HANYANG UNIVERSITY

Hanyang International Summer School

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	Home University	University of South Australia				
	Department	UniSA STEM				
	Homepage					
Course Information	**Class No.**	18028	**Course Code**	ISS1041	**Credits**	3
	Course Name	Engineer and Society				
	Lecture Schedule	Mon-Thu / 9:00~12:00				
	Course Description	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.				
	Course Objective	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. (1) Understand the history of engineering and its impact upon 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-				

<table>
<tr><td rowspan="4"></td><td colspan="2"></td><td colspan="3">cultural work environments and develop effective communication skills required for engineers through case studies and in-class discussions.

(4) Understand a team dynamic and learn how to work individually and collaboratively.</td></tr>
<tr><td colspan="2">Prerequisite</td><td colspan="3">- Pre-knowledge not required.</td></tr>
<tr><td colspan="2">Materials/Textbooks</td><td colspan="3">Course materials will be provided by the instructor. Textbook is not required.</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td rowspan="7">Evaluation</td><td colspan="2">Attendance</td><td>15%</td><td>Quiz</td><td>%</td></tr>
<tr><td colspan="2">Assignment</td><td>15%</td><td>Mid-term Exam</td><td>25%</td></tr>
<tr><td colspan="2">Presentation</td><td>%</td><td>Final Exam</td><td>30%</td></tr>
<tr><td colspan="2">Group Project</td><td>%</td><td>Participation</td><td>15%</td></tr>
<tr><td colspan="2" rowspan="3">Etc.</td><td colspan="2">Evaluation Item</td><td>Ratio</td></tr>
<tr><td colspan="2"></td><td>%</td></tr>
<tr><td colspan="2"></td><td>%</td></tr>
<tr><td rowspan="17">Daily Lecture Plan</td><td rowspan="4">Week 1</td><td>Day 1</td><td colspan="3">Opening Ceremony</td></tr>
<tr><td>Day 2</td><td colspan="3">Introduction to Engineer and Society</td></tr>
<tr><td>Day 3</td><td colspan="3">What is Engineering?</td></tr>
<tr><td>Day 4</td><td colspan="3">Engineers in Organization</td></tr>
<tr><td rowspan="4">Week 2</td><td>Day 1</td><td colspan="3">Roles and Responsibilities of an Engineer</td></tr>
<tr><td>Day 2</td><td colspan="3">Management and Leadership</td></tr>
<tr><td>Day 3</td><td colspan="3">Creativity in Engineering</td></tr>
<tr><td>Day 4</td><td colspan="3">Midterm Exam</td></tr>
<tr><td rowspan="4">Week 3</td><td>Day 1</td><td colspan="3">Technical Competency</td></tr>
<tr><td>Day 2</td><td colspan="3">Ethics in Engineering</td></tr>
<tr><td>Day 3</td><td colspan="3">Engineering and Sustainability</td></tr>
<tr><td>Day 4</td><td colspan="3">Corporate Social Responsibility</td></tr>
<tr><td rowspan="4">Week 4</td><td>Day 1</td><td colspan="3">Professionalism</td></tr>
<tr><td>Day 2</td><td colspan="3">Health, Safety and Welfare</td></tr>
<tr><td>Day 3</td><td colspan="3">Engineering in a Global Environment</td></tr>
<tr><td>Day 4</td><td colspan="3">Final Exam</td></tr>
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*Note: Class schedule is subject to change.