Programme syllabus

Degree Programme in Media Technology
Civilingenjörsutbildning i medieteknik
300.0 credits

Valid for students admitted to the education from autumn 07 (HT - Autumn term; VT - Spring term).

This is a translation of the Swedish, legally binding, programme syllabus.

Programme objectives

The educational programme has a technical, scientific base with a foundation in mathematics and natural sciences. Media Technology focuses on services and products aimed primarily at the consumer market. Therefore, the programme also offers relevant knowledge from social and behavioural sciences and insights into the contents and design of media. Specialized knowledge is given about technology for static media forms (text, image, print), dynamic media forms (audio, video) and interactive media forms (internet, games, dialogue systems, etc.). Each student must, in addition, acquire deeper knowledge within at least two of the following areas of media technology: interactive media technology, image and video technology, audio technology, human-computer interaction, printed communication or an individually specified area approved by the program coordinator.

Knowledge and understanding

The Master of Science in Engineering in Media Technology will give the student:

- Fundamental knowledge and abilities needed to successfully work with and from an engineering perspective solve technical, organisational, methodological, design-related, and user-related problems within the media field. The program gives knowledge about the technical as well as multi-disciplinary foundation that media and their technology for production, distribution, and consumption rely upon.
- Knowledge about the broad technologigal and multidisciplinary foundation which the media and their technology for production, distribution, and consumption rely upon as well as understanding for the historical development, especially professional and industry related experiences in order to be able to participate in research work.

Skills and abilities

The Master of Science in Engineering in Media Technology will give the student:

- Conditions to critically, independently and creatively identify, formulate and handle complex issues, situations and phenomena, using a holistic view.
- A foundation for further education on the research level and an ability to participate in research and development work and within that, support for knowledge development within the area.
- The ability to critically and systematically integrate knowledge from different disciplines and fields of experience and the ability to model, plan and evaluate products, services, systems and processes.
- The ability to plan and, with adequate methods, implement qualified assignments within given constraints and the ability to develop and design products, services, processes and systems with regards to human conditions and needs and society’s goals for economic, social and ecologically sustainable development.
- The ability in national as well as international environments, orally and in writing, clearly and in audience-appropriate rhetoric, present and discuss his/her conclusions, and the knowledge and arguments which support these, in dialog with different audiences.
Ability to make judgements and adopt a standpoint

The Master of Science in Engineering in Media Technology will give the student:

- Conditions to make judgments with regards to relevant scientific, societal, ethical, and aesthetic aspects and in order to create awareness of ethical aspects in research and development work.
- Insight into the possibilities and limitations of technology, its role in society and human responsibility for how it is used, including social, economical, environment-related and work environment-related aspects.
- Insight into the media’s important role in society, opinion building and democratic processes as well as in the ethical and legal aspects of media and their contents, and the relationship between technology, contents and usage of media.
- The possibility to develop his/her insight into and ability to work as a team and in groups with different compositions and the ability to identify own need for further knowledge and to continuously develop own skills and abilities.

Complete information regarding degree requirements for the Master’s degree and Bachelor’s degree can be found in KTHs local degree regulation.

http://intra.kth.se/regelverk/utbildning-forskning/grundutbildning/examina/1.27227?l=en_UK

Extent and content of the programme

The Master’s Programme in Engineering in Media Technology is composed of 300 ECTS credits, which at the normal study speed corresponds to 5 years of full-time studies (10 semesters).

The first three years of the programme (180 ECTS credits) are in the first level and can, if the student applies for it, be finished with a Bachelor of technology degree. The last two years are mainly in the second level (120 ECTS credits).

The programme’s specialisations

Two specialisations are chosen.

- Interactive media technology
- Audio technology
- Human-computer interaction
- Motion pictures
- Journalism
- Print communication

* Changes can occur in the offer of specialisations in the programme. Updated lists can be found in the Course and program directory.

Language of Instruction

The language of instruction, during the first three years of the programme is mostly Swedish; although, certain English literature will be used. The courses in the concluding years are given mainly in English; however, there are some courses in Swedish. The language which is used for each course can be found in the Course and program directory.

Eligibility and selection

In order to be accepted to the Master’s programme in Engineering in Media Technology, it is required that the student meets the basic eligibility requirements and the special eligibility requirements corresponding to:

Mathematics D
Physics B
Chemistry A
All with grade G or better.

