

SYSTEMS PROGRAMMING LAB

INTRODUCTION

<https://tud.de/inf/os/studium/praktika-seminare/sysprog>

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

- Modules: Bachelorpraktikum (INF-25-Ba-P-SP), INF-DSE-20-E-ADSE, INF-DSE-20-M-INT
- You need to pass **5 parts** (*Teilleistungen*) with a total of 60 achievable points.
- **4 practical programming assignments** after the workshop
 - 4 points each (minimum for passing: 2 points), i.e. 16 in total
 - Criteria: Fulfillment of programming-assignment requirements, number of feedback rounds/resubmissions, code quality (structure, comments)
 - Submission until **2027-02-15**
- **Oral defense** (15 minutes)
 - 44 points (minimum for passing: 22 points)
 - Questions on programming assignments, but also on lab part
 - Criteria: Correctness and quality of the answers given

Earning Credits

- Total passing limit: 30 points (out of $16+44=60$)

Points	Grade	Points	Grade
57	1,0	42	2,7
54	1,3	39	3,0
51	1,7	36	3,3
48	2,0	33	3,7
45	2,3	30	4,0

Exam Appointments / Grading Requests

- Don't miss exam registration deadlines!
- Contact os@mailbox.tu-dresden.de for an exam appointment for the 15-minute defense; include in the email:
 - Matriculation number
 - Degree program (Bachelor Informatik, Master DSE)
 - Module name (INF-25-Ba-P-SP, INF-DSE-20-E-ADSE, INF-DSE-20-M-INT)
 - “Systems Programming Lab w/ Prof. Schirmeier”
 - Date wishes + constraints (e.g., “between X and Y”), don't be too restrictive
- Programming assignments must have been handed in before the deadline – and **at least 1 week before the defense!**

Daily Schedule, Communication

- **Start:** 09:30
- Lunch break: around 12:30
- Additional breaks on demand
- **End:** usually 16:00–16:30
- Communication via mailing list sysprog2026@os.inf.tu-dresden.de
(sign up on the website!)
- **Feedback welcome:** in person, via email, or via our Anonymous Mailbox

Mailing List

Feedback

➡ Please subscribe using a TU Dresden address

via email or our ➡ anonymous mailbox

Topics

- Thursday, 2026-09-17
- Friday, 2026-09-18
- Monday, 2026-09-21
- Tuesday, 2026-09-22
- Wednesday, 2026-09-23
- Thursday, 2026-09-24
- ... slides on the website

Tools and Build Systems

C++: Basics and Beyond

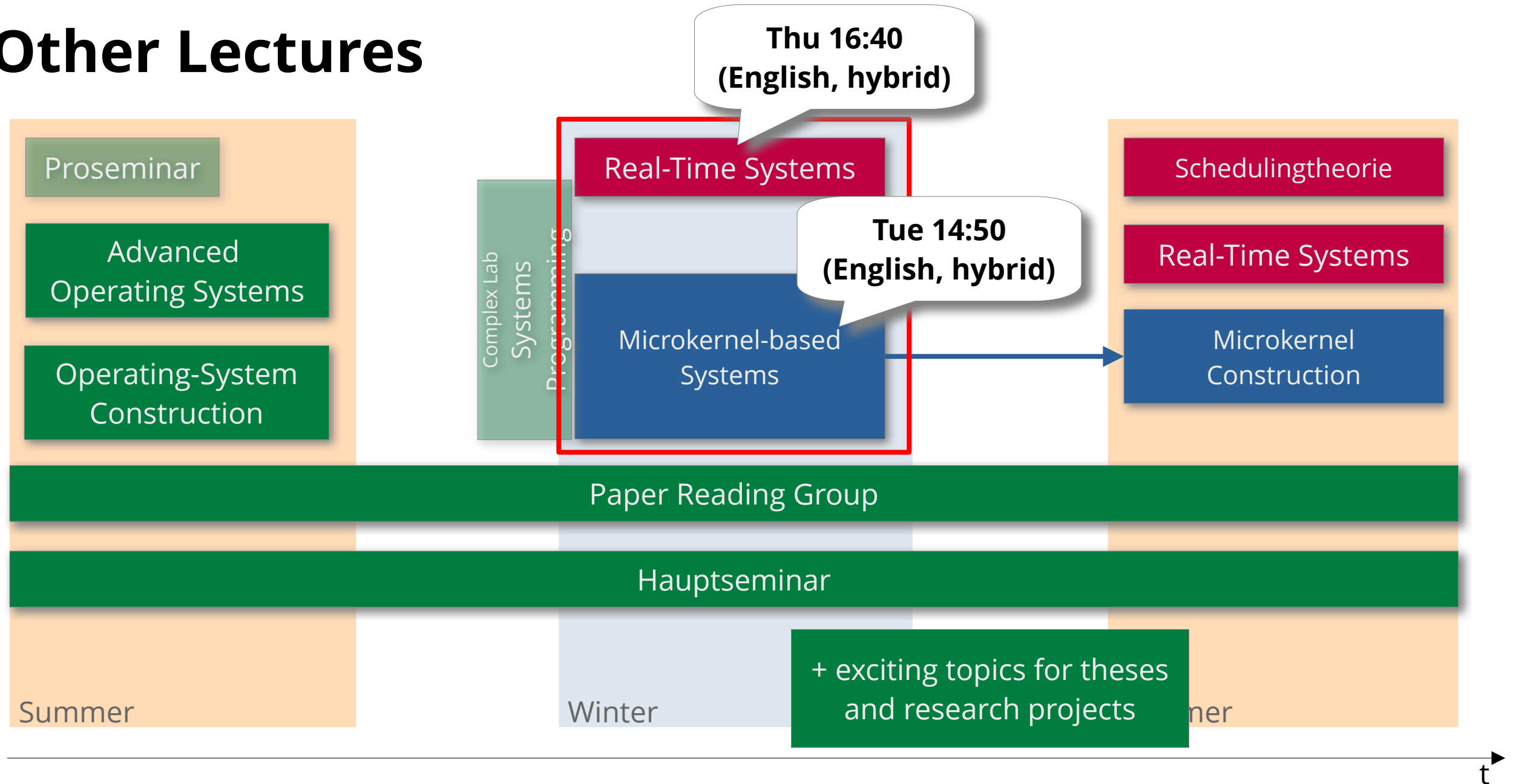
Assembler & Debugging Techniques

Underneath POSIX

Rust for Systems

Multithreading

Other Lectures



Systems Programming Lab

Happy hacking!