



HANYANG UNIVERSITY

Hanyang International Winter School

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Course Information	Class No.	TBA	Course Code	ISS1041	Credits	3
	Course Name	Engineer and Society				
	Lecture Schedule	Mon-Fri / 10:00~12:00 & 13:00~15:30				
	Course Description	<p>Engineers are expected to deliver technologies to society considering the safety and welfare of humankind and the environment. Leadership and professionalism are also expected from engineers to provide considerate guidance on technologies. As technological advances created by engineers can be both positive and negative in their impacts on society, engineers have the responsibility and obligation to make ethical decisions about these impacts. While most decisions could be uncomplicated, some hard decisions are creating internal and external ethical conflicts. Engineers could face conflicting ethical obligations to society, clients and colleagues, which makes ethical decisions more difficult and complicated. Therefore, engineers should be prepared to make difficult and complex ethical decisions, and this course focuses on developing knowledge to make ethical decisions and communication skills by utilizing real-world case study and exercises which is ethically challenging.</p>				
	Course Objective	<p>Students will become familiar with various discussions and practices for dealing with engineering ethics challenges. Students will learn about ethical decision-making, professional codes of ethics, intellectual property rights and sustainable development. In addition, engineering in global and multi-cultural contexts will be explored and understood as well. Through this course, students will understand the meaning of engineering and its impacts on society, and will be prepared to make ethically proper decisions in the context of science and engineering applications locally and globally.</p> <p>(1) Understand the history of engineering and its impact on society (2) Understand the engineer's responsibility for the safety of the public, workplace safety and the protection of the environment. (3) Understand the ethical issues faced by engineers in global and multi-cultural work environments and develop effective communication</p>				



		skills required for engineers through case studies and in-class discussions (4) Understand a team dynamic and learn how to work individually and collaboratively		
	Prerequisite	Course materials will be provided by the instructor. Textbook, Pre-knowledge is not required.		
	Materials/Textbooks	Lecture materials will be provided.		
Evaluation	Attendance	15%	Quiz	%
	Assignment	20%	Mid-term Exam	25%
	Presentation	%	Final Exam	25%
	Group Project	%	Participation	15%
	Etc.	Evaluation Item		Ratio
				%
				%
Daily Lecture Plan	Day 1	Class 1. What is Engineering?		
	Day 2	Class 2. Engineers in Organization		
	Day 3	Class 3 a. Roles and Responsibilities of an Engineer b. Technical Competency		
	Day 4	Class 4. Creativity in Engineering		
	Day 5	Mid-term Exam		
	Day 6	Class 6. Management and Leadership		
	Day 7	Class 7 a. Ethics in Engineering b. Engineering and Sustainability		
	Day 8	Class 8. Corporate Social Responsibility		
	Day 9	Class 9 a. Professionalism, Health, Safety and Welfare b. Engineering in a Global Environment		
	Day 10	Final Exam		