

Industrial Design Summer Course Curriculum

1. Course : Design Hackathon Prototype Camp

2. Course Introduction

- A practical course for students majoring in design and engineering to create a new future eco-friendly mobility by reconstructing existing bike parts as a team.
- A design-engineering convergence project that verifies the agile process by completing a 4Wheel E-bike from sketch to design model in two weeks in collaboration with designers specializing in the industry.

Outline	
Time	- 3th JULY(Mon)~14th JULY (Fri) 2023 (Total 10 days) -10:00 – 17:00 (Lunch 13:00-14:00 excluded), 6hrs per day
Duration	- 2 weeks (45 hrs in total)
Level	- Intermediate Course(Industrial design & Engineering)
Tutor	- Industrial Design Professor Keun Lee (Director of Design)) Professor Uh Jun-hyeok Professor Noh Seung-il - Engineering Design Professor Lim Hyeon-Jun(Director of engineering) Professor Park Ki-cheol Professor Deokshin Lim - Industry Experts(Modeling support and Technical guidance)
Learning Methods	-Practices &special lectures by field experts, digital process experience workshops, -Outdoor field trip related to design
Location	- Hongik Seoul Campus(Startup Support Center) - Hongik Hwaseong Campus (Smart Mobility Center) -Field Trip(Cultural experience, Design Museum & Studio)
Certificate	- On completion: 3 credits or Certificate of Completion

4. Composition of subjects and major experience process

Learning Methods	Topics	Tutor
E-bike Design Workshop	<ul style="list-style-type: none"> - Forming a team with field practice experts to set up conception, ideation, digital modeling(week 1) - E-bike prototype build up using prepared parts and material kits (week 2) 	mobility design field expert
Digital Design Process	<ul style="list-style-type: none"> - Sketch practice using the 3D sketch tool Feather - VR simulation practice using XR Auto Studio - 3D printing practice using Fushion 360 	mobility design field expert
Special Lecture	<ul style="list-style-type: none"> - Hyundai Design (Vice President Lee Sang-yeop) - Samsung Design (Vice President Lee Don-tae) - LG Design (Executive Director Hwang Seong-geol) - Naver Design (Director Kim Jae-yeop) 	Design Director
Field Trip	<ul style="list-style-type: none"> - DDP, Seoul Craft Museum - Tour: Hyundai Motor Company, LG Electronics, Naver Design Center, visit 	Tutor

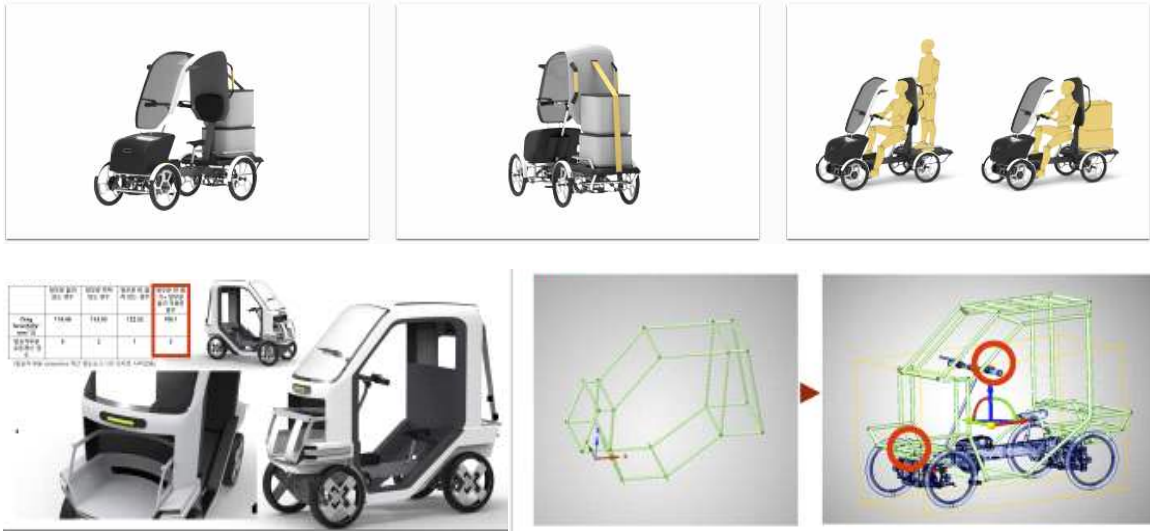
○ Idea sketching course (3D sketching tool Feather)



○ VR simulation sketch experience course(XR Auto Studio)



