

**Department of Information and Communication Technology**



I declare that I am familiar and will abide with the Assessment rules as indicated in the Sol Plaatje University Rules Book

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**Signature**

**COURSE NAME:** ICT Electives II/Human Computer Interaction

**COURSE CODE:** NITE63410/NHCI63110

**Class Test 1**

**Due Date:** 09 April 2025

**Total Marks:** 100

**Total pages:** 4 (including cover)

**Name of Examiner**

**Mrs. K.E Mamabolo**

**Name of Moderator**

**Mr. Phumezo Ntlatywa**

**Student number**

**Surname**

**Initials**

**%**

**IMPORTANT INSTRUCTIONS**

1. Answer ALL questions.
2. Use the spaces provided to answer each question.
3. The use of Calculator is not permitted.
4. The use of laptops is not permitted.
5. The use of Cellphones is permitted.

## Assignment Overview

You are to apply the interaction design process and develop a conceptual model and Django-based wireframe for a context-aware mobile or web application that supports student academic and wellness needs (e.g., assignment tracking, class schedules, study reminders, wellness check-ins).

You will follow the key activities of interaction design: understanding user needs, designing alternatives, developing a conceptual model, sketching prototypes, and evaluation planning. You are also expected to develop a Django-based wireframe (without full functionality) for at least one core feature of your proposed application.

## Learning Outcomes

By completing this assignment, students will:

- Apply the interaction design process in a real-world scenario.
- Develop a user-centered conceptual model using theory from Chapters 2 and 3.
- Create interface sketches and wireframes using Django.
- Demonstrate an understanding of usability and UX goals, interaction types, and metaphors.
- Evaluate early design decisions through proposed usability methods.

## Assignment Instructions

### Part A: Discovering Requirements (20 marks)

1. Identify a real-world student problem space (e.g., mental load from studies, class reminder fatigue, poor planning).
2. Interview 2–3 students to gather user needs.
3. Develop:
  - Two personas capturing key user types.
  - Two scenarios showing your app in use.

**Deliverable:** *user research summary, personas, and usage scenarios.*

### Part B: Designing the Conceptual Model (30 marks)

1. Identify:
  - Core functionalities of your system (e.g., push notification reminders, calendar integration).

- Relevant interaction types (e.g., conversing via chatbot, instructing via buttons).
  - A fitting interface metaphor (e.g., planner, coach, assistant).
2. Describe your conceptual model using a labeled diagram and narrative.

***Deliverable:*** *Diagram + explanation describing the structure and user interaction.*

## **Part C: Interface Sketching and Django Wireframe (25 marks)**

### **Sketching (10 marks)**

1. Draw two interface sketches for key screens or actions.
2. Annotate interaction elements and explain how design principles (visibility, feedback, etc.) are applied.

### **Django Wireframe (15 marks)**

1. Create a **basic Django project** with at least one app.
2. Include:
  - A simple HTML template (e.g., homepage, create task/reminder form).
  - A basic view and URL route.
  - Minimal models and forms (if applicable).
3. The wireframe does not need full functionality—focus on layout and navigation.

### ***Deliverable:***

- A GitHub link
- 2–3 screenshots of the running wireframe with short explanations.
- Annotated sketches in the final PDF document.

## **Part D: Evaluation Planning (15 marks)**

1. Define two usability goals and one UX goal.
2. Write 3–4 user testing questions.
3. Propose one evaluation method (e.g., A/B testing, think-aloud) and explain its relevance.

***Deliverable:*** *1-page evaluation plan document.*

### Part E: Reflection (10 marks)

Write a brief reflection (300–400 words) on:

- What you learned about user-centered design.
- The challenges of applying conceptual modeling.
- Your experience with sketching and Django wireframe development.

### Submission Format

Submit a single zipped folder including:

- Final PDF report (Parts A, B, C-Sketches, D, E).
- Django project GitHub repo link.
- Screenshots of Django wireframe.
- Presentation of your own work on the 9<sup>th</sup> of April 2025

### Assessment Criteria:

Criteria	Marks
User Research, Personas, Scenarios	20
Conceptual Model & Interaction Thinking	30
Interface Sketches	10
Django Wireframe (structure & layout)	15
Evaluation Plan	15
Reflection	10
<b>Total</b>	<b>100</b>