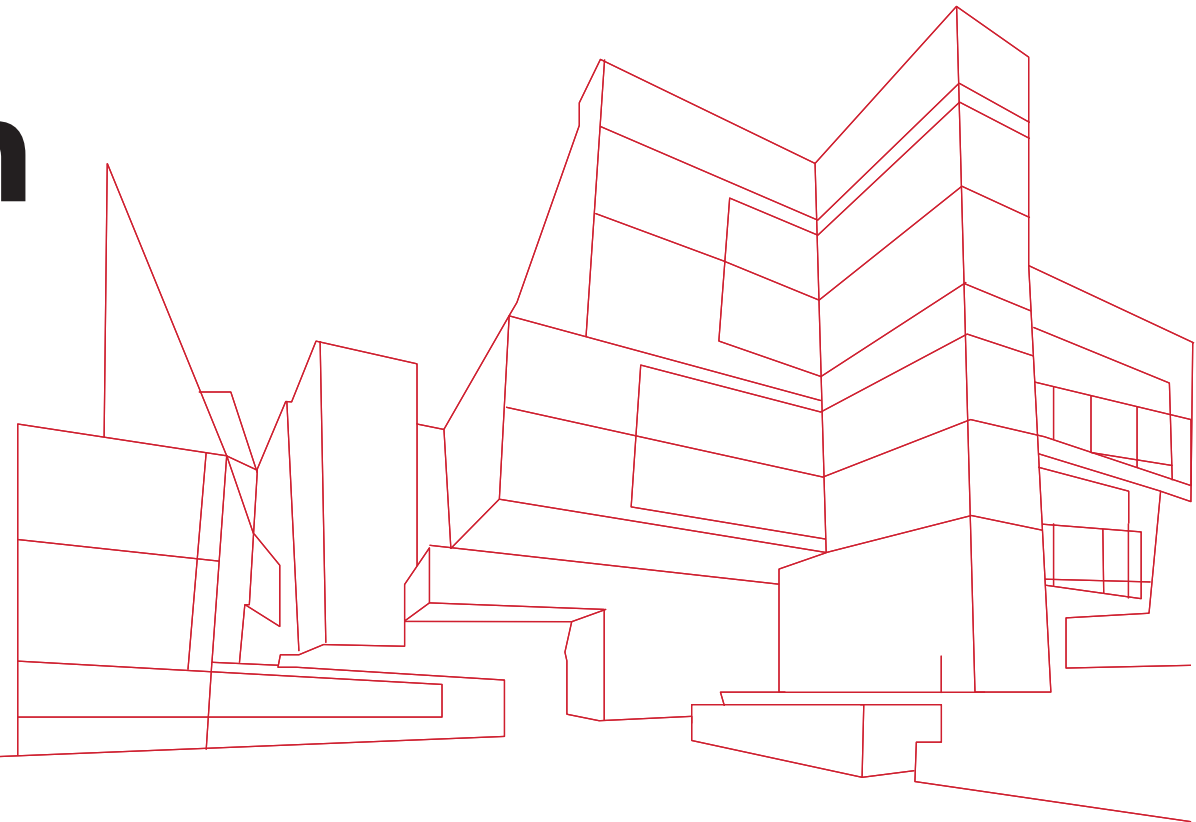


Wonju, Korea(South)

How to Teach Industrial Design

Joomyung Rhi

Yonsei University



Joomyung Rhi, DDes

BFA, MFA, DDes in Design, Seoul National University, Seoul, Korea

PGD in Design Management, Leicester Polytechnic, Leicester, UK

Senior Designer, LG Electronics (Planning Team, Washing Machine Team)

Assistant Professor, Inje University (Product Interaction Design Dept.)

Now,

Associate Professor of Industrial Design, Yonsei University

Head of Design Management Program, Graduate School, Yonsei University



Questions in my mind

new tools, new environment, new technology, sooner or later, new human?

Might be New Industrial Design emerged.

What is Industrial Design?

How we teach Industrial Design?

I found that I don't know much about how you teach Industrial Design.

