

FIT2081
Mobile application development

Unit Guide

Semester 1, 2014

Copyright © Monash University 2014. All rights reserved. Except as provided in the Copyright Act 1968, this work may not be reproduced in any form without the written permission of the host Faculty and School/Department.

The information contained in this unit guide is correct at time of publication. The University has the right to change any of the elements contained in this document at any time.

Last updated: 24 Feb 2014

Table of Contents

<u>FIT2081 Mobile application development - Semester 1, 2014</u>	1
<u>Mode of Delivery</u>	1
<u>Workload Requirements</u>	1
<u>Additional workload requirements</u>	1
<u>Unit Relationships</u>	1
<u>Prerequisites</u>	1
<u>Chief Examiner</u>	2
<u>Campus Lecturer</u>	2
<u>Clayton</u>	2
<u>South Africa</u>	2
<u>Tutors</u>	2
<u>Clayton</u>	2
<u>Your feedback to Us</u>	2
<u>Previous Student Evaluations of this Unit</u>	2
 <u>Academic Overview</u>	 4
<u>Learning Outcomes</u>	4
 <u>Unit Schedule</u>	 5
<u>Teaching Approach</u>	5
<u>Assessment Summary</u>	5
 <u>Assessment Requirements</u>	 7
<u>Assessment Policy</u>	7
<u>Assessment Tasks</u>	7
<u>Participation</u>	7
<u>Examinations</u>	7
<u>Examination 1</u>	7
<u>Learning resources</u>	8
<u>Feedback to you</u>	8
<u>Extensions and penalties</u>	8
<u>Returning assignments</u>	8
<u>Resubmission of assignments</u>	8
<u>Assignment submission</u>	8
<u>Online submission</u>	9
<u>Required Resources</u>	9
<u>Prescribed text(s)</u>	9
<u>Recommended Resources</u>	9
 <u>Other Information</u>	 10
<u>Policies</u>	10
<u>Faculty resources and policies</u>	10
<u>Graduate Attributes Policy</u>	10
<u>Student Charter</u>	10
<u>Student services</u>	10
<u>Monash University Library</u>	11
<u>Disability Liaison Unit</u>	11
<u>Other</u>	11

FIT2081 Mobile application development - Semester 1, 2014

This unit introduces an industrial strength programming language (with supporting software technologies and standards) and object-oriented application development in the context of mobile application development for smartphones and tablets. The approach is strictly application driven. Students will learn the syntax and semantics of the chosen language and its supporting technologies and standards and object oriented design and coding techniques by analysing a sequence of carefully graded, finished applications. Students will also design and build their own applications.

Mode of Delivery

- Clayton (Day)
- South Africa (Day)

Workload Requirements

Minimum total expected workload equals 12 hours per week comprising:

(a.) Contact hours for on-campus students:

- Two hours of lectures
- One 2-hour laboratory

(b.) Additional requirements (all students):

- A minimum of 2-3 hours of personal study per one hour of contact time in order to satisfy the reading and assignment expectations.

Additional workload requirements

Students will be expected to spend a total of 12 hours per week during semester on this unit as follows:

Lecture Preview: 1 hour per week

Lecture: 2 hours per week

Lecture Review: 2 hours per week

Lab preparation: 5 hours per week

Lab: 2 hours per week

Unit Relationships

Prerequisites

FIT1040 or FIT1002 or equivalent

Chief Examiner

Mr Stephen Huxford

Campus Lecturer

Clayton

Stephen Huxford

Consultation hours: tba week 1

South Africa

Mattheus Niemand

Tutors

Clayton

Stephen Huxford

Consultation hours: tba week 1

Your feedback to Us

Monash is committed to excellence in education and regularly seeks feedback from students, employers and staff. One of the key formal ways students have to provide feedback is through the Student Evaluation of Teaching and Units (SETU) survey. The University's student evaluation policy requires that every unit is evaluated each year. Students are strongly encouraged to complete the surveys. The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

For more information on Monash's educational strategy, see:

www.monash.edu.au/about/monash-directions/ and on student evaluations, see:
www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html

Previous Student Evaluations of this Unit

This is the third delivery of this unit. The assumed knowledge has changed (yet again) from Java assumed to any text based language assumed to Scribble assumed. This has required half of the unit to be dedicated to learning Java in preparation for Android development.

Given this change much of the feedback from the previous 2 deliveries is not relevant.

Students feedback was by-and-large positive with many commenting on the accomplishment they felt in developing actual Android Apps that ran on their Android devices.

