

# Inclusive Learning Technology for Sustainable Development

*United Nations University (UNU-IAS)*

**Spring 2022**

Location: [Online until further notice](#)

Time: 16:00-17:30

Lecturers: [Jonghwi Park](#) and [Philip Vaughter](#)

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Office Hours: 15:30-16:30 on Fridays (online or in Room 1022)

## **Course Description**

Education and lifelong learning is a key driver for the successful implementation and achievement for sustainable development. The pressing global issues, ranging from climate changes, overconsumption of resources, growing inequality and to the recent pandemic, are unlikely to be solvable without people from all walks of life actively participating in making urgent changes and being part of the solutions.

As such, the movement of education for sustainable development (ESD) emphasizes a vital role of education and lifelong learning in achieving the 17 SDGs and moving towards a sustainable future. It stresses that learning should not stop at the formal schooling and that learning opportunities to build a sound understanding of the underlying and interconnected global issues should be accessible to anyone, anytime and anywhere throughout one's life.

With the rapidly advancing information and communication technology (ICT), educational opportunities can indeed go beyond the formal education and learners can pursue flexible learning paths at their own paces throughout their lives. But the very same technology has proven, during the Covid-19 pandemic and its ensuing school closure and distance learning, that it can worsen the learning inequality between learners with access to technology and those without, often further associated with the family environment and economic and social status. From a lifelong learning perspective, learning technology for sustainable development should take a careful consideration on inclusive and respectful designs in order not to leave anyone behind. This include, not limited to, those who have low literacy skills, disabilities, geographical disadvantages and language minorities as well as those who are forcefully displaced from their homes.

This 2-credit project-based course is to provide students with a comprehensive overview of the roles of and current issues in ESD from a lifelong learning perspective. It also explores a landscape of innovative and inclusive design of technology in expanding equal access to quality learning for sustainable development in a variety of settings, from emerging and low-income countries to advanced and highly connected nations. The course pays the equal attention to potential risks that digital technologies may impose in human and social development, well-being and energy

consumption. Finally, students will have an opportunity as a group to design an innovative, inclusive and evidence-based educational programme for a local sustainability issue of their choice which aims to develop skills, knowledge and attitudes to help address the identified issues and build a sustainable future.

## **Course Objectives and Learning Goals**

At the end of the course, students will be able to:

- Explain the roles of education and lifelong learning in progressing towards SDGs by 2030
- Select a local sustainability issue that can be addressed by education and lifelong learning
- Analyse a local sustainability issue and identify target learners to provide educational interventions
- Design an education programme that is appropriate for the target learners and effective for the intended learning outcomes
- Apply the Result-based Management Framework in designing and developing an education programme
- Integrate innovation learning technology into an education programme purposefully to enhance quality, equity and inclusiveness.
- Evaluate feasibility, sustainability and scalability of an education programme
- Create a monitoring plan to measure the outcome of an education programme

## **Requirements and Grading Policy**

### Assessment:

- Attendance and class participation (10%)
- Assignments: (40%)
  - A short paper on a global or local sustainability issue of your interest, potential benefits and challenges in addressing the issues with ESD, and potential learners and rationales (max 1,500 words) (Individual - 25%, by May 11<sup>th</sup>, 2022)
  - A group presentation on a global or local sustainability issue of your team's choice, including the selection and negotiation process of the choice, collectively refined analysis of potential benefits and challenges in addressing the issues with ESD, and collectively improved rationales for target learners. (Group - This will become the basis for your project rationale. – 15%, on June 15<sup>th</sup>, 2022)
- Final project:
  - ESD programme proposal (Group written assignment - 40%, by July 27<sup>th</sup>, 2022): the complete RBM project document, including
    - Overall purposes of the project, rationales, the target beneficiaries and the expected outputs and results (especially on why you chose such target learners and learning strategies with tech)
    - Approaches and methodologies
    - Project management and implementation strategies
    - Monitoring and evaluation plan
    - Visibility strategy
  - Final presentation (10%, on July 20<sup>st</sup>, 2022)

### Assessment Criteria:

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

- Display a working knowledge of the integrated sustainable development agenda and how it relates to education
- Provide insights in how to engage with given audience of learners in education for sustainable development through literature review and analysis
- Showcase how to design and implement an inclusive education programme on sustainable development with appropriate use of technology

Grading scale:

United Nations University Grades			
Grade Meanings	Letter Grade	Numerical Scale of Marks (For reference)	Grade Point Average (For reference)
Excellent	A	90-100%	4
		80%-89%	3
Good	B	70-79%	2
Adequate	C	60-69%	1
Inadequate	D	0-59%	0

