ICT725 USER EXPERIENCE AND MOBILE APPLICATION DEVELOPMENT T325 BRIEF

All information in the Subject Outline is correct at the time of approval. KOI reserves the right to make changes to the Subject Outline if they become necessary. Any changes require the approval of the KOI Academic Board and will be formally advised to those students who may be affected by email and via Moodle.
Information contained within this Subject Outline applies to students enrolled in the trimester as indicated

1. General Information

1.1 Administrative Details

Associated HE Award(s)	Duration	Level	Subject Coordinator
Master of Information Technology (MIT) Master of Information Systems (MIS) Graduate Diploma of Information Technology (GDIT) Graduate Certificate of Information Technology(GCIT)	1 trimester	Postgraduate	Dr Aroba Khan aroba.khan@koi.edu.au P: 92833583 L: 7-11, 11 York Street. Consultation: via Moodle or by appointment.

1.2 Core/Elective

This subject is
- an elective subject for the Master of Information Technology (MIT)
- an elective subject for the Master of Information Systems (MIS)
- an elective subject for the Graduate Diploma of Information Technology (GDIT)
- an elective subject for the Graduate Certificate of Information Technology(GCIT)

1.3 Subject Weighting

Indicated below is the weighting of this subject and the total course points

Subject Credit Points	Total Course Credit Points
4	MIT (64 Credit Points); MIS (64 Credit Points); GDIT (32 Credit Points); GCIT (16 Credit Points)

1.4 Student Workload

Indicated below is the expected student workload per week for this subject

No. Timetabled Hours/Week*	No. Personal Study Hours/Week**	Total Workload Hours/Week***
3 hours/week plus supplementary online material	7 hours/week	10 hours/week

* Total time spent per week at lectures and tutorials
** Total time students are expected to spend per week in studying, completing assignments, etc.
*** Combination of timetable hours and personal study

1.5 Mode of Delivery Classes will be face-to-face or hybrid. Certain classes will be online (e.g., special arrangements).

1.6 Pre-requisites Nil

1.7 General Study and Resource Requirements

- Students are expected to attend classes with the weekly worksheets and subject support material provided in Moodle. Students should read this material before coming to class to improve their ability to participate in the weekly activities.
- Students will require access to the internet and their KOI email and should have basic skills in word processing software such as MS Word, spreadsheet software such as MS Excel and visual presentation software such as MS PowerPoint.
- Computers and WIFI facilities are extensively available for student use throughout KOI. Students are encouraged to make use of the campus Library for reference materials.

Software resource requirements specific to this subject: Office 365, MS Imagine, Visio, Xamarin, PowerMockup, Adobe XD.

1.8 Academic Advising

Academic advising is available to students throughout teaching periods including the exam weeks. As well as requesting help during scheduled class times, students have the following options:

- Consultation times: A list of consultation hours is provided on the homepage of Moodle where appointments can be booked.
- Subject coordinator: Subject coordinators are available for contact via email. The email address of the subject coordinator is provided at the top of this subject outline.
- Academic staff: Lecturers and Tutors provide their contact details in Moodle for the specific subject. In most cases, this will be via email. Some subjects may also provide a discussion forum where questions can be raised.
- Head of Program: The Head of Program is available to all students in the program if they need advice about their studies and KOI procedures.
- Vice President (Academic): The Vice President (Academic) will assist students to resolve complex issues (but may refer students to the relevant lecturers for detailed academic advice).

2. Academic Details

2.1 Overview of the Subject

Successful technological innovations, such as the iPhone, have highlighted the importance of usability – the ease of access and/or use of a product, website, or app. In order to design for usability, this subject provides an in-depth understanding of user interaction design theories, principles and practices. It examines user-centred design methodologies, particularly in the context of the user experience. Students will apply these methodologies to develop prototypes and a functioning cross-platform mobile application. Contemporary issues related to the design of interfaces for emerging technologies will also be explored.

2.2 Graduate Attributes for Postgraduate Courses

Graduates of postgraduate courses from King's Own Institute will achieve the graduate attributes expected from successful completion of a postgraduate degree under the Australian Qualifications Framework (2nd edition, January 2013). Graduates at this level will be able to apply advanced body of knowledge in a range of contexts for professional practice or scholarship and as a pathway for further learning.