FIT2081 Mobile application development - Semester 1, 2014

If you wish to view how previous students rated this unit, please go to
<https://emuapps.monash.edu.au/unitevaluations/index.jsp>

Academic Overview

Learning Outcomes

On successful completion of this unit students should be able to:

- perform object oriented design and coding to create, test and debug non-trivial, working mobile applications that are maintainable and use the best practices of the development platform;
- upload these applications to an appropriate marketplace;
- describe the current software technologies and standards used in mobile application development;
- describe the current platform and ecosystem landscape in the mobile application space.

Unit Schedule

Week	Activities	Assessment
0		No formal assessment or activities are undertaken in week 0
1	Unit Admin + Roadmap to Android, Transition to Java	lab
2	Java - IDE, procedural control structures	lab worth 4% (top 10 labs count)
3	Java - Modularity	lab worth 4% (top 10 labs count)
4	Java - Classes	lab worth 4% (top 10 labs count)
5	Additional Java topics required by Android - Inheritance + Interfaces + ...	lab worth 4% (top 10 labs count)
6	Additional Java topics required by Android - Event Driven code, Inner Classes + ...	lab worth 4% (top 10 labs count)
7	Android, IDE, App - Hello World	lab worth 4% (top 10 labs count)
8	App - views, layouts, ...	lab worth 4% (top 10 labs count)
9	App - lists, dynamic view creation, persistent data, alert dialogues, implicit intents, ...	lab worth 4% (top 10 labs count)
10	App - assets, menus, handlers (runnables), simple animation, logcat, generic data structures, ...	lab worth 4% (top 10 labs count)
11	App - multiple activities, explicit intents, database interaction, multi-threading, ...	lab worth 4% (top 10 labs count)
12	Tidying up, Revision and Exam Preparation	lab worth 4% (top 10 labs count)
	SWOT VAC	No formal assessment is undertaken in SWOT VAC
	Examination period	LINK to Assessment Policy: http://policy.monash.edu.au/policy-bank/academic/education/assessment/assessment-in-coursework-policy.html

*Unit Schedule details will be maintained and communicated to you via your learning system.

Teaching Approach

Studio teaching

This approach is hands-on learning where you interact with fellow students and a tutor in a laboratory workroom

Assessment Summary

Examination (3 hours): 60%; In-semester assessment: 40%

Assessment Task	Value	Due Date
11 Laboratory Assessments	Each of 10 laboratories will be worth 4 marks for a total of 40% of your final mark for the unit	Lab work for the week will be marked in that week's lab
Examination 1	60%	To be advised

Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles

(<http://intranet.monash.edu.au/infotech/resources/staff/edgov/policies/assessment-examinations/assessment-hurdles>)

Academic Integrity - Please see resources and tutorials at

<http://www.monash.edu/library/skills/resources/tutorials/academic-integrity/>

Assessment Tasks

Participation

- **Assessment task 1**

Title:

11 Laboratory Assessments

Description:

During each lab session students will be required to complete specified coding tasks. This work will be marked in the same laboratory session.

Each laboratory is worth 4% of the final mark. The best 10 of the 11 laboratory marks will constitute the 40% non-exam mark for each student.

Weighting:

Each of 10 laboratories will be worth 4 marks for a total of 40% of your final mark for the unit

Criteria for assessment:

Students will be awarded marks for completing coding tasks according to the principles and styles enumerated in lectures. It is important to understand working code will NOT attract full marks in its own right. Students will be questioned on their code. Marks will only be given for code the student can clearly describe and syntactically and semantically interpret to the satisfaction of the marking tutor.

Due date:

Lab work for the week will be marked in that week's lab

Examinations

- **Examination 1**

Weighting:

60%

Length:

3 hours

Type (open/closed book):

Closed book

Hurdle requirements:

40% or more in both exam and non-exam assessment

Electronic devices allowed in the exam:

None

Learning resources

Monash Library Unit Reading List (if applicable to the unit)

<http://readinglists.lib.monash.edu/index.html>

Faculty of Information Technology [Style Guide](#)

Feedback to you

Examination/other end-of-semester assessment feedback may take the form of feedback classes, provision of sample answers or other group feedback after official results have been published. Please check with your lecturer on the feedback provided and take advantage of this prior to requesting individual consultations with staff. If your unit has an examination, you may request to view your examination script booklet, see <http://intranet.monash.edu.au/infotech/resources/students/procedures/request-to-view-exam-scripts.html>

Types of feedback you can expect to receive in this unit are:

- Informal feedback on progress in labs/tutes
- Solutions to tutes, labs and assignments

Extensions and penalties

Submission must be made by the due date otherwise penalties will be enforced.

