Course Title:	**Applied Human Computer Interaction**
Course Code:	**COMP719**
Descriptor Start Date:	**16/02/2026**
POINTS:	**15.00**
LEVEL:	**7**
PREREQUISITE/S:	**None**
COREQUISITE/S:	**None**
RESTRICTION/S:	**None**

LEARNING HOURS

Hours may include lectures, tutorials, online forums, laboratories. Refer to your timetable and course information in Canvas for detailed information.

Total learning hours: 150

PRESCRIPTOR

This course introduces the fundamentals of humans, computers, and their interactions, and applies a Design Thinking framework to analyse, design, and evaluate user interfaces for software systems. Students conduct user research to understand users, tasks, and contexts of use, apply human-centred design approaches to create usable and innovative interfaces and data visualisations, and evaluate designs for user experience and ethical use.

LEARNING OUTCOMES

1. Integrate fundamental understandings of humans as users, computers, and their interactions (a,f,h,i,k)
2. Plan and conduct user research to understand users' needs and context of activities (b,d,f,g,h,i,j,k)
3. Design and justify user interfaces based on HCI principles, theories, and concepts (a,c,e,h,j,k)
4. Evaluate user interfaces systematically for usability and ethical use (a,b,c,f,g,h,i,k)

CONTENT

The course will cover the following key topics in HCI and User Experience, employing the Design Thinking framework:
1. Foundations: Human as user, computers, and their interactions.
2. User Research: Problem analysis, usage data elicitation, process and user workflow modelling; cognitive task analysis, decision-making, user journey map, and user personas.
3. UI/UX Design: Design principles; information visualisation, visual design, sketching, wireframing, storyboards, prototyping, and storytelling.
4. Evaluation: Analytical and empirical methods (basic experiments, heuristic evaluation, cognitive walkthrough, user testing).

Key to Graduate Capabilities Profile (AK3751 BEHON graduates only)
a. Engineering knowledge
b. Problem analysis
c. Design/development of solutions
d. Investigation
e. Tool usage
f. The engineer and the world
g. Ethics
h. Individual and collaborative team-work
i. Communication
j. Project management and finance
k. Lifelong learning

LEARNING & TEACHING STRATEGIES

The paper will be delivered using lectures and tutorials centred on a problem-based learning (PBL) model. The PBL approach will require students to identify the users' problem, users' tasks, and context of work before designing a solution that is based on HCI theories and principles to design user-centered systems and user experiences.
Tutorials will use the design critique approach enabling students to develop key industry UX skills. Students will be presented with a problem scenario, and from this, they will:
1. Carry out or at least simulate user research to describe the user journey map and personas. Through other in-class activities, we introduce students to the application of Design Thinking and Human Centered Design mindset.
2. Design a UI/UX interactive prototype while learning how to use industry tools.
3. Apply a variety of methods to evaluate the resulting interactive prototype and to compare the effectiveness of these different methods.

ASSESSMENT PLAN

Assessment Event	Weighting %	Learning Outcomes
User Research Report (Individual, Canvas Submission)	35.00	1, 2
UI Design Project (Group, Canvas Submission)	30.00	1, 2, 3
UX Evaluation Report (Individual, Canvas Submission)	35.00	1, 2, 4

Grade Map	**MAP1**
	A+ A A- Pass with Distinction B+ B B- Pass with Merit C+ C C- Pass D Fail

Overall requirement/s to pass the course:

To pass this course, students must achieve a minimum overall grade of C-.

LEARNING RESOURCES

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For further information, contact: Te Ara Auaha - Faculty of Design & Creative Technologies

Principal Programme:	**AK3697, Bachelor of Computer and Information Sciences**
Related Programme/s:	**AK3698** **AK1041** **AK3001** **AK3003** **AK3756** **AK3706**