For eligibility requirements and selection guidelines, see KTH’s admission policy

http://intra.kth.se/regelverk/utbildning-forskning/grundutbildning/antagning/1.27186
Implementation of the education

Structure of the education

The programme syllabus for the Master’s programme in Engineering in Media Technology commences with compulsory courses including one of the two specialisations in years 1-3. Study year 3 is concluded with a degree project consisting of 15 ECTS credits. In study years 4-5, another specialisation is taken as well as courses in the second level. The programme is concluded during the spring semester in study year 5 with a degree project worth 30 ECTS credits.

The programme is structured such that the student, after three study years, can apply for a Bachelor’s degree and then continue his/her studies on a Master’s programme at KTH or another university in Sweden or abroad or start a working career.

The KTH academic year is 40 weeks, divided into four periods. Each study period is followed by an examination period. There are also three re-examination periods.

For details about the structure of the academic year see http://www.kth.se/student/schema/1.1007?l=en_UK

Courses

The programme is course-based. Lists of courses are included in appendix 1.

The programme consists of compulsory, conditionally elective and elective courses. The compulsory courses are defined for each study year and specialisation in course lists. Course goals, prerequisites, contents and examination requirements can be found in the respective course plans in the course and program directory on the KTH student web.

In years 2 and 4, there is allocated space for conditionally elective mathematics courses. Only under certain circumstances can elective courses be taken earlier.

Elective courses can be chosen from the KTH course offer for Master of Science in Engineering programmes. Also, courses from other universities/higher education institutions can be recognized for credit, if the degree requirements are fulfilled.

For elective courses, the following restrictions apply:

- Elective courses can not be taken in study year 1
- Only under certain circumstances can elective courses be taken in study year 2
- The number of ECTS credits which can be taken per semester can be limited.

Grading system

Courses in the first and the second cycle are graded on a scale from A to F. A-E are passing grades, A is the highest grade. The grades pass (P) and fail (F) are used for courses under certain circumstances.

Conditions for participation in the programme

Semester enrollment

No later than November 15 and May 15 the student is required to make a study enrollment for the next semester at the CSC Program Office.

This study enrollment is required in order for the exam results to be registered.

Approved leave from studies
Approved leave from studies means that the student does not participate in the education during at least one study period. The student has the right to return to the education at a time agreed upon, and has the right to participate in the examination of non-finished courses.

Application for an approved leave is done on according to instructions from the CSC program office. When the student decides to return to the education, he/she is required to re-enroll to the studies.

**Course Selection**

From study year 3 and on the student is responsible for applying to all courses he/she wishes to take. This also applies to compulsory courses. The application for admission to a course is done according to instructions from the CSC school no later than

May 15th for the fall semester
November 15th for the spring semester

Applications made after this date are only granted if there are vacancies in the courses. Applications to language courses with prerequisites should be preceded by a qualification test.

In a few courses, the number of participants is limited. Selection is done by the school responsible for the course.

Admission to compulsory courses during study years 1–2 is, in most cases, automatic. Students wishing to study an individual specialization or choosing among alternative compulsory courses have to submit a special form.

**Course registration**

Course registration is done by the school/department giving the course. It can only be done if the course has been selected.

The student must, at the first scheduled lecture, register for the course. Course registration for compulsory as well as elective courses must be done individually. If the student registers for a course and then decides to not continue, the student must notify the school/department giving the course as soon as possible.

**Conditions for being promoted to the next level**

The following promotion requirements apply in order to participate in the next level of the education.

- **Requirements for promotion from study year 1 to study year 2:**
  A total of at least 45 ECTS credits from study year 1 must be completed.

- **Requirements for promotion from study year 2 to study year 3:**
  A total of at least 90 ECTS credits from study years 1 and 2 must be completed.

- **Requirements for promotion from study year 3 to study year 4:**
  A total of at least 150 ECTS credits from study years 1-3 must be completed whereof 110 ECTS credits from study year 1-2, and the first level degree project.

- **Requirements for promotion from study year 4 to study year 5:**
  In addition to what applies for promotion to study 4, at least 45 higher education credits from study year 4 must be completed.

**Individual study plan**
Students who do not fulfill these requirements must – in cooperation with the CSC program office – make an individual study plan for continued studies.

