

# Mobile S/W Development

Semester 1 DT228/3

Dr. Susan McKeever

# Me

Dr. Susan McKeever

Course chair just finished

4<sup>th</sup> year mentor (from 3<sup>rd</sup>)

Teaching – programming modules

Research: Data analytics, machine learning,  
social media analysis, sensor based systems

# Contact hours

**Lecture** Tuesdays 3pm KE 4-008  
Thursdays 3pm KE 4-008

**Labs** Group B Wed 9am (Eoin Rogers)  
Group C Wed 11am (me)  
Group A Thurs 11am (me)

Just go to a lab if you're not sure of your group  
If you're not there, you don't get graded

# Webcourses

Module:

**COMP3026-B:**

**Access code:**

DT2283

# **Your Programming so far on DT228 includes:**

First year - Procedural programming - C

Second year Object oriented programming  
– Java using processing – and ??

Web: Client side HTML/ CSS/...  
Server side programming..

# This module: real applications



- NOT just a mobile software course  
(although you'll be able to develop  
Android apps)
- Multi layer applications (i.e. data driven)
- Pasted spaghetti code **X**
- Android is just a tool for improving your  
programming skills – and building “real” stuff...
- OO skills will improve/ GUI applications/
- Practical: Code reviews and design

## By the end of the course, you'll be able to..

- Design and build Mobile Apps – Using android environment –
- Implement event driven programming
- Implement the various user interface components
- Use data sources/ databases
- Use remote network resources
- Create threads/asynchronous processes
- Develop usable applications
- Do a code review



# Topics

- **Quick Java Revisit (week 1)**
- Android **Week 2 onwards:**
  - Java/XML layouts
  - Containers
  - Event programming
  - UI components
  - Lists/ adapters
  - Using databases in your app
  - Using networked resources
  - Threaded programming
  - Location based apps and Maps
  - Maybe.. a bit on graphics

# Resources

## Android

1) Android Developers site at  
SDK download, API:

<https://developer.android.com/reference/packages.html>

2) Stacks of good online resources

e.g.

Vogella <http://www.vogella.com/tutorials/android.html>

Android hive: <https://www.androidhive.info/>

# Lectures Notes

The electronic notes are my guide to running the lecture.

... Sparse/ Detailed/ blank

They're not intended to contain all material covered on the course

Boards/ in class notes

**Questions/ exercises etc**

# Lab Notes

Lab sheet

In lab grading: 0 - 1

Lab marking starts this week.

Labs = 20% of your module

**Labs: It is very important that you attend and keep up with labs. They are critical to understanding.**

# Project

Specification – for your own app

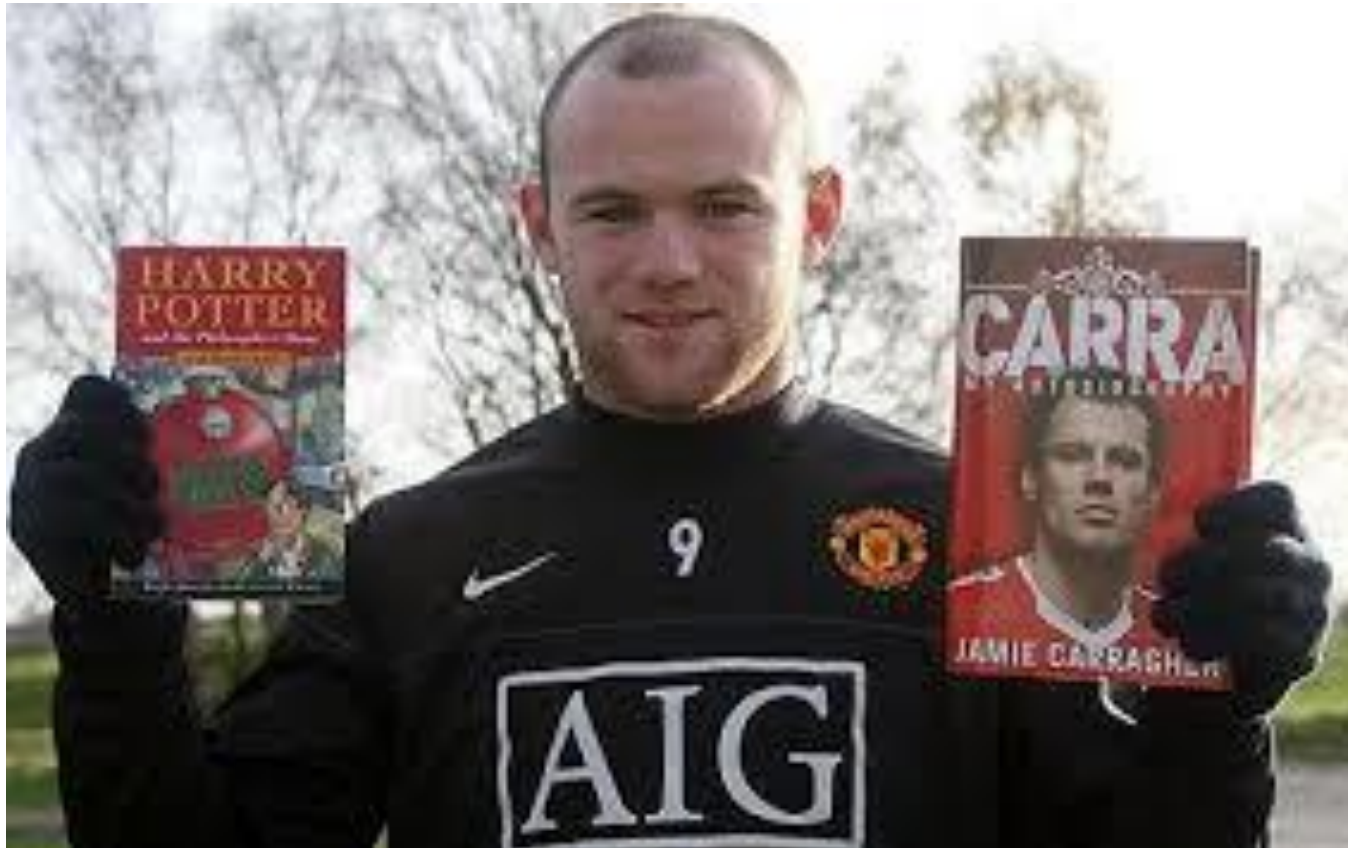
6 – 7 weeks to build

**This will count towards 30% of your module grade.**

# Assessment

- 50% Continuous assessment
  - Assignment/project
  - Lab marks
- 50% Written exam
  - **Must be passed to pass the module**
- Continuous assessment broken down as:
  - (1) Assignment will be 30%
  - (2) Lab marks *per* lab, totalling to 20%

**To learn a skill..**





**Learn by  
doing**

**Labs:  
Bring your  
laptop**



# Tech environments used in labs

**Week 1**

**Java:**

**Eclipse**

Lab Machine or  
your laptop

**Week**

**2.....12**

**Android:**

**Android Studio**

**Android SDK**

**Java JDK**

Your laptop strongly recommended