

# Operating Systems

## About

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# Agenda

- About me and this lecture

- Organizational

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# Interaction in this Lecture

- Participate lively
- Ask questions!
- A key attribute for science is scepticism

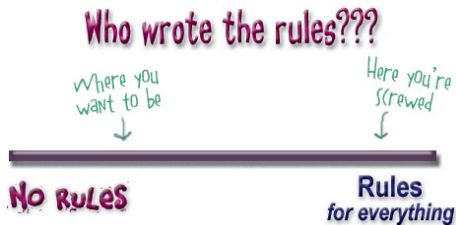


Source: public domain

"Education is a dialogue not a one way monologue" <sup>1</sup>

<sup>1</sup>JNICSR Times, <http://jnicrstimes.com/?p=1476>

# Some Rules



Source: headrush.typepad.com

## Rules for this Course

- Be respectful
- There are no stupid questions or comments
- You can interrupt me at any point

## About me



- Study of Computer Science at Freie Universität Berlin
- Software Developer for ScatterWeb and Zühlke Engineering
- Research on IoT and Operating Systems

### Contact

**E-mail:** [oliver.hahm@fb2.fra-uas.de](mailto:oliver.hahm@fb2.fra-uas.de)

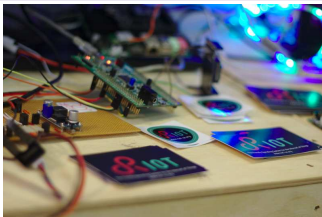
**Office hours:** Fridays 10:00 – 11:00, room 1-212

# Join the RIOT!

*RIOT is the friendly operating system for the IoT!*

You're interested in ...

- ... programming the IoT?
- ... collaborate with hundreds of people from all over the world?
- ... contribute to a big FLOSS project?



## Get in touch

Get in touch and do some hacking at the *All RIOT* event at the university!

Every two or three weeks 4pm in room 1-237.

Or look at <https://allriot.dahahm.de>



# What about you?

Please go to the survey at  
<https://pingo.coactum.de/977183>





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- Which part of your studies do you find most interesting?

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- Which part of your studies do you find most interesting?
- What is your preferred programming language?

# Agenda

■ About me and this lecture

■ Organizational

# Organizational

- Lecture:
  - Tuesday 10:00 – 11:30, room 1-130
- Exercise (starting next week):
  - Tuesday 11:45 – 13:15, room 1-237
  - Tuesday 14:15 – 15:45, room 1-237
  - Tuesday 16:00 – 17:30, room 1-237
- Written exam

campUAS

Enrolment Key:  
HahmOpSys

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## Please note!

- This course is for students of Computer Science — Mobile Applications, B. Sc. and VGU students

## Further Information

### Course page

All material regarding this course can be found at  
<https://teaching.dahahm.de>.

This includes

- Announcements
- Slides
- Exercises

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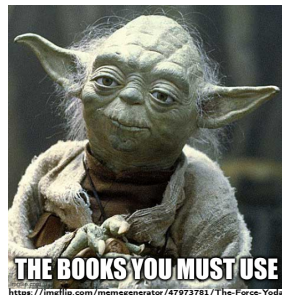
### Do not ask!

Everything is relevant for the exam.

# Slides

- The creation of the slide sets is work in progress
- They cover all topics of the lecture
- **BUT** they are no book and, hence, do not comprise
  - all details
  - all derivations
  - all thoughts and discussions which are part of the lecture and exercises

- ⇒ participate
- ⇒ ask questions
- ⇒ take notes
- ⇒ do your own research (e.g., use the books)





# Exercises

The exercises are no legal precondition for participating in the exam, **BUT** they...

- ... are very important to recap the content.
- ... are a good opportunity to check your understanding.
- ... provide the chance to ask me all your questions.



# Exam

What is necessary to pass the exam?

You should be able to . . .

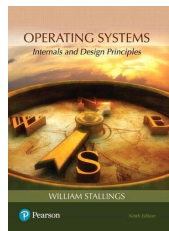
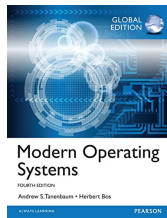
- explain main concepts and ideas with your own words,
- select a suitable solution for a given problem,
- analyze a given solution and detect (potential) problems, and
- explain your answers.

# Literature

- Andrew S. Tanenbaum, Herbert Bos: *"Modern Operating Systems"*, 4th Ed., Pearson, 2014.
- William Stallings: *"Operating Systems – Internals and Design Principles"*, 9th Ed., Pearson, 2018.

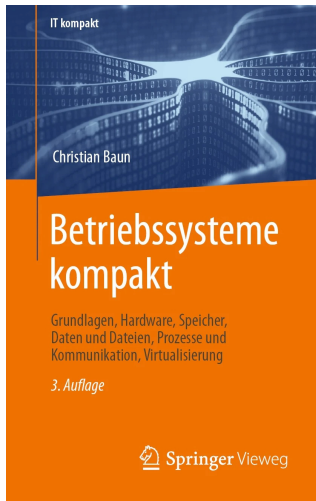
<https://elibrary.pearson.de/book/99.150005/9781292061955>

<https://elibrary.pearson.de/book/99.150005/9781292214306>



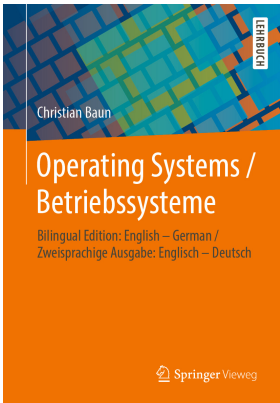
You can borrow both of these books from the library or access them online for free (see links above).

# More Literature



[https://link.springer.com/book/10.](https://link.springer.com/book/10.1007/978-3-662-53143-3)

1007/978-3-662-53143-3



[https://link.springer.com/book/](https://link.springer.com/book/10.1007/978-3-658-29785-5)

10.1007/978-3-658-29785-5

- Parts of the slide sets are closely related to the books.
- The two-column layout (English/German) of the bilingual book is quite useful for this course

# Summary

- At the end of each chapter the last slide summarizes the most important take-away messages
- Now is a good moment to recapitulate whether there are any open questions
- When preparing for the exam these summaries can help you