

# 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.xjtu.edu.cn/>

The screenshot shows the homepage of the library's website. It features six main service categories arranged in two rows:

- Discover**: All-in-one Library searches for print book records, e-books, journal articles, and a wide range of digital content.
- Catalogue**: Explore print book records, manage renewals and reservations, and request inter-branch delivery services.
- E-Journals**: Access the electronic journals and magazines provided by the Library by entering the title in the search field.
- Databases**: Alphabetically lists all Library databases to enable efficient browsing and sorting through a user-friendly interface.
- Exam Papers & Theses**: Access past exam papers, as well as previous Final Year Projects (FYPs), dissertations, and theses from XJTLU graduates. This category is highlighted with a red border.
- Research Repository**: Preserve and/or search for XJTLU-affiliated scholarly output; records are searchable by keywords or phrases.

The screenshot shows the search results for "Software Engineering I" with "Paper Code" set to "Contains" "cpt203". The results table includes columns for Paper Title, Paper Code, Department, and Year.

Paper Title	Paper Code	Department	Year
Software Engineering I	CPT203	Department of Computing	2021-2022
Software Engineering I	CPT203	Department of Computing	2021-2022
Software Engineering I	CPT203	Department of Computing	2022-2023
Software Engineering I	CPT203	Department of Computing	2022-2023
Software Engineering I	CPT203	Department of Computing	2023-2024
Software Engineering I	CPT203	Department of Computing	2023-2024



## 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



## Week 1 – try to answer

- 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?



## Week 2 - topics

- Software Process Models

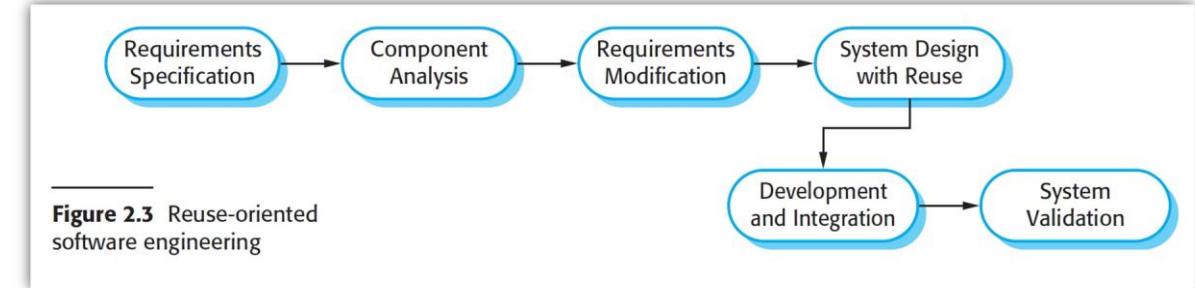
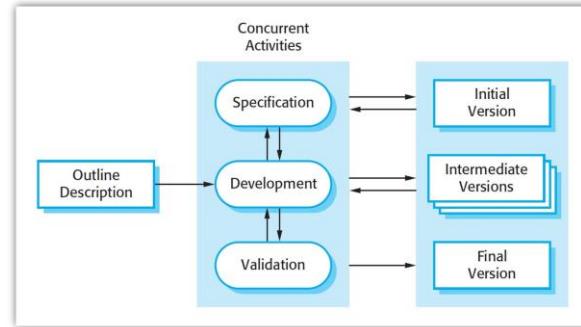
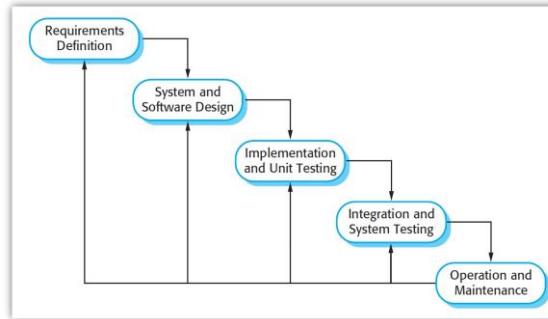


