Final Overview

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Final Exam

- **Time & place**
  - May 17th, 4-6pm
  - ARM 0135 (Reckord Armory)

- **Content**
  - Entire course
  - Slight emphasis on newer material
Overview of Topics

1. Software engineering
2. Object-oriented design
3. Algorithm complexity
4. Algorithms
5. Data structures
6. Java language features
7. Applications

Topics

- Software engineering
  - Software life cycle
  - Program design methods
  - Software testing
- Object-oriented design
  - Using objects & methods
  - Unified Modeling Language
Topics

- Algorithm complexity
  - Benchmarking vs. analysis
  - Finding critical sections
  - Recursive algorithms
- Algorithms
  - Strategies
  - Sorting
  - Finite automata & regular expressions

Topics

- Data structures
  - Linear data structures
  - Hierarchical data structures
  - Graph data structures
  - Set & map data structures
Topics

- Java features
  - Object-oriented programming support
  - Inner classes
  - Exceptions

- Applications
  - Networking
  - Graphic user interfaces
  - Multithreading & synchronization
  - Compression

Final Question Formats

- Multiple choice questions
- Short 1-sentence answers
- Design OOP classes
- Draw UML class diagrams
- Analyze algorithmic complexity of code
- Write code
- Apply & describe algorithms
Wrap Up

- Finally

**Good luck on Exam**

- And

**Have a nice summer!**