CPT 203

Revision on
week 1, week 2,
week 8 and week 9

How to prepare?

- ✓ Try to answer lab/tutorials questions in closed book mode -> then check the suggested answers, the lecture notes and the lecture videos

- ✓ Try to answer the past exams papers in closed book mode -> then check the lecture notes and the lecture videos **(No** solution to the past exams is not available)

- ✓ Optional questions for week 1, 2, 8 and 9 are added on the learning mall, but no solution will be provided

- ✓ The highlighted parts in this revision can be the priority for preparation

- ✓ To gain further understanding, please read the related chapters in the text book

Past Exam Papers

- https://lib.xjtlu.edu.cn/

Week 1 topics

- software engineering and its importance

- development of different types of software systems

- the required different software engineering techniques

- ethical and professional issues in software engineering

- What is software engineering ?
- What are the main activities of software engineering?
- What is professional software development ?
- What are the main Software engineering ethical issues?
- What is software deterioration? How to cope with it?

- Software Process Models
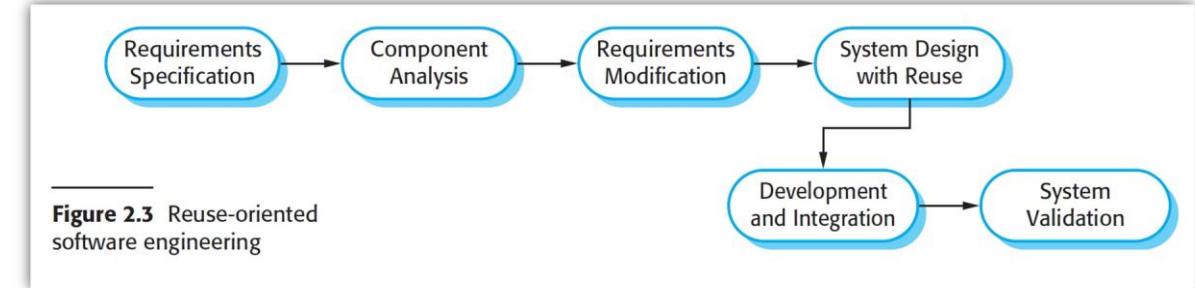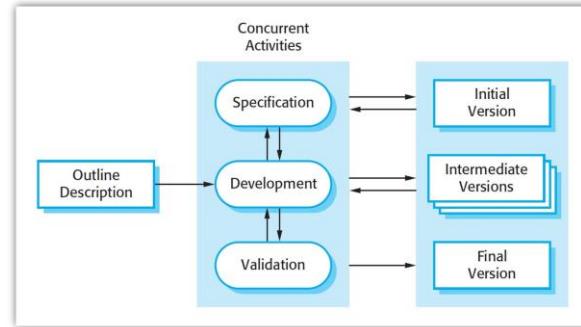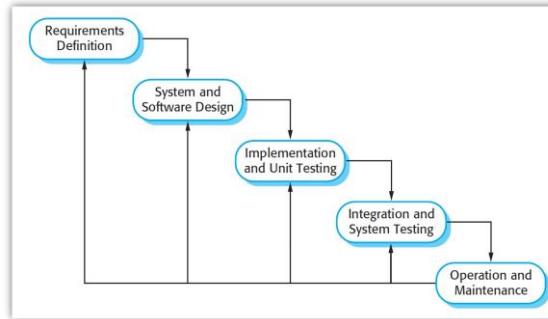
Figure 2.3 Reuse-oriented software engineering

- Software Process Activities

- What are the software process activities ?
  Definition of each of them

- What are the software process models? Able to explain them and draw the diagram of a process model
- Their characteristics, advantages and disadvantages
- Given a scenario, how to decide which process model to use? Able to provide justification
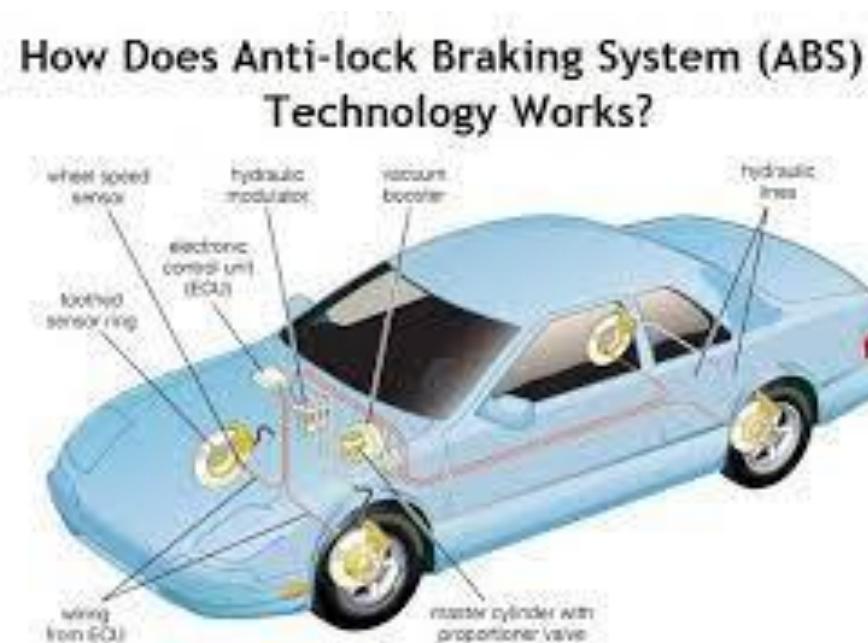
Because the anti-lock system is
- safety-critical ; and
- detailed analysis,
- detailed requirement analysis

