

Introduction to Climate Change Education and Sustainable Development

United Nations University

Course Information					
Year	AY 2026-2027		School	UNU-IAS	
Course Title	Introduction to Education for Sustainable Development and Climate Change				
Instructor & Contact Information	Jonghwi Park (jonghwi.park@unu.edu) and Sawaros Thanapornsanguth, EdD (sawaros.t@chula.ac.th)				
Term/Day/Period	AY 2026 Autumn (01/10/2026 – 30/01/2027)				
Category	Elective Course	Eligible Year	1 st year and above	Credits	2
Classroom	Lecture room, 6th floor in the UNU building	Campus	UNU-HQ, Tokyo, Japan		
Main Language	English				
Class Modality Categories	On-Campus				
Course Code					
Level	Graduate-level	Types of lesson	Lecture or Seminar		

Syllabus Information	
Subtitle	Course Description, Objectives and Learning Goals
Course Description (Word limit: 200)	This course introduces students to the roles of, and current issues in, education for sustainable development and climate change education from a lifelong learning perspective and aims students to learn and practise how to design such education. In the first half of the course (Weeks 1–5), students examine the global agenda for ESD and climate change education, ground it in local realities and data, and explore the barriers to pro-environmental behaviour and the meaning of inclusive education for a field that disproportionately affects the already marginalized. In the second half (Weeks 6–12), the course shifts from “why” to “how”: drawing on the learning sciences theories such as behaviourism, constructivism, constructionism, social learning, motivation and culturally relevant and playful pedagogies. Students will learn to design, prototype, and evaluate training/capacity building/education programme that addresses a real local sustainability issue of their choosing. Working in groups, students select a local sustainability issue, identify their target learners, and apply learning theory to design an original learning activity for that audience. Groups prototype their design, playtest and peer-review it against an Action-Oriented Pedagogy (AOP) checklist, revise it, and present a final, evidence-based ESD/climate learning programme. By connecting global agendas to local action, and learning theory to learning design, the course equips students to become thoughtful designers of education that helps learners understand and act on sustainability and climate change.
Objectives and Learning Goals (Bullet points)	At the end of the course, students will be able to: - Understand the roles of education in sustainable development and climate change, including achievements and remaining challenges - Justify the selection of climate change issues in view of sustainable development, using available global and local data - Apply learning theories that are appropriate to guide the design of learning environments - Develop an innovative, technology-enhanced training / capacity-building / education programme to address a local sustainable development issue - Evaluate education programmes in terms of relevance, effectiveness, feasibility, sustainability, and scalability

Requirements

This part should include the expected working hours.

1. Class attendance and active participation (10 %) (80 % of class attendance is required)
2. Assignments: All assignments should be submitted via Moodle by 13:59 of the due date.
 - 2.1. Individual short paper (20%) – by 13:59 on 30 October 2026
 - 2.2. Group mid-term presentations (15%) (submit presentation files by 13.59 on 25 November 2026)
 - 2.3. Final group project (40%) - by 10:00 on 22 January 2027
 - 2.4. Final presentation (15%) (please submit presentation files by 13.59 on 29 January 2027)

Assessment Criteria

In order to demonstrate achievement of the course's learning outcomes, students must:

- Display a working knowledge of the integrated sustainable development agenda and how it relates to education
- Provide insight into how to engage a given audience of learners in education for sustainable development, through literature review and analysis
- Show how to design, prototype, and evaluate an inclusive learning programme on sustainable development, with appropriate and purposeful use of learning theory and technology

Grading Scale

Grade Meaning	Letter Grade	Numerical Scale (Reference)	Grade Point Average (Reference)
Excellent	A	90–100%	4
		80–89%	3
Good	B	70–79%	2
Adequate	C	60–69%	1
Inadequate	D	0–59%	0

Class Attendance

The course requires students to attend all classes, arrive on time, complete the readings, and participate actively in class discussions. This means speaking during every class. At the instructor's discretion, frequent late arrivals or absences may result in a lower grade. Please note that the first session is important and cannot be missed. Students are also requested to check and follow the Moodle class announcements regularly.

Course Outline

Detailed information could be provided on Moodle such as the information of the lecturers, etc.

