

# CS 4331 and CS 5331 Human Computer Interaction - Spring 2021

## Final Exam (05/11/2021)

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**Instructor office hours:** 3-4pm, MWF, or by appointment

**Student Name:** \_\_\_\_\_(First Last)

**Final Score:** \_\_\_\_\_(Total: 40 points)

### General Instructions:

- The maximum is 40 points, equivalent to 40% of your final score.
- There are **20** questions over **1** page.
- This is a **80**-minute closed-book and closed-note exam.
- Please explain your answer clearly and be concise. **Please make sure your handwriting is readable.**
- Submit a copy (images in the **correct** order) of your answers via email to [tommy.dang@ttu.edu](mailto:tommy.dang@ttu.edu)
- Good luck.

Question 1: (3 points)

What are Affordances in designs? Can you provide two examples of Affordances for Form Filling?

Question 2: (2 points)

Please list two suggestions for “Designing for error”?

Question 3: (2 points)

Please explain the Diversity of users’ profiles in **age**. Why is it important to consider the Diversity of user **age** in designing User Interfaces (UI)?

Question 4: (2 points)

Please explain choosing '**atomic**' **actions** for the tasks? What issues can cause if the actions are not '**atomic**'?

Question 5: (2 points)

Select two UI interaction styles and discuss their pros and cons.

Question 6: (2 points)

In Golden rules of interface design, one of the rules is “Design dialogues to yield closure”. Please explain this rule on the web interface with examples.

Question 7: (2 points)

In Golden rules of interface design, one of the rules is “Offer error prevention and simple error handling”. Please explain this rule on Form Filling for web applications.

Question 8: (2 points)

In Golden rules of interface design, one of the rules is “Strive for consistency”. Please two examples of your choices for **inconsistency** in the web applications.

Question 9: (2 points)

Please describe dissociative variables in visual communications.

Question 10: (2 points)

In the Human processor model, how many processors are there? Please explain the role of each processor.

Question 11: (2 points)

What are the recommended font styles for web interfaces? Describe when it is appropriate to use these font styles.

Question 12: (2 points)

For Form Filling in the web application, how can we make the expected format of **telephone numbers** obvious in the form.

Question 13: (2 points)

Please provide one example of problems due to Color blindness when using UI.

Question 14: (2 points)

The color of a focused item can depend on surrounding colors. Is this true? Please justify your answer.

Question 15: (2 points)

One of the common design errors is insufficient contrast. Please explain this error and what problems it can cause.

Question 16: (2 points)

The optical adjustment technique suggests extending elements beyond the margin. What could be the issue if we don't follow this suggestion in designing icons for UIs.

Question 17: (2 points)

What is the role of negative space in designing interfaces?

Question 18: (2 points)

What is the difference between Qualitative vs. Quantitative evaluations?

Question 19: (1 point)

What is the minimal number of subjects in a controlled experiment?

Question 20: (2 points)

Why do we need grid layouts in interface design?

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