Human Computer Interaction
PSYC438 – Fall 2019
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Software: LiveCode (8.1.2 Stable – Community Edition)
Class materials: Canvas & Menti
Grading:
- Quizzes = 60%
- Project = 20%
- Apps (4) = 10%
- Attendance = 10%
  - See me on an individual basis for university related excuses
  - Based on 13 classes

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<thead>
<tr>
<th>Date</th>
<th>Lecture Topics</th>
<th>Project</th>
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| 8/29 | Lesson 1 - Introduction  
  • HCI Defined  
  • The Impact of HCI on People and Society  
  Lesson 2 - Process  
  • Requirements Process  
  • Goals of a UI Designer  
  • Cognitive and Perceptual Abilities  
  • Individual Differences  
  • UI Design Research  
| LiveCode:  
  • Object Oriented  
  • Event Driven  
  • Edit/Run Modes  
  • Cards/Stacks and Files |
| 9/5  | Lesson 3 – Guidelines & Principles  
  • Guidelines  
  • Principles  
  • Theories  
  Lesson 4 - Methods  
  • Managing the Design Process  
  • Patterns & CRAP  
  • Three Pillars of Design  
  • Development Methodologies  
  • Ethnographic Observation  
  • Organization  
  • Scenarios  
  • Legal Issues  
| LiveCode:  
  • Development Environment  
  • File/Edit/Tools Menus  
  • Object/View/Help Menus  
  • Project Browser |
<table>
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<tr>
<th>Date</th>
<th>Lesson</th>
<th>Descriptions</th>
<th>LiveCode:</th>
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</table>
| 9/12   | Lesson 5 – Evaluating Designs | • Evaluating UI  
• Expert Reviews  
• Usability Testing  
• Surveys | • Properties Inspector  
• Code Editor  
• Message Box  
• Tool Bar  
• Tools Palette  
• Alignment/Layers  
• In class development of App Quiz & Sound |
|        | Lesson 6 - Tools | • Software Tools  
• Transition Diagrams  
• Workflow diagrams  
• Design Tools | | App 1 Due – Switch between cards and URL  
Project concept due – Paragraph Description |
| 9/19   | Lesson 7 – UI Patterns | • Menu Selection  
• Form Fill-in  
• Dialog Boxes  
• Menu organization  
• Single menus  
• Combination menus  
• Data Entry with menus  
• Audio menus | • Properties Inspector  
• Script  
• Handlers/Events | App 2 Due – Quiz & Sound |
|        | Lesson 8 – Direct Manipulation | • Command Line  
• Direct Manipulation  
• Virtual Environments  
• 3D Interfaces  
• Teleoperation  
• Augmented reality  
• Video Games  
• WYSIWYG | | |
| 9/26   | Lesson 9 – Process Control | • Process Control  
• Supervisory Control  
• SHEL Model  
• Automation  
• Rasmussen  
• Human Error Taxonomy  
• Nuclear Plants | • Operators  
• Making Decisions  
• Chunk Expressions  
• In class development of App Drag & Drop | Detailed project description due  
Describe how project will include:  
• Use of a minimum of one URL  
• Quiz  
• Drag and drop  
• Arithmetic function  
• Sound file |
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<th>Date</th>
<th>Lesson</th>
<th>Topics</th>
<th>Activities/Notes</th>
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<tbody>
<tr>
<td>10/10</td>
<td>Lesson 11 – Help Systems</td>
<td>Quality of Service, Models of response time, Expectations and attitudes, Productivity</td>
<td>App 4 Due – Menu &amp; Math</td>
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<td>10/17</td>
<td>Lesson 12 – Form and Function</td>
<td>Error messages, Non-anthropomorphic design, Display design, Complexity Metrics, Window Management, Browsing, Color</td>
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<td>10/31</td>
<td>Lesson 14 – Collaboration &amp; Social Networking</td>
<td>Collaboration Goals, Asynchronous distributed interfaces, Synchronous distributed interfaces, Blogs, Wikis, Twitter, Hangouts, Conferencing, Face-to-Face interfaces, Social Networking, Texting, Legal Issues</td>
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<td>11/7</td>
<td>Lesson 15 – Information Search and Visualization</td>
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<td></td>
<td>• Information search &amp; filtering</td>
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<td>• Information visualization, 1D, 2D, 3D</td>
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<td>• Multidimensional Data</td>
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<td>• Temporal Data</td>
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<td></td>
<td>• Tree Maps</td>
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<td>• Facebook Data Visualization</td>
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<td>• Star Plots</td>
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<td>• Searching in text documents</td>
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<td>• Database queries</td>
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<td>• Multimedia document searches</td>
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<td>• Advanced filtering/search interfaces</td>
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<td><strong>Project second draft due</strong></td>
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<td>11/14</td>
<td>Lesson 16- What it Means to be Human</td>
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<td>• Living Systems</td>
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<td>• Critical Subsystems</td>
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<td>• Conceptual, Concrete and Abstract</td>
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<td>• Structure &amp; Processes</td>
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<td>Lesson 17 – Societal Impacts</td>
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<td>• Impact of Technology on Society</td>
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<td>• Internet Visionary</td>
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<td>• The Future</td>
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<td>Lesson 18 – To work or not to work</td>
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<td>• To Work or Not to Work</td>
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<td>11/21</td>
<td><strong>PROJECT WORK SESSION</strong></td>
<td><strong>Project Due</strong></td>
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<td>11/28</td>
<td><strong>THANKSGIVING BREAK</strong></td>
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<td>12/5</td>
<td><strong>PROJECT PRESENTATION</strong></td>
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