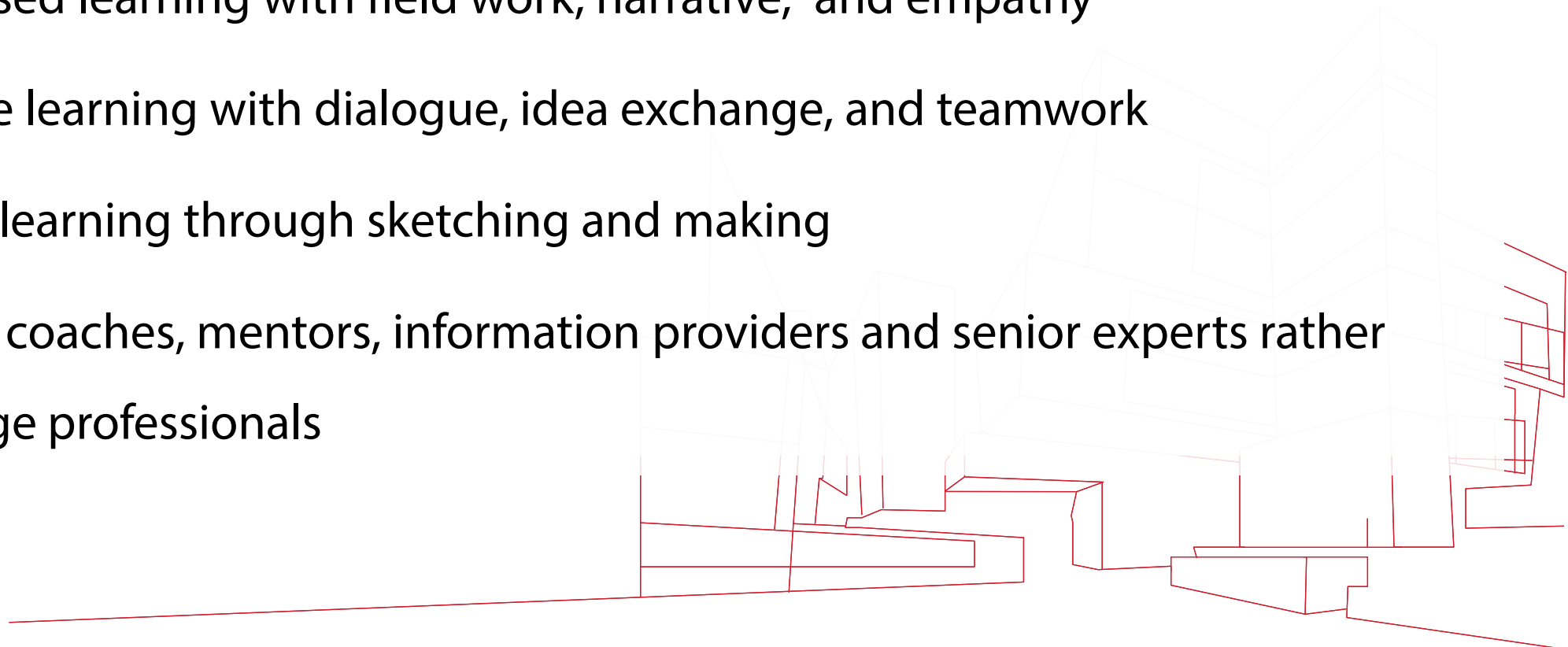
I decided to show how I teach first.

