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## Software Engineering

# Organization



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# The Lecture's Goal

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**The goal is to enable you to systematically carry out  
small(er) commercial or open-source software  
projects.**

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# Basic Goals

Content / Structure of the Lecture | 4

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- To get a brief overview of “all” areas of software engineering
- To understand agile software development processes
- To be able to perform object-oriented analysis and design
- To be able to read and create basic UML diagrams
- To perform basic Software Quality Assurance
- To get first hands-on experience and to learn to use basic software development tools
- To be able to use basic design patterns

# Basic programming skills are required.

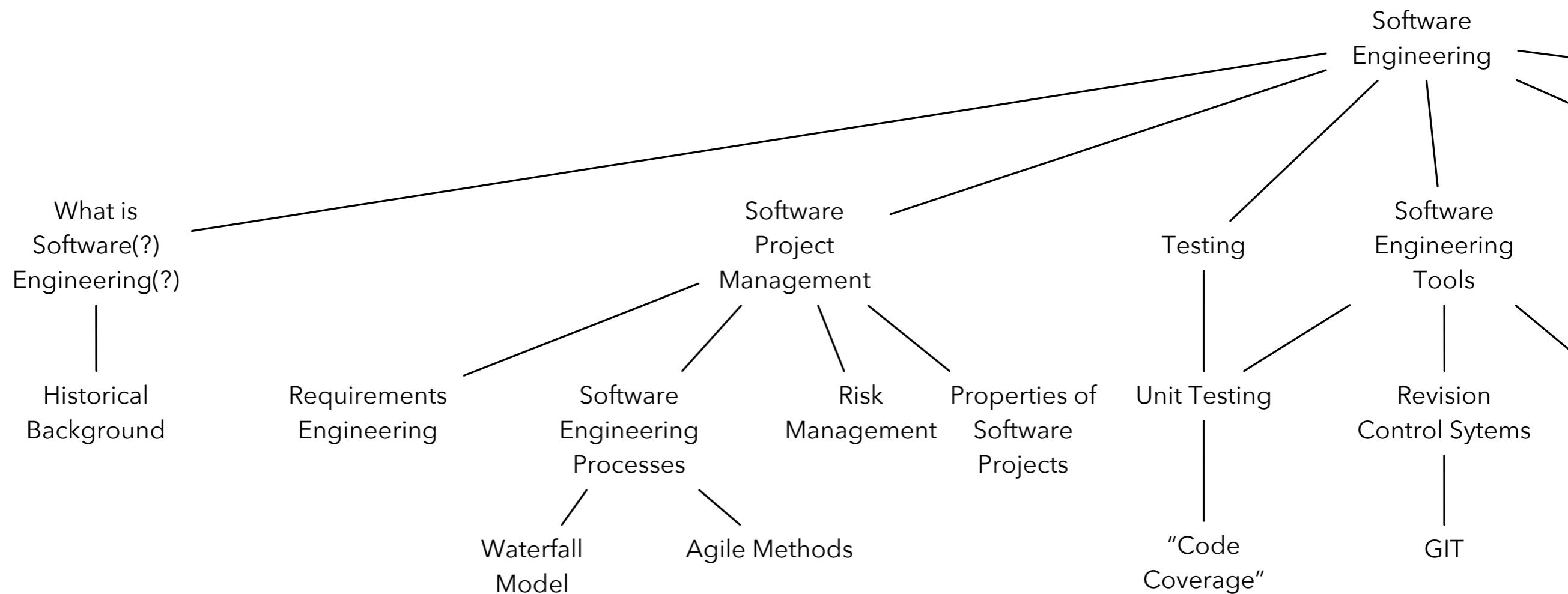
- Basic knowledge of object-oriented programming concepts is necessary  
I.e., you should readily understand the following terms:
  - **class, interface**
  - **object**
  - **inheritance**
  - **polymorphism**
- Working knowledge of the Java programming language
- We are going to use Java 8

