

## EG0001 – Engineers & Society

<b>Course Code</b>	EG0001					
<b>Course Title</b>	Engineers & Society					
<b>Pre-requisites</b>	Nil					
<b>No of AUs</b>	3					
<b>Contact Hours</b>	LECTURES	26	TUTORIAL	13	LAB	0

### Course Aims

This course aims to provide a general understanding of the society we live in and the engineers' roles and responsibilities towards society's well-being. The course is part of broadening education objective in the engineering curriculum. The course covers a wide range of topics including history, political, social and economic development, foreign policy and defence of Singapore and the issues confronting it, the history of engineering, engineering ethics and practices, international politics and globalization and contributions by engineers towards society. The students will have a holistic understanding of Singapore's past and present situation and on the impact of industry to the society.

### Intended Learning Outcomes (ILO)

By the end of this course, you (as a student) would be expected to be able to:

1. Identify how Singapore transited from being a 3rd World to 1st country and lessons to be learnt
2. Illustrate the role engineers play in the development of Singapore and future challenges
3. Interpret the significance of professional ethics,
4. Interpret the significance of engineering practice in safety and sustainability, and
5. Evaluate the significance of globalization and impact of industry to the society

### Course Content

S/N	Topic	Lecture Hrs	Tutorial Hrs
1	Pre-independence history of Singapore	2	1
2	Social and political development issues	2	1
3	Economic and industrial development issues	2	1
4	National cohesion and total defence	2	1
5	History of engineering	2	1
6	Engineering ethics	4	2
7	Engineering practice in Singapore (WSH and sustainability)	4	2
8	Our neighbours and international relations	2	1
9	Challenges of globalization and the new economy	2	1
10	Contribution of engineers in the new economy	2	1
11	Impact of industry to the society (by external speakers)	2	1
<b>Total:</b>		<b>26</b>	<b>13</b>

### Reading and References

References:

1. Singapore: Journey into Nationhood, National Heritage Board: Landmark Books, 1998. (DS610.4.S617j)
2. Singapore, a 700-year history: from early emporium to world city / Kwa Chong Guan, Derek Heng,

Tan Tai Yong. National Archives of Singapore, 2009. (DS610.4.K98)

3. Johnson Stephen F, Gostelow J Paul and King W Joseph, Engineering and society: challenges of professional practice, Prentice Hall, 2000. (TA157, J73)
4. Lee Kuan Yew, From third world to first: the Singapore story: 1965:2000, memoirs of Lee Kuan Yew, Times Editions, 2000. (DSS598.S7L478f)
5. Lee Kuan Yew: hard truths to keep Singapore going / Han Fook Kwang / et al. Singapore: Straits Times. (DS610.73.L46L478KY + 1 DVD)
6. Singapore [electronic resource]: negotiating state and society, 1965-2015 / edited by Jason Lim and Terence Lee. New York: Routledge, 2016. Summary: "Critically reflects on 50 years of independence. Contributors interrogate a selected range of topics on Singapore's history, culture and society--including the constitution, education. [e-book: XX (1614719.1)]

### **Course Policies and Student Responsibilities**

#### **1. General**

Students are expected to make presentations on all assigned projects and attend all tutorial classes punctually. Students are expected to participate in the Q&A sessions of all the presentations.

#### **2. Absenteeism**

The course requires you to attend all tutorial classes to participate in the Q&A sessions of all the presentations. Absence from class without a valid reason will affect your overall course grade. Valid reasons include falling sick supported by a medical certificate and participation in NTU's approved activities supported by an excuse letter from the relevant bodies. There will be no make-up opportunities for in-class presentation activities.

### **Academic Integrity**

Good academic work depends on honesty and ethical behaviour. The quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honour Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values.

As a student, it is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at NTU. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all forms of academic dishonesty, including plagiarism, academic fraud, collusion, and cheating. If you are uncertain of the definitions of any of these terms, you should go to the academic integrity website for more information. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.