

Assignment

IT3111 (CCU) - Human Computer Interaction

Guidelines:

- **Deadline: 13-02-2025**
 - **Late Submissions: NOT accepted under any circumstances.**
 - **Submission Method: All submissions must be uploaded through the LMS. Other submission methods will NOT be accepted.**
 - Submission Format: ONE PDF file containing the full report, all wireframes, UI mockups, and rationale.
 - This assignment assesses following learning outcomes:
 - LO1: Describe and use HCI design principles, standards and guidelines
 - LO2: Explain human & computer capabilities from human information processing
 - LO3: Demonstrate interface design & evaluation skills
 - LO4: Use simple UI evaluation methods to assess quality
 - Total Marks: 40
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1. Your university has launched a new Online Student Services Portal that enables students to:

- register for modules
- submit assignments
- pay fees
- Check Exam Results
- request documents (transcripts, letters, ID renewal)

Within weeks, complaints start increasing:

- Navigation is confusing
- Icons and menus are unclear
- Some actions provide no feedback
- Wrong submissions happen often
- System is stressful during peak times (logins, deadlines)

- Interface is cluttered
- Visually impaired users face difficulties
- Mobile users struggle with layout and controls

a. Identify at least five major interaction problems students face.

(Explain which human sense, memory limitation, or cognitive process is affected in each problem.)

(5 Marks)

b. Evaluate the portal using “Norman’s” (Norman’s Seven Stages of Action) interaction model

(Highlight where the interaction breaks down and explain why)

(5 Marks)

c. Propose a complete UCD redesign plan, including:

- Understanding user groups
- Observing their tasks
- Gathering requirements
- Creating initial design ideas
- Iterative testing
- Refinement cycles

(Explain how each step addresses the issues identified.)

(5 Marks)

d. Create low-fidelity wireframes for the redesigned portal screens:

- Home Dashboard
- Module Page
- Assignment Submission Page
- Mobile view of any one screen

Your wireframes should clearly show:

- layout
- grouping of controls
- navigation flow
- visual hierarchy
- placement of feedback messages
- accessibility features (contrast, font sizing, icons)

(you can use tools like Figma, Balsamiq, Miro, Adobe XD, etc.)

(10 Marks)

- e. Design high-fidelity UI for 4 screens Include followings**
- i. color scheme
 - ii. typography
 - iii. iconography
 - iv. consistent spacing
 - v. proper use of affordances
 - vi. visual feedback (hover states, confirmation messages)
 - vii. accessibility (e.g., color-blind friendly design)

(10 Marks)

- f. Explain how your UI choices support**
- i. better perception (vision & touch)
 - ii. improved cognition and memory
 - iii. smoother interaction flow

(5 Marks)

Note:

Viva Presentation Requirement

*All students are required to present and defend this assignment in an individual viva.
Viva dates and times will be informed later.*