



Course Outline

EE465 Sustainable Development

Semester 2/2024

Class Time and Logistic

Class day: Thursday

Class time: 09.00 – 12.00 hrs.

Venue: Room 206, 2nd floor, Faculty of Economics

Teaching Materials Platform: Google Classroom: [class code: sykff6b]

Instructor:

Name: Asst.Prof. Chol Bunnag

Office Hours: 16.00 – 17.00 hrs on Wednesday and Thursday

Email: cholb@econ.tu.ac.th

Phone: 0988267376

Number of Credit: 3 credits

Prerequisite: EE212 (or EE214) and EE311

Course Description: Development of sustainable development approach under context of socio-politico-economic development at different levels. Sustainable development crises at global level and in Thailand. Definitions and fundamental ideas regarding Sustainable Development and contemporary debates. Other approaches related to sustainable development and their critiques, such as Gross National Happiness (GNH), Sufficiency Economy Philosophy, Green Growth, etc. Economic theories related to sustainable development, such as the analysis of externalities, public goods, common-pool resources, ecological economics, Green Economy, and economic measures for sustainable development. Policies and indicators related to sustainable development at global level, particularly the Sustainable Development Goals (SDGs). Challenges and obstacles to achieve sustainable development.

Course objectives

1. To enable students to understand, explain, and apply definitions and principles related to sustainable development in distinguishing between sustainable and unsustainable policies and practices.
2. To provide students with knowledge and understanding of key issues in sustainable development, as well as the details of the Sustainable Development Goals (SDGs) and relevant driving mechanisms.
3. To equip students with the ability to understand, explain, apply, and analyze sustainable development issues from the perspective of basic economic frameworks and concepts.
4. To understand the limitations of mainstream economics and explore alternative economic concepts and measures, including transitioning various economic sectors toward sustainability.
5. To develop students' academic skills, particularly in writing, presenting, analyzing, synthesizing, and systematic thinking.

Expected Learning Outcomes

1. Morality and Ethics

Applicability	Expected Learning Outcomes	Evaluation Method
●	1. Students demonstrate integrity.	
●	2. Students prioritize social and public benefits over personal ones.	
●	3. Students are punctual and comply with the code of conduct of the institution and society at large.	
●	4. Students are responsible and accountable to society, the nation, and the subject of economics.	
●	5. Students realize the cultural and environmental value of a sustainable society.	

2. Knowledge

Applicability	Expected Learning Outcomes	Evaluation Method
●	1. Students know and understand modern economics principles and theories and are up to date with new developments.	
●	2. Students know and understand Thai and global economic structure and the importance of major international economic events.	
○	3. Students know and understand the instruments of economic analysis.	
●	4. Students know and understand applied fields in economics, including monetary, public, international,	

	business, natural resource, and environmental, industrial, agricultural, cooperative, political, developmental, and entrepreneurial economics as well as agribusiness.	
○	5. Students are informed about related fields including sociology, business administration, education, law policy, and science.	

3. Intellectual Development

Applicability	Expected Learning Outcomes	Evaluation Method
●	1. Students have developed individual critical thinking.	
●	2. Students are sufficiently trained in research skills.	
●	3. Students demonstrate an ability to analyze and synthesize data, as well as appropriately integrate economics concepts to understand the causes of current economic problems in Thailand. Based on analysis and synthesis, students demonstrate an ability to propose policy guidelines to resolve problems.	

4. Interpersonal Skills and Responsibilities

Applicability	Expected Learning Outcomes	Evaluation Method
●	1. Students are responsible for assigned tasks and work in groups effectively.	
●	2. Students have problem-solving skills.	
○	3. Students show leadership skills and team spirit.	
●	4. Students are always improving themselves.	
○	5. Students have good interpersonal skills, adapt, and work under different conditions.	

5. Quantitative Analysis, communication, and information technology

Applicability	Expected Learning Outcomes	Evaluation Method
○	1. Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.	

○	2. Students communicate effectively and select appropriate presentation methods.	
○	3. Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.	

Remark: ● Primary expected outcome ○ Secondary expected

Learning Approach

This course employs an Active Learning approach, as follows:

- Lectures are pre-recorded as videos, allowing students to learn at their convenience.
- Class time is reserved for answering questions to verify whether students have watched the videos and for addressing in-depth questions about unclear content.
- Assessment is primarily based on learning activities, with a smaller portion allocated to examinations.

As the instructor expects students to watch the videos in their own time, the course includes approximately 2 hours of in-class teaching. However, students may attend class at the scheduled time, and the instructor will also be present during these hours for consultations and discussions with students.

The Course Policy on Generative AI :

The use of Generative AI in this course should be as a **co-pilot**, meaning it serves only as an assistant. Students must act as the **pilot** or the primary driver of the learning process and take full responsibility for producing outputs in group activities and related reports. To use Generative AI as a co-pilot, imagine it as another person assisting in the process, but not someone who “does the work” in a way that deprives students of the intended learning experience.

Prohibited Uses of Generative AI:

- Writing reports or assignments that contribute to graded assessments.
- Reading primary texts required for the course.
- Generating references or citations (as Generative AI often produces non-existent references).

