Unit Outline 2012
Faculty of Information Sciences and Engineering

Mobile Technologies
8878
This Unit Outline must be read in conjunction with:

a) UC Student Guide to Policies, which sets out University-wide policies and procedures, including information on matters such as plagiarism, grade descriptors, moderation, feedback and deferred exams, and is available at (scroll to bottom of page)

http://www.canberra.edu.au/student-services

b) UC Guide to Student Services, and is available at (scroll to bottom of page)

http://www.canberra.edu.au/student-services

c) Any additional information specified in section 6h.

1: General Information

1a Unit title
Mobile Technologies

1b Unit number
8878

1c Teaching Period and year offered
Semester 1, 2012

1d Credit point value
3

1e Unit level
2

1f Name of Unit Convener and contact details (including telephone and email)
Convener: Dat Tran, 6201 2394, Dat.Tran@canberra.edu.au, Office 11B17
Convener: Wanli Ma, 6201 2838, Wanli.Ma@canberra.edu.au, Office 11B45
Moderator: Wanli Ma, 6201 2838, Wanli.Ma@canberra.edu.au, Office 11B45

1g Administrative contact details (including name, location, telephone and email)
The School Office at 11B14, Tel: 6201 2417/6201 2153, email: ise@canberra.edu.au
2: Academic Content

2a Unit description and learning outcomes

Unit description: This unit focuses on a range of mobile technologies, mobile devices, standards and services that enable interaction between people and businesses. This includes the modern software and operating systems that drive mobile devices. The students study the issues of performance, program development, system testing, re-usability, and maintenance in such systems via laboratory experimentation and current industry examples. Windows Phone, Android, iOS and appropriate emulators are used in experiments and projects to develop applications for mobile devices.

Learning outcomes: On successful completion of this unit students will be able to

1. Describe, discuss and evaluate modern mobile technologies, devices, standards and services, including the hardware and software associated with mobile technologies; operating systems for mobile devices; programming languages used in mobile application development; and
2. Use software development tools for mobile devices.

2b Generic skills

1. Communication  2. Information literacy  3. ICT
4. Problem solving  5. Working with others  6. Professional

2c Prerequisites and/or co-requisites

Software Technology 1

3: Delivery of Unit and Timetable

3a Delivery mode

This subject is delivered in traditional mode, that is on-campus in standard semesters with weekly lectures and tutorials.

3b Timetable of activities, such as lectures/ tutorials/ practicals/ field classes, showing key dates and topics

<table>
<thead>
<tr>
<th>Week</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mobile Platform (Windows Phone, Android and iOS) and Mobile Technologies</td>
</tr>
<tr>
<td>2</td>
<td>Mobile Phone Architecture, Design and Implementation</td>
</tr>
<tr>
<td>3</td>
<td>Windows Phone: User Interface Elements and Events and Data Binding</td>
</tr>
<tr>
<td>4</td>
<td>Windows Phone: GPS, Location and Maps</td>
</tr>
<tr>
<td>5</td>
<td>Windows Phone: Graphics and Multimedia</td>
</tr>
<tr>
<td>6</td>
<td>Windows Phone: Motion</td>
</tr>
<tr>
<td>7</td>
<td>Windows Phone: Web Connectivity</td>
</tr>
<tr>
<td>8</td>
<td>Class free period</td>
</tr>
<tr>
<td>9</td>
<td>Android</td>
</tr>
<tr>
<td>10</td>
<td>Android</td>
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<td>11</td>
<td>Android</td>
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<tr>
<td>12</td>
<td>Android</td>
</tr>
<tr>
<td>13</td>
<td>iOS</td>
</tr>
<tr>
<td>14</td>
<td>iOS. Unit Review</td>
</tr>
</tbody>
</table>
4: Unit Resources

4a Lists of texts/readings

4b Materials and equipment
Computers and software in Building 11 laboratories are used in this unit. The use of private personal computers and relevant software is beneficial, but not essential. Software: Visual Studio 2010, Eclipse and Android. Languages: C#, Java and Objective C.

4c Unit website
Available in Moodle. Access to the unit website on learnonline.canberra.edu.au is a requirement for students enrolled in the unit.

5: Assessment

5a Assessment overview

<table>
<thead>
<tr>
<th>Assessment item (including exams held in the exam period)</th>
<th>Due date of assignments</th>
<th>Weighting (total to equal 100%)</th>
<th>Addresses learning outcome(s)</th>
<th>Related generic skill(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>22:00 Sunday, Week 7</td>
<td>20%</td>
<td>1, 2 and 5</td>
<td>1 – 6</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>22:00 Sunday, Week 14</td>
<td>20%</td>
<td>3, 4 and 6</td>
<td>1 – 6</td>
</tr>
<tr>
<td>Exam</td>
<td>exam period</td>
<td>60%</td>
<td>1, 2, 3, 4, 5 and 6</td>
<td>2 and 4</td>
</tr>
</tbody>
</table>

5b Details of each assessment item
Assignment 1: All tutorial topics listed in Weeks 2 to 7 inclusive
Assignment 2: All tutorial topics listed in Weeks 9 to 13 inclusive
Exam: 3 hours, permitted materials: 4 sides of A4 notes (Two A4 pages with notes on both sides, handwritten or typed).

