Unit 36: User Experience and Interface Design

Unit code	**Y/618/7453**
Unit level	**5**
Credit value	**15**

Introduction

User Experience (UX) and User Interface (UI) Design is the process by which software applications and user interactions can be designed to be simple, accessible, effective and attractive for the end user. The objective of UX and UI Design is to create user interactions and software application experiences that are appropriate for specific platforms or devices and to provide desirable end-user outcomes utilising insight and understanding of the practical, emotional and experiential motivations and values of the end user. UX and UI Design explores the motivations and desires of the end user and seeks to design the user's interactions so that they satisfy those motivations and desires in a concise manner.

This unit introduces students to the role, basic concepts and benefits of UX and UI Design in the development process of software applications. The aim of the unit is to enhance understanding of the methodology, terminology and benefits of UX and UI Design in the development of software applications.

Among the topics included in this unit are: classification and terminology of UX and UI Design techniques, the relationship between UX and UI Design, how UX and UI Design relates to the rest of the software development lifecycle, understanding a user's emotions, desires and attitudes relating to using a particular feature, product, system, platform or software application, modes of interaction, human-computer interaction models, usability, accessibility, aesthetics, design thinking, value proposition design, user journey mapping and gathering meaningful insights from user feedback and research.

On successful completion of this unit, students will be able to explain the basic concepts of UX and UI Design. They will be able to plan, build and measure the success of an appropriate UI Design, and design an interface and experience with a specific end user in mind. Students will also be able to conduct testing to gather meaningful feedback in order to evaluate the success or failure of a user interface. They will develop skills such as communication literacy, design thinking, team working, critical thinking, analysis, reasoning and interpretation and computer software literacy, which are crucial for gaining employment and developing academic competence.

Learning Outcomes

By the end of this unit students will be able to:

LO1 Research User Experience and Interface Design in relation to end user requirements in a User Interface concept

LO2 Plan a User Experience map and Interface Design for a User Interface concept for a target end user

LO3 Build a User Interface concept and test it with end users for enhancement purposes

LO4 Evaluate user feedback and test results from interaction with the User Interface concept to determine improvements.

Essential Content

LO1 Research User Experience and Interface Design in relation to end user requirements in a User Interface concept

Formats, characteristics and appropriateness of UX and UI Design:

Present an overview of UX and UI Design, how they are produced and their appropriate use in software development.

Identify what UX and UI Design is by researching the role, purpose, terminology and methodology of UX and UI Design.

Recognise the various forms of UX and UI Design by researching the history of, current trends and use in the product development lifecycle.

Recognise the use of appropriate UX and UI Design patterns.

Define the characteristics of UX and UI Designs by investigating how they can be used to satisfy end user emotions, desires and attitudes.

Specific forms, patterns and trends of UX and UI Design:

Research, debate and agree current functionality, patterns and trends in UX and UI Design.

Identify various forms of UX and UI Design.

Define the advantages and disadvantages of using UX and UI Design.

Standard tools available for use in UX and UI Design:

Identify standard tools available to create UX and UI Designs. The advantages and disadvantages of UX and UI Design tools.

How UX and UI Design tools can be used to capture end user feedback. Appropriateness of various tools for different end user testing outcomes.

LO2 Plan a User Experience map and Interface Design for a User Interface concept for a target end user.

UX and UI Design:

Choose a specific end user to conduct tests against.

Evaluate the benefits, features, advantages and disadvantages of different UX and UI Design methodologies for various end user testing outcomes.

Review different end user categorisations, classifications and behaviour modelling techniques.

Select the most appropriate form of UX and UI Design to achieve desired end-user testing and outcomes.

Describe a plan to use appropriate UX and UI Design methodology and tools to conduct end user testing:

Apply end user classification and behaviour modelling to select an appropriate UX and UI Design methodology.

Outline the end user characteristics, desired testing criteria and results your UX and UI Design addresses.

