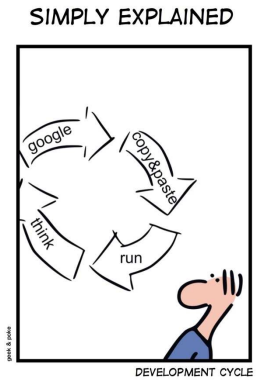

Software Engineering

www.cs.uoi.gr/~zarras/http://www.cs.uoi.gr/~zarras/se.htm

Slides material sources:
Software Engineering - Theory & Practice, S. L. Pfleeger
Introduction to Software Engineering, I. Sommerville
SWEBOK v3: IEEE Software Engineering Body of Knowledge

What are the objectives & expected outcomes?

What are the objectives & expected outcomes?

The study and application of systematic **processes**, **methods** and **techniques** for software design, implementation and testing.

Learn how to:

Specify requirements for a large scale software system.

Specify the architecture of the system based on the requirements specification.

Design and implement the subsystems of the system's architecture.

Test the system in a principled way that guarantees the quality of the result.

Organize the delivery of the system and the user's training.

Literature and study material

The main textbooks for the course are:

1. Software Engineering - Theory & Practice, S. L. Pfleeger, ISBN 978-960-461-477 6
2. Software Engineering, I. Sommerville, ISBN 978-960-461-220-8

Apart from the above textbooks you can download the course's lecture notes.

1. SWEBOK v3: IEEE Software Engineering Body of Knowledge
2. Lethbridge and Laganiere, Object-Oriented Software Engineering Practical Software Development using UML and Java, 2005
3. R.C. Martin, Agile Software Development, Principles, Patterns, and Practices, 2003
4. GoF, Design Patterns: Elements of Reusable OO Software, 1995
5. Software Testing – A Craftsman's Approach, P Jorgensen

Project, Labs, Related Technologies

The project is developed by groups of 2-3 students.

Final deliverables:
1. Source code
2. Report

We will have a LAB in I5 where we will discuss the project and related technologies like Spring, Thymeleaf, Bootstrap, JPA, Hibernate, MySQL, JUnit, Mockito, Maven etc.

Grades and exams

The will also be a final written exam at the end of the semester.

```
If FinalExamGrade >=5 and ProjectGrade >= 5
    Overall grade = 0.6 * FinalExamGrade + 0.4 * ProjectGrade
Else
    Overall grade = min(FinalExamGrade, ProjectGrade)
```