# Application Programming G52APR

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#### Lectures and Labs

\_ectures

Tuesday 15:00 (LT2)

Thursday 17:00 (LT2)

Labs

Tuesday 16:00 Friday 15:00

#### Introduction

- Writing Programs in an OO-fashion
- Application Developers Point-of-View
- Technology and Methodology
- i.e. practice Java and "programming" skills
  - (inc design, debugging, testing documenting etc etc)
- Emphasis on practical aspects
  - Fewer lectures, more in labs

#### Assessment

- 100% Coursework
- Designing and Implementing an HTTP 1.0 server in 4 parts (see Moodle)"
- cw0 optional but introduces much that is used later.

#### Labs

- Start Friday week 2 (see Moodle)
- There will be 8 lab assistants go to any
- May have help desks near dedlines.

# Plagiarism

DON'T

#### Help Sources

#### In no particular order...

- Lectures
- Labs
- Moodle
  - Notes
  - Forum
- Steve Nutbrown
- Colin Higgins
- Each other (but be careful of plagiarism)

#### G52APR Module

- Introduced into new syllabus in 2010
- No prior exams, but not to worry there is no exam!
- More details on the coursework later, but you will be developing a larger piece of software – a HTTP server.

#### Potential Content?

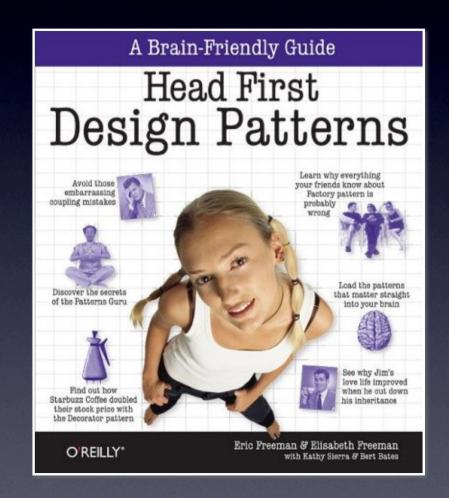
- Introduction
- OO paradigm and workings
- OO Recap
- Class Design
- Design Patterns
- Exceptions/testing
- Networking
- Threading
- Collections
- Databases JDBC

#### Resources

- Use Google for now sun java docs are excellent
- Books should only be bought if you are struggling.
- Lecture notes will be available, but may only be ready the day before as some sections are new to the lecturer and many have updated content.
- Eclipse

#### Resources

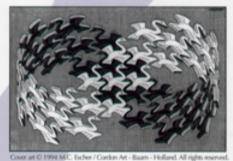
- Head First
   Design Patterns
   Eric and Elisabeth Freeman
- O'Reilly
- ISBN: 978-0-596-00712-6





Elements of Reusable Object-Oriented Software

Erich Gamma Richard Helm Ralph Johnson John Vlissides



Foreword by Grady Booch



- Design Patterns
   Erich Gamma
   Richard Helm
   Ralph Johnson
   John Vlissides
- Gang of Four'The text on design patterns

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ADDISON-WESLEY PROFESSIONAL COMPUTING SERIES

#### Resources

Lecture Notes

will be on moodle

## Expectations

- Reasonable mark average for cw based modules in CS
- "Read" for a degree.
- Lots of feedback via TMA and in labs/lectures, but not hand-holding!

#### Informal Coursework

- Help you review previous java constructs and concepts.
- Help you understand new Java constructs ready for formal coursework.
- Help you see the submission/feedback/ marking system.
- Make sure you understand object oriented concepts.

#### Coursework Pattern

- cw0 (0%) 1.5 weeks
- cwl (30%) 2 weeks
- cw2 (30%) 3 weeks
- cw3 (30%) 2 weeks
- cw4 (10%) I weeks
- We expect you to submit Javadoc for formal cw – details with the spec.

#### The Markers Apprentice (TMA)

- TMA will be used for submission/marking.
- Fully automatic for cw0
- Partially automatic for formal cw
- Details are linked from Moodle if you are interested. Briefly on board...
- Login at tma.cs.nott.ac.uk
- Login and password will be available next week.

# Survey

- You will be emailed a link to a feedback and auto-marking survey.
- This is not mandatory, but it would help to get as many views as possible so please complete.
- A follow up will be available at the end of the module.

# Review of final coursework

Mars Rover

### 20 Questions...

• If you know the answers to these then you should have no problems...