

Software Craftsmanship

by Bjoern Kimminich

Bjoern Kimminich

- Manager Architecture Governance + AppSec at [Kuehne + Nagel](#)
- Lecturer at [Nordakademie](#) since 2009
- Volunteer in the [Open Web Application Security Project](#)
- Project Lead of the [OWASP Juice Shop](#)
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Miscellaneous

- <https://keybase.io/bkimminich>
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Course Material

<https://github.com/bkimminich/software-craftsmanship-lecture>

Course Material

- All slides and references are in  language
- The lecture can be held in  or  language
- Latest course material is available only on GitHub
- Content exists as `Markdown` files for use with [Marp](#)
- Slides can be [downloaded as PDF](#) from GitHub
- All slides are published as [OER](#) under [CC BY-SA 4.0](#) license

You can help save a  by not  all slides for the entire course in advance as content might change during the course!

Rules

- Physical presence at lectures is mandatory and will be logged
- Exercises are mandatory (unless explicitly marked as *optional*)
- Exercises marked with "📌" might be done in the plenum
- Exercises marked with "📝" must have a (digitally) written result
- Active participation is encouraged. Otherwise at least be quiet
- If you are done with the last exercise of the day, you may leave

Curriculum

1. [Motivation](#)
2. [Clean Code](#) (Names, Functions, Comments, Formatting)
3. [SOLID Principles](#) (SRP, OCP, LSP, ISP, DIP)
4. [Other Principles](#) (KISS, DRY, YAGNI)
5. [Testing](#) (Test Pyramid, Test Ice Cone, Unit Testing, Legacy Testing)
6. [Test Driven Development](#) (TDD)
7. [Agile Development Techniques](#) (Pair Programming, Collective Code Ownership, CI, Dojos)
8. [Code Quality Tools](#) (Linters, Static Code Analysis, Software Composition Analysis)

Recommended Resources

- [The Robert C. Martin Clean Code Collection](#)
 - Martin: Clean Code, 2008
 - Martin: The Clean Coder, 2011
- <https://cleancoders.com> (💰)