An autobiographical study of industrial design classes

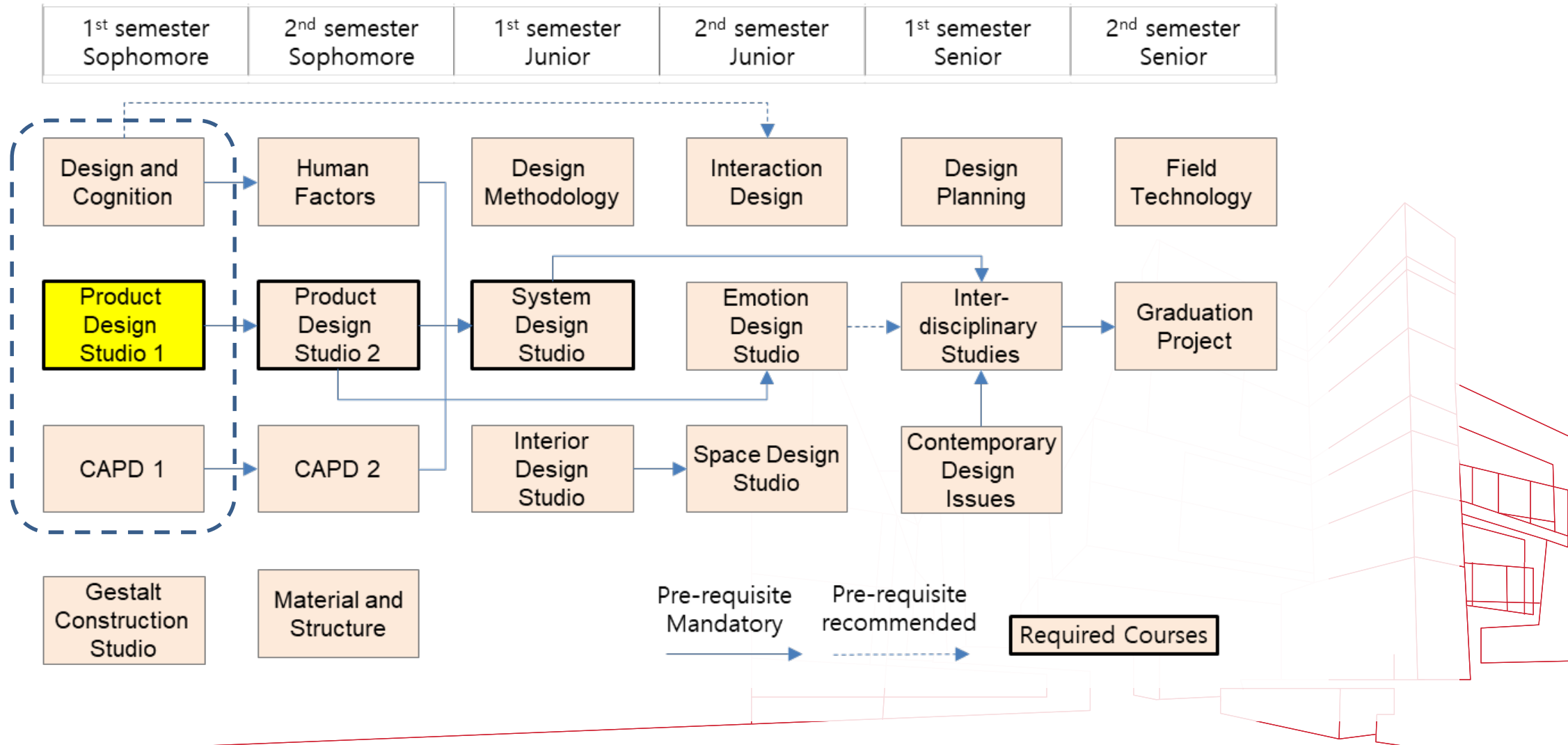


Design Education : Studio Lessons

- (1) Self-directed learning toward active problem solvers
- (2) Context-based learning with field work, narrative, and empathy
- (3) Cooperative learning with dialogue, idea exchange, and teamwork
- (4) Generative learning through sketching and making
- (5) Teachers as coaches, mentors, information providers and senior experts rather than knowledge professionals



