



Course Outline

TU103 Life and Sustainability

Semester 2/2025 (5 January – 2 May 2025)

1. Lecturer(s) and course administrator with contact information

1.1 Dr. Nuttavikhom Phanthuwongpakdee (Kay) Lecturer and course coordinator

(nuttavikhom.p@psds.tu.ac.th)

1.2 Instructor Rick Levinthal

Lecturer

(ricklev@hotmail.com)

2. Class Date and Time: Tuesday at 1:00PM – 4:00PM **Classroom:** 206, Microsoft Team

3. Course Objectives

This course explores the interconnections between nature, consumerism, lifestyles, the built environment, and energy consumption. It examines global and Thai environmental trends, environmental conflicts, and pathways towards more sustainable living, in alignment with the Sustainable Development Goals (SDGs). Emphasis is placed on systems perspectives to understand sustainability challenges and identify viable solutions in a rapidly changing world. The course also introduces Environmental, Social, and Governance (ESG) concepts and examines social conflict and social change as part of sustainable lifestyle transitions.

Students are expected to develop an understanding of sustainable development in the context of major disruptive forces, including climate change, biodiversity loss, and urbanisation. The course is structured around three key areas: Environmental Science; Environment, Society and Economy, focusing on the intersections between human behaviour, social systems, and economic processes; and the Built Environment.

Upon completion of this course, students are expected to be able to:

1. Understand the complexity of sustainable development across environmental, social, and economic dimensions.

2. Identify the causes and consequences of contemporary sustainability challenges, with particular emphasis on climate change.
3. Strengthen analytical, systems-based, and problem-solving skills in order to develop feasible solution pathways.
4. Recognise the role of individual and collective actions in both contributing to sustainability challenges and enabling solutions.
5. Understand the dynamic contexts of time and place to clearly identify challenges and propose context-appropriate solutions.

4. Programme 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.

This course is (you may choose more than one)

- ✓ **Active learning:** instruction approach that involves actively engaging students by allowing them to question, contemplate, crystallize ideas and teaching students to be able to apply acquired experiences and knowledge effectively
- ✓ **Lecture-based:** traditional instruction model where the instructor delivers information to students verbally

5. Course rules, Grading criteria

Attendance and Participation

- Regular attendance is expected from all students.
- Class attendance directly affects student participation. Students are expected to be on time and remain for the entire session.
- Thammasat University requires students to attend at least 70% of the total class time to earn credit for the course.
- Active involvement in class discussions is required. This includes offering comments, questions, and observations related to the readings and topics discussed.
- Students are expected to contribute to all forms of participation, including presentations, discussions, assignments, and quizzes.
- Student contributions should demonstrate engagement with the assigned readings, completed prior to each session.

Classroom Conduct

- Students must bring laptops or tablets to all class sessions.
- Mobile phones should be switched off or kept in silent mode during class.

In-Class Activities and Assessments

- In-class activities and quizzes will be given on a random basis.
- There will be no make-up activities or quizzes. Absentees will receive a score of zero unless a valid reason is provided.
- Students should retain copies of all submitted work until final grades are issued.
- Late work may be accepted with a penalty, regardless of the reason. It is the student's responsibility to obtain all relevant information regarding assignments and deadlines.

Group Work

- Group assignments must involve contributions from all group members.
- Each member is jointly responsible for the group's overall performance throughout the course.

Academic Integrity

- Plagiarism is a serious academic offence. Any student found to have plagiarised may receive a failing grade for the assignment or the entire course.
- Serious or repeated offences will be referred to the faculty for disciplinary action in accordance with university regulations.

- To ensure academic honesty, all submitted work may be reviewed using plagiarism detection services such as Turnitin.

Use of AI Tools

- Assignments may be reviewed using AI detection software. Submissions identified as having more than 30% AI-generated content will receive point deductions. Only work with less than 30% AI-generated content will be accepted without penalty.