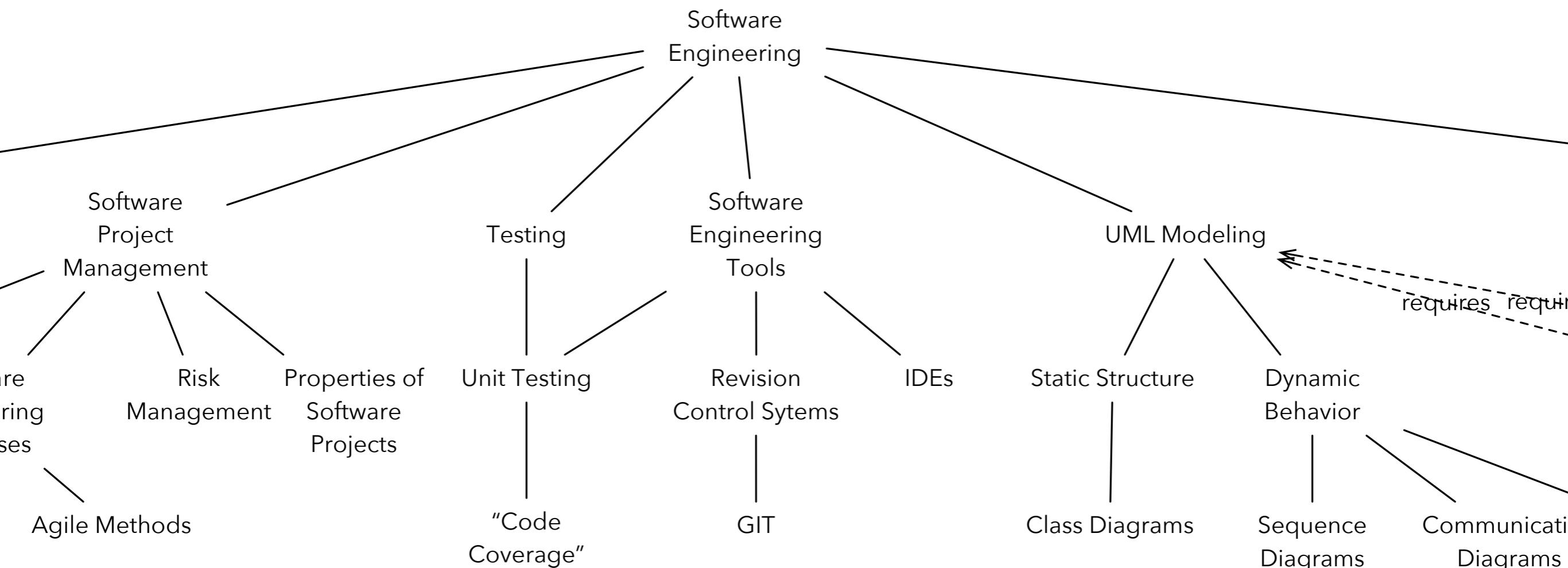
# The Lecture's Structure

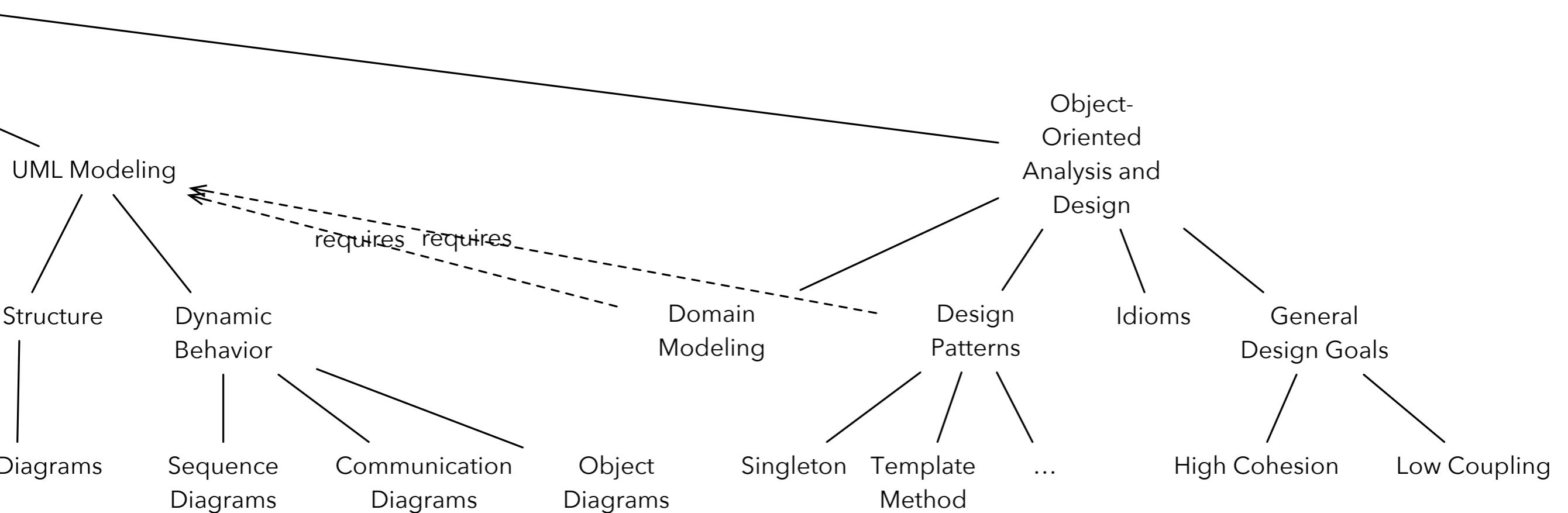
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# The Team

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# The Team

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**Dr. Michael Eichberg**



**Leonid Glanz**



**Sven Amann**

## Contact

WWW

[http://www.stg.tu-darmstadt.de/teaching/teaching\\_overview.en.jsp](http://www.stg.tu-darmstadt.de/teaching/teaching_overview.en.jsp)

## Forum

<http://www.d120.de/forum/>

→kanonische Einführungsveranstaltungen

→Einführung in Software Engineering

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# Lecture

- Thursdays 13:30-15:00 in S2 02 | C205 and C110
- The slides are in English  
(Key terms will be translated into German.)
- The slides will generally be available after the lecture  
(I will try hard to make a preliminary version available the day before the lecture.)
- The slides can be found at  
<http://stg-tud.github.io/eise/>