Industrial Design Curriculum, Yonsei University



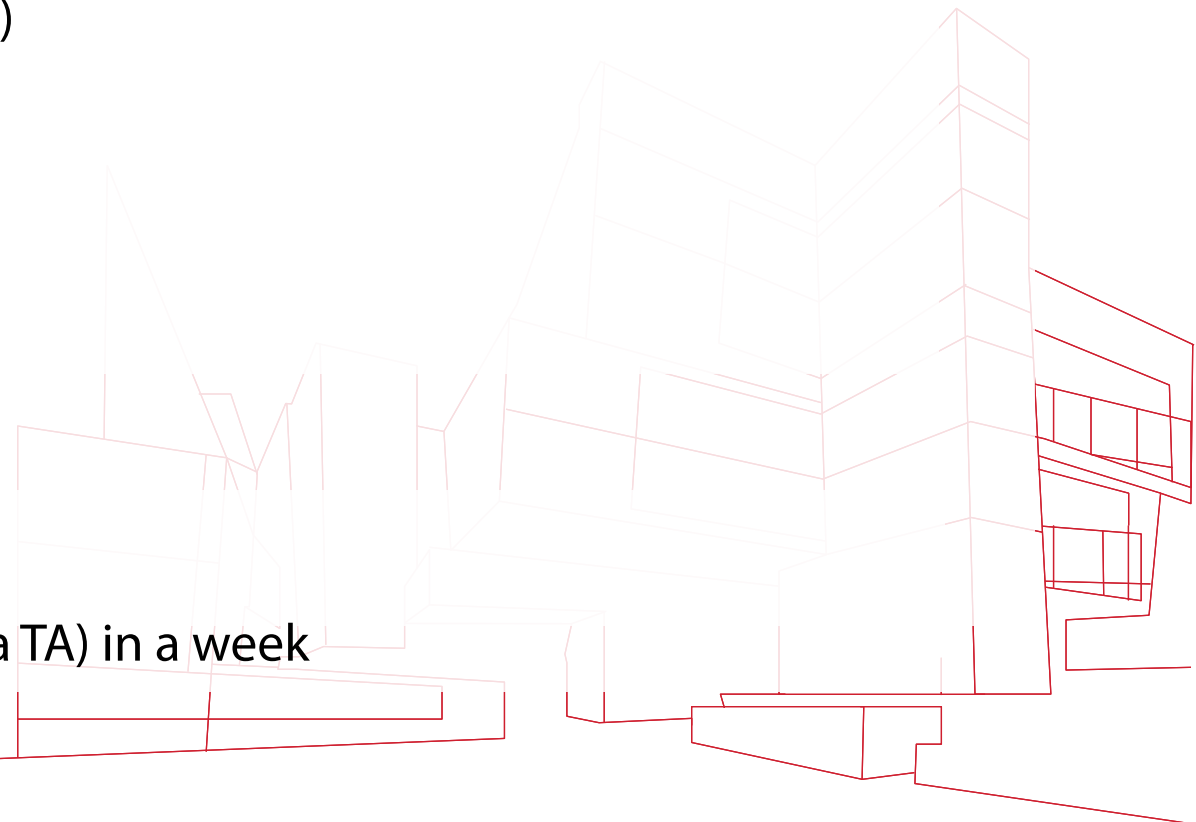
Product Design Studio 1

GOALS

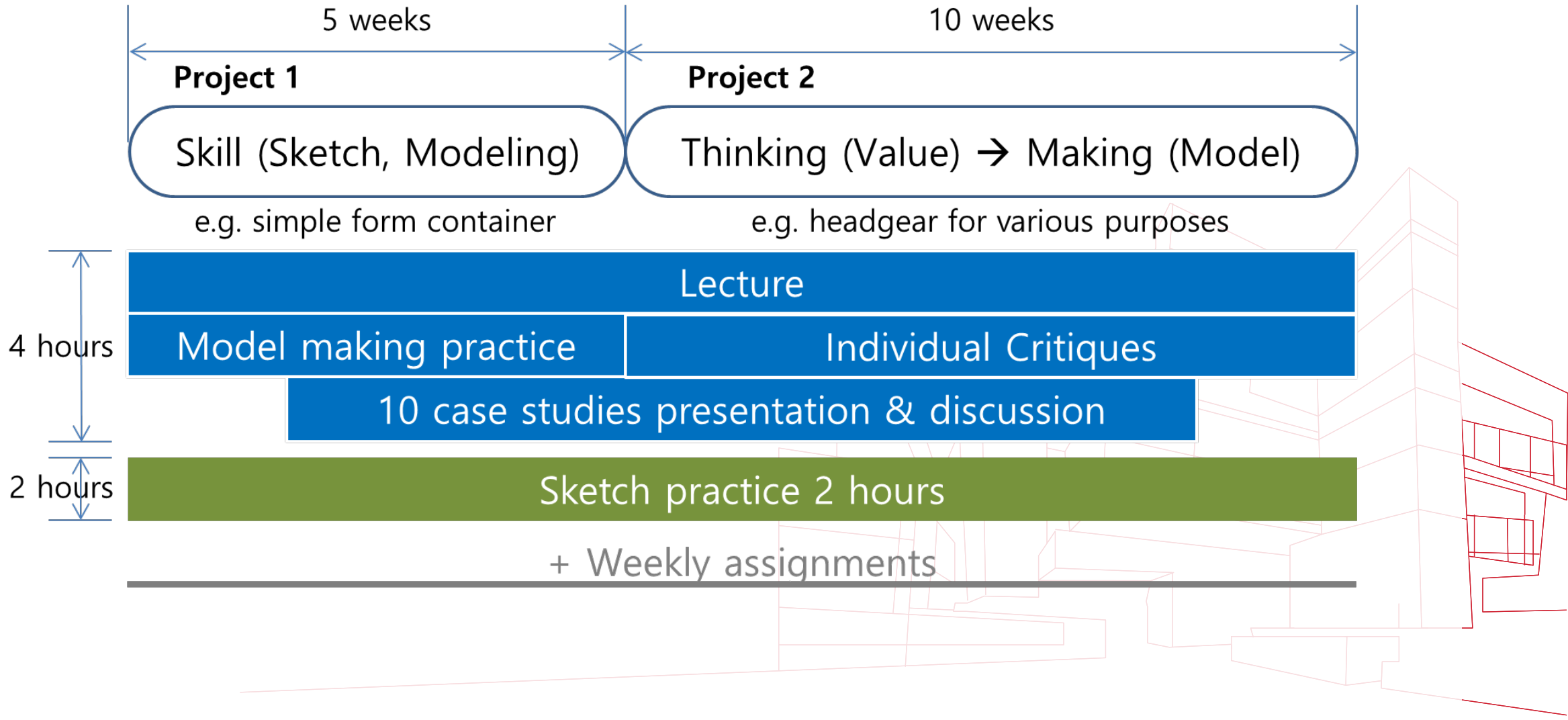
- ① Fundamentals of industrial design (definition, role, principle, process, method, term)
- ② How to make a concept (valuable, how to discover)
- ③ How to sketch as a starting point for ideas
- ④ How to make a mock-up
- ⑤ How to use software

3 credits / 15 weeks in a semester

4 hours main class + 2 hours sub class (conducted by a TA) in a week



Product Design Studio 1 _ term plan



Core Elements of the Class

Weekly Assignments and Weekly Handout with this week's Class points & Personal comments

- Weekly assignments uploaded on the online system before class
- Students share and review the contents of the assignments before and after class
- Weekly handout is provided to students when each week class starts. (It includes today's schedule, lecture points, personal comments, assignment information, and additional messages)
- The handout is the primary communication tool for all class members.

