



Week01

Semester 2, 2016

COMMONWEALTH OF AUSTRALIA

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Introduction

- Overview of Mobile Computing
- Overview of this Unit of Study



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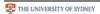
Era of Mobile

- Hardware
- ¬ Software
- Internet
- □ Web: 1.0 + 2.0
- Mobile (Wearable)



Mobile Computing

- Broadly refer to techniques allow users to access information and services anytime and anywhere
- Hardware, infrastructure
 - Communication
 - Devices (e.g., PDA, Pocket PC, and phones)
 - Backend: Cloud
- □ Software, services
 - OS
 - Apps



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MOCO

Impact of Mobile Computing

- Dressing/cloth, eating/food, living/accommodation, transport
 - □衣食住行
- Commerce, Business, Finance
- Communication (Social)
- Education
- Entertainment
- Health
- Tourism (travel experience)
- ...

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Industry

- Commerce and Business
 - eBay, Amazon, Taobao, JD, ...
- Communication (Social)
 - □ Facebook, Twitter, Instagram, WhatsApp, WeChat, ...
- Education
 - Anywhere, anytime, anybody
 - Media rich
- Entertainment
 - □ Game, video, ...
- Tourism (travel experience)
 - Augmented Reality
- Health
 - □ Nike Fit band, Jawbone, ...

Mobile Devices

- Portable
- Powerful
- Rich sensors

Opportunities + Challenges

- □ Search
 - □ Interaction, context
- □ Personal data
 - Management, sharing
- Resources
 - Storage, computation, bandwidth, power,
- ...



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Cloud Computing

- Virtualization
- □ Infrastructure
- ¬ Service

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Course Description

Mobile computing is becoming a mainstream for many IT applications, due to the availability of more and more powerful and affordable mobile devices with rich sensors such as cameras and GPS, which have already significantly changed many aspects in business, education, social network, health care, and entertainment in our daily life. Therefore it has been critical to equip students with sufficient knowledge of such new computing platform and necessary skills. The unit aims to provide an in-depth overview of existing and emerging mobile computing techniques and applications, the eco-system of the mobile computing platforms, and its key building components. The unit will also train students with hand-on experiences in developing mobile applications in a broad range of areas.

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Mobile Computing – Schedule

	Week	Торіс	
	1	Introduction	
	2	Mobile App Development 1	Suggest to bring your own laptop
	3	Mobile App Development 2	
	4	Mobile App Development 3	
	5	Internet of Things	
	6	Mobile Game	The schedule may be subject to change.
	7	Cloud Computing	
	8	Advanced Mobile Innovation 1	
	9	Advanced Mobile Innovation 1	
	10	[Public Holiday]	
	11	Mobile Security	
	12	Demo Day	
	13	Course Review	
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Administrative Issues

- □ Lectures / Labs
- Assessment
- Resources

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Lectures & Labs

- Lectures
 - **Monday** 18:00-20:00
 - Architecture Lecture Theatre 1
- □ Labs (Week 2 onwards)
 - Monday 20:00-21:00
 - SIT Labs
 - Android (and Windows Phone) app development in Microsoft Windows environment
 - iOS and Windows are also acceptable, though NO support is provided.
 - Mobile game with Unreal Engine in Windows environment
- Consultation
 - by appointment.

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Assessment

Tasks	Start	Due	Marks
Assimment	Week 02	Proposal: Week 06	10%
Assignment		Final: Week 12	25%
Lab Skills	Week 02	Week07, Week 11	15%
Final Exam	TBA	N/A	50%

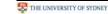
What I hear, I forget; What I read, I remember; What I do, I understand.

--- Confucius

Assessment

- □ To Pass this course, you must
 - Score at least 50% overall, and
 - Score at least 40% in the final exam.
- Late submissions will NOT be marked.
 - It is your responsibility to account for any accident.
- Academic Integrity
 - Plagiarism: NO
 - Outsourcing: NO
 - See more details on the course website in Assessment section





Academic Dishonesty & Plagiarism

"In assessing a piece of submitted work, the School of IT may reproduce it entirely, may provide a copy to another member of faculty, and/or communicate a copy of this assignment to a plagiarism checking service or in-house computer program, and that a copy of the assignment may be maintained by the service or the School of IT for the purpose of future plagiarism checking."

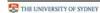


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Special Consideration

- □ In case of Illness or Misadventure
 - you can apply for special consideration
 - the application has to be lodged within 7 days
- The first thing you do should be
 - Let the coordinator know (best by email and while still sick)
 - **□** Submit your assignment
 - Send a friend and get him/her to submit your assignment at front-desk
 - Go to a Professional Practitioner and get them to fill in the particular university certificate (not just a usual medical certificate)
 - Then lodge the application for special consideration



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Special Consideration

- No special consideration for missing out a few days or being on holiday etc.
 - Take responsibility of your time management
- Refer to School and University policies for more details.

Expectations

- To understand
 - Concepts, contents, and principles
- To be skillful
 - Programming
- □ To know
 - Solving problems
- To be creative





Outcomes

- □ Pursue your passion
- Exercise your creativity
- □ Gain rewarding experiences

Prize?

Understand mobile computing techniques



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Resources

- Course website
 - eLearning
- Online resources
 - Android Developers
 - http://developer.android.com/index.html
 - iOS Development in Swift
 - https://itunes.apple.com/au/course/ios-development-in-swift/id950659946
 - Windows Phone Developer Center
 - http://dev.windows.com/
- Many books in university library

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Need to Know

- □ Lab starts from next week (Week 02).
 - Preparation can start from this week.
- Think of a dream app you want to build

Global student technology competition