And waterfall model has
- formal transformations from one stage to another with approvals, tests and checks etc.;
- clearly defined requirements;
- documentation   and more
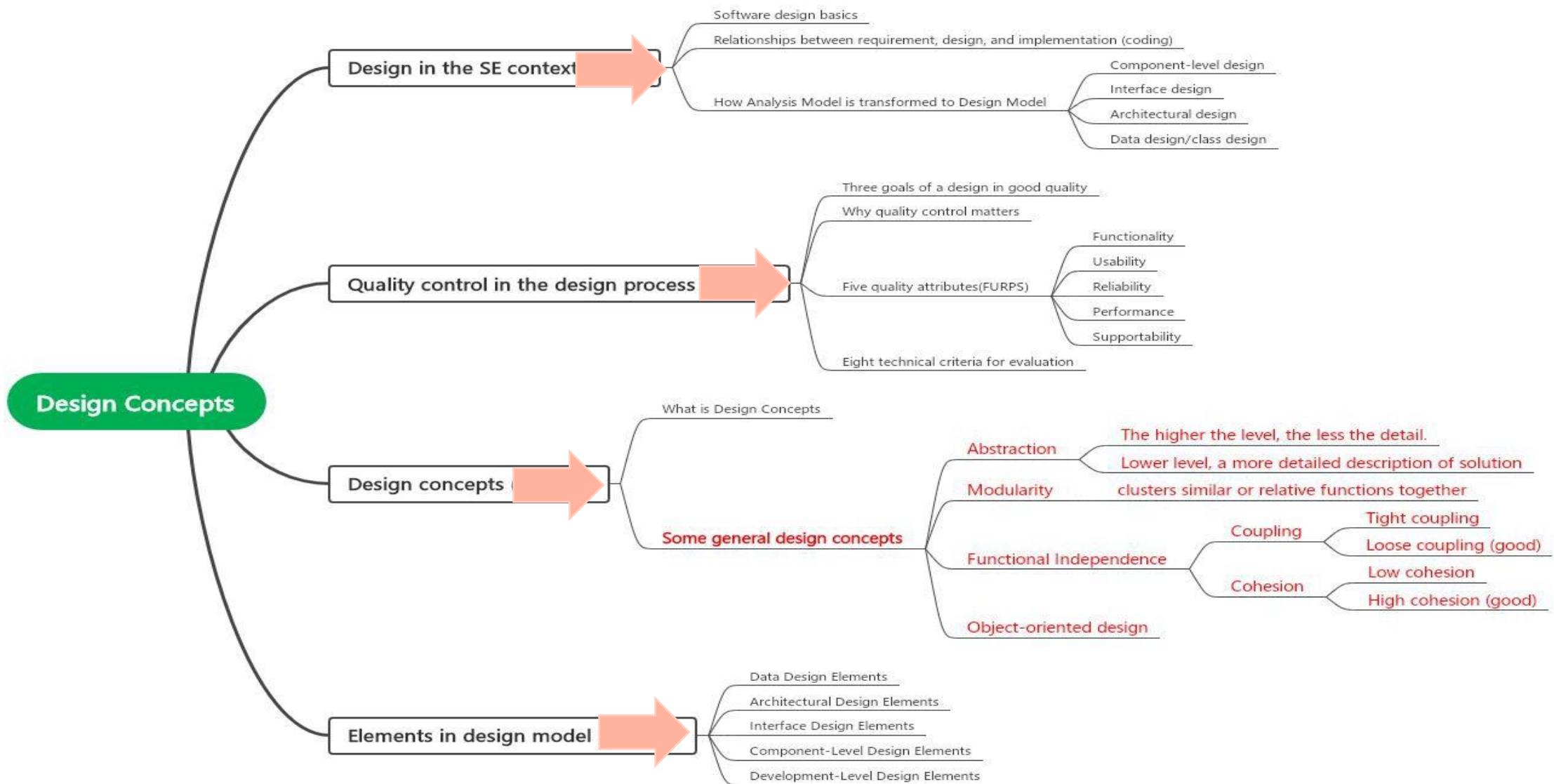
Please write in proper / full sentences in your OWN words

