Subject Matter

- introduction .............................................. a first problem analysis
- fundamentals ..................... domain analysis, program families, and object orientation
- case study .................design and development of TA1, a threads abstraction layer
- discussion ........................ things nice to have and not to have
- revision ..........................aspect orientation
- conclusion ............................ lessons learned

Educational Objectives

- an excursus on modern operating-system design and implementation
  - focusing on system-software flexibility, portability, and scalability
- the use of software-engineering techniques in system-software design
  - feature modeling [3]
  - program families [5]
  - object orientation [8]
  - aspect-oriented programming [4]
- an inauguration into the secrets and a rationale of Pure [1]

Prerequisites

- structured computer organization, operating systems
- C/C++, assembler
- enjoy system-level programming
- no fear of stuff hard to digest
- some sort of staying power
Syllabus

- one lecture per week, two hours each .............................. 2 SWS
  - subject presentation

- one seminar per week, two hours each .............................. 2 SWS
  - subject consolidation
  - practice discussion

- computer practice $N$ hours per week, $0 < N \leq 164$ ............ 0 SWS

Achievement Control

- practice
  - pass ........................................ in case of successful elaboration of all exercises
  - consultation ............... in case of unsuccessful elaboration of one exercise
  - fail........................................ otherwise, or enjoy...

- examination on lecture and seminar stuff

Academic Staff

- Wolfgang Schröder-Preikschat ...................................... professor
  - http://www4.informatik.uni-erlangen.de/~wosch

Suggested Reading