# Exercises

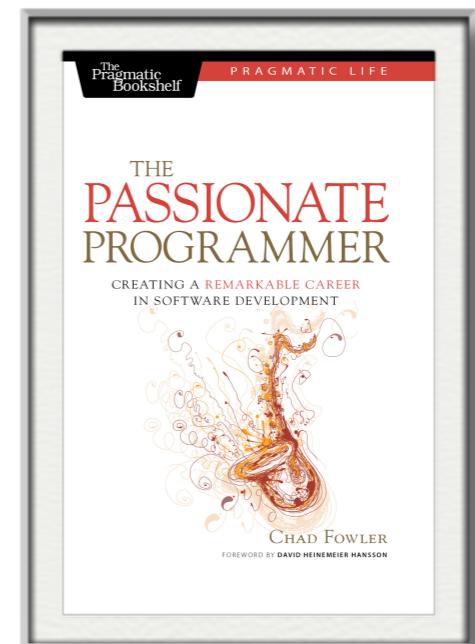
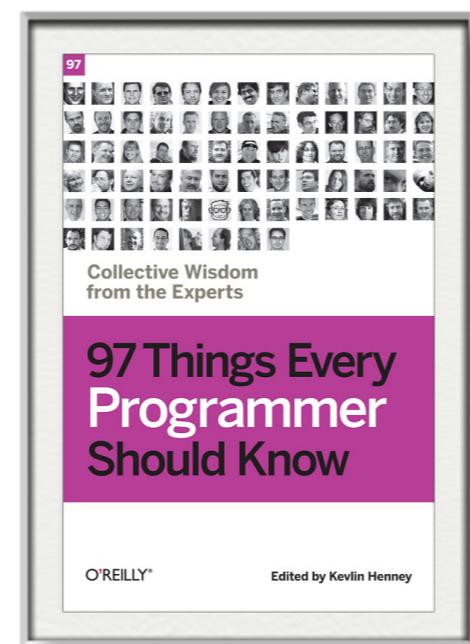
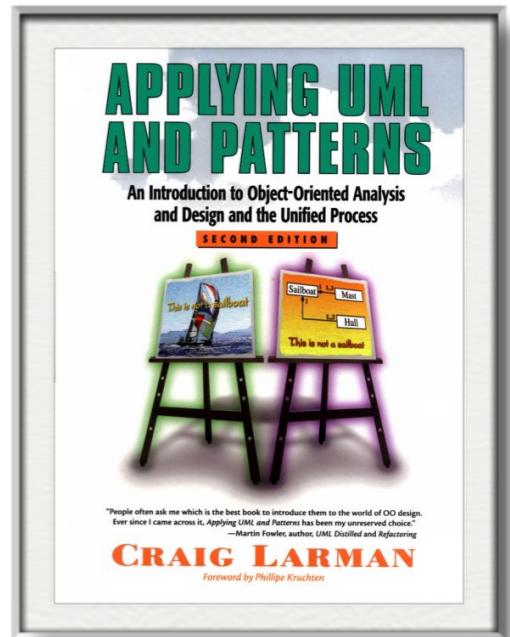
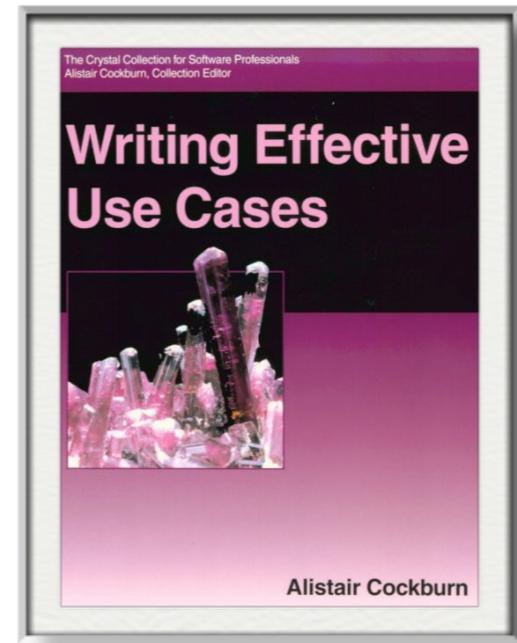
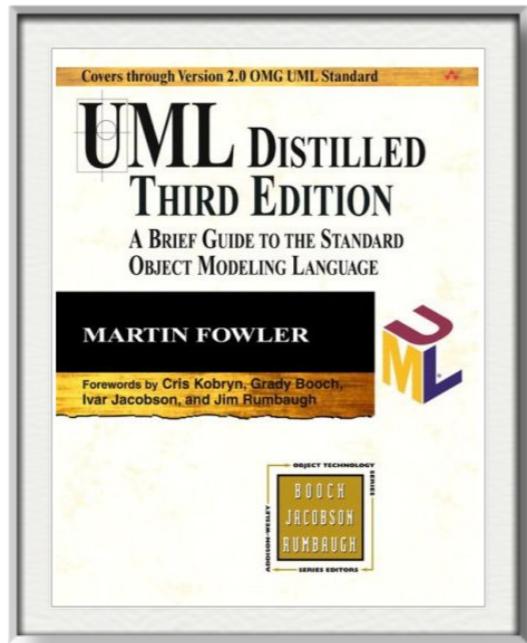
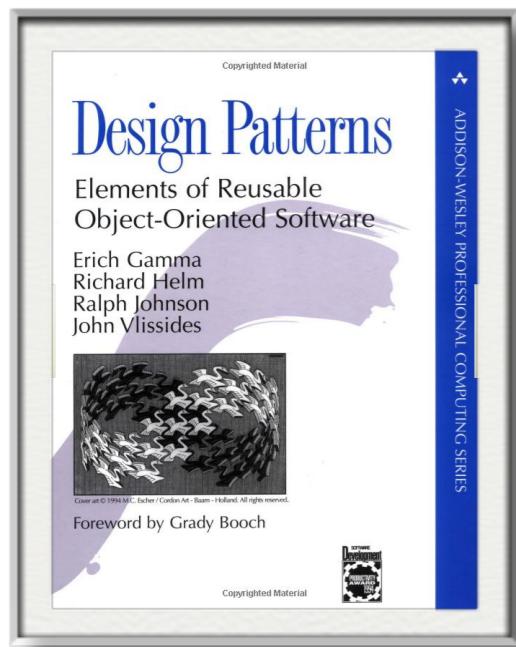
- Every week, we will have an exercise, starting today
- Exercises are expected to be solved in teams of 3 students
- The content of the exercise is relevant for the exam
- Sign-up as a team; if you don't have a team, we will assign you to a team
- All further details will be announced in today's exercise.
- The content of the exercise is relevant for the exam

