



## Programme syllabus

Faculty Board of Science and Engineering  
School of Computer Science, Physics and Mathematics

Sociala medier och webbt teknologier, masterprogram, 120  
högskolepoäng

Social Media and Web Technologies, Master Programme, 120  
credits

### **Level**

Second Level

### **Establishment of Programme**

Established by University board 2010-09-10

### **Date of Ratification**

Approved by Committee for First and Second Cycle under the Faculty Board of Science and Engineering 2010-11-08

The programme syllabus is valid from autumn semester 2011

### **Prerequisites**

General entry requirements for second-cycle studies and specific entry requirements:

- Bachelor Degree in Media Technology, Informatics, Computer Science or similar fields (at least 15 credits should be in programming related courses)
- English B/6 or the equivalent

### **Description of Programme**

The objective of this programme is to offer in depth knowledge and skills related to the field of Media technology in general, with a special orientation towards Social Media and Web Technologies. In particular, this program offers students a deep understanding about online communities and their social needs, as well as the skills required for designing and developing innovative technological solutions and tools that use web and mobile technologies for supporting these communities.

The programme provides students with solid theoretical foundations; deep knowledge and engineering skills that will enable them to identify, manage and solve technical, organizational and design aspects related to the global digital media and Internet market. Furthermore, this program provides the basis for further postgraduate studies and the ability to participate in research and development and thereby contribute to the development of knowledge in the field.

### **Objectives**

#### **Key Objectives of Higher Education**

*Knowledge and understanding*

For a Degree of Master (Two Years) students must:

- demonstrate knowledge and understanding in their main field of study, including both broad knowledge in the field and substantially deeper knowledge of certain parts of the domain, together with deeper insights into current research and development work, and
- demonstrate deeper methodological knowledge in their main field of study.

*Skills and abilities*

For a Degree of Master (Two Years) students must:

- demonstrate the ability to critically and systematically integrate knowledge and to analyse, assess and deal with complex phenomena, issues and situations, even when limited information is available
- demonstrate the ability to critically, independently and creatively identify and formulate issues and to plan and, using appropriate methods, carry out advanced tasks within specified time limits, so as to contribute to the development of knowledge and to evaluate this work
- demonstrate the ability to clearly present and discuss their conclusions and the knowledge and arguments behind them, in dialogue with different groups, orally and in writing, in national and international contexts, and
- demonstrate the skills required to participate in research and development work or to work independently in other advanced contexts.

*Judgement and approach*

For a Degree of Master (Two Years) students must:

- demonstrate the ability to make assessments in their main field of study, taking into account relevant scientific, social and ethical aspects, and demonstrate an awareness of ethical aspects of research and development work
- demonstrate insights into the potential and limitations of science, its role in society and people's responsibility for how it is used and
- demonstrate the ability to identify their need of further knowledge and to take responsibility for developing their knowledge.

**Programme specific objectives**

*Knowledge and understanding*

- The student should have the knowledge and expertise to describe and to analyse online communities and their development needs with regard to web and mobile technologies.
- The student should also have the knowledge to plan and design activities to meet these needs.

*Skills and abilities*

- The student should also be able to identify and specify the needs of online communities in order to find and develop tools to support them using design and technical skills in social media and web technologies.
- The student should be able to analyse and to evaluate the usability of the tools and technological solutions used for supporting the needs of online communities.

*Judgement and approach*

- The student should demonstrate a holistic perspective related to the development and utilisation of social media and web technologies for supporting online communities.

## Content

### *Organization*

The main area of the degree programme is Media Technology. The overall responsibility of the programme is in the hands of the Head of the programme. Moreover, a programme council will be established for the proposed master program.

### *Programme overview*

This program consists of two years full time studies comprising 120 credits. Students are provided with the foundations of Social Media and Web technologies at advance level. This program combines courses and expertise from different areas, namely: *web technologies, design and interaction, social media and IT-business*.

In the first year of studies, students are provided with substantial knowledge and in depth understanding of the foundations of Social Media and Web Technologies. These courses cover different aspects and areas that include: scientific theories and methods, social media ecosystems, design and interaction and web and mobile technologies. These foundations and topics are followed by the second year courses that aim at providing students with deeper knowledge and expertise related to social media aspects and future web technologies. This second year of studies concludes with a final degree thesis (30 credits) resulting in the finalization of the master program. From the 90 credits in the coursework, 67,5 credits are mandatory courses, while the remaining 22,5 credits are elective courses. Students, in consultations with the head of the program, will choose these courses. From the elective courses at least, 7,5 credits should be within a course (s) that belong to the field of Media Technology.

The programme has been conceived and planned in order to prepare students with the knowledge and skills required to face the professional challenges emerging in an evolving global IT market, as well as for postgraduate studies in the field of Media Technology.