Please see the KTH regulations: http://intra.kth.se/regelverk/utbildning-forskning/grundutbildning/1.27217/?l=en_UK

**Specialisation Selection**

The first opportunity for course selection occurs in the spring semester in study year 3. At this time you choose those compulsory and elective courses which are in the specialisation you have chosen, as well as those possibly elective courses you wish to take the following semester. For choice of specialization, you must turn in a form “preliminary specialisation choice” which can be found on the KTH student web.

In a few courses, and for the Journalism specialisation, the number of places is limited and selection is done based on merits such as grades and number of credits for the student who applied before the deadline. Selection is done by the corresponding department.

**Recognition of previous academic studies**

The recognition of previous academic studies is an important element to facilitate the mobility within the country and between countries, for the internationalization work of higher education and for life-long learning.

KTH will have an open attitude to recognition of previous academic studies. Recognition can, therefore, be made even if the programme does not exist at KTH or the contents in, for example, course plans do not exactly correspond to KTH’s. The requirements which KTH normally sets on the study programme’s level and quality will be taken into consideration when recognizing previous academic studies.

Recognition of previous academic studies decided by another higher education institution in Sweden must normally be accepted by KTH.

A student at KTH who carries out studies at another university within the boundaries of an exchange agreement has the right to receive advanced notification about recognition of previous studies. Such a notification can, for example, be given through a Learning Agreement which must be established and signed by the coordinator at KTH, contact person at the university abroad and the student.

The student at KTH has the right to receive a trial recognition of previous academic studies. Even a person who is not a student at KTH, but has academic education and strives to complete it must in the most possible degree, submit the application and get a preliminary decision (advanced notification) about the recognition of previous academic studies.

Even degree project work can be recognized. KTH considers it, nevertheless, appropriate that the degree project work is performed at KTH (within a school or at a company with supervisor from KTH).

Decision about recognition of courses can be appealed through the Board of Appeals for higher education. The appeal must be submitted to KTH at the latest within three weeks from the day the applicant was notified of the decision.

In order for a trial recognition of previous academic studies, the applicant must normally be able to document that he/she has graduated in courses (corresponding) with at least passing results. The study performance is graded by the university where the exam was taken, not by the recognition of KTH.

http://www.kth.se/info/kth-handboken/II/13/3.html

**Studies abroad**

Students in the Master of Science in Engineering in Media Technology programme have the possibility to study abroad for one year at universities in Europe, Australia, America, South Africa and Asia without needing to pay the course fees which are usually incurred on students there. Studies abroad can be done during the fourth or fifth year. It is also possible to do the degree project work abroad.

It is also possible to receive two degrees at certain European universities.
For more information contact the international coordinator at CSC.

**Degree project**

In the programme, a degree project is done which corresponds to a course worth 30 ECTS credits, or about 5 months of full-time studies.

- The degree project is normally carried out within a subject central to the programme’s technical area.
- The degree project may not be started before the topic is approved by the examiner at the chosen department and is submitted to the programme office on a special form.
- The main portion of the studies, at least 240 ECTS credits must be completed. The student may not have more than two unfinished courses from the compulsory courses (in years 1-3).
- The examiner is responsible for the student having sufficient prerequisites for the chosen assignment.
- The degree project work is based on the knowledge which is acquired during the entire study time and will normally be done during the tenth term within the chosen specialisation. If the student desires to do the degree project within another specialisation area, this must be approved by the programme office.
- The degree project should show that the student is capable of independently applying his/her acquired knowledge during the study time and therefore it is done at the end of the programme.
- The degree project must provide proof of an independent, scientific/engineering-related work, extensive theoretical, and/or experimental work with a corresponding report. The degree project can include other elements, for example, seminars, information search, opposition, or other elements which the examiner or supervisor deems suitable.
- The degree project is carried out individually or together with another student. In the latter case, the examiner must ensure that the work of each student fulfills the requirements for an individual degree project.
- The supervisor is appointed by the examiner.

The application form for degree projects must be signed by the student and the examiner and submitted to the programme office.

More information, details and guidelines for degree projects can be found at the respective department.

http://www.kth.se/info/kth-handboken/II/15/1.html

**Degree project can be conducted within the following subjects:**

Media technology, Computer science, Electro acoustics, Music acoustics, Human-computer interaction and Speech communication. Other subjects for the degree project may be considered upon application. For more information, contact the CSC program office.

It is the responsibility of the student to find a suitable project task.