Personal Comments example : Give it a title. / Observe their habits. / Try to draw how it works. / Structure is needed. / Too much to consider. / There is no problem definition. / You are improving! / Please review your schedule. / See ideas like # 9. / I think you are going to make something. / Think of a more natural solution. / Create a model. The concept is not evident. / Please think about various solutions. / Organize your ideas. / Good ideas do not come out at once. Develop it through a sketch. / Carefully review your work before submission. / Additional explanation required. / What is the real advantage? / Modify the presentation format simply and clearly. - - - -

Core Elements of the Class

Lecture Points

Form and Function : finding the reason for the form

How to understand the products you want to design?

Users and Consumers, Clients

Competitors : Follow or choose another way

Problem solving process and design process

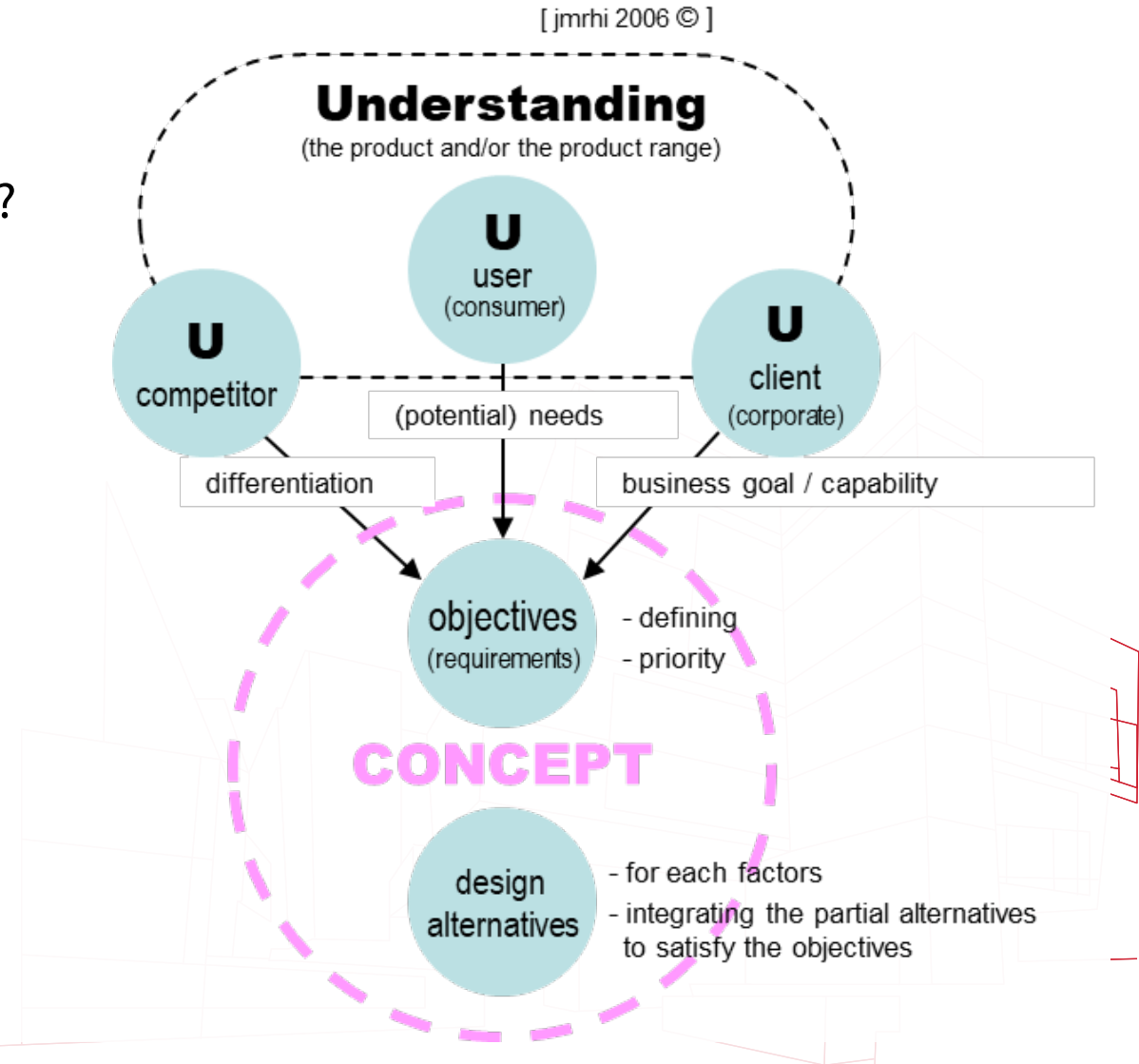
The importance of sketching and prototyping

Innovation, improvement, and differentiation

Concept & Value

Mass production & standardization

Group work and personal ideas



Core Elements of the Class

Sketch / Model Making Practice

“The skill will set you free.”

What do we use sketch methods?

