

공학프로젝트관리 (Engineering Project Management)

Course Introduction

A general understanding of project management is indispensable for accomplishing a project and achieving the predetermined objectives in an efficient manner. The primary challenge of project management is to fulfill all of the project goals while honoring the preconceived project constraints such as scope, time, human resources, and budget. Project management is the discipline of planning, organizing, and managing resources to realize specific objectives. This class provides fundamental theories, management skills, and practical cases of project management, particularly in relation to multi-disciplinary engineering projects.

Grading Scheme

Attendance	10%
Team Project	30%
Mid-Term Exam	30%
Final Exam	30%

Textbook

The instructors will provide lecture notes and reading materials through the course website. Part of the course will be conducted with VOD's produced by Voices from Oxford, Oxford University. The VOD files will also be made available through the course website. While there is no required textbook for this course, the following is recommended as a reference.

Jack R. Meredith and Samuel J. Mantel, Jr., *Project Management: A Managerial Approach*, 8th edition (John Wiley & Sons, Inc., 2012).

Special Considerations

This course is part of the Global Education Program for Engineers coordinated by the Global Education Center for Engineers (GECE). One of the goals of the program is to make educational content available to a large number of universities across the country. As such, many of the GECE courses are jointly offered at several universities. For example, this course is offered simultaneously at five universities (Pusan, Kyungpook, Chonnam, and Chungnam) through Internet connection. For more information on other courses offered through the Global Education Program for Engineers, refer to the center's website at <http://www.gece.or.kr/>.

Course Schedule

Week	Part	Topics
1	Introduction	Course Overview
2	PART I: Basics	What is PM?
		Basic Theories of PM
		PM in History
3	PART II: Project Initiation	Planning and Proposing Projects
		Practical Work: Team Project Topics
4	PART III: Project Planning	Project Planning: Introduction
		Strategy and Project Portfolio Management (PPM)
5		Roles and Responsibilities of Project Managers
		Defining Project Requirements
6		Project Implementation: Introduction
		Project Management Toolkit
7	Mid-Term Exam	
	Mid-Term Exam	
8	PART IV: Project Implementation	Time Management
		Time Management Exercise
9		Cost Management
		Cost Management Exercise
10		One-Page Project Management (OPPM)
		Practical Work: Mid-Term Presentation of Team Projects
11		Organizational Structures and Star Model
		Project Management Office (PMO)
12		Hierarchy, Metrics, and Classification
		Risk Management
13	Project Modification	
	Project Closure	
14	Practical Work: Final Presentation of Team Projects	
	Practical Work: Final Presentation of Team Projects	
15	Final Week	Final Exam

Team Project Description

The aim of the team project is to design a realistic (but imaginary – in the sense that you will not be expected to actually work on it) project, and prepare a presentation explaining how your team will execute the project to meet the project goals while considering the various constraints imposed upon it. One way to think about this is to imagine a wealthy patron, from whom you can solicit financial investment for the project. How can you persuade him or her to pay for the project that you wish to work on?

For the team project, you will need to do two things: 1) collect enough real-life data to design a project that is necessary, interesting, and feasible (not only from an engineering standpoint, but also from economic, legal, social, and political perspectives); and 2) prepare a persuasive presentation that shows that you (as project engineers) have carefully thought through the various factors that may affect the successful execution of the project. In short, think like an engineer in real life!

Of course, you are expected to utilize the tools that you have learned inside and outside this course as you present your case and justify the decisions that you have made.

※ 글로벌엔지니어 인증과정은 공과대학생들의 글로벌역량 및 기본소양 향상을 위해 글로벌공학교육센터에서 운영하는 교육과정입니다. 글로벌엔지니어 인증 필수과목 2, 필수선택 1, 자유선택 2 과목을 포함하여 4 과목 이상 수강한 학생에게는 글로벌엔지니어 인증서가 발급됩니다.

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