King's Own Institute's key generic graduate attributes for a postgraduate degree are summarised below:

	KOI Postgraduate Degree Graduate Attributes	**Detailed Description**

	Knowledge	Current, comprehensive and coherent knowledge, including recent developments and applied research methods
	Critical Thinking	Critical thinking skills to identify and analyse current theories and developments and emerging trends in professional practice
	Communication	Communication and technical skills to analyse and theorise, contribute to professional practice or scholarship, and present ideas to a variety of audiences
	Research and Information Literacy	Cognitive and technical skills to access and evaluate information resources, justify research approaches and interpret theoretical propositions
	Creative Problem Solving Skills	Cognitive, technical and creative skills to investigate, analyse and synthesise complex information, concepts and theories, solve complex problems and apply established theories to situations in professional practice
	Ethical and Cultural Sensitivity	Appreciation and accountability for ethical principles, cultural sensitivity and social responsibility, both personally and professionally
	Leadership and Strategy	Initiative, leadership skills and ability to work professionally and collaboratively to achieve team objectives across a range of team roles Expertise in strategic thinking, developing and implementing business plans and decision making under uncertainty
	Professional Skills	High level personal autonomy, judgement, decision-making and accountability required to begin professional practice

Across the courses, these skills are developed progressively at three levels:

- **Level 1 Foundation –** Students learn the skills, theories and techniques of the subject and apply them in stand-alone contexts
- **Level 2 Intermediate –** Students further develop skills, theories and techniques of the subject and apply them in more complex contexts, beginning to integrate the application with other subjects
- **Level 3 Advanced** – Students have a demonstrated ability to plan, research and apply the skills, theories and techniques of the subject in complex situations, integrating the subject content with a range of other subject disciplines within the context of the course

Generally, skills gained from subjects in the Graduate Certificate and Graduate Diploma are at levels 1 and 2 while other subjects in the Master's degree are at level 3.

2.3 Subject Learning Outcomes

Listed below, are key knowledge and skills students are expected to attain by successfully completing this subject:

Subject Learning Outcomes	Contribution to Graduate Attributes
a) Apply user-centred design methodologies in the development of low-fidelity and high-fidelity mobile application prototypes	
b) Develop and evaluate mobile interfaces that look professional and are usable, functional and accessible	
c) Develop a mobile application with reference to the major mobile application usability guidelines and standards	
d) Modify design iterations based on user testing results	

e) Evaluate current research in usability and interface design for emerging technologies	

2.4 Subject Content and Structure

Below are details of the subject content and how it is structured, including specific topics covered in lectures and tutorials. Reading refers to the text unless otherwise indicated.

Weekly Planner:

Week (beginning)	Topic covered in each week's lecture	Reading(s)	Expected work as listed in Moodle
Week 1 27 Oct	UX Design principles and general design planning	Chapter 1,2 (Canziba, 2018)	Comparative evaluation of sample designs Summative graded
Week 2 03 Nov	UX Research and User Personas	Chapter 3, 5 (Canziba, 2018)	User behaviour research and getting to know the users Summative graded
Week 3 10 Nov	Visual Design Principles and Processes	Chapter 7 (Canziba, 2018)	Evaluation of mobile application designs, visual design tools Summative graded
Week 4 17 Nov	Wireframes and Prototyping	Chapter 8 (Canziba, 2018) Chapter 4 (Staiano, 2022)	Creating storyboards, wireframes, mockups and prototypes using Figma Summative graded
Week 5 24 Nov	Prototyping 2	Chapter 8 (Canziba, 2018) Chapter 9 (Staiano, 2022)	Create various types of prototypes using different tools, Figma Summative graded **Assessment 2: Due**
Week 6 01 Dec	Ethics and Privacy in Prototyping	Online resources	Exercising Ethics and Privacy in UX design Summative graded
Week 7 08 Dec	UI design and implementation	Chapter 9 (Canziba, 2018) and (Staiano, 2022)	App development tools Summative graded
Week 8 15 Dec	Frontend UI Implementation using Cross platform (Flutter)	Chapter 10 (Canziba, 2018)	Implementing App using cross platform Summative graded **Assessment 3: Due**
Week 9 05 Jan	Frontend UI Implementation using Cross platform (Flutter)	Online resources	App development Summative graded Draft mobile application

