### **Department of Computer Science and Engineering**

## College of Engineering, University of Nevada, Reno

# CS 420/620 Human-Computer Interaction

# Study Required for Midterm Test #1

September 25, 2019

Updated October 9, 2019 with 5 questions from the DOET book (see section B)

This written, closed-book, 70-minute test will take place on **Wednesday, October 23, 2019** in PE-107 from 1:00 pm (regular classroom and time). The test weights 17% of the course grade in CS 420 and 15% in CS 620.

A Chapters Required from the textbook Ben Shneiderman & all (DTUI), Designing the User Interface, 6<sup>th</sup> Edition, 2017:

Chapter 1	USABILITY OF INTERACTIVE SYSTEMS

Chapter 2 UNIVERSAL USABILITY

Chapter 3 GUIDELINES, PRINCIPLES, AND THEORIES

Chapter 4 DESIGN

Chapter 5 EVALUATION AND THE USER EXPERIENCE

#### **Sections and Subsections Not Required**

From the above chapters, the following sections are not required for the test:

Section 2.9	Accommodating Hardware and Software Diversity	
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Subsection 3.4.2 Stages-of-action theories

Subsection 3.4.4 Contextual theories

Subsection 3.4.5 Dynamic theories (this is incorrectly listed in the book as again 3.4.4)

Subsection 4.6.3 Interaction design patterns

Subsection 5.3.5 Usability test reports

Section 5.5 Acceptance Tests

Section 5.7 Controlled Psychologically Oriented Experiments

**B** Questions from Chapters 1 and 2 of the book by Don Norman (DOET), The Design of Everyday Things - revised, 2013:

As required study, 5 questions from DOET will be made available by October 9, 2019. One of these questions will most likely be asked in Midterm Test #1. Updates on October 9, 2019:

#### These 5 questions are:

- 1. Explain the following concepts presented in Chapter 1 of Don Norman's DOET book: affordances and signifiers. Also, give two examples for each.
- 2. Explain the following concepts presented in Chapter 1 of Don Norman's DOET book: *mapping* and *feedback*. Also, give two examples for each.
- 3. Describe the *seven stages of action* model presented in Chapter 2 of Don Norman's DOET book. Also, give an example of a user interaction (with a device or interface) that goes through all seven stages.
- 4. Describe the *three levels of processing* presented in Chapter 2 of Don Norman's DOET book. Also, give two examples of action or activities for each level.
- 5. As indicated in Chapter 2 of Don Norman's DOET book, "the insights from the seven stages of action lead us to seven fundamental principles of design" [p. 72]. Indicate <u>five</u> such *fundamental design principles* and briefly comment on each of them.

### NOTE:

CS 620 students will have an additional question in the midterm as compared to CS 420 students. The allotted time will be the same. .