Course Syllabus

TU103 Life and Sustainability (2/2023)

Programs: BE Thammasat University (Tha Prachan Campus)

1. Lecturers and Course Coordinator**

Course Coordinator: Assist Prof. Chol Bunnag (bchol@tu.ac.th)

Week	Morning section (Room 203, Faculty of Economics)
Week 1-5	Assist Prof. Chol Bunnag **(bchol@tu.ac.th)**
Week 6	Asst.Prof. Dr. Boonanan Natakun (boonanan@ap.tu.ac.th)
Week 7	Assoc.Prof. Dr. Supreedee Rittironk (sdr@tu.ac.th)
Week 8	Aj. Hansa Srilertchaipanit (hansa@ap.tu.ac.th)
Week 9	Dr.Winyu Ardrugsa (ardrugsa@ap.tu.ac.th)
Week 10	Assoc.Prof. Dr. Supreedee Rittironk (sdr@tu.ac.th)
Week 11-15	Dr. Rick Levinthal (ricklev@hotmail.com)

2. Class Date and Time: Saturdays 9:00-12:00

3. Course Objective

This course provides an introduction to the importance of life-cycle systems perspectives in understanding major challenges and solutions to achieving more sustainable societies in this changing world. Students will learn about the relationship between mankind and the environment in the context of energy and resource use, consumption and development, and environmental constraints. Furthermore, an examination of social conflict and change from the life-cycle perspective will be used to develop an understanding of potential solution pathways for sustainable lifestyle modifications.

4. Expected Learning Outcomes

Morals and Ethics						Knowledge				Cognitive Skills				Interpersonal skills & responsibilities					Numerical, Communication and IT skills			
1	2	3	4	5	6	1	2	3	4	1	2	3	4	1	2	3	4	5	1	2	3	4
●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●		x	x	x

Other skills	Other attitudes
S1: Systematic thinking	A1: Awareness for the public and awareness of the external impact that they may cause to society.
S2: Well-rounded thinking	A2: Seeing that sustainability is near and one of the main reasons is the behavior of students in everyday life.

5. Grading Criteria:

Module	Participation/in-class	Quiz / Exam	Group work	Total (90 points)*
M1 (Week 1- Week 5)	20%	10%	0%	**30 points**
M2 (Week 6- Week 10)	5%	15%	10%	**30 points**
M3 (Week 11- Week 15)	10%	10%	10%	**30 points**

*The score of total 90 points will be converted to 100%

6. Reference Material:

Each module will provide reading material and worksheets. There is no text for the students to purchase.

7. Course plan:

Week	Date	Topic	Content
Module M1*: Economics, Social Science and Environment for Sustainability (5 Weeks)			
1	13-Jan	Introduction to TU103, Sustainable Development and the 2030 Agenda	Introduce TU103 and its modules. Brief history of 'development'. Introduce the concepts of sustainable development; getting to know the Sustainable Development Goals (SDGs); why SDGs are important to you? ***In-class activity (5 points)****
2	20-Jan	"People" dimension in Sustainable Development: Human Development and Human Security	Introduce the concept of human development and human security. Explore People dimension of the SDGs and key terms and issues in SDG 1 – 5, and 16. ***In-class activity (5 points)****
3	27-Jan	"Prosperity" dimension in Sustainable Development: Inequality, Inclusive Growth, and green business.	Introduce the concepts of inequality, and inclusive growth. Explore Prosperity dimension of the SDGs and key terms and issues in SDG 7 – 11. ***In-class activity (5 points)****
4	3-Feb	"Planet" dimension in Sustainable Development: The Triple Planetary Crisis, climate change, and circular economy.	Introduce the concepts of Anthropocene, Planetary Boundaries, Triple Planetary Crisis, Climate change, and Circular Economy. Explore Prosperity dimension of the SDGs and key terms and issues in SDG 6, 12 – 15. ***In-class activity (5 points)****
5	10-Feb	Sustainability Transition: Role of Economics.	Introduce the economic concepts in sustainable development, such as Polluter Pay Principles, Payment for Ecosystem Service, , other economic approaches for sustainability, and Green Business. ***Final Quiz (10 points) – at the end of the class, covering the content of all classes.***
Module M2*: Built Environment and Sustainability (5 Weeks)			
6	17-Feb	Built Environment: definition and Sustainability concept, Utopia	Sustainability in Built environment and Utopia concept ***Participation & Assign/quiz (4 points)***
7	24-Feb (online)	Built Environment: Sustainable city and City Resilience.	Sustainable City, Resilient & Adaptive concept, Assign Project. This class will be online on Feb 24 due to Makhabucha Day. ***Participation & Assign/quiz (4 points)***
-	2-Mar	No class (Midterm examination week)	
8	9-Mar	Built Environment: Sustainable Community and participation	Sustainable Community and working strategies ***Participation & Assign/quiz (4 points)***
9	16-Mar	Built Environment: Sustainable Architecture	Sustainable Architecture and design strategies ***Participation & Assign/quiz (4 points)***
10	23-Mar	Built Environment: Sustainable Architecture case studies	Learning from various sustainable architectural projects ***Participation & Assign/quiz (4 points) & Project due (10 points)***

Week	Date	Topic	Content
Module M3*:* Environmental Science (5 Weeks)			
11	30-Mar	Concept of life and sustainability	World population, consumption, and the carrying capacity of our planet. Project assignment. *Participation (2.5 points)*
12	6-Apr	Climate change basics and energy production	The science of climate change. Energy production. This class will be online on 6 April due to Chakri Day holiday. *Participation/Homework assignment (2.5 points)*
-	13-Apr	No class	Songkran Holiday
13	20-Apr	Personal consumption	Material life cycle (Story of stuff). Ecological footprint and carbon footprint. Consumption measurement and its environmental effect. *Participation (2.5 points)*
14	27-Apr	Environmental protection engagement	Zero-waste life. Green consumerism. Change and inspiration. *Module 3 quiz (10 points) Participation (2.5 points)*
15	4-May	Project presentations	Project presentations and module reflection. This class will be online on 4 May due to Coronation Day holiday.

8. Class rules:

- Throughout the semester, all classes are conducted in class. However, students are expected to join the MS Teams where class information and materials will be provided.
- Group will be assigned on a random basis.
- Quizzes will be instructed and conducted by lecturers in each module. There will be no make-up quizzes. Absentee will be given a score of zero, except with valid reason(s). In this manner, the student must inform the instructor before the class via e-mail or, for medical reason(s), provide a medical certificate as soon as possible.
- If the student experience technical difficulty/ies while taking quiz, the student must inform the lecturer immediately.