Week 10 12 Jan	Frontend UI Implementation using Cross platform (Flutter)	Online resources	App development Draft mobile application Summative graded
Week 11 19 Jan	Post launching UX Activities	Chapter 11 (Canziba, 2018)	User accessibility testing **Assessment 4: Due**
Week 12 27Jan (Tue)	Mobile App Presentation		**Assessment 4: Due**
Week 13 02 Feb	Study review week and Final Exam Week		
Week 14 09 Feb	Examinations Continuing students - enrolments for T126 open		Please see exam timetable for exam date, time and location
Week 15 16 Feb	Student Vacation begins New students - enrolments for T126 open		
Week 16 23 Feb	• Results Released • Review of Grade Day for T325 – see Sections 2.6 and 3.2 below for relevant information. • Certification of Grades NOTE: More information about the dates will be provided at a later date through Moodle/KOI email.		
T126 2 Mar 2026			
Week 1 02 Mar	Week 1 of classes for T126		

2.5 Teaching Methods/Strategies

Briefly described below are the teaching methods/strategies used in this subject:

- *Lectures* (1hours/week) are conducted in seminar style and address the subject content, provide motivation and context and draw on the students' experience and preparatory reading.
- *Tutorials* (2 hours/week) include class discussion of case studies and research papers, practice sets and problem-solving and syndicate work on group projects. Tutorials often include group exercises and so contribute to the development of teamwork skills and cultural understanding. Tutorial participation is an essential component of the subject and contributes to the development of many of the graduate attributes (see section 2.2 above). Tutorial participation contributes towards the assessment in many subjects (see details in Section 3.1 for this subject). Supplementary tutorial material such as case studies, recommended readings, review questions etc. will be made available each week in Moodle.
- *Online* teaching resources include class materials, readings, model answers to assignments and exercises and discussion boards. All online materials for this subject as provided by KOI will be found in the Moodle page for this subject. Students should access Moodle regularly as material may be updated at any time during the trimester
- *Other contact* - academic staff may also contact students either via Moodle messaging, or via email to the email address provided to KOI on enrolment.

2.6 Student Assessment

Assessment is designed to encourage effective student learning and enable students to develop and demonstrate the skills and knowledge identified in the subject learning outcomes. Assessment tasks during the first half of the study period are usually intended to maximise the developmental function of assessment (formative assessment). These assessment tasks include weekly tutorial exercises (as indicated in the weekly planner) and low stakes graded assessments (as shown in the graded assessment table). The major assessment tasks where students demonstrate their knowledge and skills (summative assessment) generally occur later in the study period. These are the major graded assessment items shown in the graded assessment table.

Final grades are awarded by the Board of Examiners in accordance with KOI's Assessment and Assessment Appeals Policy. The definitions and guidelines for the awarding of final grades are:

- *HD High distinction* (85-100%): an outstanding level of achievement in relation to the assessment process.
- *D Distinction* (75-84%): a high level of achievement in relation to the assessment process.
- *C Credit* (65-74%): a better than satisfactory level of achievement in relation to the assessment process.
- *P Pass* (50-64%): a satisfactory level of achievement in relation to the assessment process.
- *F Fail* (0-49%): an unsatisfactory level of achievement in relation to the assessment process.
- *FW:* This grade will be assigned when a student did not submit any of the compulsory assessment items.

Provided below is a schedule of formal assessment tasks and major examinations for the subject.

Assessment Type	When Assessed	Weighting	Learning Outcomes Assessed
Assessment 1: Weekly Tutorials	Week 1 – Week 10	20% (2% per week)	a, b, c, d, e
Assessment 2: Individual report on design evaluation	Week 5	20%	b, d, e
Assessment 3: Initial Prototype Build	Week 8	20%	a, d
Assessment 4: Mobile Application development and presentation	Report: Week 11 Presentation: Week 11 and 12	Mobile application 30% Presentation 10%	c, d

Requirements to Pass the Subject:

To gain a pass or better in this subject, students must gain a *minimum of 50%* of the total available subject marks.