- To give form to the idea and develop the idea through 'thinking-sketching' circulation
- To discuss ideas with stakeholders in the process

Three Sketch Principles

- Sketches following the drawing rules (perspective, orthogonal)
- Sketch considering product structure
- Sketching as an inquiry tool

Model Making

- Bulky container with simple shape / same model revised three times
- Full scale orthographic drawing through direct measuring practice
- Foam based mock-up making methods



Core Elements of the Class

Case Study and its presentation & discussion

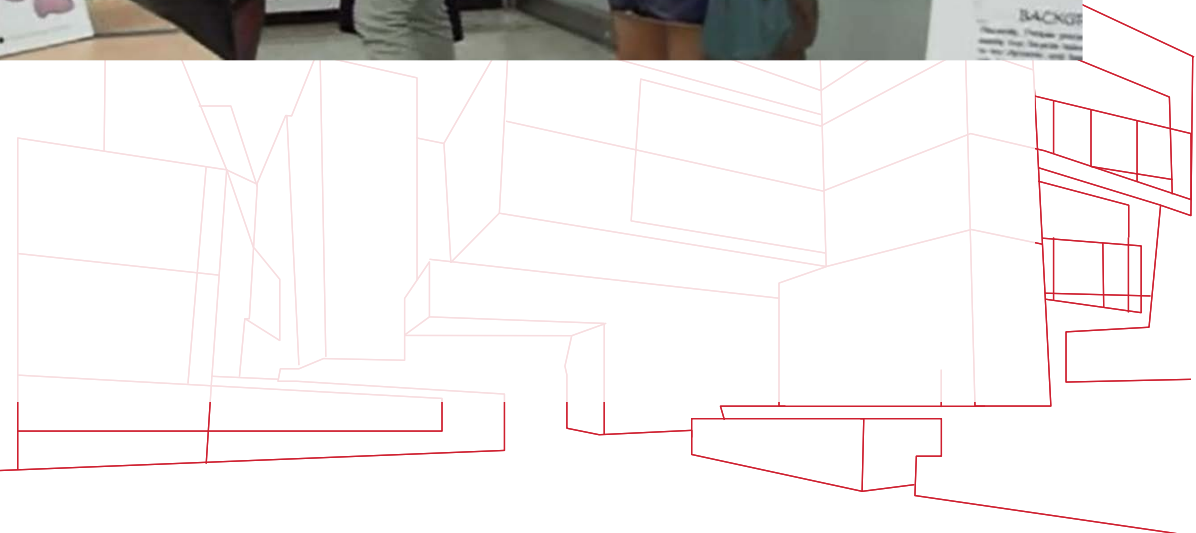
- International product development cases ('Design Secrets' from IDSA, core77 case study)
- Complementing research with teamwork. In some cases, students are encouraged to contact the designer and / or manufacturer directly for additional details.
- The presentation team raises many issues. Students are encouraged to participate in discussions.
- Instructors help students focus on discussions.
- By repeating the questions and answers, students discover the core of the problem and its causes without difficulty.
- The instructor concludes the discussion with the main points of the discussion.