**Degree**

**Conditions for the 300 higher education credits degree**

The Master of Science in Engineering degree is received after completing the programme. The programme is designed so that the student fulfills the national degree requirements and has completed courses corresponding to 300 higher education credits, whereof:

- mathematical-natural scientific courses of at least 45 higher education credits, and, in addition, at least 180 ECTS credits (including 30 ECTS credits of degree project work) in the subjects central to the technical area
- at least 90 ECTS credits in the second level, whereof at least 60 ECTS credits (including 30 ECTS credits of degree project work) in the subjects central to the technical area

**Degree**

Master of Science in Engineering, Degree programme in Media Technology, 300 ECTS credits
Application for the Degree
The student may apply for three different degrees: Bachelor of Science, Degree of Master of Science in Engineering and Degree of Master of Science.

Appendix 1 - Course list
Appendix 2 - Programme syllabus descriptions
Appendix 1: Course list
Degree Programme in Media Technology (CMETE), Programme syllabus for studies starting in autumn 2007

**General courses**

**Year 1**

**Mandatory courses (63.0 credits)**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>DD1314</td>
<td>Programming for Interactive Media</td>
<td>8.0</td>
<td>First cycle</td>
</tr>
<tr>
<td>DH1608</td>
<td>Communication and Information</td>
<td>5.0</td>
<td>First cycle</td>
</tr>
<tr>
<td>DM1570</td>
<td>Graphic Arts Technology I</td>
<td>7.0</td>
<td>First cycle</td>
</tr>
<tr>
<td>DM1571</td>
<td>Introduction to Media Technology</td>
<td>6.0</td>
<td>First cycle</td>
</tr>
<tr>
<td>DM1578</td>
<td>Program Integrating Course in Media Technology</td>
<td>7.0</td>
<td>First cycle</td>
</tr>
<tr>
<td>MF1035</td>
<td>Electrical Engineering, Basic Course Media</td>
<td>6.0</td>
<td>First cycle</td>
</tr>
<tr>
<td>SF1608</td>
<td>Mathematics I</td>
<td>9.0</td>
<td>First cycle</td>
</tr>
<tr>
<td>SF1609</td>
<td>Mathematics II</td>
<td>9.0</td>
<td>First cycle</td>
</tr>
<tr>
<td>SK1120</td>
<td>Waves</td>
<td>6.0</td>
<td>First cycle</td>
</tr>
</tbody>
</table>

**Optional courses**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF1611</td>
<td>Introductory Course in Mathematics I</td>
<td>1.5</td>
<td>First cycle</td>
</tr>
</tbody>
</table>

**Year 2**

**Mandatory courses (51.0 credits)**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD2NA1</td>
<td>Presence Architecture</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DD1320</td>
<td>Applied Computer Science</td>
<td>6.0</td>
<td>First cycle</td>
</tr>
</tbody>
</table>
### Course code | Course name                                | Credits | Edu. level   
---|-------------------------------------------|---------|--------------
DD1334 | Database Technology                       | 6.0     | First cycle  
DM1576 | Image and Video Technology                | 9.0     | First cycle  
DM1577 | Media Design                              | 7.5     | First cycle  
DT1174 | Sound as an Information Medium            | 9.0     | First cycle  
ME1002 | Industrial Management, Basic Course       | 6.0     | First cycle  

### Conditionally elective courses

| Course code | Course name                              | Credits | Edu. level   
---|-----------------------------------------|---------|--------------
DN1240 | Numerical Methods, Basic Course II      | 6.0     | First cycle  
DT1130 | Spectral Transforms                     | 7.5     | First cycle  
SF1610 | Discrete Mathematics                    | 7.5     | First cycle  
SF1901 | Probability Theory and Statistics       | 6.0     | First cycle  

### Year 3

#### Mandatory courses (21.0 credits)

| Course code | Course name                                                   | Credits | Edu. level   
---|--------------------------------------------------------------|---------|--------------
DH2620 | Human-Computer Interaction, Introductory Course              | 6.0     | Second cycle 
DM129X | Degree Project in Media Technology, First Cycle               | 15.0    | First cycle  

### Year 4

#### Supplementary information

Batch 07 take the forth study year during 2010/11.

During study years 4 and 5 the students follow a master program of their choice. For each year a list of master programs that may be chosen is established.

