AIS AUCKLAND INSTITUTE OF STUDIES NEW ZEALAND

COURSE OUTLINE

SOFT708

MOBILE APPLICATIONS DEVELOPMENT

PREREQUISITES: None

NZQF Level: 7
Credits: 15

LECTURER:	Havea Fonua
Room:	A118
Phone:	815-1717 ext. 851
Email:	haveaf@ais.ac.nz
Contact hour:	Monday 12:30 pm – 1:30 pm
	Also outside of this time by appointment

COURSE AIM

The aim of the course is to provide students with the ability to investigate and use advanced techniques that extend the standard software development environment such as OOP, so that the student is knowledgeable in approaches required in the development and deployment of software applications for mobile devices using Android Studio.

LEARNING OUTCOMES

The learners will be able to:

1. Install and configure Android application development environment.

2. Develop and implement Android applications User Interface (UI) by using Android controls.

3. Develop Android applications that include commonly used mobile application features.

4. Develop Android applications that can access data from remote as well as local data sources.

5. Develop workplace soft skills including working in groups, writing formal reports, carrying out individual research and/or delivering oral presentations.

COURSE DURATION

The course will be conducted over a 14-week period with a typical teaching week consisting of 4 hours of classes.

Classes will be held at the following times:

Monday   10:00 am – 12:00 pm   Room # R103
Tuesday   9:00 am – 11:00 am   Room # M213

100% attendance is an AIS and Immigration New Zealand requirement.

LEARNING HOURS

The course involves 150 hours of learning: 48 hours of structured in-class learning and 102 of associated learning activities such as reading course materials, preparing for class, working on assignments, or peer group discussions and reviewing feedback or material. An indicative time allocation is shown below.

Activity	Hours
Structured learning and teaching classes	48
Reading course materials	40
Working on assignments	50
Preparation for assessments	12
TOTAL	150

COURSE CONTENT

Week # Starting	Session	Topics
Week 1 2 February	1 2	• Course introduction • Basics of Android Development • Android Development Environment
Week 2 9 February	3 4	• Android User Interface & Kotlin. • Testing & Debugging Android Applications.
Week 3 16 February	5 6	• Android UI design • UI Layouts
Week 4 23 February	7 8	• Widgets • Events Handling & mobile commonly used features 1
Week 5 2 March	9 10	• Locations & Maps • Mobile commonly used feature 2
Week 6 9 March	11 12	• SQLite database • Loader Classes & List View Adapters
Week 7 16 March	13 14	• Revision for the midterm test • **Midterm Test**
Week 8 23 March	15 16	• Tabs and Custom Adapter 1 (Threads) • Tabs and Custom Adapter 2 (Threads)
Week 9 30 March	17 18	• Web Services (PHP) • Remote MySQL

Week 10 6 April	19 20	• JSON 1 • JSON 2
Week 11 13 April	21 22	• Work Manager • Jetpack Compose
Week 12 20 April	23 24	• Revision
Week 13 27 April	**25** **26**	• **Examination Week**
Week 14 5 May	**27** **28**	• **Examination Week**

The dates following week numbers are for the <u>Monday</u> of that week.
The following are public holidays, and there will be no classes or exams on these days.

- Monday January 26th , Auckland Day
- Friday February 6th, Waitangi Day
- Friday April 3rd, Good Friday
- Monday April 6th , Easter Monday
- Saturday April 25th, ANZAC Day

Note: The above schedule is provided as a general guide and may be subject to minor variation.

READINGS AND RESOURCES

Your textbook will be issued in e-book format, not as a hard copy. You will receive instructions for using a code to download your e-book onto your device. **Please note that e-books, once downloaded, cannot be returned.** If there is any possibility that you might change your course, do not download the e-book; wait until you have made your final course selection decisions for the trimester before downloading any e-books. If you download the e-book for a course, and then withdraw from the course, you will be required to pay extra for the e-book for the new course.

Online Learning Management System
The AIS learning management system is Moodle which can be accessed at the following address:
http://moodle.ais.ac.nz/

Moodle is one of the ways AIS optimises your learning experience. It is a platform where you can manage your learning. Please take the time to familiarise yourself with each section of Moodle so that you feel comfortable navigating yourself around. Teaching materials and assessments are all normally distributed via Moodle. You should access Moodle before, and routinely throughout, your course.

Prescribed text(s)
None

Recommended reading(s)
Sills, B., Gardner, B., Marsicano, K & Stewart, C. (2022). Android programming: The big nerd ranch guide (5e).

