## CIS 443/543 - User Interfaces - Fall 2021 - Class Schedule as of November 15, 2021 - Anthony Hornof

Projects are typically due the evening before the dates indicated here. Unless noted otherwise, the chapters are from Rosson & Carroll (2002) "Usability Engineering".

### Week One
- **Mon, Sep 27** / SBD
  - **Overview of Class:** Project 1
  - **In-Class Activities:** Conducting interviews to understand a user's task.
  - **Main Point of the Lecture:** The human procedural knowledge that is necessary to do a task can be characterized in a tree-like structure of tasks and subtasks. This characterization is useful for understanding how a user interface might support human tasks.
  - **Reading:** Chapter 1 "Scenario-Based Usability"  
  - **Projects & Exercises:** Project 1 (P1) Warm-Up Exercise

### Week Two
- **Mon, Oct 4**
  - **Requirements Analysis:** Analyzing. Conducting interviews to understand a user's task. Analyze the Results. Hear progress on Project 1. Possibly interview each other.
  - **In-Class Activity:** Student presentations. Programming of Project 1.
  - **Main Point of the Lecture:** Analytic evaluation techniques permit the designer to apply established procedures to predict aspects of usability, with no involvement of users. Some of these techniques model the execution of cognitive strategies.
  - **Reading:** Chapter 4 - "Information Design" Also: "Why the eyes rotate in their sockets" (slides on course web page).

### Week Three
- **Mon, Oct 11**
  - **Interaction Design:** Chapter 5. Interaction design. P2 design work.
  - **In-Class Activity:** Scenario-Based Design (SBD)
  - **Main Point of the Lecture:** Analytic evaluation techniques permit the designer to apply established procedures to predict aspects of usability, with no involvement of users. Some of these techniques model the execution of cognitive strategies.
  - **Reading:** Chapter 4 - "Information Design" Also: "Why the eyes rotate in their sockets" (slides on course web page).

### Week Four
- **Mon, Oct 18**
  - **Information Design:** Students present P1 designs in class.
  - **In-Class Activity:** Visual Layout
  - **Main Point of the Lecture:** The two most important things in visual design are: (1) The information that the user needs to accomplish their task must be visible, and (2) it should be easy for the user to access the information with a small number of eye movements (and ideally no hand movements).
  - **Reading:** Chapter 4 - "Information Design" Also: "Why the eyes rotate in their sockets" (slides on course web page).

### Week Five
- **Mon, Oct 25**
  - **SBG / Event-Based Programming:** Discuss project outcomes.
  - **In-Class Activity:** Chapter 5 "Interaction Design"  
  - **Main Point of the Lecture:** Interaction design should support action-sequences and stimulus-response compatibility (affordances) and should avoid modes. You should know how to figure out if an interaction is stimulus-response compatible.
  - **Reading:** Chapter 5 "Interaction Design"

### Week Six
- **Mon, Nov 1**
  - **Midterm Exam**
  - **In-Class Activity:** Law Lecture (both on Canvas).
  - **Main Point of the Lecture:** Law Lecture (both on Canvas).
  - **Reading:** Chapter 2 - "Analyzing Usability"  

### Week Seven
- **Mon, Nov 8**
  - **The Design of Interaction in the Context of Human Cognition:** In-class design and evaluation exercise for mouse vs push-button, or KLM, or cognitive walkthrough.
  - **In-Class Activity:** Scenarios-Based Design (SBD)
  - **Main Point of the Lecture:** Analytic evaluation techniques permit the designer to apply established procedures to predict aspects of usability, with no involvement of users. Some of these techniques model the execution of cognitive strategies.
  - **Reading:** Chapter 7 (stopping at "7.3 Empirical Methods")

### Week Eight
- **Mon, Nov 15**
  - **User Observation Studies:** The ultimate question when evaluating the usability of an interface is "How well will the interface support real-world users doing real-world tasks in a real-world task-environment?"
  - **In-Class Activity:** Best Practices of Usability Testing (SBD): intercepted.
  - **Main Point of the Lecture:** Analytic evaluation techniques permit the designer to apply established procedures to predict aspects of usability, with no involvement of users. Some of these techniques model the execution of cognitive strategies.
  - **Reading:** Rosson & Carroll (2002) Chapter 7 (starting at "7.3 Empirical Methods") Also: Lecture Notes, starting from "7.3 Empirical Methods", and reading through the end of the Chapter 7 Lecture Notes.

### Week Nine
- **Mon, Nov 22**
  - **User Observation Studies:** The two most important things when running a user observation study are: (1) the ethical treatment of your participants and (2) following a well-thought-out procedure to capture truly valid data.
  - **In-Class Activity:** Scenarios-Based Design (SBD)
  - **Main Point of the Lecture:** Analytic evaluation techniques permit the designer to apply established procedures to predict aspects of usability, with no involvement of users. Some of these techniques model the execution of cognitive strategies.
  - **Reading:** Chapter 4 - "Information Design" Also: "Why the eyes rotate in their sockets" (slides on course web page).

### Week Ten
- **Mon, Nov 29**
  - **Student Presentations:** Review for Final Exam. Cover any material that was missed.
  - **In-Class Activity:** Scenarios-Based Design (SBD)
  - **Main Point of the Lecture:** Analytic evaluation techniques permit the designer to apply established procedures to predict aspects of usability, with no involvement of users. Some of these techniques model the execution of cognitive strategies.
  - **Reading:** Chapter 4 - "Information Design" Also: "Why the eyes rotate in their sockets" (slides on course web page).