Universitatea Tehnica din Cluj-Napoca
Departament Calculatoare

Fundamental Programming Techniques

Course Overview

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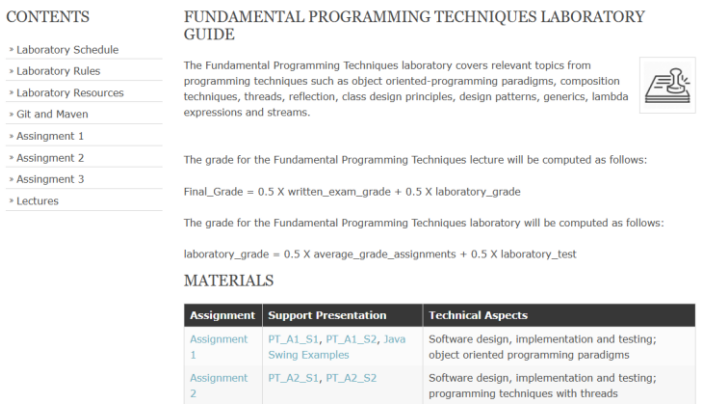
Administrative Issues

- **Course and laboratory site**
  - https://dsrl.eu/courses/pt/
  - Access password: pt2425



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FUNDAMENTAL PROGRAMMING TECHNIQUES LABORATORY GUIDE

The Fundamental Programming Techniques laboratory covers relevant topics from programming techniques such as object oriented-programming paradigms, composition techniques, threads, reflection, class design principles, design patterns, generics, lambda expressions and streams.

The grade for the Fundamental Programming Techniques lecture will be computed as follows:

Final_Grade = 0.5 X written_exam_grade + 0.5 X laboratory_grade

The grade for the Fundamental Programming Techniques laboratory will be computed as follows:

laboratory_grade = 0.5 X average_grade_assignments + 0.5 X laboratory_test

MATERIALS

Assignment	Support Presentation	Technical Aspects
Assignment 1	PT_A1_S1, PT_A1_S2, Java Swing Examples	Software design, implementation and testing; object oriented programming paradigms
Assignment 2	PT_A2_S1, PT_A2_S2	Software design, implementation and testing; programming techniques with threads

- **Grading**

  Final_Grade = 0.5 X written_exam_grade + 0.5 X laboratory_grade

  laboratory_grade = 0.5 X average_assignments + 0.5 X laboratory_test

- **Contact**

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Course Overview

Week	Course
W1	Software Engineering Process
W2	Design View: UML Diagrams
W3	OOP Paradigms
W4	Programming Techniques with Threads
W5	Abstract Classes and Interfaces
W6	Compositional Techniques, Reflection
W7	Class Design Principles
W8	Solid Principles, Inversion of Control
W9	Generics
W10	Functional Programming
W11	Streams
W12	Design Patterns
W13	Laboratory Test
W14	Revision