



## Programme Syllabus:

# Master by Research in Biology, 120 credits

## General data

Code	TMBIA
Cycle	Second cycle
Ref no	MIUN 2009/97
Credits	120
Answerable department	Natural Sciences
Answerable faculty	Faculty of Science, Technology and Media
Established	2019-11-07
Date of change	2020-01-03
Version valid from	2020-07-01

## Aim

The objective of the programme is to provide an increased knowledge within the subject by planning and carrying out research projects in collaboration with other researchers and, if any, external partners.

## Programme objectives

OUTCOMES ACCORDING TO THE HIGHER EDUCATION ORDINANCE FOR A MASTER OF ARTS/SCIENCE (120 CREDITS)

Knowledge and understanding

For a Master of Arts/Science (120 credits) the student shall have:

- demonstrated knowledge and understanding in the main field of study, including both broad knowledge of the field and a considerable degree of specialised knowledge in certain areas of the field as well as insight into current research and development work, and

- demonstrated specialised methodological knowledge in the main field of study.

#### Competence and skills

For a Master of Arts/Science (120 credits) the student shall have:

- demonstrated the ability to critically and systematically integrate knowledge and analyse, assess and deal with complex phenomena, issues and situations even with limited information
- demonstrated the ability to identify and formulate issues critically, autonomously and creatively as well as to plan and, using appropriate methods, undertake advanced tasks within predetermined time frames and so contribute to the formation of knowledge as well as the ability to evaluate this work
- demonstrated the ability in speech and writing both nationally and internationally to report clearly and discuss his or her conclusions and the knowledge and arguments on which they are based in dialogue with different audiences, and
- demonstrated the skills required for participation in research and development work or autonomous employment in some other qualified capacity.

#### Judgement and approach

For a Master of Arts/Science (120 credits) the student shall have:

- demonstrated the ability to make assessments in the main field of study informed by relevant disciplinary, social and ethical issues and also to demonstrate awareness of ethical aspects of research and development work
- demonstrated insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used, and
- demonstrated the ability to identify the personal need for further knowledge and take responsibility for his or her ongoing learning.

#### OUTCOMES FOR MASTER BY RESEARCH IN BIOLOGY

After completion of the programme the student should be able to:

- demonstrate knowledge and understanding with a starting point in ongoing research including for example:
  - functional characteristics of ecosystems and organisms
  - multivariate ecological contexts and scale dependences
  - conservation of biodiversity and its role for sustainability

demonstrate skills developed in relation to:

- scientific methods and approaches
- the process from identifying to solving biological problems
- to seek, synthesize and apply research
- oral and writing presentation abilities

demonstrate an ability to evaluate and position biological knowledge as:

- being able to view the role as expert in a sustainable society
- being able to relate to international research
- being a good representative for biology

## **Content**

Optional courses BA/MA, 30 credits

Biology MA, Scientific Writing and Presentation Techniques, 7.5 credits

Biology MA, Problem formulation and Thesis Planning, 7.5 credits

Biology MA, Development of Theory and Experiment, 15 credits

Biology MA Scientific Project I, 15 credits

Biology MA, Scientific Project II, 15 credits

Biology MA, Thesis, 30 credits

## **Entry requirements**

English course 6/English course B from Swedish Upper Secondary School (Gymnasium) or the equivalent.

Bachelor of Science or equivalent (at least 180 credits/180 ECTS), with at least 90 credits (90 ECTS) in Biology.

Eligibility for available research project is assessed on the basis of the applicant's bachelor's degree project/thesis, a letter of motivation, and, where appropriate, through other documented experience relevant to the subject.

## **Description of programme**

The degree programme runs full-time for two years and is carried out for the most part in the form of research work in a research group.

## **Selection rules and procedures**

Alternative selection, see heading "Other information".

## **Programme with restricted admissions**

Special prerequisites for courses are given in the respective course specifications.

## **Teaching and examination**

Teaching is full-time in the form of research work in a research group.

The language of instruction is English or Swedish.

The teaching and examination procedures are stated in the syllabus of each course.

## **Title of qualification**

Degree of Master of Arts/Science (120 credits)

Masterexamen med huvudområdet biologi, translated into Master of Science (120 credits) with a major in Biology.

## **Other information**

During the programme course names, contents, credit units and schedules may change.

### **CRITERIA FOR ALTERNATIVE SELECTION**

- The applicant's qualifications in relation to the chosen subject and the competence demands for the project
- Letter of motivation
- Scientific quality of Bachelor's thesis, or other documented scientific work relevant to the planned field of research
- The applicant's analytical ability and English writing skills