Permitted Uses of Generative AI:

- **Brainstorming ideas:** Students are encouraged to gather ideas from multiple Generative AI sources and/or iterations to aid decision-making, using classroom knowledge as a tool to evaluate AI-generated suggestions.
- **Summarizing key information** from sources used in reports (students must double-check the accuracy of the summaries).
- **Checking for errors** and verifying the correctness of written content.
- **Creating visual aids** (please specify that the visuals were generated by AI).

Grading criteria

Learning activities*	50%	
Midterm examination	20%	(Thursday, March 13, 2025 09.00 - 11.00 hrs.)
Final examination	30%	(Thursday, May 29, 2025 09.00 - 12.00 hrs.)

*More details is provided in a separate document.

Main Text:

Sachs, Jeffrey D. 2015. *The Age of Sustainable Development*. New York, NY: Columbia University Press.

Raworth, Kate. 2018. *Doughnut Economics*. London, England: Random House Business Books.

Recommended Texts & Materials:

Walker, Julia, Alma Pekmezovic, and Gordon Walker. 2019. *Sustainable Development Goals: Harnessing Business to Achieve the SDGs through Finance, Technology and Law Reform*.

Polasky, Stephen, Catherine L. Kling, Simon A. Levin, Stephen R. Carpenter, Gretchen C. Daily, Paul R. Ehrlich, Geoffrey M. Heal, and Jane Lubchenco. 2019. "Role of Economics in Analyzing the Environment and Sustainable Development." *Proceedings of the National Academy of Sciences of the United States of America* 116 (12): 5233–38.

Suggested Readings:

Brandon, Alec, John A. List, Robert D. Metcalfe, Michael K. Price, and Florian Rundhammer. 2019. "Testing for Crowd out in Social Nudges: Evidence from a Natural Field Experiment in the Market for Electricity." *Proceedings of the National Academy of Sciences of the United States of America* 116 (12): 5293–98.

Carlsson, Fredrik, and Olof Johansson-Stenman. 2012. "Behavioral Economics and Environmental Policy." *Annual Review of Resource Economics* 4 (1): 75–99.

Dodds, Felix, David Donoghue, and Jimena Leiva Roesch. 2016. *Negotiating the Sustainable Development Goals*. London, England: Routledge.

Kanie, Norichika, and Frank Biermann, eds. 2018. *Governing through Goals : Sustainable Development Goals as Governance Innovation*. Earth System Governance. London, England: MIT Press.

Kotchen, Matthew J., and Kathleen Segerson. 2019. "On the Use of Group Performance and Rights for Environmental Protection and Resource Management." *Proceedings of the National Academy of Sciences of the United States of America* 116 (12): 5285–92.

Monkelbaan, Joachim. 2019. *Governance for the Sustainable Development Goals: Exploring an Integrative Framework of Theories, Tools, and Competencies*. Springer, Singapore.

Ostrom, Elinor. 1990. *Governing the Commons*. Cambridge University Press.

Wright, Diana, and Donella H. Meadows. 2009. *Thinking in Systems*. London, England: Earthscan

Tentative Class Schedule:

Week	Topic	Remarks
1	1. Overview of Sustainable Development <ul style="list-style-type: none"> • Concept of Sustainable Development and related concepts • Overview of the Sustainable Development Goals (SDGs) 	SDG Quiz 1
2*	2. Basic economic theories for sustainability <ul style="list-style-type: none"> • Static Efficiency • Market Failures • Government Failure • Public Goods • Common Pool Resources • Dynamic efficiency and sustainability 	
3		SDG Game on Thursday February 6, 2025, by a certified facilitator.
4*		SDG Quiz 2
5	3. Group presentation 1: Understanding issues in sustainable development <ul style="list-style-type: none"> • Ending poverty • Planetary boundaries • Social inclusion 	SDG Quiz 3
6	4. Group presentation 1: Understanding issues in sustainable development <ul style="list-style-type: none"> • Education for all • Health for all • Food security 	
7	5. Group presentation 1: Understanding issues in sustainable development <ul style="list-style-type: none"> • Resilient cities • Climate change • Biodiversity loss 	
8	Midterm Exam: Thursday, March 13, 2025 09.00 - 11.00 hrs	
9	6. Spectrum of Economic Concepts and Sustainable Development <ul style="list-style-type: none"> • Environmental Economics: Environmental and Natural Resource Economics / Ecological Economics • Development Economics: Green Economy (Green and Inclusive Growth / Post-growth) • Doughnut Economics • Sufficiency Economy Philosophy 	SDG Quiz 4 (week 9)
10		
11		SDG Quiz 5 (week 11)
12	Songkran Week	
13	7. SDG indicators and evaluation / Guest lecture (tbc)	
14	Group presentation 2 (week 1) / Guest lecture (tbc)	
15	Group presentation 2 (week 2) / Guest lecture (tbc)	

Week	Topic	Remarks
16	Group presentation 2 (week 3) / Guest lecture (tbc)	
	Final exam: Thursday, May 29, 2025 09.00 - 12.00 hrs.	