Batch 07 may choose the following master's programs:

- Media technology
- Human-computer interaction
- Media management (seat is not guaranteed)

For some of these specific choices of elective courses may be required.

**Human-computer interaction**

In order to meet the requirements for a degree of Master of science of engineering in Media technology (300 ECTS) the student must:
not take the specialization human-computer interaction during the third study year (two specializations are required)

• take the conditionally elective courses in mathematics during study years 2 and 3

• within the master’s program take the courses Law for media, Media, technology and culture, and Future media (former: Content and expression in media). A course in Sustainable development (or equivalent) is recommended.

Media management

Seat is not guaranteed. In order to meet the requirements for a degree of Master of science of engineering in Media technology (300 ECTS) the student must:

• take the conditionally elective courses in mathematics during study years 2 and 3

• within the master's program take the courses Law for media, Media, technology and culture, and Sustainable development (or equivalent)

Year 5

Supplementary information

Batch 07 take the fifth study year during 2011/12.

During study years 4 and 5 the students follow a master program of their choice. For each year a list of master programs that may be chosen is established.

Image and Video Technology (BVT)

Year 1

Year 2

Year 3

Mandatory courses (25.5 credits)

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM2500</td>
<td>Telepresence Production</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
<tr>
<td>EN2401</td>
<td>Image and Video Processing</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>EQ1260</td>
<td>Signal Processing</td>
<td>6.0</td>
<td>First cycle</td>
</tr>
<tr>
<td>SK2375</td>
<td>Optics, Supplementary Course for the Media Programme</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
</tbody>
</table>
Year 4

Year 5

Master, Human-Computer Interaction (HCI)

Year 1

Year 2

Year 3

Year 4

Supplementary information
Information about the master program Human-computer interaction is obtained by choosing the program in the Course and program directory.

Year 5

Supplementary information
Information about the master program Human-computer interaction is obtained by choosing the program in the Course and program directory.

Interactive Media Technology (INMT)

Year 1

Year 2

Year 3

Mandatory courses (28.5 credits)

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>DD1335</td>
<td>Basic Internet Programming</td>
<td>7.5</td>
<td>First cycle</td>
</tr>
<tr>
<td>DD2390</td>
<td>Internet Programming</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DM2500</td>
<td>Telepresence Production</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DM2517</td>
<td>XML for Publishing</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
</tbody>
</table>

Recommended courses

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>DD2483</td>
<td>Development of Web Applications with Enterprise Java</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DH2323</td>
<td>Computer Graphics and Interaction</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DM2578</td>
<td>Social Media Technologies</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
</tbody>
</table>
### Year 4

### Year 5

#### Journalism (JLK)

#### Year 1

#### Year 2

#### Year 3

#### Year 4

#### Year 5

#### Audio Technology (LJD)

#### Year 1

#### Year 2

#### Year 3

**Mandatory courses (22.5 credits)**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>DT2112</td>
<td>Speech Technology</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DT2213</td>
<td>Musical Communication and Music Technology</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DT2410</td>
<td>Audio Technology</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
</tbody>
</table>

**Recommended courses**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>DT2140</td>
<td>Multimodal Interaction and Interfaces</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DT2212</td>
<td>Music Acoustics</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DT2400</td>
<td>Electroacoustics</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DT2420</td>
<td>Loudspeaker Design</td>
<td>4.5</td>
<td>Second cycle</td>
</tr>
<tr>
<td>EN2100</td>
<td>Sound Perception</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
</tbody>
</table>
Year 4

Year 5

**Human-Machine Interaction (MDI)**

Year 1

Year 2

Year 3

**Mandatory courses (24.0 credits)**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH2323</td>
<td>Computer Graphics and Interaction</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DH2622</td>
<td>Human-Computer Interaction, Advanced Course with Prototyping</td>
<td>9.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DH2655</td>
<td>Cooperative IT-design</td>
<td>9.0</td>
<td>Second cycle</td>
</tr>
</tbody>
</table>

**Recommended courses**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>DD2257</td>
<td>Visualization</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DD2385</td>
<td>Software Engineering</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DH2400</td>
<td>Physical Interaction Design and Realization</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DH2408</td>
<td>Evaluation Methods in Human-Computer Interaction</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DH2413</td>
<td>Advanced Graphics and Interaction</td>
<td>9.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DH2416</td>
<td>Computer Support for Cooperative Work</td>
<td>9.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DH2418</td>
<td>Language Engineering</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DH2625</td>
<td>IT-design for the Disabled</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DT2112</td>
<td>Speech Technology</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DT2140</td>
<td>Multimodal Interaction and Interfaces</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
</tbody>
</table>
Year 4

Year 5

**Master, Media Management (MEM)**

Year 1

Year 2

Year 3

Year 4

**Supplementary information**

Information about the master program Media management is obtained by choosing the program in the Course and program directory.

