

ption



# Personal Software Process<sup>sm</sup>

## Summary

The course introduces the basic principles of the Personal Software Process<sup>sm</sup> (PSP<sup>sm</sup>) and help individual engineers to improve their performance by bringing discipline to the way they develop software. Students start with the baselining their current performance, where they use their current programming practices. The process is enhanced through four exercises, with course participants writing and testing their programs. For each exercise, they use the process enhancements and techniques just introduced, as well as all of the process enhancements and techniques introduced in the previous exercises.

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

## Audience

This course is a MUST for any (future) professional software engineer involved in programming.

## Criteria

None.

## Duration

2 days (4 modules).

## Remarks

Course participants might need to spend some additional time after the first day to finish their assignments. Course is likely to finish late.



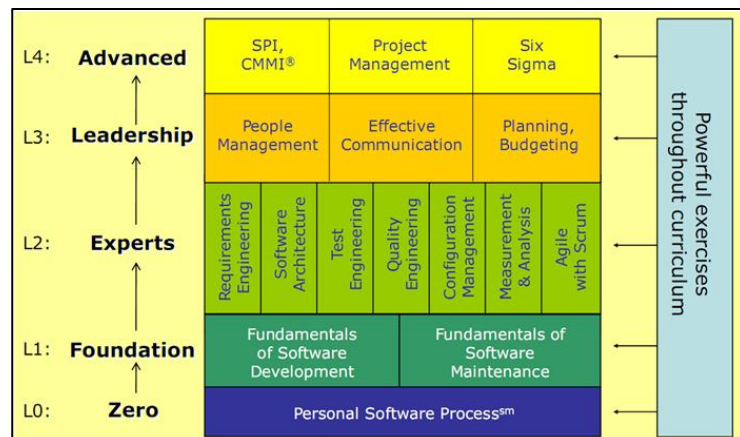
## SE-CURE AG

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](mailto:info@se-cure.ch)

[www.se-cure.ch](http://www.se-cure.ch)

## Our Software Engineering Curriculum



<sup>sm</sup> Personal Software Process is a service mark of Carnegie Mellon University.



# Program

## Module 1:

- Overview
  - o What is a software process?
  - o Course details
- Performance baseline
  - o Process model
  - o Process elements

## Module 2:

- Measurement principles
  - o Types of measures
  - o Program size, time, defects
- Size estimates and schedule plans
  - o Project planning framework
  - o PROBE

## Module 3:

- Reviews
  - o Why do reviews?
  - o Defect model
- Defect and Yield Management
  - o Design review
  - o Code review

## Module 4:

- Cost of Quality
  - o Appraisal to Failure Ratio
  - o Programming Yield
- Defect prevention
  - o Quality focus
  - o Defect removal strategies

Each course participant has to write and test four (apparently simple) programs. For each program, the process enhancements and techniques introduced in each module have to be applied. These programming exercises are highly appreciated by course participants.



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