# Spring 2015 – 2. semester

# Draft: Topics for exam (topics might be missing or be deleted from list)

**Database**

ER model

Relational model

Normalization

SQL

**Programming**

Data structures (array, arraylist, hashmap, etc) and efficiency

Test case design

JUnit

JDBC

Transactions

Architecture and layering

Error handling (e.g. exceptions)

(Deployment)

**System Development**

Versioning control

UML – class diagram, sequence diagram

Agile modeling

XP best practices – pair programming, refactoring, test-driven design

**WEB technologies**

HTML (not exam focus)

CSS (not exam focus)

JSP

Servlet

(Bootstrap)

**Business**

Business modelling - activity diagrams, domain model

Scrum

Security

Requirement specifications

Change management