No.	Outline	Date	Assignments	Instructors
1	Orientation - Global challenges: how much do we know? (interactive quiz on SDG data) - Why education for climate change? - Overview of the course, objectives, and assessment	09 Oct 2026	—	Park
2	Introduction to ESD: Challenges and Opportunities - History of ESD: what worked, what didn't - SDG 4.7; ESD, GCED, and Greening Education - Transformative education: ESD as a driver to transform education	16 Oct 2026	Reading: Rieckman, M. (2016); UNESCO (2014)	Park
3	ESD: Global Agenda to Local Action - What are the main climate change/sustainability issues in your local community? - Where to find data: global and local sources	23 Oct 2026	Short individual paper assigned (sustainability issue of interest)	Park
4	Understanding Pro-Environmental Behaviour and Its Barriers - Why do some people choose to be pro-environmental, and others don't? - Motivation theory: intrinsic and extrinsic motivation - Competencies for sustainability	30 Oct 2026	Individual short paper due	Park
5	Inclusive Learning: What Does This Mean? - Where are we in achieving inclusive education for all? - Disproportionate climate impact on the marginalized: persons with disabilities, women and girls, poverty	06 Nov 2026	—	Park
6	Why Doesn't Knowing Lead to Action? Learning Theories for Sustainability - Social learning, constructivism, and constructionism - How different theories support different forms of sustainability learning and action - Comparing the theories through one sustainability education example Initial learning-theory selection	13 Nov 2026	Group formation begins	Sawaros (online)
7	From Learning to Action: Introduction to Action-Oriented Pedagogies - Why sustainability knowledge does not always lead to action - Introduction to the seven AOP components - Using AOP as a set of design lenses for sustainability learning	20 Nov 2026	—	Sawaros (online)

	8	Teaching Sustainability through Design Thinking - Who are your learners, and why? - Can the selected climate or sustainability issue be addressed through education, learning, or training? - Defining the learning challenge and selecting an appropriate learning.	25 Nov 2026 [DOUBLE SESSION]	Group topic & target-learner statement due. Starting this week, the final 20 minutes of each class are reserved for group work.	Sawaros	
	9	Midpoint Check-In: Group Progress Presentations Each group presents (10 min): sustainability issue, target learners, topic areas, proposed learning strategies, and evidence-based rationale	25 Nov 2026 [DOUBLE SESSION]	Mid-term group presentation	Sawaros	
	10	Learning Activity Design I: From Sustainability Issue to Learning Experience - Translating a real sustainability issue into a focused learning activity - Defining what learners should understand, feel, or be able to do - Drafting the basic learning activity sequence AOP emphasis: real-world issues, empathy, and regional or cultural relevance	27 Nov 2026 [DOUBLE SESSION]	Learning activity draft	Sawaros	
	11	Learning Activity Design II: Participation and Collaboration - Designing meaningful roles for learners - Supporting collaboration and shared decision-making - Connecting the activity with communities or relevant stakeholders - AOP emphasis: learner participation, collaboration, and community engagement	27 Nov 2026 [DOUBLE SESSION]	Learning activity design finalized	Sawaros	
	12	Learning Activity Design III: From Learning to Sustainability Action - Connecting environmental, social, and economic perspectives - Identifying realistic actions learners can take - Refining the complete learning activity sequence - AOP emphasis: interdisciplinarity and connection to action	04 Dec 2026	Self-assessment against the AOP checklist	Sawaros (online)	
	13	How Do We Know Learning Has Happened? Assessment in ESD - Aligning learning outcomes, activities, and assessment - Assessing sustainability knowledge, competencies, participation, and action Selecting simple and appropriate assessment methods	11 Dec 2026	Revised learning activity design	Park	

