1 Course title and credit points
The course is titled Human Computer Interaction/Människa-dator interaktion and awards 6 ECTS credits. One credit point (högskolepoäng) corresponds to one credit point in the European Credit Transfer System (ECTS).

2 Decision and approval
This course is established by 2015-03-12. The course syllabus was revised by Head of Department of Creative Technologies and applies from 2015-03-30.

3 Objectives
Our society is becoming more and more permeated by computer technology. That is why the need to understand peoples’ interaction with each other and through computers do increase. The course objective is that the students shall develop knowledge about the interaction concept. The students shall further learn how peoples’ work and interaction can be supported through better development and design of interfaces for computer systems. Other components of learning is about design principles as tools in practical design and construction of computer systems.

Further, the course aim to students learning of an outline of the research area of Human Computer Interaction and to reach an orientation knowledge of the so called “Scandinavian approach in systems development”.

The students deepened level of study means that interaction is taken as a fundamental aspect of people’s activities.

4 Content
The course comprise the following elements:
• Design principles for graphical computer interfaces.
• Technologies as support for cooperation between users and designers in development of human-computer interaction systems.

• HCI as a perspective of research and development.
• Experiences and possibilities with “the Scandinavian approach in systems development”.

5 Aims and learning outcomes
On completion of the course the students will:
• Be able to distinguish, describe and reflect over design concepts related to HCI.
• Understand the meaning of different methodological approaches within the area of HCI.
• Independently use design principles and other more practical means in making design and implementation of computer systems intended to support peoples work and interaction.
• Compile and present results as computational solutions and as written documents intended for various target groups.

6 Learning and teaching
Communication and co-operation take place in close contact alternatively with support of the BTH learning management system or other net based communication systems.

The course is introduced through an outline of the study area were the students appropriate a theoretical ground in order to participate in interaction and perform practical tasks. A list of current papers and links to relevant web resources will be extracted in co-operation between students and teachers during the realization of the course. The students learning is reflected above all in compulsory laboratory work and in a concluding written report.

Specifically for net based course: At net based course, interaction occur through a conference system or the BTH learning management system.

Specifically for campus course: The method of teachers instruction comprise lectures, seminars, exercises and laboratory work assignments.

The education language is primarily in English and alternatively in Swedish.
The teaching language is Swedish. However, the teaching could be carried out in English.

### 7 Assessment and grading

**Examination of the course**

<table>
<thead>
<tr>
<th>Code</th>
<th>Module</th>
<th>Credit</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1505</td>
<td>Presentation and discussion</td>
<td>2 ECTS</td>
<td>G-U</td>
</tr>
<tr>
<td>1515</td>
<td>Project and report[1]</td>
<td>4 ECTS</td>
<td>A-F</td>
</tr>
</tbody>
</table>

1 Determines the final grade for the course, which will only be issued when all components have been approved. The course will be graded A Excellent, B Very good, C Good, D Satisfactory, E Sufficient, FX Insufficient, supplementation required, F Fail.

### 8 Course evaluation

The course coordinator is responsible for systematically gathering feedback from the students in course evaluations and making sure that the results of these feed back into the development of the course.

### 9 Prerequisites

Passed basic programming (at least 7.5 credits)

### 10 Field of education and subject area

The course is part of the field of education and is included in the subject area Computer Science and the subject area Software Engineering.

### 11 Restrictions regarding degree

The course cannot form part of a degree with another course, the content of which completely or partly corresponds with the contents of this course.

### 12 Course literature and other teaching material

**Main literature**

1. Designing Interactive Systems: People, Activities, Contexts, Technologies
   Authors: David Benyon, Phil Turner, Susan Turner
   Publisher: Addison Wesley
   Published: 2010, Number of pages: 712
   ISBN10: 0321435338
   ISBN13: 9780321435330=

2. Other literature is decided by the students in consultation with the teachers.

**Reference literature**

1. Designing Interfaces
   Author: Jenifer Tidwell
   Publisher: O'Reilly Media
   Published: 2005, Number of pages: 331
   ISBN10: 0596008031
   ISBN13: 978-0596008031

2. Through the Interface
   Author: Bedker, Susanne
   Publisher: L Erlbaum
   Published: 1991, Number of pages: 169
   ISBN: 0-8058-0571-0 (paperback)

3. Information Ecologies, Using Technology with Heart
   Authors: Nardi, Bonnie A. & O'Day, Vicki L.
   Publisher: The MIT Press

Published: 1999, Number of pages: 232

4. Patterns in Java, Volume 2
   Author: Grand, Mark
   Publisher: John Wiley & Sons
   Published: 1999, Number of pages: 354
   ISBN: 0471258415

5. Interaction Design
   Authors: Preece, Jenny, Yvonne Roger, Helen Sharp
   Publisher: John Wiley and Sons Ltd
   Published: 2002, Number of pages: 544
   ISBN: 0471492787 (paperback)

6. Bringing Design to Software
   Author: Winograd, Terry
   Publisher: Addison-Wesley Pb Co
   Published: 1996, Number of pages: 321
   ISBN: 0201854910

7. Designing Visual Interfaces
   Authors: Mullet, Kevin & Sano, Darell
   Publisher: Prentice Hall
   Published: 1994, Number of pages: 304
   ISBN: 0133033899