*General Criteria: Each written assignment should be in MS format and single-spaced, 12-point Times New Roman font. All written assignments must have a title, a proper introduction and conclusion section and all material that is used to support the student's argument must be clearly cited. For the in-text citations and the bibliography, we suggest that students use Harvard style citations. A works cited page should come after the end of each written assignment. Reference programs such as Endnote, Citavi or RefWorks are very useful for collecting, organizing and formatting citations and students are strongly encouraged to make use of these. Assignments should be carefully edited for grammar and spelling before submission – British English will be used for spelling rules in this course.*

## **Course Outline**

No.	Outline	Date	Assignments	Instructors
1	<p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>• Global challenges: How much do we know?</li> <li>• Learning goals</li> <li>• Overview of assignments</li> </ul>	April 6 <sup>th</sup>		Park
2	<p><b>Lecture:</b></p> <ul style="list-style-type: none"> <li>• Introduction to ESD: Why education?</li> <li>• SDG4: Education 2030 Agenda</li> <li>• ESD and lifelong learning</li> </ul>	April 13 <sup>th</sup>		Park
3	<p><b>Lecture:</b></p> <ul style="list-style-type: none"> <li>• Introduction to ESD: Trends, main issues and remaining challenges</li> <li>• ESD 2030 Roadmap: Five priority areas</li> </ul>	April 20 <sup>th</sup>		Vaughter
4	<p><b>Lecture</b></p> <ul style="list-style-type: none"> <li>• ESD: Global agenda to local actions</li> <li>• What are main sustainability issues in your local community?</li> </ul>	April 27 <sup>th</sup>		Vaughter
5	<p><b>Lecture:</b></p> <ul style="list-style-type: none"> <li>• Cases: Innovative ESD programmes (policies, learning environment, teachers, youth, and community involvement)</li> </ul>	May 11 <sup>th</sup>	<b>Due date for the short paper (individual assignment)</b>	Vaughter
6	<p><b>Lecture:</b></p> <ul style="list-style-type: none"> <li>• Project group formation</li> <li>• Result-based programme planning and management at UN</li> </ul>	May 18 <sup>th</sup>	In class activity (submission not required) <sup>1</sup> : RBM template Section 1.1	Park
7	<p><b>Lecture:</b></p> <ul style="list-style-type: none"> <li>• Intro to learning activity design</li> <li>• Learning theories: Constructivism and social learning</li> <li>• Diverse needs of marginalized learners</li> </ul>	May 25 <sup>th</sup>	RBM Section 1.2, 1.3	Park
8	<p><b>Lecture:</b></p> <ul style="list-style-type: none"> <li>• Technologies in education: Pros and cons</li> <li>• Inclusive and respectful design of technology</li> </ul>	June 1 <sup>st</sup>	RBM Section 1.4	Park
9	<p><b>Presentation (10 min per group):</b> Each student group will present the progress of the project, including</p> <ul style="list-style-type: none"> <li>• Sustainability issue</li> <li>• Target learners</li> <li>• Topic areas</li> <li>• Learning strategies (including ICT)</li> </ul> <p>Rationales (evidence-based)</p>	June 8 <sup>th</sup>	<b>Mid-term presentation</b>	Park & Vaughter

<sup>1</sup> RBM in-class assignments are expected to be done during the class or after the class as part of the group work. By completing the in-class assignments, students will be able to build up their final assignment unit by unit.

No.	Outline	Date	Assignments	Instructors
9	<b>Lecture:</b> <ul style="list-style-type: none"> <li>• Learning strategies for ESD</li> <li>• Designing inclusive learning materials for ESD</li> <li>• Key considerations to leave no one behind</li> </ul>	June 15 <sup>th</sup>	RBM Section 2.1, 3	Park
10	<b>Lecture:</b> <ul style="list-style-type: none"> <li>• Trends in new learning technologies (Guest Lecture)</li> <li>• Discussion on the group project</li> </ul>	June 22 <sup>nd</sup>	RBM Section 3	Guest Lecturer: TBA  Park
12	<b>Lecture:</b> <ul style="list-style-type: none"> <li>• ESD and assessment</li> <li>• Challenges in measuring the impact of ESD</li> </ul>	June 29 <sup>th</sup>	RBM Section 1.4	Park
13	<b>Lecture:</b> <ul style="list-style-type: none"> <li>• Implementations: Risks and mitigating measures</li> <li>• Group discussion - peer review</li> </ul>	July 6 <sup>th</sup>	RBM Section 2.2, 2.3	Park
14	<b>Lecture:</b> <ul style="list-style-type: none"> <li>• Monitoring a development project: core values and challenges</li> </ul>	July 13 <sup>th</sup>	RBM Section 4.1, 4.2	Park
15	<b>Final presentation</b>	July 20 <sup>th</sup>	<b>Final presentation (Final paper due on 27 July)</b>	Park & Vaughter

