed)

Overall goal

Gain deeper knowledge about how trauma and medical disorders will affect sport performance, as well as how physical activity affects health.

Contents

- ***Theoretical lectures*** to provide an overview and understanding of treatment in sports traumatology and of sports medicine issues.
- ***Tasks with literature reviewing*** to train in searching, evaluating, critical thinking in the field of sports medicine.
- ***Seminars*** to present the results of the review task and to train in debating and argumenting.
- ***Practical sessions*** to train in scientific writing/reviewing and in different techniques and actions relevant in sports medicine.

Qualitative research methods

7.5 ECTS (100% speed)

Overall goal

To develop understanding of what qualitative research is, to deepen knowledge about the conduct of qualitative research methods, and to gain knowledge and experience in qualitative content analysis.

Contents

- **Background** to qualitative research methods.
- **Ethical issues** in qualitative research methods.
- Qualitative research **approaches** used by department researchers.
- Key qualitative research **methods in practice** through examples from the department.
- Data analysis methods **qualitative content analysis** and **discourse analysis**.
- **Practice** of qualitative data analysis methods.
- Qualitative data **presentation possibilities**.

Applied quantitative data analysis

7.5 ECTS (100% speed)

Overall goal

Develop practical skills of analyzing data and an independent capacity to accurately decide what statistical tests will be appropriate for a particular research objective.

Contents

- ***Fundamentals of the SPSS software*** to investigate relationships in diet, food habit, physical activity and health.
- ***Statistical skills*** by exploring SPSS and its different topics.
- ***Concepts and theoretical assumptions*** of statistical tests.

Subject specialization

7,5 ECTS (25% speed)

Overall goal

To develop the skills to search, evaluate and critically assess research in a subject area of special interest to the student.

Contents

- Perform a ***literature review*** and present and discuss the results on a seminar with opponentship.
- ***Search for scientific articles*** in relevant databases using well defined inclusion and exclusion criterias.
- ***Evaluate articles*** with a focus on theoretical and methodological perspectives and approaches.

Research perspectives and methods

7,5 ECTS (25% speed)

Overall goal

To gain deeper knowledge and skills in good scientific practice and to develop a plan for the master thesis work.

Contents

- **Theoretical lectures** with discussions on the components of the research process, including e.g. study design, data collection, research reporting, evaluation of research and literature, evidence, ethical issues.
- Training in **reading and evaluating** scientific papers and their quality.
- Write and prepare a **plan for the master thesis**, with a poster presentation seminar.

Internship

15 ECTS (50% speed)

Overall goal

To gain field experiences in the areas of nutrition and physical activity and identify own needs for further knowledge and competence development.

Contents

- ***Professional or scientific field practice***, where the students are responsible for identifying, contacting and making arrangements with the work place.
- ***Reporting of experience*** and learning in relation to previous knowledge and skills, using literature to fill knowledge gaps.

Master thesis

30 ECTS (100% speed)

Overall goal

To perform an independent scientific project either as a theoretical work or a study involving practical measurements, either as part of existing institutional research projects or based on own ideas, to demonstrate knowledge and skills in the scientific process.

Contents

- Data collection and evaluation
- Production of written thesis
- Progression seminars
- Examination seminar with opponentship
- Supervision from institutional teacher/researcher