MONASH University
Information Technology

FIT4039
Handheld applications and operating systems

Unit Guide

Semester 1, 2010

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FIT4039 Handheld applications and operating systems - Semester 1, 2010

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Introduction

Welcome to FIT4039 Handheld applications and operating systems.

Unit synopsis

Handheld computing, Lite Application Development, Architecture, User Interaction. Handheld Operating Systems, Application development environments, Handheld - database connectivity. Use of emulators and test suites. Construction of handheld applications, desktop synchronisation and the separation of computing tasks. Use of modems, cameras, infrared, serial communcation and TCP/IP. Contexts for deploying handheld computing, user interaction, modality, screen design, and desktop integration.

Learning 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.

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

Teaching and learning method

Teaching approach

Timetable information

For information on timetabling for on-campus classes please refer to MUTTS,
http://mutts.monash.edu.au/MUTTS/

Tutorial allocation

On-campus students should register for tutorials/laboratories using the Allocate+ system:
http://allocate.its.monash.edu.au/

Unit Schedule

Week	Date*	Topic	Key dates
1	01/03/10	Introduction to Middleware and Revision	
2	08/03/10	Intro to dotNET and C#	
3	15/03/10	dotNET Networking, dotNET Remoting	
4	22/03/10	dotNET Winforms, Windows Comms Foundation	
5	29/03/10	Alternative Mobile Development Platforms	
		Mid semester break	
6	12/04/10	Reflection and Windows Services	
7	19/04/10	Dot Net Security	Assignment 1 due
8	26/04/10	Dot Net Security	
9	03/05/10	Compact Framework	
10	10/05/10	Advanced Compact Framework	
11	17/05/10	Mobile Security	
12	24/05/10	iPhone and Android Development	Assignment 2 due
13	31/05/10	Exam Revision	

*Please note that these dates may only apply to Australian campuses of Monash University. Off-shore students need to check the dates with their unit leader.

Unit Resources

Prescribed text(s) and readings

No prescribed text.

Recommended text(s) and readings

Online references will be advised throughout the semester.

Required software and/or hardware

Visual Studio 2008 with Pocket PC and Smartphone 2005 (or later) addons

Activesync 4.x or later

Will be made available to students from unit leader

Software may be:

Obtained from the FIT

Equipment and consumables required or provided

Students may use the facilities available in the computing labs. Information about computer use for students is available from the ITS Student Resource Guide in the Monash University Handbook. You will need to allocate up to **8** hours per week for use of a computer, including time for newsgroups/discussion groups.

Study resources

Study resources we will provide for your study are:

Weekly detailed lecture notes outlining the learning objectives, discussion of the content, required readings and exercises; Weekly tutorial or laboratory tasks and exercises;Assignment specifications and sample solutions; Sample exam questions;Discussion groups; This Unit Guide outlining the administrative information for the unit; The unit web site on MUSO, where resources outlined above will be made available.

Assessment

Overview

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

Faculty assessment policy

To pass a unit which includes an examination as part of the assessment a student must obtain:

- 40% or more in the unit's examination, and
- 40% or more in the unit's total non-examination assessment, and
- an overall unit mark of 50% or more.

If a student does not achieve 40% or more in the unit examination or the unit non-examination total assessment, and the total mark for the unit is greater than 50% then a mark of no greater than 49-N will be recorded for the unit.

Assignment tasks

Assignment coversheets

Assignment coversheets are available via "Student Forms" on the Faculty website:
http://www.infotech.monash.edu.au/resources/student/forms/
You MUST submit a completed coversheet with all assignments, ensuring that the plagiarism declaration section is signed.

Assignment submission and return procedures, and assessment criteria will be specified with each assignment.

- **Assignment task 1**

  Title:
    Assignment 1 - Remote Downloader application
  Description:
  Weighting:
    20%
  Due date:
    Week 7

- **Assignment task 2**

  Title:
    Assignment 2 - Code access security application
  Description:
  Weighting:
    20%
  Due date:
    Week 12

Examination

- **Weighting:** 60%
  Length: 3 hours
  Type (open/closed book): Closed book

See Appendix for End of semester special consideration / deferred exams process.

Due dates and extensions

Please make every effort to submit work by the due dates. It is your responsibility to structure your study program around assignment deadlines, family, work and other commitments. Factors such as normal work pressures, vacations, etc. are not regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Students requesting an extension for any assessment during semester (eg. Assignments, tests or presentations) are required to submit a Special Consideration application form (in-semester exam/assessment task), along with original copies of supporting documentation, directly to their lecturer within two working days before the assessment submission deadline. Lecturers will provide specific outcomes directly to students via email within 2 working days. The lecturer reserves the right to refuse late applications.

A copy of the email or other written communication of an extension must be attached to the assignment submission.

Refer to the Faculty Special consideration webpage or further details and to access application forms: http://www.infotech.monash.edu.au/resources/student/equity/special-consideration.html

Late assignment

Assignments received after the due date will be subject to a penalty of 5% per day, including weekends. Assignments received later than one week (seven days) after the due date will not normally be accepted. In some cases, this period may be shorter if there is a need to release sample solutions.

This policy is strict because comments or guidance will be given on assignments as they are returned, and sample solutions may also be published and distributed, after assignment marking or with the returned assignment.

Return dates

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

Appendix

Please visit the following URL: http://www.infotech.monash.edu.au/units/appendix.html for further information about:

- Continuous improvement
- Unit evaluations
- Communication, participation and feedback
- Library access
- Monash University Studies Online (MUSO)
- Plagiarism, cheating and collusion
- Register of counselling about plagiarism
- Non-discriminatory language
- Students with disability
- End of semester special consideration / deferred exams