Programming Paradigms

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Administration

- If you have questions, use Moodle first - http://moodle.gcd.ie/
  - Other might be able to help you before I get a chance.
- E-mail: jacek.wasilewski@griffith.ie
  - If queries are generic, I will be answering them through Moodle.
- Office Hours: by appointment only – please e-mail

Timetable

- Lectures:
  - Monday 9.30am – 11am, AF104
- Labs:
  - Wednesday 9.30am – 11am, JS001, or
  - Thursday 11.45am – 1.15pm, JS001
- Week 6 – no classes
  - Classes during assignment week, week 8

Module Structure

- (Brief) Introduction and history of programming languages
- Functional Programming & Scala
- Object-Oriented Programming in Scala
- Object-Oriented Design
  - S.O.L.I.D.
  - Stateful and Stateless Objects
  - Design by Contract
- Object-Oriented Modelling

Assessment

- Continuous Assessment – 60%
  - 2 programming assignments
    - First – 10%
      - Release: week 4
      - Deadline: end of week 7 (November 6th)
    - Second – 30%
      - Release: week 9
      - Deadline: end of week 12 (December 11th)
  - 1 in-class test (week 9, November 14th) – 20%
- Exam – 40%

Labs

- Most of the weeks you will be given a worksheet to practice.

- It does not count towards the final grade.

- Submission is optional however if submitted, it might improve corresponding part on the assignment
  - If you do not submit, nothing happens.

- Deadline: one week after the lab.

- Plagiarised submissions are ignored.

Plagiarism

- It is a serious violation to submit plagiarised work.

- Every single one will be reported to the Faculty.

- All submission will be automatically check using a dedicated software.

- If you copy partially or fully a work of other student, both students will be punished.

  - That typically results in 0 points for that piece of work.

- It is fine to reference sources (if you really feel you need to) as long as it does not solve the problem fully and it is only one of the pieces.

Surveys

- After each week, there will be survey that you are encourage to participate in:
  - to ask questions if you do not want to do that during the lecture,
  - to express that something was not clear enough,
  - to express the level of understanding,
  - to express the clearness of the material,
  - to express opinion on what should be changed or fixed.
- It is important that you participate in surveys as it gives me a chance to react sooner than later.
- These will be anonymous – external tool will be used so you do not have to be worried that somebody could identify you.

Recommended Reading (1)

- "Structure and Interpretation of Computer Programs", Gerald Jay Sussman and Hal Abelson, MIT Press, 1996 https://mitpress.mit.edu/sicp/full-text/book/book.html

- "Effective Java", Bloch Joshua, Addison-Wesley, 2008

- "Programming in Scala", Martin Odersky, Lex Spoon, and Bill Venners, Artima Press, 2008 https://www.artima.com/pins1ed/

Recommended Reading (2)

- "Scala by Example", Martin Odersky, EPFL Lab, 2014
  http://www.scala-lang.org/docu/files/ScalaByExample.pdf

- Java 8 Documentation
  https://docs.oracle.com/javase/8/docs/