Figure 2.3 Reuse-oriented software engineering

- Software Process Activities



## Week 2

- 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



# A lab question: software control anti-lock braking

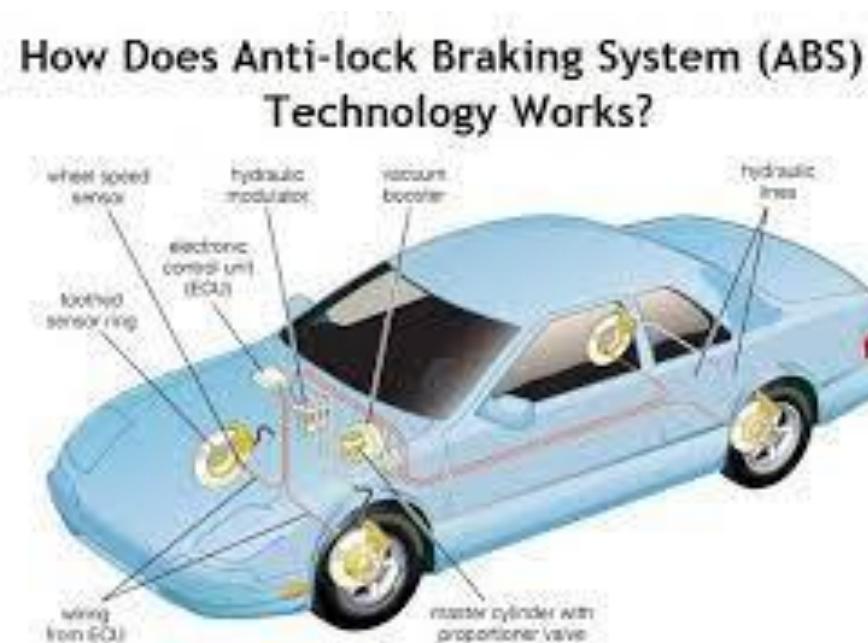
Because the anti-lock system is

- safety-critical ; and
- detailed analysis,
- detailed requirement analysis

And waterfall model has

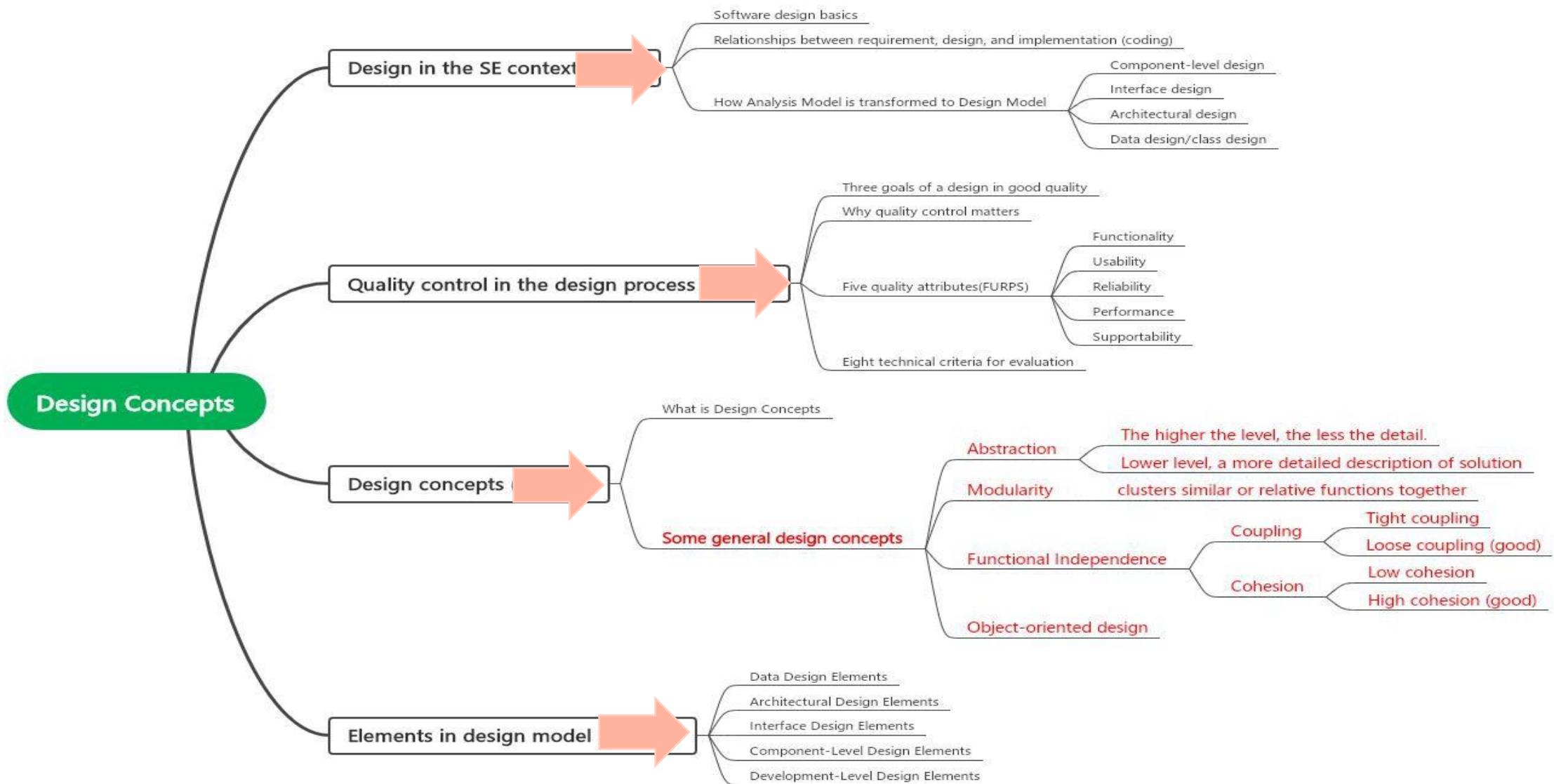
- formal transformations from one stage to another with approvals, tests and checks etc.;
- clearly defined requirements;
- documentation and more

