Module: User Experience Design 381

Module name:	User Experience Design 381
Code:	UXD381
NQF level:	7
Type:	Elective – Bachelor of Computing (all streams)
Contact time:	53
Structured time:	4
Self-directed time:	53
Notional hours:	110
Credits:	11
Prerequisites:	PRG282, WPR281

Purpose

This module introduces students to principles and methods relevant to the user experience design of digital products and services. Students will develop an understanding of the concept of 'user experience' and how it extends to other design practices, such as user interface design and interaction design. Students will learn about methods for designing the user experience in a range of different contexts, such as mobile applications, website, immersive, augmented, and other interactive environments. Students are given an opportunity to apply the principles and methods of user experience design in the context of a design project. At the conclusion of the module students will have a well-developed understanding of methods for gathering user requirements and translating requirements into design solutions that emphasise the user experience of the final product.

Outcomes

Upon successful completion of this module, the student will be able to demonstrate:

- Integrated knowledge of the perspectives and impact on how the user interface (UI) affects usability, including an understanding of and the ability to apply and evaluate the key terms, concepts, facts, principles, rules and theories required to develop user interfaces for different application environments and types of services.
- An understanding of the differences in developing user interfaces for different application environments within different settings, and providing different types of services, and the ability to select suitable techniques for establishing user groups and their requirements for an interface, including the usability requirements.
- The ability to identify, analyse, evaluate, critically reflect on a range of techniques to evaluate interfaces, based upon relevant and discounting irrelevant factors, and their suitability to specific contexts, selecting the most appropriate techniques for a particular situation; and the ability to justify and explain how human factors influence aspects of design of interfaces.
- The ability to take decisions and act ethically and professionally, when designing a suitable programme of user involvement that treats users ethically and equitably, and the ability to justify the design of a suitable interactive system which takes the accessibility and cultural issues into account.

- The ability to develop appropriate processes of information gathering to define interface and usability requirements in respect of the user, content and functionality; and the ability to independently validate the main method of interface design and evaluate the relative strengths and weaknesses of each and their most appropriate uses with respect to the defined interface.
- The ability to select a method of interface design and design and develop a suitable prototype for an interactive system creating a user interface appropriate for the user and the environment.
- The ability to develop, communicate and present the design and results of evaluation of a prototype interface, defining the requirements, describing the design processes and evaluation criteria, using evidence gathered with established methods, to draw conclusions about the strengths and weaknesses of the interface, focusing on aspects of usability, accessibility and user experience.

Assessment

- Continuous evaluation of work through 3 assignments, with a mix of technical, design, usability, and user experience.
- Continuous evaluation of work through a summative test which assesses the theoretical knowledge.
- Continuous evaluation of project work, whereby the student must design an interface meeting the interface and usability requirements in respect of a specific user group, the content and the functionality. Students will work in groups and conduct peer assessments. The grade will reflect participation in the project, the role and mastery of course through a presentation on the developed interface.
- Final assessment through a written examination.
- The assignments or projects collectively will count 30% of your class mark.
- All tests will collectively account for 70% of your class mark.
- Your class mark contributes 30% towards your final mark for the subject, while the final assessment accounts for 70% of your final mark.

Teaching and Learning

Learning materials

Prescribed books (EBSCO)

📖 Brian Hambling et al. (2019) Software Testing : An ISTQB-BCS Certified Tester Foundation Guide - 4th Edition. London: BCS, The Chartered Institute for IT.

Additional Reference Material

📖 Hartson, R. and Pyla, P.S. (2012). *The UX Book: Process and Guidelines for Ensuring a Quality User Experience*. Morgan Kaufmann. [ISBN 978-0123852410]

📖 Garrett, J.J. (2010). *The Elements of User Experience: User-Centered Design for the Web and Beyond*, 2nd Edition. New Riders. [ISBN 978-0321683687]

Learning activities

The teaching is a combination between presentation of theoretical concepts and exercises and discussions. The essence of the course is to learn how to design effective, usable and engaging

interactive systems. Design of these draws on the relevant theory, its application, based on various techniques. Lectures, assignments and project work will build discipline specific expertise in the area of designing, evaluating and building interactive systems. Assignments will be reviewed in class. The project involves working in a team, conducting user studies with members of the group taking complementary roles, designing interfaces and carefully critiquing these. The project culminates in a report, presentation and demonstration.

Notional learning hours

List the learning activities in hours

Activity	Units	Contact Time	Structured Time	Self-Directed Time
Lecture		42.0		20.0
Formative feedback		7.5		
Project	1	3.5		9.0
Assignment	3			9.0
Test	1		2.0	5.0
Exam	1		2.0	10.0
		53.0	**4.0**	**53.0**

Syllabus

- From Human Computer Interaction to User Experience Design
- Fundamentals, principles, and elements of User Experience
- Techniques for examining the user experience and exploring the context of use
- Usability and user experience goals
- Interaction design in and for different users and cultures
- Capturing and representing user characteristics
- Product objectives and user needs
- Functional specifications and content requirements
- Designing accessible interactive systems
- The process of interaction design
- Prototyping
- Approaches to evaluation of user interfaces