5c Special assessment requirements
For final assessment in the subject, the result will be one of the following grades: HD, DI, CR, P or Fail (NX, NC, NS, or NN).

Total mark = assignment 1 mark (out of 20) + assignment 2 mark (out of 20) + 0.6 * examination mark (out of 100)

The grade for the subject is then determined according to the following table:
<table>
<thead>
<tr>
<th>Total mark (out of 100)</th>
<th>Exam mark (out of 100)</th>
<th>Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 85</td>
<td>and</td>
<td>≥ 85</td>
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<tr>
<td>≥ 75</td>
<td>and</td>
<td>≥ 75</td>
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<tr>
<td>≥ 65</td>
<td>and</td>
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<tr>
<td>≥ 50</td>
<td>and</td>
<td>≥ 50</td>
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<tr>
<td>&lt; 50</td>
<td>or</td>
<td>&lt; 50</td>
</tr>
</tbody>
</table>

5d **Supplementary assessment**
To be eligible to undertake supplementary assessment in a unit, a student must:
- be enrolled in their final semester of study;
- have failed a single unit, with a final mark between 45-49% in the unit;
- have passed all other units undertaken in that semester.

The failed unit must be the final unit required to complete the academic requirements of their course.

5e **Academic Integrity**
Students have a responsibility to uphold University standards on ethical scholarship. Good scholarship involves building on the work of others and use of others’ work must be acknowledged with proper attribution made. Cheating, plagiarism, and falsification of data are dishonest practices which contravene academic values.

5f **Text-matching software**
Students may be required to submit text-based assignments electronically to be checked for matching text. If so, instructions on how to do this and information about the process will be made available in conjunction with the first of any such assessment items.

6: **Student Responsibility**

6a **Workload**
The amount of time you will need to spend on study in this unit will depend on a number of factors including your prior knowledge, learning skill level and learning style. Nevertheless, in planning your time commitments you should note that for a 3cp unit the total notional workload over the semester or term is assumed to be 150 hours. These hours include time spent in classes. The total workload for units of different credit point value should vary proportionally. For example, for a 6cp unit the total notional workload over a semester or term is assumed to be 300 hours.

6b **Special needs**
Students who need assistance in undertaking the unit because of disability or other circumstances should inform their Unit Convener or UC AccessAbility (formerly the Disabilities Office) as soon as possible so the necessary arrangements can be made.

6c **Participation requirements**
There will be no roll calls for lectures; however, students are encouraged to make every attempt to attend all scheduled teaching activities. Failing to do so may result poor understanding and failure of the unit.

6d **Withdrawal**
If you are planning to withdraw please discuss with your unit convener. Please see [this link](#) for further information on deadlines.

6e **Required IT skills**
Students will use Windows XP/Vista/7 and MS Visual Studio 2010, Eclipse and Android.
6f Costs
Textbook, software and consumables. Information about the DETYA guidelines on student charges for HECS students can be found on MyUC.

6g Work placements, internships or practicums
This unit involves “ACS Core Body of Knowledge for Information Technology Professionals” in the following areas: 5.1. Computer Organisation and Architecture and 5.7. Ethics/Social Implications/professional Practice, and therefore, additional student responsibilities are required in addition to those described in section 6. Work-place learning requires strict adherence to professional practice principles and ethics. Client/patient confidentiality must always be maintained, including for assessment items such as reports or essays. The professional nature of this unit also requires 100% participation at all learning activities (lectures, practicals, etc. if scheduled – see section 3) for the successful completion of this unit (also see section 6c). If attendance requirements cannot be satisfied (e.g. timetable clash), it is recommended that you meet with your course convenor to schedule this unit for a future semester.

6h Additional information
All assignments will require background reading, intelligent criticism, keen observation and the development of a line of argument to support any particular adopted stance. It is also a requirement that each assignment is totally the work of the individual submitting it (unless explicitly stated otherwise) and that it is produced specifically for the subject in question. The reproduction, paraphrasing, summarizing or otherwise presenting in altered form, another person’s ideas or arguments without acknowledgment is plagiarism. Plagiarism includes submitting work prepared by another author, including another student, as one’s own. Any form of plagiarism will be reported to the Head of School for investigation.

Special Needs: please notify your lecturer or tutors of any special needs you have, for example, special arrangement for people with disabilities etc.

7: Student Feedback
All students enrolled in this unit will have an opportunity to provide anonymous feedback on the unit at the end of the Semester via the Unit Satisfaction Survey (USS) which you can access by logging into MyUC via the UC homepage: http://www.canberra.edu.au/home/. Your lecturer or tutor may also invite you to provide more detailed feedback on their teaching through an anonymous questionnaire.

8: Authority of this Unit Outline
Any change to the information contained in Section 2 (Academic content), and Section 5 (Assessment) of this document, will only be made by the Unit Convener if the written agreement of Head of Discipline and a majority of students has been obtained; and if written advice of the change is then provided on the unit site in the learning management system. If this is not possible, written advice of the change must be then forwarded to each student enrolled in the unit at their registered term address. Any individual student who believes him/herself to be disadvantaged by a change is encouraged to discuss the matter with the Unit Convener.