

Educational Strategy of the Department of Conceptual Design

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1. Introduction of the department

"LIFE x TECHNOLOGY x DESIGN" is the keyword of the Department of Conceptual Design. Educational strategy of our department is to develop the person who is able to find various issues and needs in our life and society, to make full use of various technologies, and to solve and satisfy those issues and those needs. This means to raise the design engineer who is able to look around the whole society, to have a wide view, and to propose and develop the new products and systems. In other words, it is to develop an engineer who can understand design thinking.

In order to respond to the demands of subdivided characteristics of users with the diversity, designers and developers have to analyze the needs of the society and the preferences of the users, and to investigate and to find out the solution of them. We, the Department of Conceptual Design, consider "Design" not as a part of art but as "the process for the solution of the issues". Therefore, abovementioned, OUR design is to find out the needs from our life and society, and to investigate, develop, and create a solution for them.

To solve the issues related to the usability, comfortability, and habitability, it is necessary for us to understand users which are "humans", and also to understand "life" which humans make. On the other hand, for the practical monozukuri, it is also necessary for us to understand the knowledge of the materials and the structures. Further, also IT skills are sometimes required in order to solve the issues using the current or the cutting edged technologies. Our Department of Conceptual Design develops a person who is able to understand humans, to consider our life and society, and to integrate the engineering factors into them.

2. Admission policy

The followings are the admission policy of our department. Artistic skills including drawing are not required for the examinees. But instead, "interests" and "curiosities" are important factors for them. The student of the Department of Conceptual Design should be;

- a person who is aiming to contribute the society with rich knowledge and culture and with high ethics, and has a spontaneous and continuous motivation for the aim. *E.g.*, a person who has deep interests in society and is willing to contribute to society with engineering knowledge, techniques, and skills.
- a person who is willing to consider various fields as the interlinked, to summarize his/her own ideas by his/herself, and to express them clearly understandable, through the collection and analysis of the required information in the design process.
- a person who has a strong interest to create the appropriate relation between human versus products and between human versus things, and is willing to produce fresh proposals in order to solve the issues.

3. Feature of the department

3.1. In order to achieve our aim

In order to achieve the abovementioned aim, the student shall take the subjects related to "life" such as society, life, humans, psychology, and the subjects related to "technology" such as materials, structures, 3D processing using technologies. The student does not only learn classical design skills such as technical drawings, sketch, infographics, modeling. Through the subject of "design studio" and "technical drawing for design", which are the implementation of the integration of knowledge, tech-

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niques, and skills, the student gets able to learn "LIFE x TECHNOLOGY x DESIGN".

3.2. Education of the basic design skills

For raising the basic and classical design skills and abilities, in the subject of basic design exercises, infographics, modeling, technical drawings, and CAD, the department offers education in accordance with each student's ability by tutorial coaching.

3.3 Course education

At the middle of sophomore (at 4th semester), the student shall choose either "Product Design Course" or "Space Design Course", and shall take some related subjects that provide the student the techniques and methodologies that are required in each course.

Product Design Course provides not only the basis of monozukuri but also mechatronics and system design that are required to the mechanical related design such as robot design. Space Design Course provides the subjects focused on space configuration such as spatial construction method, space planning, and space design.

As abovementioned, in order to learn the required skills and knowledge for design, although the student shall choose either of the courses, our department provides various kinds of common subjects related to both courses. Our department provides subjects related to commodity planning, presentation, service and solution design, and interaction design. Also, the student shall learn the appropriate design for humans, considering safety, comfortability, efficiency, and psychological and physiological characteristics. And considering the environmental issues, the student shall learn the appropriate design for the sustainable society. These are based on the idea that design should be considered from the viewpoint of the users and from the standing point of the societies, not only from the aspect of looking.

3.4. Education for Junieur and Senior

At the beginning of juniour (beginning of 5th semester), all the students shall choose either of the laboratories. In the laboratory, the student shall identify the scope of his/her interests and shall learn the related design field expertly. The student shall choose and identify his/her own theme or topic of his/her research or production by his/herself, shall carry out his/her own research or production related practical activity. Through these activities, the student gets able to make deep-thinking using

design related knowledge and methodologies, and also to raise his/her presentation and promotion abilities and skills. Finally, the students shall carry out his/her graduation research or production for his/her bachelor thesis, through the whole duration in his/her senior (7th and 8th semesters).

4. Faculty members

Our department has now 5 professors, 5 associate professors, an assistant professor, and 2 lectures (13 faculty members) from different specialties. The followings are our members and their specialties.

Professors

Dr. Mitsui: algorithmic design, computational design
Mr. Morimiya: product design, product planning
Mr. Nii: fine art
Dr. Takeshima: material engineering
Dr. Toriizuka: human factors & ergonomics, UX

Associate and Assistant Professors

Dr. Kato: lightning and environmental engineering
Dr. Nakazawa: community planning, architecture
Mr. Nishi: computing, structural engineering
Dr. Uchida: robotics, mechatronics, mech. design
Dr. Tanaka: design engineering, interior design
Dr. Enta: interaction design, architecture, UX

Lecturers

Dr. Kinoshita: fine art, forging
Dr. Nakagawa: material engineering, casting

Other than the above faculty members, we have 13 adjunct lecturers most of who are the professional product designers and professional architects.

5. Alumni

There have not been distinguished alumni yet. But many alumni are working at the conceptual design related companies such as follows; home appliance maker, automobile company, office maker, house maker, housing facility maker, amusement maker, solution company, advertising agency, printing company, consultancy company, design office, architectural design office, display design company, system design company, production company, construction company, and so on.

However, paradoxically say, to develop an architect, a mechanical engineer, or a home appliance designer is not our aim. To master the way of "problem-solving" is the most important keyword for the student who is going to graduate from our department. Therefore, though there are many alumni who are working at architecture design office, home appliance makers and so on, these are just the outcome of our education.