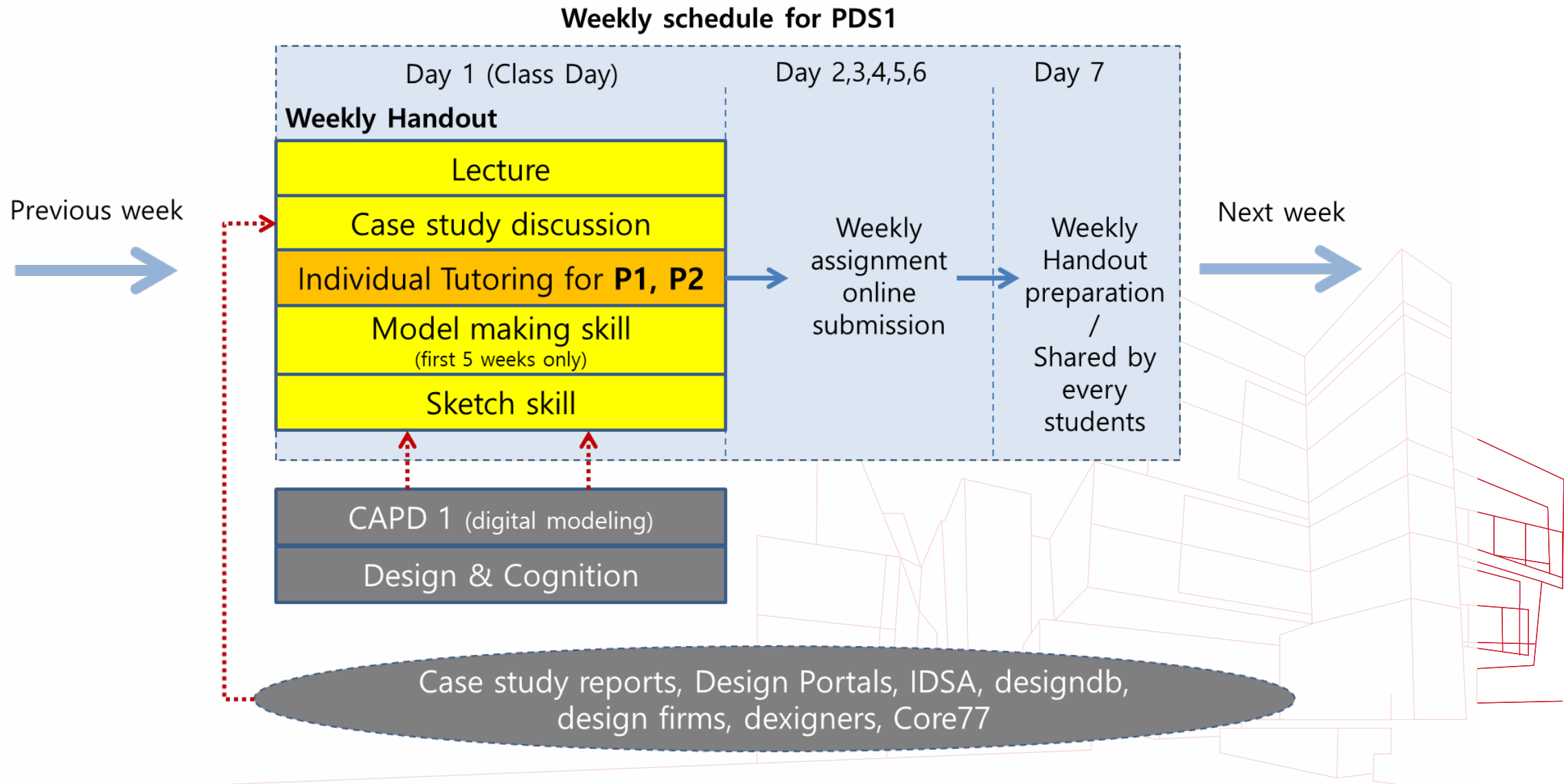
Core Elements of the Class

Evaluation & Test

- Evaluate Projects 1 and 2
- Students were asked to make sure they had their own hats and properly checked people's physical use.
- Midterm and final examinations: written and sketch tests
- The final written exam includes a description of the student's own design process, along with questions about the core issues raised in the case study.



Task-Feedback Repeating System



What do you think about design?

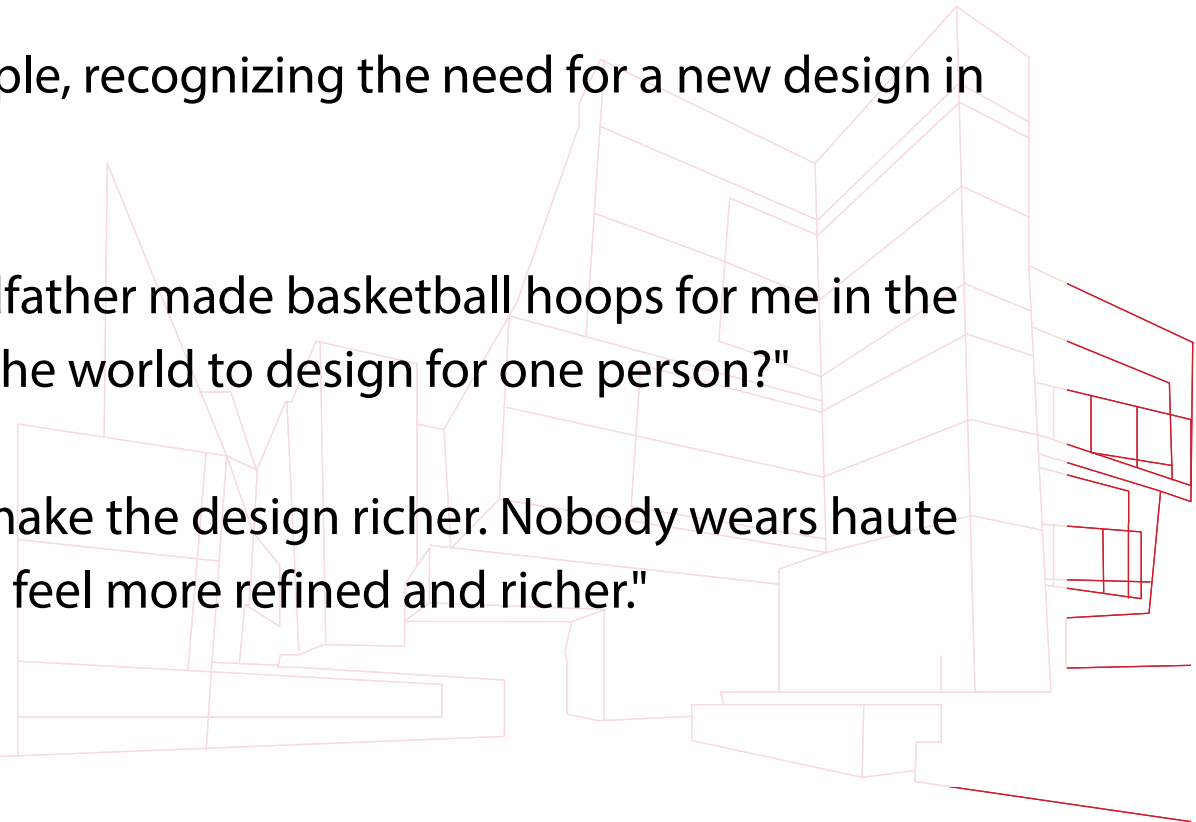
At the end of the class, the students' responses were as follows