	14	How Action-Oriented Is Your Learning Activity? • Reviewing the activity using the AOP checklist • Peer feedback and brief playtesting • Revising the design to strengthen action-oriented pedagogies	22 Jan 2027	Final project materials due for instructor review	Park & Sawaros											
	15	Final Presentation • Presentation and demonstration of the final learning activity • Explanation of the sustainability issue, learner group, learning theory, and AOP rationale • Reflection on feasibility and potential impact	29 Jan 2027	Final project & final presentation due	Park & Sawaros											
	<i>From Week 7 onward, the final 20 minutes of each class are reserved for group work, so students can apply what they have just learned directly to their project.</i> Office Hours Time: By appointment (3 working days in advance) Place: [to be confirmed — Zoom link/office location] Contact Information <table><tr><th>Lecturer</th><th>Weeks</th><th>E-mail</th><th>Institution</th></tr><tr><td>Jonghwi Park</td><td>1–5</td><td>jonghwi.park@unu.edu</td><td>UNU</td></tr><tr><td>Sawaros Thanapornsanguth, EdD</td><td>6–12</td><td>sawaros.t@chula.ac.th</td><td>Chulalongkorn School of Integrated Innovation (CSII)</td></tr></table>					Lecturer	Weeks	E-mail	Institution	Jonghwi Park	1–5	jonghwi.park@unu.edu	UNU	Sawaros Thanapornsanguth, EdD	6–12	sawaros.t@chula.ac.th
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Course Readings	• Rieckman, M. (2016). Key themes in education for sustainable development. In A. Leicht, J. Heiss and W.J. Byun (eds), <i>Issues and Trends in Education for Sustainable Development</i> (pp. 61-84). UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000261445 • UNESCO. (2014). <i>UNESCO roadmap for implementing the global action programme on education for sustainable development</i>. https://unesdoc.unesco.org/ark:/48223/pf0000230514 • O’Flaherty, J., & Liddy, M. (2018). The impact of development education and education for sustainable development interventions: a synthesis of the research. <i>Environmental Education Research</i>, 24(7), 1031-1049. • Wiek, A., Withycombe, L., & Redman, C. L. (2011). Key competencies in sustainability: a reference framework for academic program development. <i>Sustainability Science</i>, 6(2), 203-218.															
Reference	[TBA]															

Grading Policy**Assessment**

Component	Weight	Due
Attendance and class participation	10%	Ongoing
Individual short paper — a local or global sustainability issue, potential benefits and challenges in addressing it through ESD, and rationale for target learners	20%	Week 4
Group mid-term progress presentation	15%	Week 8
Final group project — ESD/climate learning programme design (learning theory rationale, inclusive & tech-enhanced learning activities, Action-Oriented Pedagogy checklist, monitoring & evaluation plan)	40%	Week 14 (materials) / Week 15 (final)
Final presentation	15%	Week 15

General Criteria

Each written assignment should be submitted in MS Word format, single-spaced, 12-point Times New Roman font, with a title, a proper introduction and conclusion, and all supporting material clearly cited (Harvard style is suggested for in-text citations and the bibliography, with a works-cited page at the end of each assignment). Reference managers such as EndNote, Citavi, or RefWorks are encouraged. Assignments should be carefully edited for grammar and spelling before submission.

Important Information**Class Conduct & Etiquette**

Students are expected to arrive on time and not engage in disruptive behaviour during class, including private side conversations or the use of cell phones and other electronic devices for non-course purposes. We wish to create an atmosphere of open and tolerant discussion in the classroom and ask students to recognize every individual's right to hold an opinion. The lecturer and other students should be treated with dignity and respect, particularly in discussions of contentious issues where a diversity of opinion is likely to arise.

Computer Use in Class

The use of computers and tablets in the classroom is restricted to note-taking, reading course material, or searching for course-related information online. The lecturer reserves the right to revoke this permission if a student is found using a computer for non-course-related activities.

Plagiarism & Academic Misconduct

The consequences of plagiarism are severe; students found guilty of academic misconduct will be subject to UNU's academic honesty policies. Assignments and presentations may be checked with anti-plagiarism software. Evidence of academic misconduct will result in a failing grade for the assignment; repeated violations may result in a failing grade for the course and referral for disciplinary action.

AI Usage

The use of generative AI tools for brainstorming ideas and exploring possible answers to questions may be useful for you to organize your ideas for assignments in this course. However, the assignments submitted by students must be written by the students themselves. Violations of academic integrity include the following: (1) Plagiarism; (2) Purchasing work from a company, (3) Hiring a person or company to complete an assignment for you; and (4) Extensive use of outputs from generative AI tools in your submitted assignments.

AI tools may be used for grammar-checking, proofreading, and editing drafts, but review suggestions critically and make your own final edits.

Declare attribution if you ever used AI for the assignment (e.g., "This document was proofread with the assistance of [AI Tool Name]" or "Some charts and graphics in this document were generated with the help of [AI Tool Name].").

Note / URL if any