### *Programme Courses*

Specialization in Social Media and Web Technologies (120 credits).

#### First Year

Scientific Theories and Methods (A1N,\*) (7,5 credits): The aim of this course is to provide students with knowledge about different scientific theories and research methods applicable in the main field of studies.

Foundations of Computational Media (A1N,\*) (7,5 credits): The aim of this course is to provide students with the mathematical and engineering foundations and approaches for understanding the underlying complexity of computational media.

Tangible User Interfaces (A1N,\*) (7,5 credits): The aim of this course is to provide students with in depth knowledge and understanding of new and emerging paradigms in the field of human computer interaction.

Social Media Ecosystems (A1N,\*) (7,5 credits): The aim of this course is to introduce and in depth discuss concepts and applications related to current developments and research efforts in the field of social media.

Web and Mobile Development(A1N,\*) (7,5 credits): The aim of this course is to provide students with the technological foundations, knowledge and skills related to different web and mobile development frameworks used for the development and deployment of web and mobile services.

Cross-Media Design and Production (A1N,\*) (7,5 credits): The aim of this course is to provide students with the theoretical foundations, practical knowledge and skills that are required for the design and production of rich digital content and experiences in cross-media landscapes.

Internet Architectures (A1F,\*) (7,5 credits): The aim of this course is to offer students with in depth understanding of the fundamental ideas that underline the architectural patterns of the web and mobile Internet.

Elective course I (7,5 credits): The aim of these courses is to provide complementary and supporting knowledge and expertise that enable students' to reach their personal orientation within the master program. Students, in consultations with the Head of the Program, will choose these courses.

## Second Year

Network Society and Internet Cultures (A1F,\*) (7,5 credits): The aim of this course is to provide students with the theoretical foundations for understanding and developing critical thinking skills with regard to new social patterns, interactions and cultures that emerge when people intensively use social media and the web as channels for communication.

Adaptive and Semantic Web (A1F,\*) (7,5 credits): The aim of this course is to offer students knowledge and in depth understanding of advance techniques and approaches related to the use of artificial intelligence and adaptive algorithms for the web, as well as semantic web technologies.

Elective course II (7,5 credits): The aim of these courses is to provide complementary and supporting knowledge and expertise that enable students' to reach their personal orientation within the master program. Students, in consultations with the Head of the Program, will choose these courses.

Elective course III (7,5 credits): The aim of these courses is to provide complementary and supporting knowledge and expertise that enable students' to reach their personal orientation within the master program. Students, in consultations with the Head of the Program, will choose these courses.

Degree Project (A2E,\*) (30 credits): The aim of the Master's thesis is to demonstrate the student's ability to identify and to solve an interesting problem that provide a scientific contribution to the field of social media and web technologies, thus applying all pieces of knowledge and experience they have gained during the program.

\*=course in the main field of study

### *Community contacts*

Contacts with the surrounding community and potential labour markets are introduced in a number of different ways throughout this program. An important part for the establishment of these contacts is the programme council that consists of representatives from the IT industry working in the field of social media and web technologies. Members of the IT business community will be also involved in the form of guest lectures in different courses in this program and as possible assistant supervisors in the final degree projects. Furthermore students are encouraged to perform different course assignments in relation to the IT business community.

### *Studies abroad*

Studies abroad can be pursued on the initiative of the student. The studies are coordinated within the exchange programmes of the University. Confirmation that individual courses abroad can be included within the Master's Programme should be obtained in advance. The timing for studies abroad should be made in consultation with the Head of the programme.

### *Scope of the programme*

The concepts of sustainability and gender are important aspects permeating the university system. For a Master's programme with a large percentage of international students, diversity and internationalization are important aspects. Many of these questions are concerned with future working roles, typically as a Social Media Editor, Web Developer, Interaction Designer or IT consultant. Issues related to work practices and sustainability within the field of Social Media and Web Technologies are discussed across different courses in the program.

## Quality Development

The programme is continuously evaluated on a yearly basis through written and oral evaluations. Discussions with course participants and external representatives will also provide information on student opportunities for employment. Each course also includes a course evaluation. Summaries of all course and programme evaluations are stored at the school's archive.

## Degree Certificate

Students who successfully pass the study programme can apply for a degree certificate. For students that have attended the Masters Programme in Media technology, they are eligible for the following degree:

Masterexamen med inriktning mot Sociala Medier och Webbt teknologier Huvudområde: Medieteknik

*Master of Science (120 credits) with specialisation in Social Media and Web Technologies.*

*Main field of study: Media Technology.*

The degree certificate is bilingual (Swedish/English). The certificate is also complemented with a Diploma Supplement (in English).

## Other Information

The third term of the programme is only open to students who have completed courses corresponding to at least 45 credits. Students who do not meet these requirements must consult the program coordinator or guidance counselor to draw up an individual study plan.