FIT4039 Handheld applications and operating systems - Semester 1, 2012


Mode of Delivery

Caulfield (Day)

Contact Hours

2 hrs lectures/wk, 2 hrs laboratories/wk

Workload

Students are expected to spend an average of 12 hours per week on this subject. The breakdown of time is the following:

- 2 hours per week: Topic material coverage (lecture attendance for on-campus students).
- 2 hours per week: Peer group involvement (tutorials or labs for on-campus students).
- 8 hours per week: Private study to review topic materials, explore supplementary subject resources and complete practical work and assignments.

Unit Relationships

Prohibitions

CSE3211, FIT3027

Chief Examiner

Ms Janet Fraser

Campus Lecturer

Caulfield

Trent Mifsud

Consultation hours: Email for appointment
Academic Overview

Outcomes

At the completion of this unit students will

- be familiar with the various technologies associated with handheld/portable computing devices;
- be competent in producing software for such devices by event-based programming techniques, using an industry relevant Object-Oriented language;
- be familiar with a GUI-oriented Integrated Development Environment (MS Visual Studio. NET);
- be familiar with a subset of the Microsoft .NET framework and the various facilities it provides, in particular those relating to handheld devices.

Graduate Attributes

Monash prepares its graduates to be:

1. responsible and effective global citizens who:
   a. engage in an internationalised world
   b. exhibit cross-cultural competence
   c. demonstrate ethical values

critical and creative scholars who:

   a. produce innovative solutions to problems
   b. apply research skills to a range of challenges
   c. communicate perceptively and effectively

Assessment Summary

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

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Value</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows Mobile - Enterprise Application</td>
<td>20%</td>
<td>Week 7</td>
</tr>
<tr>
<td>Android (or iPhone) Application</td>
<td>20%</td>
<td>Week 11</td>
</tr>
<tr>
<td>Examination 1</td>
<td>60%</td>
<td>To be advised</td>
</tr>
</tbody>
</table>

Teaching Approach

- **Lecture and tutorials or problem classes**
  The aim of the lectures is to introduce one or more concepts in a way, and at a pace, that is adequate for students to learn, not to provide students with everything there is to know about those concepts. In this sense, the lecture notes provide a first step towards learning those concepts, a first step that will be complemented by tutes and/or pracs, consultation hours and personal reading and working time.

- **Laboratory-based classes**
The aim of the prac is to increase the knowledge of students on a particular area covered by the associated unit. In pracs this is achieved by each student (or group of students) practicing on their own the concepts already learned previously.

Feedback

Our feedback to You

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

- Informal feedback on progress in labs/tutes
- Graded assignments with comments
- Interviews

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 SETU, Student Evaluation of Teacher and Unit. 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, and on student evaluations, see:
http://www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html

Previous Student Evaluations of this unit

Based on previous student feedback Android development has been introduced and will be a focus from now on.

If you wish to view how previous students rated this unit, please go to

Required Resources

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

Software may be obtained from the Faculty of IT:

- Visual Studio 2008 with Pocket PC and Smartphone 2005 (or later) add-ons
- Activesync 4.x or later
- Android SDK / Eclipse

Will be made available to students from unit leader and will be available in the labs in Virtual Machines.

Android development is open source and the Virtual Machine is based on Linux.
## Unit Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Activities</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>No formal assessment or activities are undertaken in week 0</td>
</tr>
<tr>
<td>1</td>
<td>Introduction to Middleware and Revision</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Intro to .NET and C#</td>
<td></td>
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<tr>
<td>3</td>
<td>Compact Framework development for Windows Mobile</td>
<td></td>
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<tr>
<td>4</td>
<td>Mobility in Industry</td>
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<tr>
<td>5</td>
<td>Alternative Mobile Development Platforms</td>
<td></td>
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<tr>
<td>6</td>
<td>Practical Enterprise Mobile Development</td>
<td></td>
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<tr>
<td>7</td>
<td>Android</td>
<td>Windows Mobile Assignment due</td>
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<tr>
<td>8</td>
<td>Android</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>iOS Development</td>
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<tr>
<td>10</td>
<td>iOS Development</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Device Management</td>
<td>Android/iPhone Assignment due</td>
</tr>
<tr>
<td>12</td>
<td>Exam Discussion and Revision</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SWOT VAC</td>
<td>No formal assessment is undertaken SWOT VAC</td>
</tr>
</tbody>
</table>

*Unit Schedule details will be maintained and communicated to you via your MUSO (Blackboard or Moodle) learning system.*
Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles

Assessment Tasks

Participation

• Assessment task 1

  Title: Windows Mobile - Enterprise Application
  Description: Assignment 1 will focus more on a field service mobility application. These applications are enterprise / big business based applications for companies that need to replicate data when out of range, capture proof of deliver signatures and use features of rugged devices such as mobile printing technology.
  Weighting: 20%
  Criteria for assessment: Students will be assessed based on enterprise mobility and usability factors, intuitive interface design and well documented and maintainable code.
  Due date: Week 7

• Assessment task 2

  Title: Android (or iPhone) Application
  Description: A consumer mobility application will be the focus of Assignment 2. These applications are more focused on end-user "marketplace" application in contrast to enterprise mobility. Specifically, using mobile devices that end users already own and are not typical of enterprise ruggedness. These applications generally have network availability and have touch gestures as standard.
  Weighting: 20%
  Criteria for assessment: Students will be assessed based on interface design and interoperability with back end systems. Code maintainability and documentation will also be judged.
  Due date: Week 11

Examinations
Assessment Requirements

• Examination 1

  Weighting:
  60%

  Length:
  3 hours

  Type (open/closed book):
  Closed book

  Electronic devices allowed in the exam:
  None

  Remarks:
  Lecturer will provide previous exam for students.

Assignment submission

It is a University requirement (http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html) 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).

Online submission

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

Extensions and penalties

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


Returning assignments

Students can expect assignments to be returned within two weeks of the submission date or after receipt, whichever is later.
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: http://policy.monash.edu.au/policy-bank/academic/education/index.html

Key educational policies include:

- Plagiarism (http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-policy.html)
- Special Consideration (http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.html)
- 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/key-dates/); and
- Codes of Practice for Teaching and Learning (http://www.policy.monash.edu/policy-bank/academic/education/conduct/suppdocs/code-of-practice-teaching-learning.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 www.monash.edu.au/students. For Sunway see http://www.monash.edu.my/Student-services, and for South Africa see http://www.monash.ac.za/current/

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

Academic support services may be available for students who have a disability or medical condition. Registration with the Disability Liaison Unit is required. Further information is available as follows:

- Website: http://monash.edu/equity-diversity/disability/index.html
- Email: dlu@monash.edu
- Drop In: Equity and Diversity Centre, Level 1 Gallery Building (Building 55), Monash University, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Sunway Campus
- Telephone: 03 9905 5704, or contact the Student Advisor, Student Community Services at 03 55146018 at Sunway
Other Information

Other

Online references will be advised throughout the semester.