

## Course Program

<b>Subject code IFI7159</b>	<b>Foundations of Human Computer Interaction</b>		
<b>Study load – 4</b> (ECTS/EAP)	<b>Load of contact:</b> <i>Face-to-face contact hours: 2</i> <i>Online contact hours: 14</i>	<b>Study semester:</b> <i>Spring 2013</i>	<b>Assessment:</b> <i>Exam</i>
<b>Objectives:</b>	This course introduces students to the field of human-computer interaction focusing on the human side of the equation.		
<b>Course Outline</b>	<p>This course comprises seven modules:</p> <ol style="list-style-type: none"> <li>1. Visibility, Affordances, Mapping, Constraints, Conceptual models</li> <li>2. Seven stages of action, Types of knowledge</li> <li>3. Feedback, Errors, Forcing Functions, Gestalt laws, Responsiveness</li> <li>4. The Human Processor Model, Fitts Law</li> <li>5. Interface Efficiency, KLM, GOMS</li> <li>6. State transition diagrams, Petri nets</li> <li>7. History and vision</li> </ol>		
<b>Learning Outcomes:</b>	After successfully attending this course, students will know how user interfaces have developed over the past decades, and what constants of human performance need to be considered when designing user interfaces.		
<b>Assessment Methods:</b>	<p>The final quotation is distributed as follows:</p> <ul style="list-style-type: none"> <li>▪ 10% Participation in all online activities, including the synchronous sessions;</li> <li>▪ 20% Book review (<a href="#">assignment 1</a>);</li> <li>▪ 20% Concept mapping (<a href="#">assignment 2</a>);</li> <li>▪ 20% Design critique based on the notions of visibility, affordances, mappings, constraints, and conceptual models (<a href="#">assignment 3</a>);</li> <li>▪ 20% Quantitative comparison of three different formulations of Fitts' Law (<a href="#">assignment 4</a>); and</li> <li>▪ 10% Cooperatively written three to four pages long reflection on the contents of a documentary in the context of this course (<a href="#">assignment 5</a>).</li> </ul>		

<b><i>Teacher(s):</i></b>	David Lamas, PhD Arman Arakelyan, MS
<b><i>Subject name in Estonian</i></b>	Sissejuhatus uusmeediasse ja selle teoreetilised põhialused
<b><i>Prerequisite subject(s):</i></b>	-
<b><i>Compulsory Literature</i></b>	Donald Norman, <a href="#">The Design Of Everyday Things</a> , ISBN 0465067107 (Required reading)
<b><i>Replacement Literature</i></b>	Alan Dix, Janet Finlay, Gregory D. Abowd, Russell Beale, Human-Computer Interaction , ISBN 0130461091 (complementary reading, available from the Library)  Ben Schneiderman, Designing the User Interface: Strategies for Effective Human-Computer Interaction, ISBN 0321197860 (complementary reading, available from the Library)
<b><i>Participation and Exam requirements</i></b>	<p>This course is delivered online. Online activities are organized in bi-weekly modules, each focusing on a specific set of topics. Each module runs from the Monday on the first week to the Sunday on the second week and will be kick-started by a face-to-face meeting and a post by one of the course facilitators.</p> <p>All comments, questions and outcomes of the required activities must be reflected in the bi-weekly posts of course webpage.</p> <p>In order to successfully conclude this course, students are required to individually:</p> <ul style="list-style-type: none"> <li>▪ Take part in all online activities, including the synchronous sessions;</li> <li>▪ Write a book review; and</li> <li>▪ Build a concept map of the topics addressed in the course.</li> </ul> <p>Students are further required to, in groups of three or four:</p> <ul style="list-style-type: none"> <li>▪ Critique objects surrounding them, in both the physical and the virtual world, using the visibility, affordances, mappings, constraints, and conceptual models design principles;</li> <li>▪ Quantitatively compare three different formulations of Fitts' Law; and</li> </ul>

