Programme syllabus

Master's Programme, Ergonomics and Human-Technology-Organisation, 60 credits
Magisterprogram, Ergonomi och Människa-Teknik-Organisation 60.0 credits

Valid for students admitted to the education from autumn 11 (HT - Autumn term; VT - Spring term).

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

Programme objectives

Ergonomics is defined as a cross disciplinary research and application field that from a holistic perspective deals with the interaction between humans, technology and organization in order to optimize health, wellbeing and performance in the design of products and work systems. The field includes physical ergonomics, cognitive ergonomics and work organization. Synonyms are "Humans – Technology – Organization" and "Human Factors”. The aim is to promote work systems that promote safety, health, wellbeing and system performance.

The programme also contains planning, leadership and assessment of development projects and change projects. The program gives a basis for research studies in the field of ergonomics.

Knowledge and understanding

The students are supposed to work from a holistic view on people at work and interactions between humans, technology, organization and environment. They shall have knowledge of how to analyze and design work, work activities and workplaces. They shall also have knowledge about how to run development projects and change. The students shall also have knowledge about rules in the field and roles for the ergonomists. They shall have an understanding of the stakeholders and how to interact with different actors.

Skills and abilities

The participants shall on their own be able to search and put together information within the field. They shall be able to analyze work, work activities and workplace, evaluate this and thereafter give suggestions of how to improve such designs. Further, they shall have the ability to manage and carry out projects around improvements and developments within the field of ergonomics. They shall also know how to communicate orally and by writing to different target groups.
Ability to make judgements and adopt a standpoint

The participants shall, on their own, assess documents, reports and publications. They shall have a holistic view of humans at work, and adopting good ethics. They shall also adopt standpoints that are built on a scientific basis.

Extent and content of the programme

The programme will be given in half pace during two years for students working in a profession and for the full time students in one year. It includes six courses and a thesis. All courses are on advanced level, and are directed towards the field of ergonomics. The instruction language of the programme is Swedish.

Eligibility and selection

A completed Bachelor's degree, corresponding to a Swedish Bachelor's degree (180 ECTS), or equivalent academic qualifications, within engineering, health sciences or social/behavioural sciences are needed for eligibility. At least 60 ECTS are needed in anatomy, physiology, psychology, sociology, pedagogics, cognitive science, production engineering, product development or another suitable specialization. In addition, documented proficiency in Swedish corresponding to Swedish B and English corresponding to English A is needed.

Eligible applicants will be placed in three groups based on academic background, i.e. within engineering, health sciences or social/behavioral sciences. Selection will then be made within each group in order of decreasing credits.

Implementation of the education

Structure of the education

The programme will be given in cooperation between the School of Technology and Health (STH) at KTH, Linköping University, University of Technology in Jönköping and Lund University.

The programme consists of five mandatory courses of 6 ECTS each, one project course of 15 ECTS and a thesis of 15 ECTS. The programme can be followed full time or half time. Teaching is partly on distance combined with meetings in Flemingsberg, Linköping or Jönköping. These meetings will take place approximately 2-3 days a month. Participation in the course assumes high student involvement.

Courses

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

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

Application for the programme and for the separate courses will be done at stated occasions at “studera.nu”.

Degree project

Extent of degree project is 15 ECTS. The degree project should normally conclude the programme.

The objective is chosen by the participant and it can be performed individually or together with one other student. The project plan shall be approved by the examining teacher. Instructor will be selected by KTH.

The degree project is graded on the same A to F scale as for the courses.

Degree

The degree will be given after passing all courses, the degree project and signed presence at all compulsory parts as laboratory experiments, projects and seminars.

Appendix 1 - Course list
Appendix 2 - Programme syllabus descriptions
Appendix 1: Course list

Master's Programme, Ergonomics and Human-Technology-Organisation, 60 credits (TERGM), Programme syllabus for studies starting in autumn 2011

General courses

Year 1

Mandatory courses (60.0 Credits)

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>HN2001</td>
<td><em>Human-Technology-Organisation</em></td>
<td>6.0 hp</td>
<td>Second cycle</td>
</tr>
<tr>
<td>HN2002</td>
<td><em>Research Methods and Study Design</em></td>
<td>6.0 hp</td>
<td>Second cycle</td>
</tr>
<tr>
<td>HN2003</td>
<td><em>Physical Ergonomics</em></td>
<td>6.0 hp</td>
<td>Second cycle</td>
</tr>
<tr>
<td>HN2004</td>
<td><em>Cognitive Ergonomics</em></td>
<td>6.0 hp</td>
<td>Second cycle</td>
</tr>
<tr>
<td>HN2005</td>
<td><em>Project Work</em></td>
<td>15.0 hp</td>
<td>Second cycle</td>
</tr>
<tr>
<td>HN200X</td>
<td><em>Degree Project in Ergonomics, Second Cycle</em></td>
<td>15.0 hp</td>
<td>Second cycle</td>
</tr>
</tbody>
</table>
Appendix 2: Specialisations

Master's Programme, Ergonomics and Human-Technology-Organisation, 60 credits (TERGM), Programme syllabus for studies starting in autumn 2011

This programme has no specialisations.