



Fundamentals of Software Maintenance

Summary

In this course the fundamentals of software maintenance are discussed. It gives an overview of where the software maintenance industry stands today and which core activities, processes and techniques can be distinguished. Topics discussed include a maintenance lifecycle model, corrective maintenance, adaptive maintenance, perfective maintenance, preventative maintenance, reverse engineering techniques, configuration management, process engineering and IT Governance (ITIL, COBIT).

The course is composed of lectures and class exercises with ample opportunity for participant questions and discussions. Much of the class time is devoted to exercises in which participants, typically working in small teams, practice the skills being taught.

Audience

Anyone directly involved in software engineering. The course is highly recommended for both experienced and less experienced software engineers and software (project) managers.

Criteria

There are no prerequisites for this course. Experience and/or affinity with software engineering are however recommended.

Duration

2 days (4 modules).

Remarks

This course addresses a high market potential/need. It supports organizations gaining their staff a common understanding of fundamentals of software maintenance.



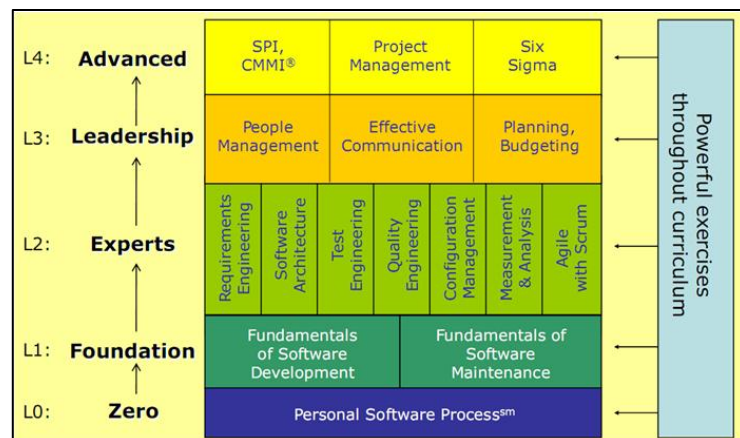
SE-CURE AG

Weissenbergstrasse 3
P.O. Box 340
CH-3775 Lenk, Switzerland

T: +41 (33) 733 4682
F: +41 (33) 733 4681
E: info@se-cure.ch

www.se-cure.ch

Our Software Engineering Curriculum





Program

Module 1:

- Software Maintenance
 - o Past, Present, Future
- Maintenance Process and Organization
 - o Lehman's laws
 - o Maintenance categories
 - o Maintenance process

Module 2:

- Corrective maintenance
 - o The art of debugging
- Adaptive maintenance
 - o Portability
 - o Software, hardware, operating system
- Perfective maintenance
 - o Comprehension, understanding

Module 3:

- Preventative maintenance
 - o Legacy systems
 - o Assessment
 - o Re-engineering techniques
 - o Refactoring
- Reverse engineering
 - o Migration

Module 4:

- Configuration Management
 - o Branching strategies
- Process Engineering
 - o Ways to improve
- IT Governance
 - o COBIT
 - o ITIL

During the course, 1-2 challenging exercises in each module are used to demonstrate the discussed concepts and techniques. Example solutions to all course exercises are provided.



SE-CURE AG

Weissenbergstrasse 3
P.O. Box 340
CH-3775 Lenk, Switzerland

T: +41 (33) 733 4682
F: +41 (33) 733 4681
E: info@se-cure.ch

www.se-cure.ch