# Written Exam

- The exam will be on February, 25th 2016 - 14:30 - 16:00  
(The rooms will be announced in the forum. The exam will take 90min.)
- You need to register for the exam in TUCaN  
(There are no further prerequisites; “everyone” can attend the exam.)
- The exam will be an open book exam
- The very best students are expected to be able to solve the entire exam

# Related Bibliography

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# Essential Bibliography

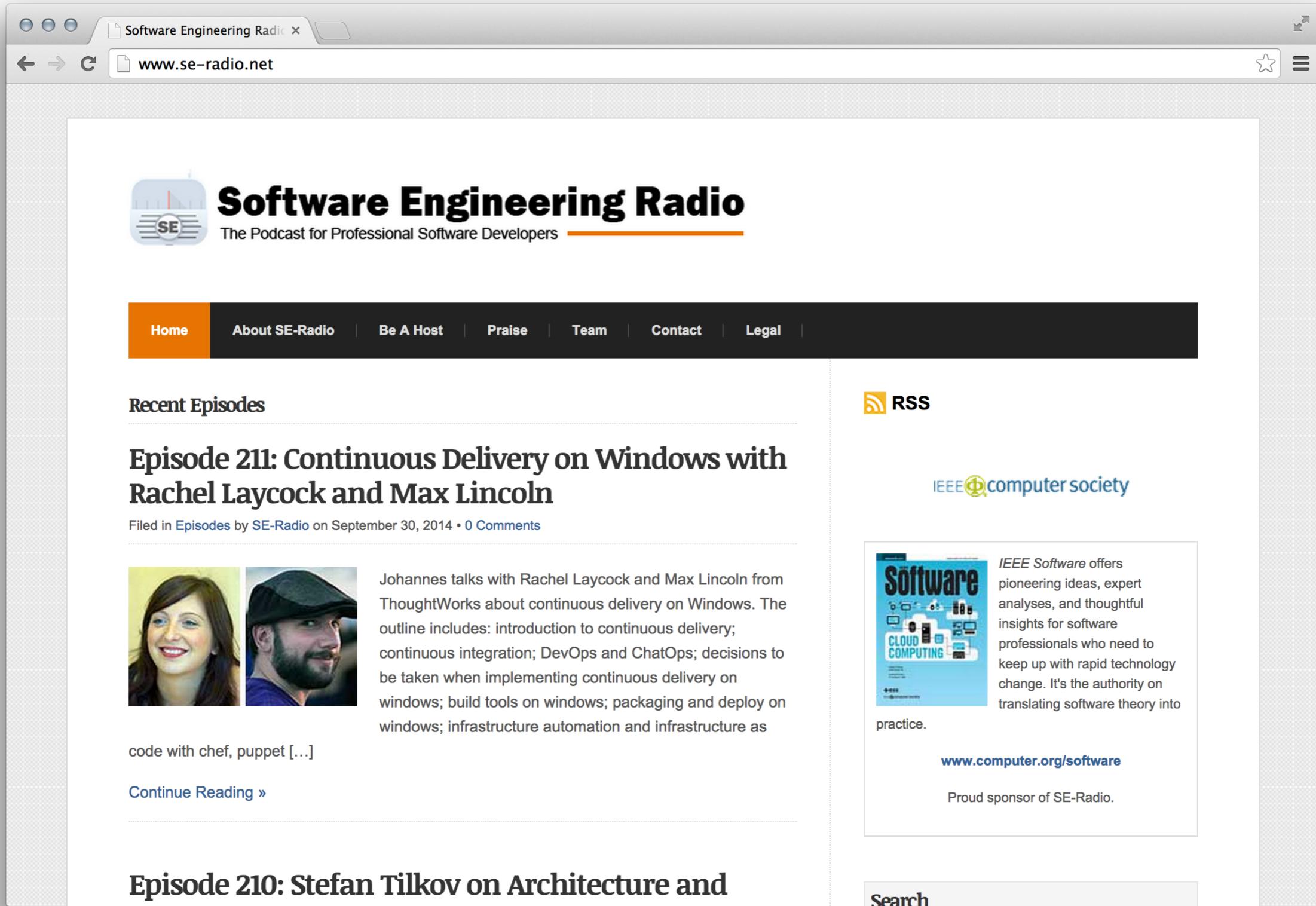
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- **Design Patterns - Elements of Reusable Object-Oriented Software**; Erich Gamma, Richard Helm, Ralph Johnson, John Vlissides; Addison-Wesley, 1995
- **Applying UML and Patterns - An Introduction to Object-oriented Analysis and Design**; Craig Larman; Prentice Hall

