

Course Syllabus

1. **Program of Study** Bachelor of Arts (Social Science)
Faculty/Institute/College Mahidol University International College
2. **Course Code** ICSO 281
Course Title The Social Impact of Science and Technology on Society
3. **Number of Credits** 4 (**Lecture / Lab**) (4-0)
4. **Prerequisite (s)** None
5. **Type of Course** Major elective of International Studies Concentration
6. **Trimester / Academic Year** TBA

7. **Course Description**

The social impact of science and technology up to c. 1900. The early 20th century, transportation, the technology of warfare and the 'new physics' of Einstein and Bohr. Developments since World War II : computers, satellite communications, the internet, genetic engineering and medical advances.

8. **Course Objective (s)**

- 1) To explain the impact of the three industrial revolutions on society.
- 2) Analyze the positive and negative consequences of science and technology on society.

9. **Course Outline**

Week	Topic		Instructor
	Lecture	Hour	
1	Introductory; the meaning of science and technology	4	TBA
2	The first industrial revolution - steam power; the organization of work	4	
3	Transportation and communication during the first industrial revolution	4	
4	The second industrial revolution - combustion engines; the assembly line	4	
5	The status of communication and transportation during the second industrial revolution	4	
6	The economic impact of rapid industrialization	4	
7	The third industrial revolutions - computerization and rationalization of workplaces; the new science	4	
8	Contemporary global communication and rapid transit	4	
9	Tourism and its effects	4	
10	Consumerism and the economic uses of science and technology	4	
11	The positive and negative impacts of science and technology; future possibilities	4	
	Total	44	

10. **Teaching Method (s)**

Lecture and discussion.

11. Teaching Media

Texts, transparencies, videos.

12. Measurement and evaluation of student achievement

The standard scale of 90 - 100 = A, 85 - 89 = B+, 80 - 84 = B, etc. 60 is required to pass.

13. Course evaluation

Grading will be based on two in - class exams (45% each) and contribution to discussion 10%.

14. Reference (s)

Wolpert, Lewis (ed.) *Science, Technology and Social Responsibility (Science in Society)*, The Royal Society, London, 2000.

15. Instructor (s)

TBA

16. Course Coordinator

Eugene Jones