You must negotiate any extensions formally with your campus unit leader via the in-semester special consideration process: <http://www.monash.edu.au/exams/special-consideration.html>

Returning assignments

Students can expect assignments to be returned within two weeks of the submission date or after receipt, whichever is later.

Resubmission of assignments

Lab work for each week is marked in the Lab for that same week.

Assignment submission

It is a University requirement

(<http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-academic-integrity-managing-pla>) for students to submit an assignment coversheet for each assessment item. Faculty Assignment coversheets can be found at <http://www.infotech.monash.edu.au/resources/student/forms/>. Please check with your Lecturer on the submission method for your assignment coversheet (e.g. attach a file to the online assignment submission, hand-in a hard copy, or use an online quiz). Please note that it is your responsibility to retain copies of your assessments.

Online submission

If Electronic Submission has been approved for your unit, please submit your work via the learning system for this unit, which you can access via links in the my.monash portal.

Required Resources

Please check with your lecturer before purchasing any Required Resources. Limited copies of prescribed texts are available for you to borrow in the library, and prescribed software is available in student labs.

The labs will contain all required resources. You can also set up all the required resources on your own personal computer (OSX or Windows based).

All the required software can be downloaded for free (details in week 1).

To save/backup your lab work a removable memory device is recommended.

Prescribed text(s)

Limited copies of prescribed texts are available for you to borrow in the library.

P. Deitel et al. (2013). *Android How to Program*. (1st Edition) Pearson (ISBN: 0-13-299054-7).

Recommended Resources

The following website contains relevant and useful information:

<http://developer.android.com>

Other Information

Policies

Monash has educational policies, procedures and guidelines, which are designed to ensure that staff and students are aware of the University's academic standards, and to provide advice on how they might uphold them. You can find Monash's Education Policies at:

www.policy.monash.edu.au/policy-bank/academic/education/index.html

Key educational policies include:

- Student Academic Integrity Policy and Student Academic Integrity: Managing Plagiarism and Collusion Procedures ;
<http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-academic-integrity-policy.h>
- Assessment in Coursework Programs;
<http://www.policy.monash.edu/policy-bank/academic/education/assessment/assessment-in-coursework-po>
- Special Consideration;
<http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.ht>
- Grading Scale;
<http://www.policy.monash.edu/policy-bank/academic/education/assessment/grading-scale-policy.html>
- Discipline: Student Policy;
<http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-discipline-policy.html>
- Academic Calendar and Semesters; <http://www.monash.edu.au/students/dates/>
- Orientation and Transition; <http://intranet.monash.edu.au/infotech/resources/students/orientation/>
- Academic and Administrative Complaints and Grievances Policy;
<http://www.policy.monash.edu/policy-bank/academic/education/management/complaints-grievance-policy.h>

Faculty resources and policies

Important student resources including Faculty policies are located at

<http://intranet.monash.edu.au/infotech/resources/students/>

Graduate Attributes Policy

<http://www.policy.monash.edu/policy-bank/academic/education/management/monash-graduate-attributes-policy.h>

Student Charter

www.opq.monash.edu.au/ep/student-charter/monash-university-student-charter.html

Student services

The University provides many different kinds of support services for you. Contact your tutor if you need advice and see the range of services available at <http://www.monash.edu.au/students>. For Malaysia see <http://www.monash.edu.my/Student-services>, and for South Africa see <http://www.monash.ac.za/current/>.

Monash University Library

The Monash University Library provides a range of services, resources and programs that enable you to save time and be more effective in your learning and research. Go to www.lib.monash.edu.au or the library tab in my.monash portal for more information. At Malaysia, visit the Library and Learning Commons at <http://www.lib.monash.edu.my/>. At South Africa visit <http://www.lib.monash.ac.za/>.

Disability Liaison Unit

Students who have a disability or medical condition are welcome to contact the Disability Liaison Unit to discuss academic support services. Disability Liaison Officers (DLOs) visit all Victorian campuses on a regular basis.

- Website: <http://www.monash.edu/equity-diversity/disability/index.html>
- Telephone: 03 9905 5704 to book an appointment with a DLO; or contact the Student Advisor, Student Community Services at 03 55146018 at Malaysia
- Email: dlu@monash.edu
- Drop In: Equity and Diversity Centre, Level 1, Building 55, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Malaysia Campus

Other

In addition to the prescribed text the following resources will be used.

The Java tutorials presented at <http://docs.oracle.com/javase/tutorial/>

The many Android resources (especially documentation of the Android API) at <http://developer.android.com/develop/index.html>