Schedule of the course

Programming Concepts in Scientific Computing

EPFL, Master class

September 11, 2024

Program by day

- Wednesday 11-th Sep:
  - Presentation of the class
  - What is a program ?
  - Compilation process
  - Exercises: on Linux and manual compilation
- Friday 13-th Sep: Using GIT and CLion + Exercises Chapter 1
- Wednesday 18-th Sep: Chapter 2&3 - Flow control, File Input and Output
- Friday 20-th Sep: Exercises on Chapter 2 and 3

Program by day

- Wednesday 25-th Sep: Chapter 4: pointers + GDB
- Friday 27-th Sep: Chapter 4 exercises + GDB exercises
- Wednesday 02-th Oct: Chapter 5: blocks functions and reference variables + start exercises
- Friday 04-th Oct: Chapter 5: exercises
- Wednesday 09-th Oct: Chapter 6&7: An introduction to classes: structuring code with inheritance
- Friday 11-th Oct: Chapter 6&7: exercises
- Wednesday 16-th Oct: Chapter 8: classes of Templates + STL
- Friday 18-th Oct: Chapter 8: exercises
- Wednesday 30-th Oct: Chapter 9 (Errors and exceptions) + modern C++
- Friday 01-th Nov: Chapter 9 & STL exercises
- Wednesday 06-th Nov: Eigen libary (not in book)

Program by day

- Friday 08-th Nov: Exercises on Eigen
- Wednesday 13-th Nov: Chapter 10 & 12: Design of code and projects presentations
- Friday 15-th Nov: Assignment of the projects
- Wednesday 20-th Nov: CMake, Doxygen, git submodule and start of the project developments
- Friday 22-th Nov: Session dedicated to work on the projects
- Wednesday 27-th Nov: 3rd Party libraries in general, GNUPLOT, GTest
- Friday 29-th Nov: Session dedicated to work on the projects
- Wednesday 04-th Dec: Discussion on the oral exam
- Friday 06-th Dec: Session dedicated to work on the projects
- Wednesday 11-th Dec: Session dedicated to work on the projects
- Friday 13-th Dec: Deadline for projects