- Digital modeling & engineering analysis(Fashion 360, Ansys Discovery)



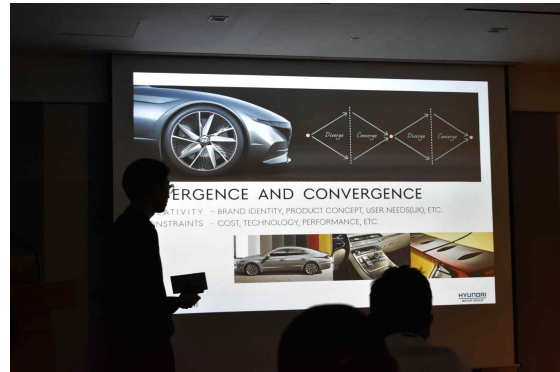
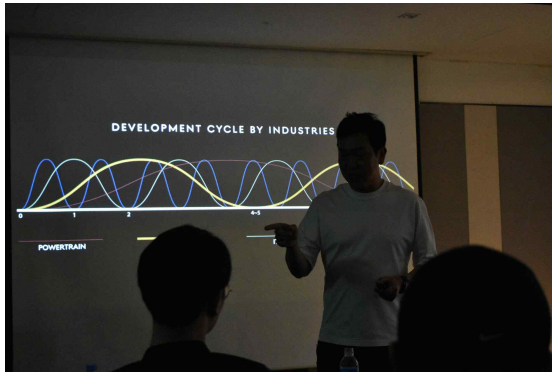
○ Design Prototype Model Build up



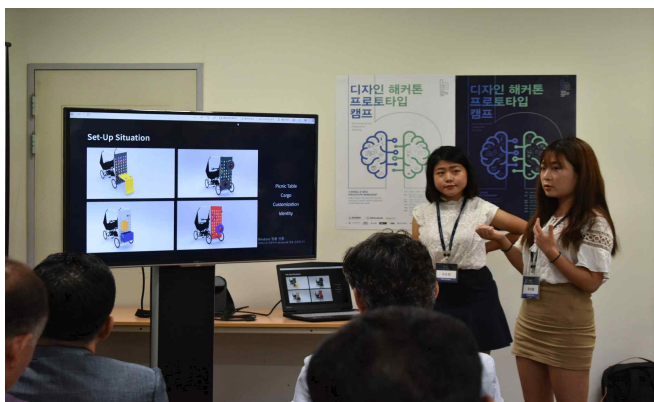
☐ **Design studio visit and cultural experience**



○ Special Lecture by Industrial Design Director



○ Industry expert evaluation and presentation



4. Detailed workshop schedule (2 weeks)

DAY	Process	Contents	
Day 1 July 3rd (mon)	Introduction	- Project overview and process introduction - Formation of a team of field experts & participating students (1 team: 5 people)	Tutor
		- Digital design process - 3D sketch tool Feather practice	Field Expert
Day 2 July 4th (tue)	Conception	- Design research & Conception - Ideation & Usability Research	Tutor
		- Practice guidance by 3D sketch Tool - Process case introduction and methodology	Field Expert
Day 3 July 5th (wed)	Ideation	- Project progress and Consulting	Tutor Field Expert
		-Project progress and Consulting -Special lecture(Hyundai. VP. Sang-yeop .Lee)	Tutor Field Expert
Day 4 July 6 (thu)	Ideation	-Project progress and Consulting	Tutor Field Expert
		-Project progress and Consulting -Special lecture(Samsung, VP. Don-tae. Lee)	Tutor Field Expert
Day 5 July 7th (fri)	development	-Project progress and Consulting	Tutor Field Expert
		-Dongdaemun Design Plaza Tour	Tutor
Day 6 July 10th (mon)	development	-Project progress and Consulting	Tutor Field Expert
		-Craft Museum & Insa-dong Tour	Tutor
Day 7 July 11th (tue)	development	-Project progress and Consulting	Tutor Field Expert
		-Project progress and Consulting -Special lecture(LG. Director. Sung-Gul Hwang)	Tutor Field Expert
Day 8 July 12th (wed)	development	-Project progress and Consulting	Tutor Field Expert
		-Project progress and Consulting -Special lecture(Naver, Director. Jae-yeop Kim)	Tutor Field Expert
Day 9 July 13th (thu)	development	Project progress and Consulting	Tutor Field Expert
		Project progress and Consulting	Tutor Field Expert
Day 10 July 14th (fri)	Presentation	Preparing project presentations by team	Tutor Field Expert
		Final Reviews & Conferment Ceremony	Tutor Field Expert