Module Descriptor

Title	Programming for Mobile Devices		
Session	2025/26	**Status**	Published
Code	COMP08068	**SCQF Level**	8
Credit Points	20	**ECTS (European Credit Transfer Scheme)**	10
School	**Computing, Engineering and Physical Sciences**		
Module Co-ordinator	Shahriar Al-Ahmed		

Summary of Module

Programming for Mobile Devices module constitutes a vital component within the Web and Mobile Development program. Students enrolled in this module are expected to have completed a prerequisite programming course. This prior programming module serves as foundational knowledge, providing students with the necessary skills and understanding to explore into mobile application development.

In this module, students will embark on programming with Kotlin in Android Studio. Fundamental programming principles in Kotlin will be covered, and students will have the opportunity to apply and test their understanding through in-class assessments.

This module also covers development for mobile platforms using the following model:

- Android SDK

The core principles covered in this module are those which underpin a practical ability to write code for operating on a mobile platform — OOP for robust application design, library support for mobile web apps and native platforms, UI design, packaging applications, hosting, deployment and connectivity using online services.

The assessed project will also cover UI design, requirements analysis, design, implementation and testing. As part of the assessment the students will give a presentation on their project's design and implementation.

This module will work to develop a number of the key 'I am UWS' Graduate Attributes to make those who complete this module:

Universal

- Critical Thinker
- Ethically-minded
- Research-minded Work Ready

Work Ready

- Problem-Solver
- Effective Communicator
- Ambitious Successful

Successful

- Autonomous
- Resilient
- Driven

Module Delivery Method	**On-Campus**[1] ☒	**Hybrid**[2] ☐	**Online**[3] ☐	**Work -Based Learning**[4] ☐
Campuses for Module Delivery	☐ Ayr ☐ Dumfries	☒ Lanarkshire ☐ London ☒ Paisley	☐ Online / Distance Learning ☐ Other (specify)	

Terms for Module Delivery	Term 1	☐	Term 2	☒	Term 3	☐
Long-thin Delivery over more than one Term	Term 1 – Term 2	☐	Term 2 – Term 3	☐	Term 3 – Term 1	☐

Learning Outcomes	
L1	The student can design small applications for deployment on one or more mobile platforms.
L2	The student can implement using appropriate programming concepts and structure involved in developing a mobile app.
L3	The student can formulate a test plan and test developed apps.
L4	N/A
L5	N/A

[1] Where contact hours are synchronous/ live and take place fully on campus. Campus-based learning is focused on providing an interactive learning experience supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

[2] The module includes a combination of synchronous/ live on-campus and online learning events. These will be supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus and online contact hours will be clearly articulated to students.

[3] Where all learning is solely delivered by web-based or internet-based technologies and the participants can engage in all learning activities through these means. All required contact hours will be clearly articulated to students.

[4] Learning activities where the main location for the learning experience is in the workplace. All required contact hours, whether online or on campus, will be clearly articulated to students

Employability Skills and Personal Development Planning (PDP) Skills	
SCQF Headings	**During completion of this module, there will be an opportunity to achieve core skills in:**
Knowledge and Understanding (K and U)	**SCQF 8** Understanding various mobile device types and selecting appropriate development tools for native app development; Applying UI design principles tailored for mobile devices; Addressing security needs and managing the distribution of mobile applications.
Practice: Applied Knowledge and Understanding	**SCQF 8** Utilising emulators for development and debugging purposes; crafting mobile user interfaces (UIs); incorporating graphics and engaging with online services.
Generic Cognitive skills	**SCQF 8** Principles of object-oriented programming; designing for minimal interaction.
Communication, ICT and Numeracy Skills	**SCQF 8**
Autonomy, Accountability and Working with Others	**SCQF 8** Collaboration in defining, designing, and constructing products.

Prerequisites	**Module Code** COMP07027	**Module Title** Introduction to Programming
	Other	
Co-requisites	**Module Code**	**Module Title**

Learning and Teaching	
In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours.	
Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	**Student Learning Hours** (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture / Core Content Delivery	10
Laboratory / Practical Demonstration / Workshop	30
Asynchronous Class Activity	8
Independent Study	142
Personal Development Plan	10
Please select	

TOTAL	200

Indicative Resources
The following materials form essential underpinning for the module content and ultimately for the learning outcomes: Core text book/resources: Head First Kotlin - D Griffiths, Head First Android Development - D Griffiths Google Developer – online resources Development Resources: Android Studio
(N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)

Attendance and Engagement Requirements
In line with the Student Attendance and Engagement Procedure, Students are academically engaged if they are regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time. **For the purposes of this module, academic engagement equates to the following:** The School of Computing, Engineering and Physical Sciences considers attendance and engagement to mean a commitment to attending, and engaging in, timetabled sessions. You will scan your attendance via the scanners each time you are on-campus and you will login to the VLE several times per week. Where you are unable to attend a timetabled learning session due to illness or other circumstance, you should notify the Programme Leader that you cannot attend. Across the School an 80% attendance threshold is set. If you fall below this, you will be referred to the Student Success Team to see how we can best support your studies.

Equality and Diversity
The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code. Aligned with the University's commitment to equality and diversity, this module supports equality of opportunity for students from all backgrounds and learning needs. Using the VLE, material will be presented electronically in formats that allow flexible access and manipulation of content. This module complies with University regulations and guidance on inclusive learning and teaching practice. This module has lab-based teaching and as such you are advised to speak to the Module Co-ordinator to ensure that specialist assistive equipment, support provision and adjustment to assessment practice can be put in place, in accordance with the University's policies and regulations.
(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

Supplemental Information

Divisional Programme Board	**Computing**
Overall Assessment Results	☐ **Pass / Fail** ☒ **Graded**

Module Eligible for Compensation	☐ **Yes** ☒ **No** **If this module is eligible for compensation, there may be cases where compensation is not permitted due to programme accreditation requirements. Please check the associated programme specification for details.**
School Assessment Board	Business and Applied Computing
Moderator	Sajjad Bagheri
External Examiner	Anish Jindal
Accreditation Details	This module is accredited by BCS as part of a number of specified programmes.
Module Appears in CPD catalogue	☐ **Yes** ☒ **No**
Changes / Version Number	2.13

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
Class Tests
Assessment 2
Portfolio of practical work
Assessment 3
Presentation
(N.B. (i) Assessment Outcomes Grids for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed. (ii) An indicative schedule listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

Component 1							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Class Tests	☒	☐	☐	☐	☐	40	1

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Portfolio of practical wor	☒	☒	☒	☐	☐	50	0

Component 3							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**

Presentation	☒	☒	☒	☐	☐	10	2
Combined total for all components						100%	3 hours

Change Control

What	**When**	**Who**
Attendance and Engagement and Equality and Diversity statements updated.	20/1/25	L Smith