

Capstone Design I (INC4084-01)

Course Orientation

Dept. of Information Communication Engineering
Prof. Yu-Cheol Lee

Outline

1. **Course Overview**
2. **Course Introduction**
3. **Course Schedule**

01 Course Overview

01 Course Overview

1. Basic Information

- **Title:** Capstone Design I
- **When:** Thu. 18:00 ~ 21:30
- **Target Audience:** Junior and above
- **Prerequisites:** None

2. Lecturer

- **Professor:** Lee, Yu-Cheol
- **Office :** New Engineering Bldg. #10112
- **Email:** yulee@dongguk.edu
- **Homepage:** <https://sites.google.com/site/yucheollee>
- **Office Hour:** Tue. 13:00-15:00 / Thu. 13:00-15:00
- **Requests:** Advance reservation via email

02 Course Introduction

02 Course Introduction

1. Description

- This course conducts a team project called capstone design, connecting with graduation research.
- One team can comprise up to 4 students, and the team member is free to choose.
- Project topics can also be determined by team member discussion on the various topics related to all the engineering fields.
- It would be good to learn the pleasure of the engineering by proceeding problem definition, brainstorming, solution, implementation, evaluation, team building, reporting, and presentation for the self-motivated project.

2. Objectives

- To define the specific problems as an engineer
- To design a solution by engineering approaches and procedures
- To establish evaluation methods for solutions and analyze the performance results
- To practice team works for completing project
- To improve report writing and presentation skills

02 Course Introduction

3. Prerequisites

- Passion to do the engineering project

4. Grading

Progress Reports	Project Proposal	Midterm Report / Presentation	Final Report / Presentation	Attendance	계
10	10	30	40	10	100

- **Progress Report (10%)**
 - Each team needs to submit 4 times of the progress reports in the format with MS PowerPoint slides or Word document.
 - The report should include what work is done, and what work will be done.
 - The report must be submitted before the class and be brought to individual team meeting.
 - The report submitted after class will be assigned half points.

02 Course Introduction

3. Grading

- **Project Proposal and Presentation (10%) : Due 3/23, 18:00**
 - Each team will submit a project proposal and present its objective.
- **Midterm Report and Presentation (30%): Due 4/20, 18:00**
 - Each team will submit a midterm report and present its interim work.
- **Final Report and Presentation (40%): Due 6/8, 18:00**
 - Each team will submit a final report (w/ intellectual invent report) and present its final work, including the project completeness, novelty, and contribution.
 - Mandatory to participate in intellectual invent competition at Dongguk University

※ **All reports and presentation need to specify the role and contribution of each team member.**

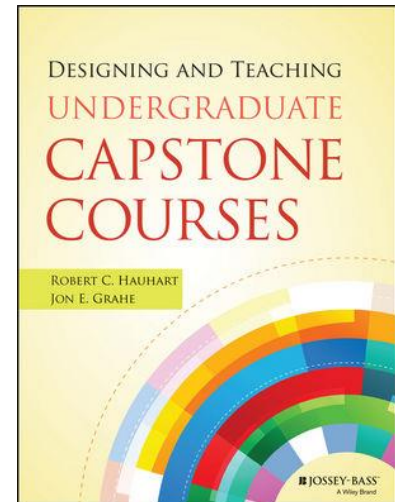
02 Course Introduction

5. Class Method

- **Counsel to Meet Individual Team (11 times)**
 - Meeting at Office 10112, New Engineering Bldg., after reserving time slots (20 mins.) for each team through Google sheet.
 - Google sheet will be opened and shared for the next meeting 1 week ago.
- **Lecture to Attend All Students (4 times incl. course orientation)**
 - All students attend the class at New Engineering Bldg. 5143 in order to listen and discuss the progress of the other teams.

6. Textbook (Only Reference)

- **Title:** Designing and Teaching Undergraduate Capstone Courses (1st Edition)
- **Authors:** Robert C. Hauhart, Jon E. Grahe
- **Publisher:** Jossey-Bass
- **Year:** 2015
- **ISBN:** 978-1118761878



03 Course Schedule

03 Course Schedule

주	교과 내용	과제	비고
1 Week (3/2)	Course Orientation - Course Objective and Schedule / Introduction of past projects Team Formation		Lecture to Attend All Students
2 Week (3/9)	Project Topic Survey	Progress Report 1	Counsel to Meet Individual Team
3 Week (3/16)	Project Proposal		Counsel to Meet Individual Team
4 Week (3/23)	Project Proposal Submission and Presentation	Project Proposal	Lecture to Attend All Students
5 Week (3/30)	Design 1		Counsel to Meet Individual Team
6 Week (4/6)	Design 2	Progress Report 2	Counsel to Meet Individual Team
7 Week (4/13)	Design 3		Counsel to Meet Individual Team
8 Week (4/20)	Midterm Report Submission and Presentation	Midterm Report	Lecture to Attend All Students

03 Course Schedule

주	교과 내용	과제	비고
9 Week (4/27)	Implementation 1		Counsel to Meet Individual Team
10 Week (5/4)	Implementation 2	Progress Report 3	Counsel to Meet Individual Team
11 Week (5/11)	Implementation 3		Counsel to Meet Individual Team
12 Week (5/18)	Debugging and Project Evaluation	Progress Report 4	Counsel to Meet Individual Team
13 Week (5/25)	Project Documentation		Counsel to Meet Individual Team
14 Week (6/1)	Presentation Preparation		Counsel to Meet Individual Team
15 Week (6/8)	Final Report Submission and Presentation	Final Report, Intellectual Invent Report	Lecture to Attend All Students