



B.E. International Program

Faculty of Economics, Thammasat University



Course Outline

TU 130 Integrated Sciences and Technology

Semester 2/2011 (January 9 – May 20, 2012)

Prerequisite: - none

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.

Course Objective:

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.

Class Time and Venue:

Date: Monday
Time: 08:00-11:00 hrs.
Venue: Faculty of Economics, Room # 304

Instructors:

Asst. Prof. Dr. Ruangsak Songsathaporn

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. Cloud, Preston, Cosmos, Earth and Man, Yale University Press, New York, 1978.
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%	(Feb. 27, 2012, 09.30-11.00 hrs.)
Final Examination	60%	(May 15, 2012, 09.00-12.00 hrs.)
Total	<u>100%</u>	

Remarks:

- ◆ Second semester begins Jan. 9, 2012
- ◆ Period of withdrawal without "W" Jan. 9-23, 2012
- ◆ Mid-Term Examination Feb. 27 – March 3, 2012
- ◆ Last day of withdrawal with "W" March 21, 2012
- ◆ Last day of class Apr. 29, 2012
- ◆ Final Examination May 4 - 20, 2012

Course Schedule:

Week	Topic	Teaching Materials
1 – 2	The Foundations of Science	Power Point and DVD
3	Matter and Energy	Power Point and DVD
4 – 5	The Exosphere	Power Point and DVD
6 – 9	The Lithosphere and the Hydrosphere	Power Point and DVD
10 – 14	The beginning and evolution of life	Power Point and DVD
15 – 16	The impact of science and technology to everyday life	Power Point and DVD