# A Recommended / Very Useful Podcast

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The screenshot shows the homepage of the Software Engineering Radio website. The header features the site's logo (a blue square with 'SE' and a gear icon) and the text 'Software Engineering Radio' followed by 'The Podcast for Professional Software Developers'. A navigation bar below the header includes links for Home, About SE-Radio, Be A Host, Praise, Team, Contact, and Legal. The main content area is titled 'Recent Episodes' and displays a summary of 'Episode 211: Continuous Delivery on Windows with Rachel Laycock and Max Lincoln', filed under 'Episodes' on September 30, 2014. It includes two small profile pictures of the hosts and a detailed description of the episode content. Below this, there's a snippet of another episode summary for 'Episode 210: Stefan Tilkov on Architecture and'. To the right of the main content, there's a sidebar with an 'RSS' feed icon, the IEEE Computer Society logo, a thumbnail for 'IEEE Software' magazine, and text about the magazine's focus on translating theory into practice. A search bar is located at the bottom right.

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Recent Episodes

**Episode 211: Continuous Delivery on Windows with Rachel Laycock and Max Lincoln**

Filed in [Episodes](#) by SE-Radio on September 30, 2014 • 0 Comments

Johannes talks with Rachel Laycock and Max Lincoln from ThoughtWorks about continuous delivery on Windows. The outline includes: introduction to continuous delivery; continuous integration; DevOps and ChatOps; decisions to be taken when implementing continuous delivery on windows; build tools on windows; packaging and deploy on windows; infrastructure automation and infrastructure as code with chef, puppet [...]

[Continue Reading »](#)

**Episode 210: Stefan Tilkov on Architecture and**

**RSS**

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# External Talks / Events

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- **MSG**

“Requirements Engineering”  
December, 2015

- **Capgemini**

Excursion / One-day Workshop  
December, 2015

