



B.E. International Program

Faculty of Economics, Thammasat University



Course Outline

TU 130 Integrated Sciences and Technology Semester 1/2013 (13 August – 30 November 2013)

Number of credits: 3 credits

Lecture Time: Mondays, 9:00 – 11:00 AM

Lecture Venue: 101, 1st floor, Faculty of Economics
Thammasat University, Tha Prachan campus

Instructor: Asst. Prof. Dr. Ruangsak Songsathaporn
Office hours: by appointment

Course Description:

A study of scientific concepts, theories and rules concerning inorganic particles from the planetary level to particle levels, and to molecule and atom levels, the interaction between atom and molecule, chemical and inorganic chemical reaction relating to biological conditions of living things and the evolution of life on the planet. It explores basic concepts in science and technology that are pertinent to modern day living, important debated concerning the relationship between science and technology and the environment and society and their distinctive features as separate fields of knowledge.

Prerequisite: none

Course Objectives:

1. For the students to appreciate the importance of Science and Technology
2. To realize that one needs to live in harmony with the nature.

Text and Materials:

1. Butz, Stephen D., "Science of Earth Systems", Thomson Learning, Inc., New York, 2004.
2. Emiliani, Cesare, Planet Earth: Cosmology, Geology and the Evolution of Life and Environment, Cambridge University Press, 1992.
3. Sagan, Carl, Pale Blue Dot, Random House, Inc., New York, 1994.
4. Sullivan III, W.T. and Baross, J.A., "Planets and Life", Cambridge University Press, Cambridge, UK, 2007.
5. Trefil, James, and Hazen, Robert M., "The Sciences: An Integrated Approach" 5th Edition, John Wiley & Sons, Inc., New York, 2007.

Grading:

Midterm Examination	40%
Final Examination	60%
Total	100%

Course Schedule:

Week	Topic	Teaching Materials
1 - 2	Development of Science and Technology	Power Point and DVD
3	Matter and Energy	Power Point and DVD
4 - 5	Human and the Universe	Power Point and DVD
6 - 8	Formation and Evolution of the Earth	Power Point and DVD
9 - 12	The Beginning and Evolution of Life on Earth	Power Point and DVD
13 - 15	The Impacts of Science and Technology to Everyday Life	Power Point and DVD

Important Dates :

- ◆ First semester begins August 13, 2013
 - ◆ Adding and Dropping Course August August 13-27, 2013
 - ◆ **Mid-Term Examination** **September 30, 2013 (9:00 - 10:30 am.)**
 - ◆ Course Withdrawal with "W" October 16 – 21, 2013
 - ◆ Last day of class November 30, 2013
 - ◆ **Final Examination** **December 3, 2013 (1:30 - 4:30 pm.)**
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