

2023 DONGGUK UNIVERSITY
INTERNATIONAL SUMMER SCHOOL

COURSE TITLE	Global Capstone Design
DATES	June 26, 2023 – July 12, 2023
COURSE TIMES	14:00-17:00
CREDIT HOURS	3 credits
PROFESSOR	- Name : Sungbum Jun - Email : sbjun@dgu.ac.kr
COURSE DESCRIPTION	<p>The purpose of the Global Capstone Design (GCD) is for the students to apply theoretical knowledge acquired during this summer semester. During the project, students engage in the entire process of solving the real-world problems from collecting and processing actual data along with suitable and appropriate analytic methods to the problem. Both the problem statements and the datasets originate from real-world domains similar to those that students might typically encounter within industry or academic research.</p> <p>This GCD is based on a capstone project with collaboration between international students including from Finland and South Korea. Depending on the complexity of the project, students will work in small teams (maximum 6 members) on a problem statement, typically specified by a faculty or industry. Each project team is supervised by faculty or project coaches assigned from industry sponsors. Students also will have a tour of headquarters for hands-on experience and a special lecture series on Friday.</p> <p>The topic is provided from a South Korean wireless telecommunications company (<i>SK Telecom</i>) in South Korea. The potential topic (but are not limited to) is as follows:</p> <ul style="list-style-type: none"> - Service Ideation for AI Speaker called <i>Nugu</i> - Service Ideation for personalized AI Software called <i>A. (A dot)</i> <p>The basic philosophy of GCD is a problem-based learning (PBL), which develops problem-solving techniques from experiences. The major goals of GCD are as follows:</p> <ol style="list-style-type: none"> 1) Define the problems properly from the real-world dataset 2) Identify possible alternatives for the defined problem 3) Elaborate the approach with other students 4) Provide detailed solutions to practitioners and receive feedback <p><i>Project Description</i></p>



SK Telecom has launched an AI assistant service by equipping its AI speaker *Nugu* Candle, which supports both Korean and English languages, through collaboration with Amazon. Customers can use the wake word “Aria” to initiate Nugu services in Korean, and “Alexa” to enjoy Alexa’s services in English.

Both Nugu and Alexa support basic features like weather, news, chitchat and calendar. Korean content like Flo (music streaming service) and Potbbang (audio streaming service) can be accessed via Nugu, while foreign content such as TuneIn can be enjoyed via Alexa.

In addition to Nugu, SK Telecom also upgraded its artificial intelligence service called *A. (A dot)*. by adopting long-term memory technology to enable the AI secretary to remember its owner's crucial information for a long time. Users can form a strong friendship with the AI service as it can engage in a conversation without any difficulties even when humans bring back their old memories.

A. is a time-saving service that intelligently handles cumbersome tasks that consumers may face while using smartphones. The AI service also recommends and plays music or videos that match users' preferences. Users can decorate their own characters and talk to them through voice or text. Various services essential for daily life such as music, over-the-top (OTT) content, transportation, calendar, phone, and text messages can be conveniently connected to the AI secretary.

A team comprised of capstone students, advised by the instructor in conjunction with a technical coach from the company, employ the dataset to develop a new business idea and propose customized marketing strategies.

SCHEDULE	DAY 1 (6/26)	Introduction
	DAY 2 (6/27)	Problem Description
	DAY 3 (6/28)	Ideation and Discussion (1)
	DAY 4 (6/29)	SK Telecom Headquarter Tour
	DAY 5 (6/30)	Ideation and Discussion (2)
	DAY 6 (7/3)	Mid-term Presentation
	DAY 7 (7/4)	Design of Solution Approaches
	DAY 8 (7/5)	Data Analysis for Concretization of Ideas
	DAY 9 (7/6)	Peer Review
	DAY 10 (7/7)	Revision of Business Ideas
	DAY 11 (7/10)	Discussion, Feedback, and Comments
	DAY 12 (7/11)	Final Presentation (1)
	DAY 13 (7/12)	Final Presentation (2)

REFERENCE There is no required textbook for the course. Instructors can recommend various references (including texts and journal articles) particular to topics of interest.

메모 포함[S1]: SK텔레콤 담당자의 프로젝트 설명

메모 포함[S2]: 본사 투어

<p style="text-align: center;">EVALUATION</p>	<p>The evaluation of this course is based on the following criteria:</p> <ol style="list-style-type: none"> 1) Attendance and Participation 2) Mid-term Presentation 3) Final Presentation 4) Evaluation of Practitioners 5) Peer-evaluation - <p>2)-4): The tabulated results will be reviewed by the instructor. 5): Students will complete an anonymous survey.</p>
<p style="text-align: center;">ASSIGNMENT</p>	<ol style="list-style-type: none"> 1) Ideation and One-page Executive Summary 2) Mid-term Presentation 3) Final Presentation 4) Attendance and Peer Review