Expected Class Contact:

Lectures: 45 hours

Self-Study: 90 hours

Total of the semester: 135 hours

Assessment:

Activities	Proportion
Week 1 to 7 Quizzes / Assignment	40%
Week 8 to 14 Quizzes / Assignment	40%
Final Report / Presentation	20%
Total	100%

The final grade will be evaluated as follows:

Grade	Score
A*	≥85
B+	80.00 – 84.99
B	75.00 – 79.99
C+	70.00 – 74.99
C	60.00 – 69.99
D+	55.00 – 59.99
D	50.00 – 54.99
F	< 50

A=4.0 B+=3.5 B=3.0 C+=2.5 C =2.0 D+=1.5 D=1.0 F=0

*Please note that the final grade may be curved.

6. Reference material

Slides, notes, and required readings will be provided via Microsoft Team.

7. Course plan

Week	Date	Topic	Lecturer
1	7 Jan 2026	Introduction to Sustainable Development & Sustainable Development Goals	Nuttavikhom
2	14 Jan 2026	History of (Un)Sustainable Development	Nuttavikhom
3	21 Jan 2026	The Science of Climate Change	Rick
4	28 Jan 2026	International Approaches to Climate Change Policy Successes and Failures – Classroom Debate	Rick
5*	4 Feb 2026*	Introduction to Ecology: Environmental Interrelationships*	Rick
6	11 Feb 2026	Energy Production: Fossil Fuels and Alternative Energy	Rick
7	18 Feb 2026	Product Lifecycle and Sustainability	Rick
	25 Feb 2026	Midterm week (No Class)	
8	4 Mar 2025	Food and Water Consumption and Conservation	Rick
9	11 Mar 2025	Group Presentations on Assigned Topics	Rick
10	18 Mar 2025	Economic Aspect of Sustainable Development	Nuttavikhom
11	25 Mar 2025	Sustainability and the Business Sector	Nuttavikhom
12	1 Apr 2025	Sustainability and the Built Environment	Nuttavikhom
13	8 Apr 2025	Design for Sustainability	Nuttavikhom
	15 Apr 2025	Songkran Holidays (No Class)	
14	22 Apr 2025	Sustainable Cities	Nuttavikhom
15	29 Apr 2025	Final Presentation	Nuttavikhom
	6 May 2025	Final Exam Week (No Class)	

*Class 5 may include a field visit to the Bang Kachao Green Area (Suan Sri Bang Kachao) as an outdoor eco-learning activity. The visit would involve a guided bicycle tour led by site staff, focusing on local ecological systems, environmental restoration, and urban green space recovery.

As the activity must take place on a Saturday or Sunday, the date will be determined at the beginning of the semester in consultation with students and the BE programme. The field visit may be cancelled or replaced with an in-class activity if participation is not feasible (e.g. scheduling constraints or students being unable to ride a bicycle).

8. Learning in the Context of Achieving Sustainable Development Goals (SDGs)

The course content and learning activities are designed in the context of achieving the following Sustainable Development Goals (SDGs):

- ☒ Goal 1: End poverty in all its forms everywhere
- ☒ Goal 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
- ☒ Goal 3: Ensure healthy lives and promote well-being for all at all ages
- ☒ Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- ☒ Goal 5: Achieve gender equality and empower all women and girls
- ☒ Goal 6: Ensure availability and sustainable management of water and sanitation for all
- ☒ Goal 7: Ensure access to affordable, reliable, sustainable, and modern energy for all
- ☒ Goal 8: Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all
- ☒ Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation
- ☒ Goal 10: Reduce inequality within and among countries
- ☒ Goal 11: Make cities and human settlements inclusive, safe, resilient, and sustainable
- ☒ Goal 12: Ensure sustainable consumption and production patterns
- ☒ Goal 13: Take urgent action to combat climate change and its impacts
- ☒ Goal 14: Conserve and sustainably use the oceans, seas, and marine resources for sustainable development
- ☒ Goal 15: Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation, and halt biodiversity loss
- ☒ Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels
- ☒ Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development