## Course Readings by Lecture

- April 13<sup>th</sup>  
UNESCO. (2016). Unpacking Sustainable Development Goal 4 Education 2030. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000246300/PDF/246300eng.pdf.multi>
- April 20<sup>th</sup>  
Wiek, A., Withycombe, L., & Redman, C. L. (2011). Key competencies in sustainability: a reference framework for academic program development. *Sustainability science*, 6(2), 203-218.
- April 27<sup>th</sup>
  - Alsop, S., Diplo, D., & Zandvliet, D. B. (2007). Teacher education as or for social and ecological transformation: Place - based reflections on local and global participatory methods and collaborative practices. *Journal of Education for Teaching*, 33(2), 207-223.
  - Jacob Institute. (2019). Respecting our Relations: Dori Tunstall on Decolonizing Design. <https://jacobsdesigncal.medium.com/respecting-our-relations-dori-tunstall-on-decolonizing-design-d894df4c2ed2>
- May 11<sup>th</sup>

- TBA
- May 18<sup>th</sup>
  - UNDG. (2011). *Result-based Management Handbook*. (Part 1 and Part 2 only, p.1-22). <https://unsdg.un.org/sites/default/files/UNDG-RBM-Handbook-2012.pdf>
- May 25<sup>th</sup>
  - Park, J. & Bracewell, R.J. (2006). Reconsidering constructivism in theory and practice: Implications for the effective integration of technologies into constructivist classrooms. Proceedings of Selected Research and Development Papers of the Association for Educational Communications and Technology Annual International Convention, Dallas, TX, October 10-14, 2006. (up to p.12)
  - TBA
- June 1<sup>st</sup>
  - Selwyn, N., Hillman, T., Eynon, R., Ferreira, G., Knox, J., Macgilchrist, F., & J. Sancho-Gil. (2020). What's next for Ed-Tech? Critical hopes and concerns for the 2020s, *Learning, Media and Technology*, 45:1, 1-6, DOI: 10.1080/17439884.2020.1694945
  - UNESCO. (2020). UNESCO Covid-19 Education Response Series: Open and distance learning to support youth and adult learning. <https://unesdoc.unesco.org/ark:/48223/pf0000373815>
- June 15<sup>th</sup>
  - Rieckman, M. (2016). Key themes in education for sustainable development. In A. Leicht, J. Heiss and W.J. Byun (eds), *Issues and Trends in Education for Sustainable Development* (pp. 61-84). UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000261445>
  - UNESCO. (2020). *Global Education Monitoring Report Summary: Inclusion and Education: All means All*. <https://unesdoc.unesco.org/ark:/48223/pf0000373721>
- June 29<sup>th</sup>
  - O'Flaherty, J., & Liddy, M. (2018). The impact of development education and education for sustainable development interventions: a synthesis of the research. *Environmental Education Research*, 24(7), 1031-1049.
- July 13<sup>th</sup>
  - UNDG. (2011). *Result-based Management Handbook*. (Part 4. p.28-32). <https://unsdg.un.org/sites/default/files/UNDG-RBM-Handbook-2012.pdf>

## **Important Information**

### *Class Conduct & Etiquette*

*Students are expected to arrive on time and not to engage in disruptive behavior during class. This includes, among other things, private side conversations, the use of cell-phones and other electronic devices, or the reading of newspapers. Cell-phones should be switched off and stored in the bag. We wish to create an atmosphere of open and tolerant discussion in the classroom and request students to recognize every individual's right to have an opinion. The lecturer and other students should be treated with dignity and respect, in particular in discussions on contentious*

*political issues where a diversity of opinion is likely to arise. However, we also recognize that there are limits to tolerance and the lecturer reserves the right to request disciplinary action against any student who violates this policy or repeatedly shows disruptive behavior in class.*

#### Computer Use in Class

*The use of computers (including tablets) in the classroom is restricted to taking notes, reading of the course material or searching for course related information in the internet. Any disruption of the class by cell phones, instant messaging programs or other communication devices will not be tolerated. The lecturer reserves the right to revoke this permission if a student is found using a computer for any non-course related activities.*

#### Plagiarism & Academic Misconduct

*Please be aware that the consequences of plagiarism are severe and students found guilty of academic misconduct will be punished in accordance with UNU's academic honesty policies. The lecturer reserves the right to run all assignments through an anti-plagiarism software provided by the UNU. If evidence of academic misconduct on the assigned presentations, the mid-term exam or the final essay should be found, the assignment will receive a failing grade. In case of repeated violations of academic conduct, the student may receive a failing grade for the entire course and will be reported to the appropriate authorities for disciplinary action.*

### **Invited Speakers/Lecturers Bio**

***Hyo-Jung So (Lecture 10)***  
***Professor, Ewha Women's University (Korea)***

*Bio TBA.*