2.7 Prescribed and Recommended Readings

Provided below, in formal reference format, is a list of the prescribed and recommended readings.

Prescribed Texts:

Canziba, Elvis, J 2018, *Hands-On UX Design for Developers*, Packt Publishing. Available from: O'Reilly.

Staiano, Fabio, M 2022, *Designing and Prototyping Interfaces with Figma: Learn essential UX/UI design principles by creating interactive prototypes for mobile, tablet, and desktop,* Packt Publishing. Available from: O'Reilly.

Recommended readings:

Duan, S. (2025). Systematic analysis of user perception for interface design enhancement. Journal of Computer Science and Software Applications, 5(2).

Ding, W., Lin, X., & Zarro, M. (2025). *Information Architecture and UX Design*. Springer International Publishing AG.

Ravshanovich, R. A. (2025). THE ROLE AND IMPORTANCE OF THE REACT NATIVE PROGRAMMING FRAMEWORK IN CREATING MOBILE APPLICATIONS. *Introduction of new innovative technologies in education of pedagogy and psychology*, *2*(5), 53-59.

Adebayo, H. (2025). Optimizing User Experience in Multi-Platform Data-Driven Applications.

Israpil, R. (2025). Data Security Methods in Mobile Applications on React Native. The American Journal of Engineering and Technology, 7(02), 18-24.

Liu, Y., Tan, H., Cao, G., & Xu, Y. (2024). Enhancing user engagement through adaptive UI/UX design: A study on personalized mobile app interfaces.

Frans, S., Dominica, M. R. T. D., Lucky, I. K., Lilik, S., & Eva, Y. U. (2024). Application of the user centered design method to evaluate the relationship between user experience, user interface and customer satisfaction on banking mobile application. *Jurnal Informasi Dan Teknologi*, *6*(1).

Królusz, T.A., 2024. Mobile Application Development with React Native and Leveraging Third-Party Libraries.

Yablonski, J. (2024). Laws of UX. " O'Reilly Media, Inc.".

Shoaib, M., Fitzpatrick, D. and Pitt, I., 2024. Accessibility features of developmental platforms: Towards developing accessible mobile applications with cross-platform, research challenges and opportunities.

Unger, R., & Chandler, C. (2023). A Project Guide to UX Design: For user experience designers in the field or in the making. New Riders.

Moataz Nabil, 2023. Mobile *DevOps Playbook*, Packt Publishing. Available from: O'Reilly.

Suggested Periodicals:

- ACM Transactions on Computer-Human Interaction: http://tochi.acm.org/
- Computers in Human Behavior: https://www.journals.elsevier.com/computers-in-human-behavior
- IEEE Transactions on Human-Machine Systems: https://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=6221037
- International Journal of Human Computer Studies: https://www.journals.elsevier.com/international-journal-of-human-computer-studies
- International Journal of Interactive Mobile Technologies: http://online-journals.org/i-jim

Useful Websites:

The following industry websites are useful introductory sources covering a range of information pertinent to this subject.

- A Comprehensive Guide to Mobile App Design: https://www.smashingmagazine.com/2018/02/comprehensive-guide-to-mobile-app-design/
- Apple: Human Interface Guidelines: https://developer.apple.com/design/human-interface-guidelines/
- Apple: UI Design Do's and Don'ts: https://developer.apple.com/design/tips/

- Material Design: https://material.io/
- Mobile Accessibility at W3C: https://www.w3.org/WAI/standards-guidelines/mobile/
- Mobile Testing Guide ANDROID & iOS: https://developer.paciellogroup.com/downloads/TPG_Mobile_Testing_Guide.pdf
- How to become a Mobile App Developer: https://buildfire.com/become-mobile-app-developer/
- What is mobile application development: https://www.ibm.com/topics/mobile-application-development

Conference/ Journal Articles:

Students are encouraged to read peer reviewed journal articles and conference papers. Google Scholar provides a simple way to broadly search for scholarly literature. From one place, you can search across many disciplines and sources: articles, theses, books, abstracts and court opinions, from academic publishers, professional societies, online repositories, universities and other web sites.