Year 5

**Supplementary information**

Information about the master program Media management is obtained by choosing the program in the Course and program directory.

**Master, Media Technology (MET2)**

Year 1

Year 2

Year 3

Year 4

**Supplementary information**

Information about the master program Media technology is obtained by choosing the program in the Course and program directory.

Year 5

**Supplementary information**

Information about the master program Media technology is obtained by choosing the program in the Course and program directory.
### Print Communication (TRK)

#### Year 1

#### Year 2

#### Year 3

**Mandatory courses (22.5 credits)**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM2517</td>
<td>XML for Publishing</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DM2529</td>
<td>Digital Images for Publication</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
<tr>
<td>DM2531</td>
<td>Graphic Arts Production</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
</tbody>
</table>

**Recommended courses**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME2015</td>
<td>Project Management: Leadership and Control</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>SK2380</td>
<td>Technical Photography</td>
<td>8.0</td>
<td>Second cycle</td>
</tr>
</tbody>
</table>

#### Year 4

#### Year 5
Appendix 2: Specialisations

Degree Programme in Media Technology (CMETE), Programme syllabus for studies starting in autumn 2007

Image and Video Technology (BVT)

The objective of the specialization in Image- and video technology is that you know and understand the function of the technical methods and devices used in mobile analogue and digital imaging technology. You should also be able to work with tools to record, process, transmit, distribute or reproduce audio and video.

Master, Human-Computer Interaction (HCI)

Information about the master program Human-computer interaction is obtained by choosing the program in the Course and program directory.

In order to meet the requirements for a degree of Master of science of engineering in Media technology (300 ECTS) the student must:

- not take the specialization human-computer interaction during the third study year (two specializations are required)
- take the conditionally elective courses in mathematics during study years 2 and 3
- within the master's program take the courses Law for media, Media, technology and culture, and Content and expression in media. A course in Sustainable development (or equivalent) is recommended.

Interactive Media Technology (INMT)

New digital, interactive media develop rapidly. The broadband channels will be filled with attractive, profitable services and a broader user spectrum requires better interactive products. This production-oriented specialization covers techniques and methods for development and production of various types of interactive media.

Journalism (JLK)

This specialization will give you an understanding of how modern journalism has emerged, current trends, with simultaneous publication in multiple media forms, and an increased concentration of ownership in the media. This is a theoretical orientation, but it also contains some basic elements of journalistic production.

Audio Technology (LJD)

An important part in the production of multimedia is audio. It is important to know how sound is produced, processed, recorded and reproduced, and how humans perceive sound. To know how to integrate audio with other media, you need knowledge of human hearing and perception, and psycho-acoustics, ie how we perceive and interpret sounds and what we can and can not perceive.

Human-Machine Interaction (MDI)

Computers are increasingly included in people's everyday lives in the industrialized world. This places high demands on the user interfaces. To make a good user interface requires that persons with knowledge from multiple discipline interact. In the field of human-computer interaction meets computer scientists, psychologists, linguists, designers, sociologists and social anthropologists.
Master, Media Management (MEM)

Please note that the program has a limited number of places.

Information about the master's program is obtained by choosing the program in the Course and program directory.

Students on the Media technology program (CMETE) do not have a guaranteed seat on the master's program Media management.

In order to meet the requirements for a degree of Master of science of engineering in Media technology (300 ECTS) the student must:

- take the conditionally elective courses in mathematics during study years 2 and 3
- within the master's program take the courses Law for media, Media, technology and culture, and Sustainable development (or equivalent)

Master, Media Technology (MET2)

Information about the master program Media technology is obtained by choosing the program in the Course and program directory.

Print Communication (TRK)

Specialization gives detailed knowledge of the information content of images, digital imaging and the principles and methods for pressing standby and repro. It also provides a good knowledge of the capabilities and limitations of the dominant printing methods, ie offset, gravure, flexography and digital printing.