CMT304: Programming Paradigms

Introduction

Víctor Gutiérrez Basulto

30.09.2019

Yearly Module

- Compulsory Module for MSc Advanced Computer Science
- Optional Module for MSc Artificial Intelligence



Course Instructors

- Dr Frank Langbein
- Dr Philipp Reinecke
- Dr Víctor Gutiérrez-Basulto (module leader)

Module Overview

- Evaluate and apply a suitable programming paradigm and language to solve a given problem.
- Discuss and contrast the issues, features, design and concepts of a range of programming paradigms and languages.
- Implement advanced imperative and object-oriented techniques.

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Overall Structure

- Víctor Gutiérrez Basulto *first* half of Autumn semester
- Frank Langbein second half of Autumn semester
- Philipp Reinecke first half of Spring semester
- Frank Langbein second half of Spring semester

Overall Structure

Autumn Semester

- Logic Programming
- Functional Programming

Autumn Semester

- Script Programming
- Machine Programming
- Genetic Programming
- Advanced Imperative Programming

Overall Structure: Autumn Semester

- Lectures scheduled for 14:10-16:00 on Monday in T/2.07
- Labs scheduled for 16:10-17:00 on Monday in C/2.08
- Lectures on weeks 1, 2, 4, 5, 7, 8, 10, 11



Material/Support

- https://learningcentral.cf.ac.uk/
- Math support: https://goo.gl/YiZDCz

Assessment

- The module assessment will comprise of both coursework and examination
- Coursework 25% in the first semester and 25% in the second semester
 - The assignment in the first semester will be given out in Week 4 and need to be submitted by Week 10
 - The assignment in the second semester will be given out in Week 4 and need to be submitted by Week 10
 - All courseworks are individual work
 - Assessment submissions: all via Learning Central unless otherwise instructed
 - Feedback provided via Learning Central
- Exam 50%
- Re-assessment will take the form of re-sit examination
- Extenuating circumstances procedure for any detour from this plan!



Extenuating Circumstances

http://cardiff.ac.uk/ec



Credits to hours

Contact	CW	Unallocated
40h	20h	140h

- 20 credits \simeq 200 hours
- From the timetable, 40 hours lectures/seminars/labs (excluding breaks)
- 10 + 10 hours allocated for you to prepare your coursework submission Facebook/Netflix/Snapchat/Instagram/Vine/Twitter time not included
- 140 hours unallocated: to be used to prepare for following lectures, studying reading material, and revising



The Importance of Reading Material

Topics in the exam paper can refer to reading material



The importance of taking notes

- https://www.youtube.com/watch?v=Bvsf591rYWE
- ..



First Half of Autumn Semester Schedule

• Monday 30th September, 7th October, 21st October, 28th October



Textbook for the first half of the autumn semester



Answer Set Solving in Practice

Martin Gebser Roland Kaminski Benjamin Kaufmann Torsten Schaub

Synthesis Lectures on Artificial Intelligence and Machine Learning

Ronald J. Brachman, William W. Cohen, and Thomas G. Dietterich, Series Editors

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