Horton, J. (2019), *Android Programming with Kotlin for Beginners*, Packt Publishing Ltd, ISBN 978-1-78961-540-1

Gerber, A. and Craig, C. (2015), *Learn Android Studio : build Android apps quickly and effectively*, Apress. ISBN:978-1-430266-01-3

Murach, J. (2015), *Murach's Android programming 2nd Edition*, Mike Murach & Associates. ISBN 978-1-890774-93-6

Philips, B. and Hardy, B. (2013), *Android Programming: The Big Nerd Ranch Guide,* ISBN 978-0-321804-33-4.

Hobson, R. (2014), *Android Programming Succinctly*, Syncfusion (free download from www.syncfusion.com on completion of a registration form)

You can access all AIS Library study and research resources, including relevant databases, from the AIS Library website (https://www.ais.ac.nz/student-life/library).

COURSE ASSESSMENTS

The assessments for this course are as follows:

Title	Course Marks %	Release Date	Due date	Learning Outcomes	Corresponding Course Content
ASSIGNMENT 1	30 %	13/02/2026 Week2	13/03/2026 Week6	1, 2, 3, 5	CLASS 1- 10
MID-TERM TEST	30 %	17/03/2026 Week7		2, 3	CLASS 3 – 11
ASSIGNMENT 2	40 %	16/03/2026 Week7	24/04/2026 Week12	2, 3, 4, 5	CLASS 5 – 22
Total	**100 %**				

Submission of written assignments are made through the submission boxes in Moodle.

You have the option of submitting written assessments as draft submissions to check for similarity matches prior to making final submissions. You may submit one draft of each assessment.
Note that similarity reports may take 24 hours to generate.

Ensure you follow academic citation and referencing requirements, as failure to do so may invoke penalties. Using APA (7th ed.), you are also required to reference the use of any tools / software / applications used.

Upon submission, your assignment will be checked for copied materials as well as the use of AI (artificial intelligence), with penalties to be applied where appropriate and if not referenced.

It is strongly recommended that you attend APA Referencing Skills and Avoiding Plagiarism workshops and attempt the Good Referencing Test (GRT) before you submit your first assessment.

Studiosity is available to all AIS students to submit assignment drafts and obtain feedback on their academic writing, referencing, grammar and structure. You can access Studiosity, sign up and submit your drafts at: https://moodle.ais.ac.nz/course/view.php?id=746

Passing Requirements
- You must achieve an overall mark of 50% or higher to pass this course **and**;
- You must achieve all learning outcomes.

LATE SUBMISSION OF ASSIGNMENTS

The due date(s) are as stated above. Any assignment submitted late – after 4.00pm on the due date for submission, or approved extension date – is subject to a 5% deduction of the available marks from the marks awarded for each successive 24-hour period (or part period) that has elapsed, and will receive a mark of zero if submitted after 96 hours have elapsed. If you have concerns about your ability to meet a deadline, you are advised to consult with your lecturer before the due date.

See the guidelines for your programme in the AIS Student Handbook for more details should you require an assignment extension.

LEARNING SUPPORT

Studying at this level requires awareness and understanding of academic requirements. Several learning support options are available:

1. Attend the Learning Skills Workshops – a monthly timetable will be provided via Moodle and email.
2. Consult with your course lecturer, either in person, via e-mail, or via Moodle.
3. Contact your class representative.
4. Contact the Learning Skills Advisor for individual consultations and help (via Teams or in the Library) – Tamendi Pranish (tamendip@ais.ac.nz)
5. Visit or contact the AIS Library (ais-library@ais.ac.nz)
6. Contact Student Support Services (almau@ais.ac.nz)
7. Contact the Head of Department, Dr Wikus Erasmus (wikuse@ais.ac.nz)

Please refer to the AIS Student Handbook for other support services that are available. The handbook can be found on the AIS website (https://www.ais.ac.nz/student-life/student-handbook).

Any copied materials on Moodle are copied under the PTE NZ Copyright Licence. These materials have been copied solely for educational purposes at AIS. Please use the materials for your own learning in this course.

When lessons are recorded, they will be posted on Moodle for your personal use only and are not for redistribution.

It is not acceptable for students to record lessons without the full knowledge of all the people in the classroom. Please ask permission before recording classes. Provided it is reasonable, permission will normally be given.

We recommend that you retain your course outlines for future reference as they are subject to modification.