



**TECHNISCHE
UNIVERSITÄT
DRESDEN**

Fakultät Informatik Institut für Systemarchitektur, Professur für Betriebssysteme

COMPLEX LAB

SYSTEMS PROGRAMMING

Introduction

<https://tud.de/inf/os/studium/praktika-seminare/komplexpraktikum-systemnahe-programmierung>

HORST SCHIRMEIER

Overview

- Course Goals
- Organizational Stuff
 - Earning credits
 - Daily schedule, Communication, Feedback
- Topics

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Course Goals

- Low-level systems programming
- Advanced C++ skills
- Basic multi-threaded programming
- Intimate tools knowledge
- Hands-on experience
- Good preparation for practical courses

Good foundation for practical courses at the SyA institute in general and the OS group in particular

Earning Credits

- 4 week-hour complex lab
- You can get credits within the modules
 - INF-04-KP*
 - INF-DSE-20-E-ADSE, INF-DSE-20-M-INT
 - INF-E-4
 - INF-MA-PR
 - INF-BAS4**, INF-VERT4
 - IST-05-FG-AVS
 - MINF-04-KP-FG2
- Solve practical assignments **after** the workshop
 - * **INF-04-KP:** ... plus 15-minute colloquium
 - ** **INF-BAS4:** ... max. 4 SWS, see link on the website

Daily Schedule, Communication

- **Start:** 09:30
- Lunch break: around 12:30
- Additional breaks on demand
- **End:** 16:00 at the latest
- Communication via mailing list
sysprog2023@os.inf.tu-dresden.de (sign up on the website!)
- **Feedback welcome:** in person, via email, or via our
Anonymous Mailbox

Mailing List

➡ Please subscribe using a TU Dresden address

Feedback

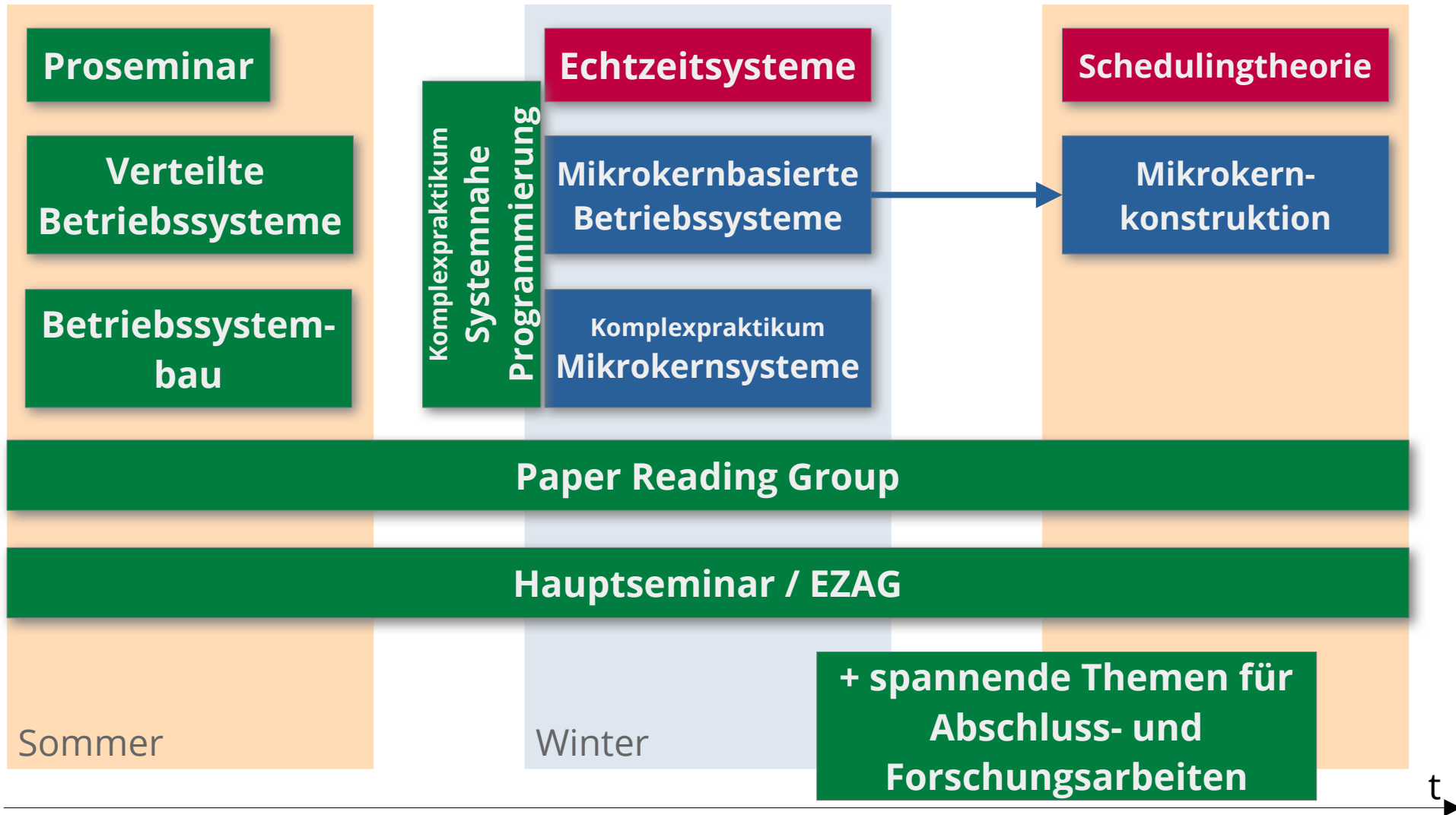
via email or our ➡ **anonymous mailbox**

Topics

- Day 1 – Tools and Build System
- Day 2 – C++: Basics and Beyond
- Day 3 – Rust for Systems
- Day 4 – Assembler
- Day 5 – Debugging Techniques
- Day 6 – Multithreading
- Day 7 – Underneath POSIX



Lehrveranstaltungen



Complex Lab Systems Programming

Happy hacking!