

SOFTWARE ENGINEERING ALBANIA

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(2012)
A Joint Course

TABLE OF CONTENT

- × Software Engineering Importance
- × The theoretical content of this course
- × Practical concepts
- × Assignments
- × Conclusions

SOFTWARE ENGINEERING IMPORTANCE

Definitions:

- × “Software engineering ... aims at the economical development of high-quality software”
- × “SE is an engineering discipline concerned with the practical problems of developing large software systems”

THEORETICAL CONTENT (1)

- × Software Process Models
 - + Waterfall model
 - + V model
 - + Prototyping
- × Cost estimation
 - + Influence factors (LOC, quality requirements, experience, etc.)
 - + Approaches to cost estimation

THEORETICAL CONTENT (2)

- × Object Oriented Analysis
 - + Model paradigm: “Decomposition of the SW Systems into objects”
 - + Modeling Language: UML Diagram
- × Quality Criteria:
 - + Reliability
 - + Scalability
 - + Maintainability
 - + User Friendliness

PRACTICAL CONCEPTS(1)

- × “You can’t manage what you can’t control and you can’t control what you don’t measure” – Tom DeMarco
- × Software Metrics
 - + LOC Metric
 - + Style Metric
 - + Cyclomatic Complexity Metric
 - + Object Oriented Metric

PRACTICAL CONCEPTS(2)

- × Software Life-Cycle
 - + Requirement Specification & Analysis: 6%
 - + Designing: 5%
 - + Implementation: 7%
 - + Testing (Unit and Integration): 15%
 - + Maintenance: 67%
- × Structural testing
- × Functional testing

ASSIGNMENTS

- × 1st Assignment: Requirement Specification
- × 2nd Assignment: Functional Testing
 - + CTE XL tool
- × 3rd Assignment: Structural Testing
 - + SOTA tool
- × 4th Assignment: Software Metrics
 - + CCCC tool and SOTA

CONCLUSIONS

- × Exchanging experience with professionals
- × Teamwork as an aspect of Software Engineering
- × Gaining the ability to use helpful tools like: SOTA, CTE XL and CCCC
- × Enjoying
- × We would like to thank Prof. Klaus BOTHE and Zoran PUTNIK

THANK YOU FOR YOUR ATTENTION!

QUESTIONS?

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