	<ul style="list-style-type: none"> <li>▪ Cooperatively write a three to four pages long reflection on the contents of a documentary in the context of this course.</li> </ul>
<i>Independent work</i>	-
<i>Grading criteria scale or the minimal level necessary for passing the subject</i>	<p>Grading criteria:</p> <p>A - 90-100% of the work is done - excellent: outstanding work with only few minor errors.</p> <p>B - 80-90% of the work is done - very good: above average work but with some minor errors.</p> <p>C - 70-80% of the work is done - good: generally good work with a number of notable errors.</p> <p>D - 60-70% of the work is done - satisfactory: reasonable work but with significant shortcomings.</p> <p>E - 50-60% of the work is done - sufficient: passable performance meeting the minimum criteria.</p> <p>F- less than 50% of the work is done - fail: more work is required before the credit can be awarded.</p>
<i>Information about the course</i>	<p>Face-to-face session on January 28<sup>th</sup> at 6pm – 8pm in A-303.</p> <p>Schedules:</p> <ul style="list-style-type: none"> <li>▪ <b>Weeks 1 and 2</b> <ul style="list-style-type: none"> <li>▪ Read the topic <a href="#">Visibility, Affordances, Mapping, Constraints, Conceptual models</a>;</li> <li>▪ Read and start working on <a href="#">Assignment 1</a> (the book review);</li> <li>▪ Read and start working on <a href="#">Assignment 2</a> (the concept maps);</li> <li>▪ Read and start working on <a href="#">Assignment 3</a> (design critique based on the notions of visibility, affordances, mappings, constraints, and conceptual models);</li> <li>▪ Meet online, over Google Hangouts, by the end of Week 1;</li> <li>▪ Partially deliver the results of <a href="#">Assignment 2</a> (this topics' concept map); and</li> <li>▪ Deliver the results of <a href="#">Assignment 3</a> (design critique based on the notions of visibility, affordances, mappings,</li> </ul> </li> </ul>

constraints, and conceptual models).

▪ **Weeks 3 and 4**

- Read the topic [Seven stages of action, Types of knowledge](#);
- Meet online, over Google Hangouts, by the end of Week 3; and
- Partially deliver the results of [Assignment 2](#) (this topics' concept map).

▪ **Weeks 5 and 6**

- Read the topic [Feedback, Errors, Forcing, Gestalt laws, Responsiveness](#);
- Meet online, over Google Hangouts, by the end of Week 5; and
- Partially deliver the results of [Assignment 2](#) (this topics' concept map).

▪ **Weeks 7 and 8**

- Read the topic [The Human Processor Model, Fitts Law](#);
- Read and start working on [Assignment 4](#) (quantitative comparison of three different formulations of Fitts' Law);
- Meet online, over Google Hangouts, by the end of Week 7;
- Partially deliver the results of [Assignment 2](#) (this topics' concept map); and
- Deliver the results of [Assignment 4](#) (quantitative comparison of three different formulations of Fitts' Law).

▪ **Weeks 9 and 10**

- Read the topic [Interface efficiency, KLM, GOMS](#);
- Meet online, over Google Hangouts, by the end of Week 9; and
- Partially deliver the results of [Assignment 2](#) (this topics' concept map).

▪ **Weeks 11 and 12**

- Read the topic [State transition diagrams, Petri nets](#);
- Meet online, over Google Hangouts, by the end of Week 11; and
- Partially deliver the results of [Assignment 2](#) (this topics' concept map).

▪ **Weeks 13 and 14**

- Read the topic [History and vision](#);

	<ul style="list-style-type: none"><li>▪ Read and start working on <a href="#">Assignment 5</a> (a cooperatively written three to four pages long reflection on the contents of a documentary in the context of this course);</li><li>▪ Meet online, over Google Hangouts, by the end of Week 13;</li><li>▪ Deliver the results of <a href="#">Assignment 1</a> (the book review); and</li><li>▪ Deliver the results of <a href="#">Assignment 2</a> (this topics' concept map together with the full concept map on this course); and</li><li>▪ Deliver the results of <a href="#">Assignment 5</a> (a cooperatively written three to four pages long reflection on the contents of a documentary in the context of this course).</li></ul>
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