



HANYANG UNIVERSITY

INTERNATIONAL SUMMER SCHOOL

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Home University	University of South Australia
Department	UniSA STEM

Course Title	Engineer and Society
Field of Study	Engineering
Credits	3
Contact Hours	45
Course Code/Number	ISS1041
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 its impacts on society, engineers have responsibility and obligation to make ethical decisions for these impacts. While most of decisions could be uncomplicated, there are some hard decisions creating internal and external ethical conflicts. Engineers could face conflicting ethics 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 upon society.</p>



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	<p>(2) Understand the engineer's responsibility for the safety of the public, workplacesafety and the protection of the environment.</p> <p>(3) Understand the ethical issues faced by engineers in global and multi-cultural work environments and develop effective communication skills required forengineers through casestudiesand in-class discussions.</p> <p>(4) Understand a team dynamic and learn how to work individually and collaboratively.</p>
Preparations (Pre-Knowledge)	Pre-knowledge not required.
Materials (Textbook/Websites link)	Course materials will be provided by the instructor. Textbook is not required.

Lesson Plan: Fill out the topic for each class in detail		
Week 1	1st Day	Orientation & Opening Ceremony
	Class 1	Introduction to Engineer and Society
	Class 2	What is Engineering?
	Class 3	Engineers in Organization
Week 2	Class 4	Roles and Responsibilities of an Engineer
	Class 5	Management and Leadership
	Class 6	Creativity in Engineering
	Class 7	Midterm exam
Week 3	Class 8	Technical Competency
	Class 9	Ethics in Engineering
	Class 10	Engineering and Sustainability



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	Class 11	Corporate Social Responsibility
Week 4	Class 12	Professionalism
	Class 13	Health, Safety and Welfare
	Class 14	Engineering in a Global Environment
	Class 15	Final Exam

*Note: Class schedule is subject to change.

Evaluation (%)								
* Total sum of percentages should be 100%								
* Only below options are available, please do not change the form (fill out the given form)								
Assignments	Attendance	Final	Group Project	Mid-term	Participation	Presentation	Quiz	Total
	15%	40%		30%	15%			100%