How Does Anti-lock Braking System (ABS) Technology Works?

wheel speed sensor
hydraulic modulator
vacuum booster
hydraulic lines
electronic control unit (ECU)
toothed sensor ring
wiring from ECU
master cylinder with proportioner valve
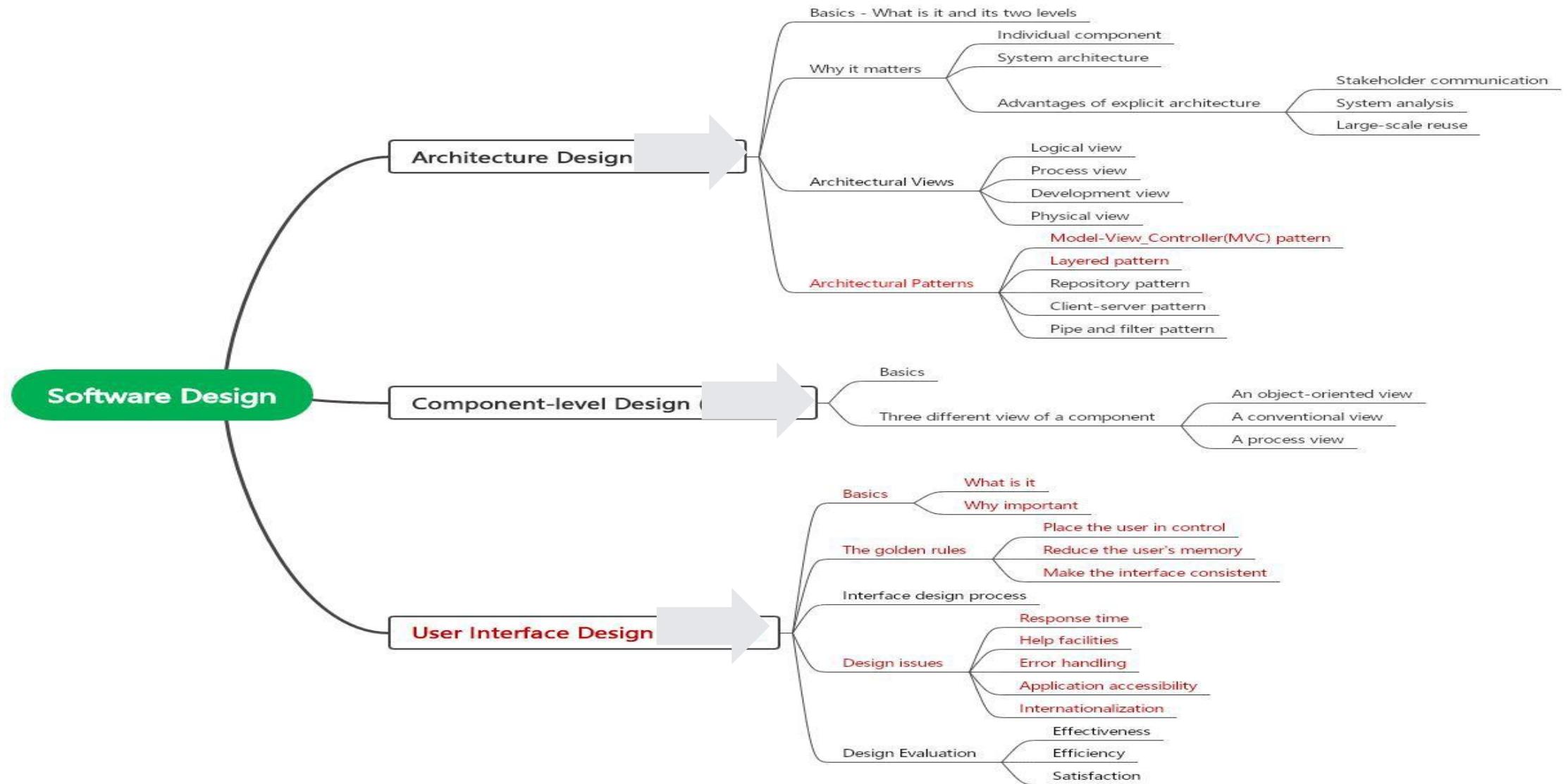
Week 8 overview

- Understand the definition of the each design concepts

- Understand the examples provided in the lecture and the lab sessions

- Understand the importance of each design concepts (when to use, advantages, and examples etc.

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- Understand the architecture design patterns covered in the lecture (for example MVC, layered pattern) and tutorial - how they work, suitable to which type of software, etc

- Understand the three general UI design rules

- Analyse UI designs using these rules.

- Explain the benefits of using these rules