iPhone Application Programming
Exam Preparation

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http://hci.rwth-aachen.de/iphone

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Announcements

- All lectures are on iTunes expect for 12 and 13

- If the slides or demos are missing or corrupted tell me ASAP

- Finished all assignments, I will share the garden ver soon

Admin

- Exam is 60 points for 60 mins

  - ~20 code related

  - ~20 design principles

  - ~20 frameworks

Exams

Final	19.02.16	10:00-12:00	Room 2222
Final second chance	29.02.16	10:00-12:00	Room 2222

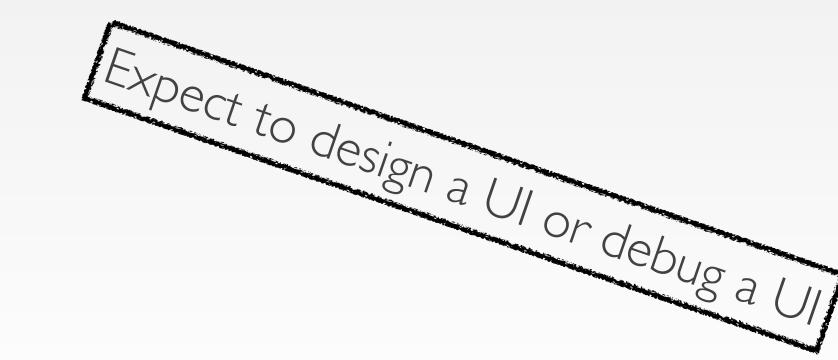- For students in the lab the total of your grade includes 60 + 20 (assignments) + 20 (project)

- Important reading assignments will be highlighted

- You can take 2nd chance exam if you fail the 1st exam or have a valide excuse not to attend the 1st exam

iPhone Development Basics

- Mobile characteristics

- iOS design principles

- iOS design themes. Be able to apply these in a practical example

  - Deference. The UI helps people understand and interact with the content, but never competes with it.

  - Clarity. Text is legible at every size, icons are precise and lucid, adornments are subtle and appropriate, and a sharpened focus on functionality motivates the design.

  - Depth. Visual layers and realistic motion impart vitality and heighten people's delight and understanding.
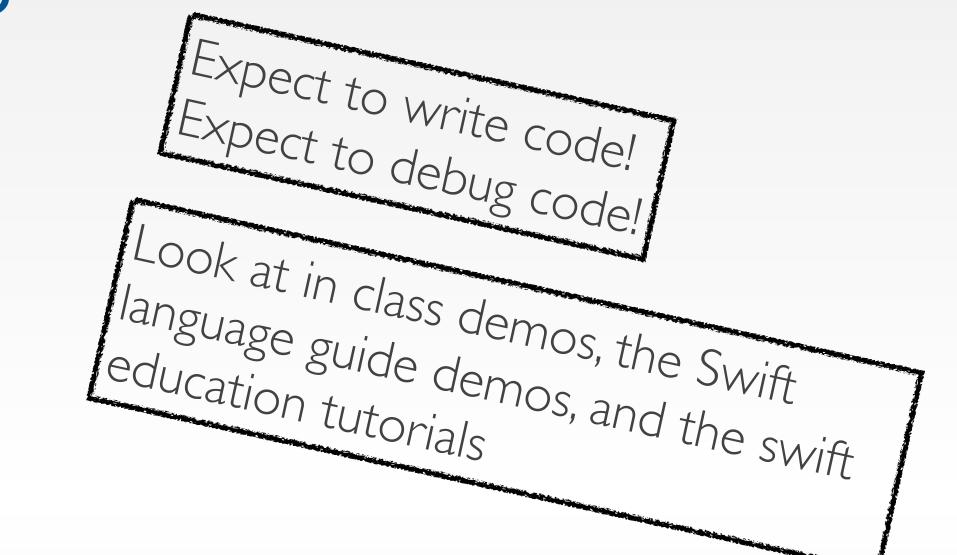
- iOS app types

Expect to design a UI or debug a UI

Example question:
Given Fig.1 what are the design themes implemented?

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The Language

- Swift language

- Basic types

- Functions, classes, structs, enums, properties

- Class initialisation rules (the graph)

- Inheritance and delegation

- Error handling methods

- Grand central dispatch

- MVC

Expect to write code!
Expect to debug code!

Look at in class demos, the Swift language guide demos, and the swift education tutorials

Example question:
Give an example where it is more suitable to use (a) a struct (b) an enum (c) a class

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View Programming & View Controller Programming

- Static and dynamic object hierarchies

- View geometry

- UIKit properties

- View controller inherit classes, life cycle

- App life cycle

- How to draw code (graphics context)

- How to animate (duration, options, closure)

Read these two guides!
Skim App Programming Guide for
iOS and UIKit Framework

Example question:
Write a code where you use NSTimer to animate the background of a UIView (myView) gradually every 10 mins.

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Events

- Touches

- Gestures

- Core Motion

Example question:
Write a code to implement a new gesture recognizer of 2 taps and a swipe (time threshold between them 0.2 sec)