Please write in proper / full sentences in your OWN words





# Week 8 overview



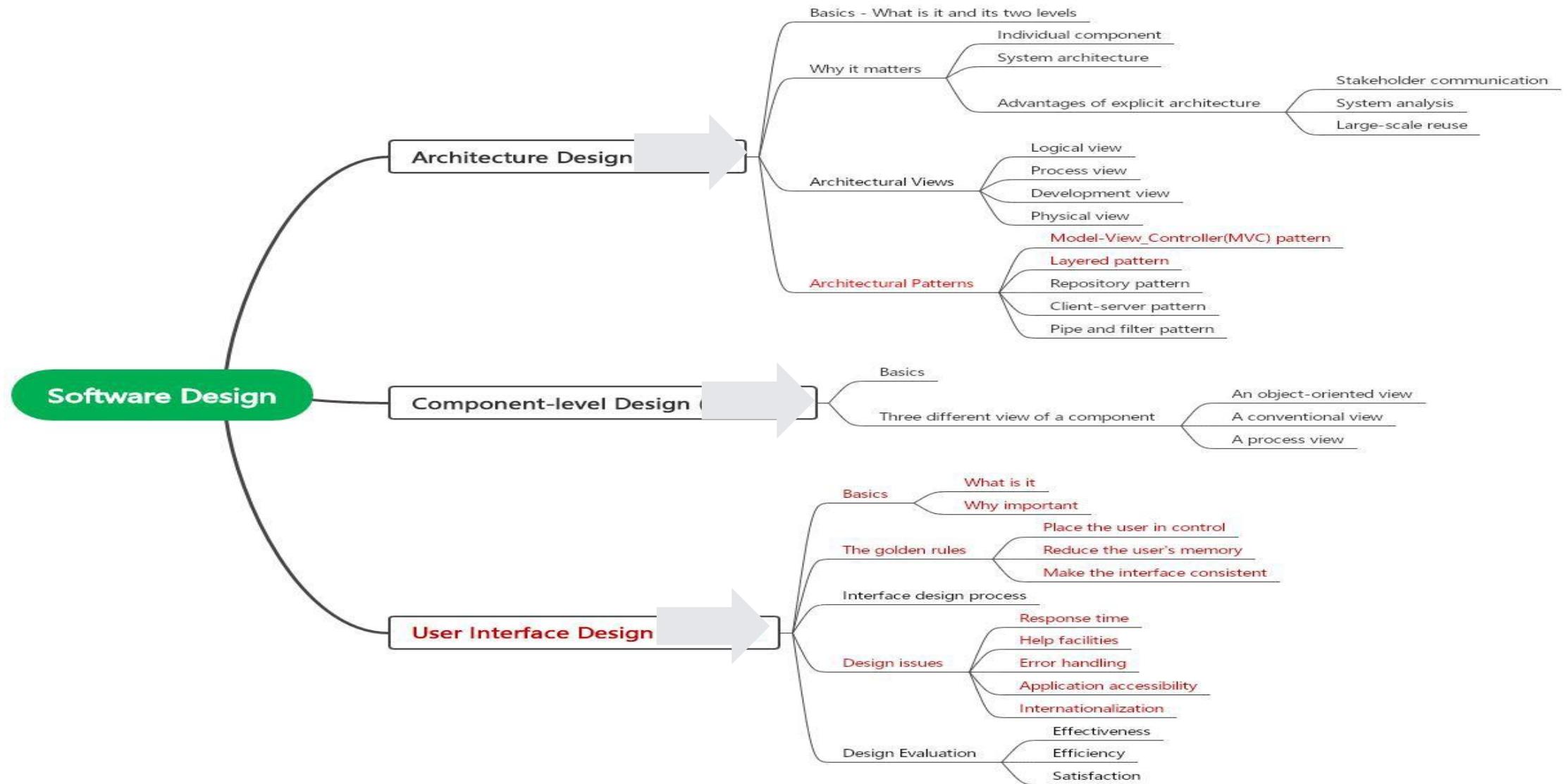


# Week 8

- 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.)



# Week 9 overview





# Week 9

- 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