"Every design is the result of a big goal backed by many small ideas."

"The ability of a designer is to design for many people, recognizing the need for a new design in life."

"I remember that when I was very young, my grandfather made basketball hoops for me in the homemade yard. Is it the most beautiful design in the world to design for one person?"

"I think design for each individual personality will make the design richer. Nobody wears haute couture clothes in their daily lives, but their clothes feel more refined and richer."

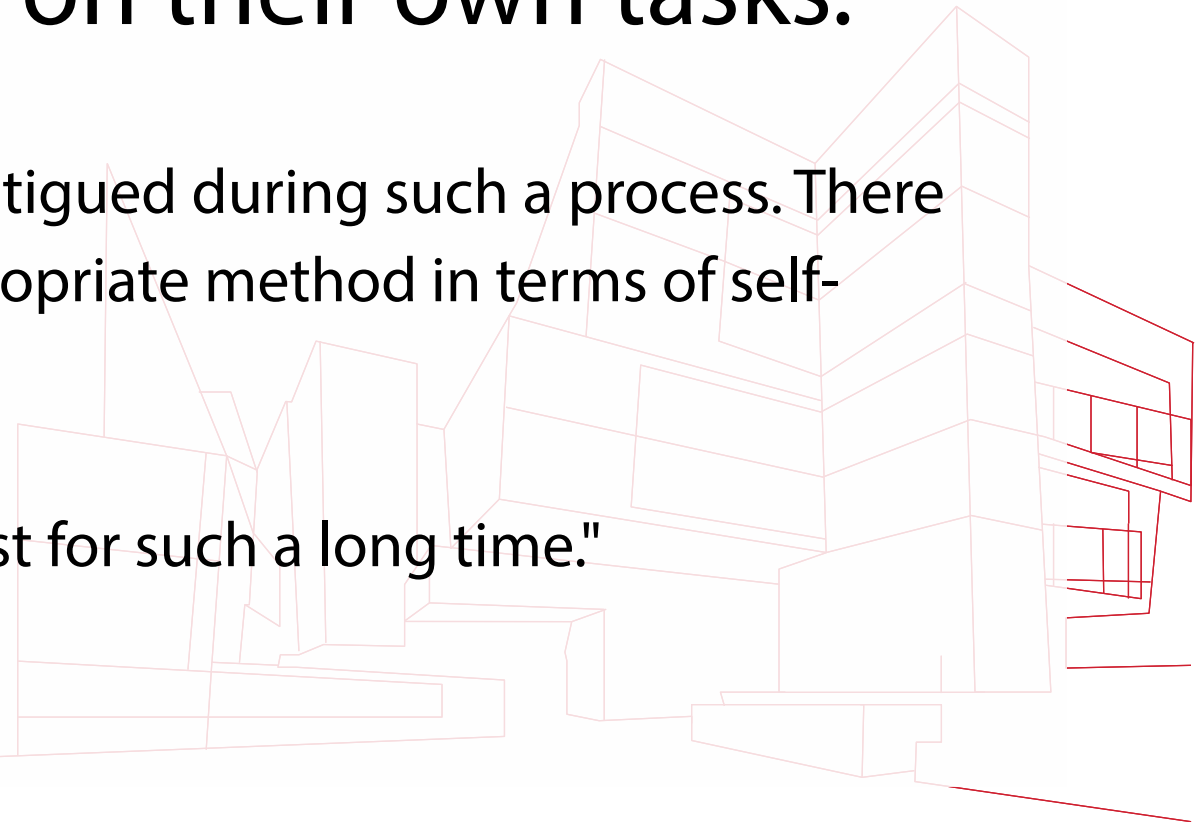


One of the features of this class is that all the schedules are tightly organized. It was a process of training that gave the students the skills and attitudes necessary to carry on their own tasks.

However, some students are likely to feel fatigued during such a process. There is also the question of whether it is an appropriate method in terms of self-initiative. They said:

"I did not know that the semester would last for such a long time."

"I could not afford to read another book."



Thank you.

