

# WM3F6-30 User Experience and Mobile Development

**26/27**

**Department**

WMG

**Level**

Undergraduate Level 3

**Module leader**

Young Park

**Credit value**

30

**Module duration**

42 weeks

**Assessment**

100% coursework

**Study locations**

University of Warwick main campus, Coventry Primary

Distance or Online Delivery

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## Description

### Introductory description

User experience (UX) encompasses all aspects of the end-user's interaction with the company, its services, and its products. Whilst attractive and visually stunning applications are quick to create, applications need to fulfil user requirements to be successful. For providing a good user experience, the specific needs of the customers need to be identified to develop an application that is accessible, usable, credible, useful, and desirable. In particular, UX design plays a crucial role in mobile development as it ensures that the application is not only visually appealing but also easy to use and navigate, leading to higher user satisfaction and engagement.

This module contributes to AHEP 4 learning outcomes for Partial CEng and BCS accreditation criteria for Full CITP as referenced in the learning outcomes.

[Module web page](#)

### Module aims

This module aims to cover the fundamental principles for designing usable, useful, and desirable digital interface considering the user perspective. An introduction to human-computer interaction

will be covered to understand the user experience design (UXD) methods. Apprentices will learn and develop a mobile application to incorporate the user experience (UX) design process. The application will be further used to test for accessibility and usability.

Learners will be taught to manage their own professional development as engineers / IT professionals (as individuals, team members or leaders), by introducing them to reflective practice and the UK Standard for Professional Engineering Competence (UK SPEC) / Chartered IT Professional (CITP) standard.

## Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

Introduction to user experience  
Importance of user experience  
Acquire project requirements  
User experience design (UXD) process  
Understanding when, where, who, what and why of UXD  
Understanding user personas  
Graphical user interface (UI)  
Visual design  
Balance and proportion in UI  
Responsive design  
Flow and interaction in design  
Design for accessibility  
Digital wireframes  
Prototype development  
Designer tools for prototyping  
Prototype test  
Usability testing  
Human Interface Guidelines  
Design principles and concepts  
Material design  
Mobile design  
Native mobile Apps  
Cross platform native mobile Apps  
Hybrid mobile apps  
Android app development

## Learning outcomes

By the end of the module, students should be able to:

- Comprehensively understand the fundamental design principles and concepts relating to user experience to efficiently improve accessibility and usability [CITP: 2.1.1].
- Discuss various user experience design methods applied to software development [CITP: 2.1.2, 2.1.6, 2.2.4].

- Effectively analyse usable, useful, and desirable user experience and interface considering user requirements [CITP: 2.1.10, 2.1.11].
- Design a wireframe and prototype using various appropriate tools based on user requirements and needs [AHEP:4 - C5] [CITP:2.2.1, 2.1.8].
- Critically evaluate user experience design and functionalities for usability and accessibility [CITP: 2.2.2].
- Systemically apply the principles, methods, and tools of user experience to develop mobile application that meet user requirements [AHEP:4 - C6] [CITP: 2.2.6].

## Indicative reading list

[Reading lists can be found in Talis](#)

[Specific reading list for the module](#)

## Subject specific skills

Contributes to the occupational standard for Digital and Technology Solutions Professional (ST0119):

- Analyse a business problem to identify the role of digital and technology solutions (S1).
- Identify risks, determine mitigation strategies and opportunities for improvement in a digital and technology solutions project (S2).
- Manage digital and technology solutions projects. For example, identifying and resolving deviations from specification, applying appropriate Project Management methodologies (S6).
- Research, investigate, and evaluate innovative technologies or approaches in the development of a digital and technology solution (S14).

## Transferable skills

- Digital Literacy (Has the capabilities that enable living, learning and working in a digital society. Comfortable with using digital media to communicate, solve problems, manage information, collaborate, create and share content.)
- Problem Solving (Use rational and logical reasoning to deduce appropriate and well-reasoned conclusions. Retain an open mind, optimistic of finding solutions, thinking laterally and creatively to look beyond the obvious. Knows how to learn from failure.)
- Critical Thinking (Recognise patterns, themes and key messages from sometimes confused and incomplete data. Make informed decisions on the value of a range of sources allowing an evidence based conclusion based on this analysis.)
- Professionalism (Prepared to operate autonomously. Aware of how to be efficient and resilient. Manages priorities and time. Self-motivated, setting and achieving goals, prioritising tasks)
- Information Literacy (Critical awareness of how information is gathered, used, managed and synthesised. Understanding of the relative value of different sources and the importance of provenance. The systematic collection, analysis and evaluation of information in the investigation of a topic.)

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## Study

### Study time

Type	Required
Lectures	20 sessions of 1 hour (7%)
Seminars	10 sessions of 1 hour (3%)
Work-based learning	30 sessions of 1 hour (10%)
Online learning (scheduled sessions)	30 sessions of 1 hour (10%)
Online learning (independent)	10 sessions of 1 hour (3%)
Other activity	10 hours (3%)
Private study	70 hours (23%)
Assessment	120 hours (40%)
Total	300 hours

### Private study description

Self-guided study: Reading relevant chapters in the reading list, and other online resources.  
Professional development: Reflecting on learning and experience gained from work based learning.

### Other activity description

Online support and consultancy in support of assessments

### Costs

No further costs have been identified for this module.

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## Assessment

You must pass all assessment components to pass the module.

### Assessment group A

Assessment component	Weighting	Study time	Eligible for self-certification
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	<b>Weighting</b>	<b>Study time</b>	<b>Eligible for self-certification</b>
Analysis Project Report	25%	30 hours	Yes (extension)
The written report includes the requirement analysis of user experience methods based on the given scenario and constraints.			

**Reassessment component**

Analysis Project Report			No
The written report includes the requirement analysis of user experience methods based on the given scenario and constraints.			

**Assessment component**

Design Project Report	25%	30 hours	Yes (extension)
The written report includes the design of user experience interface based on the requirement analysis.			

**Reassessment component**

Design Project Report			No
The written report includes the design of user experience interface based on the requirement analysis.			

**Assessment component**

Programming Project Report	50%	60 hours	Yes (extension)
The written report is an extension of the previous report and involves design and development based on the results of previously performed user experience methods. Thus, it is expected that the report should include the description of the development and the development code must be provided along with the report.			

**Reassessment component**

Programming Project Report			No
The written report is an extension of the previous report and involves design and development based on the results of previously performed user experience methods. Thus, it is expected that the report should include the description of the development and the development code must be provided along with the report.			

**Weighting****Study time****Eligible for self-  
certification**

provided along with the report.

**Feedback on assessment**

Feedback will be given as appropriate to the assessment type:

- Written summative feedback on reports.
  - Verbal feedback given during seminar/tutorial sessions.
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**Availability****Courses**

This module is Core for:

- Year 3 of DWMS-H654 Undergraduate Digital and Technology Solutions (Software Engineering) (Degree Apprenticeship)