Select an appropriate form of UX and UI Design necessary to achieve desired results.

Use your selected end user, appropriate UX and UI Design methodology and desired testing criteria to create a plan for a UI concept.

LO3 Build a User Interface concept and test it with end users for enhancement purposes

Tools to develop a UX and UI Design:

Employ an appropriate set of tools to develop your plan into a User Interface.

Run end-user experiments and examine feedback.

Reconcile and evaluate end-user feedback and build a new iteration of your User Interface modified with the most important feedback and enhancements.

Make multiple iterations of your User Interface and modify each iteration with enhancements gathered from user feedback and experimentation.

LO4 Evaluate user feedback and test results from interaction with the User Interface concept to determine improvements

Success of UX and UI design:

Assemble and appraise end-user feedback from multiple iterations of your User Interface.

Undertake a critical review and compare your final User Interface and your test results with the original plan.

Evaluate the advantages, disadvantages, strengths and weaknesses of your UX and UI Design methodology.

Critique the overall success of your User Interface and discuss your UX insights.

Learning Outcomes and Assessment Criteria

Pass	Merit	Distinction
LO1 Research User Experience and Interface Design in relation to end user requirements in a User Interface concept		
P1 Recognise specific forms of User Experience and Interface Design, and end-user testing requirements. **P2** Assess standard tools available for use in User Experience and Interface Design.	**M1** Analyse the impact of common User Experience and Interface Design methodology in the software development lifecycle. **M2** Review specific forms of User Experience and Interface Design, and advantages and disadvantages of end-user testing requirements for appropriateness to different testing outcomes.	**D1** Evaluate specific forms of User Experience and Interface Design and justify their use in a User Interface concept.

Pass	Merit	Distinction
LO2 Plan a User Experience map and Interface Design for a User Interface concept for a target end user.		**LO2 and LO3** **D2** Develop multiple iterations of your User Interface concept and modify each iteration with enhancements gathered from user feedback and experimentation.
P3 Review different end-user categorisations, classifications and behaviour modelling techniques. **P4** Appraise a specific end user and an appropriate User Experience and Interface Design methodology to test with this user type.	**M3** Apply end-user classification and behaviour modelling to select an appropriate Interface Design methodology. **M4** Devise a plan to use appropriate Interface Design methodology and tools to conduct end user testing.	
LO3 Build a User Interface concept and test it with end users for enhancement purposes		
P5 Examine appropriate tools to develop a User Interface. **P6** Conduct end-user experiments and examine feedback see if it satisfies emotions, desires and attitudes as planned.	**M5** Employ an appropriate set of tools to develop your plan into a User Interface. **M6** Analyse end-user feedback and build a new iteration of your User Interface modified with the most important feedback and enhancements.	
LO4 Evaluate user feedback and test results from interaction with the User Interface concept to determine improvements		
P7 Review end-user feedback from multiple iterations of the User Interface. **P8** Suggest steps to improve future versions of the User Interface.	**M7** Undertake a critical review and compare the final User Interface and test results with the original plan.	**D3** Critically evaluate the overall success of the User Interface concept and discuss insight using prototyping.

Recommended Resources

Textbooks

Kalbach, J. (2021) *Mapping Experiences: A Complete Guide to Creating Value through Journeys, Blueprints, and Diagrams*. 2nd edn. O'Reilly Media.

Lidwell, W. (2010) *Universal Principles of Design, Revised and Updated: 125 Ways to Enhance Usability, Influence Perception, Increase Appeal, Make Better Design Decisions, and Teach through Design*. 2nd edn. Rockport Publishers.

Martin, B. and Hanington, B. (2013) *Universal Methods of Design: 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions.* Rockport Publishers.

Tidwell, J. (2011) *Designing Interfaces.* 2nd edn. O'Reilly Media.

Links

This unit links to the following related units:

Unit 13: Website Design & Development

Unit 54: Prototyping.