UNIC

EDUCATION FOR SUSTAINABLE DEVELOPMENT

UNIC TEACHING GUIDE
FOR UNIVERSITY EDUCATORS

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CENTRE FOR TEACHING & LEARNING

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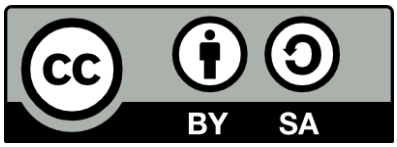

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IN A NUTSHELL

Universities are critical actors in supporting sustainability and in implementing the UN's 2030 Agenda for Sustainable Development. This document provides an overview on what this means, why educators should integrate education for the sustainable development in their teaching, how this could happen, and examples of practice and resources to help you go further.

What is Education for sustainable development?

Sustainability and sustainable development are not identical terms. Sustainability can be thought of as a long-term goal while sustainable development refers to the many processes and pathways to achieve it.

One way of thinking about sustainability is to imagine a cake made up of three layers. The largest layer is that of the healthy environment or biosphere. A healthy, equitable society rests on this and a sustainable economy emerges. The below cake also reflects the UN Sustainable Development Goals (SDGs) across the three layers. There are 17 SDGs and 169 targets and they comprise a common international framework for advancing action towards sustainability. In reality the below layers and SDGs are highly interconnected and shape and inform each other.

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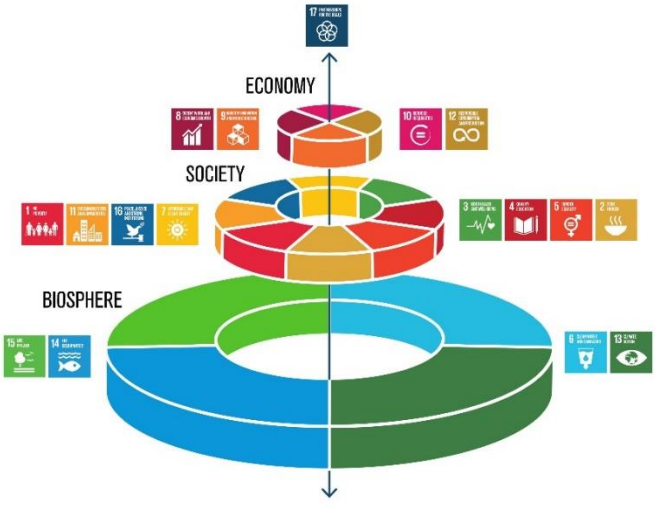


Azote for Stockholm Resilience Centre (2016), Stockholm University CC BY-ND 3.0.

Critiques of sustainability

Sustainable Development has been critiqued for prioritising humans and only valuing natural ecosystems for how they support societal and economic needs. A more contemporary understanding considers the rights of nature, acknowledges that natural resources are finite, and that the impacts of unsustainable practices are experienced inequitably. The SDGs have also been critiqued for their lack of 'teeth' or measures to encourage implementation and sanction inaction. These critiques can be engaging topics to explore with students, particularly as the current SDGs are in a process of revision. We can ask what is missing or who is not being supported by the framework, and what could the next iteration of the SDGs focus on.

Education for sustainable development

Education for Sustainable Development (ESD) *"allows every human being to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable future"* (UNESCO, 2012). It is a target under SDG 4 and seen as a key enabler for the 169 SDG targets. There are many ways to bring a sustainability focus into teaching and learning. It is important it happens through the formal curriculum, rather than in co- or extra-curricular activities, so all students gain the competences to deal with an increasingly uncertain and complex world. ESD approaches respond to broad societal challenges, integrating perspectives from a range of disciplines with a focus on action oriented outcomes and the translation of passion and values into behaviour. Through ESD we therefore unlock the head, heart and hands.

Why should I engage in Education for sustainable development?

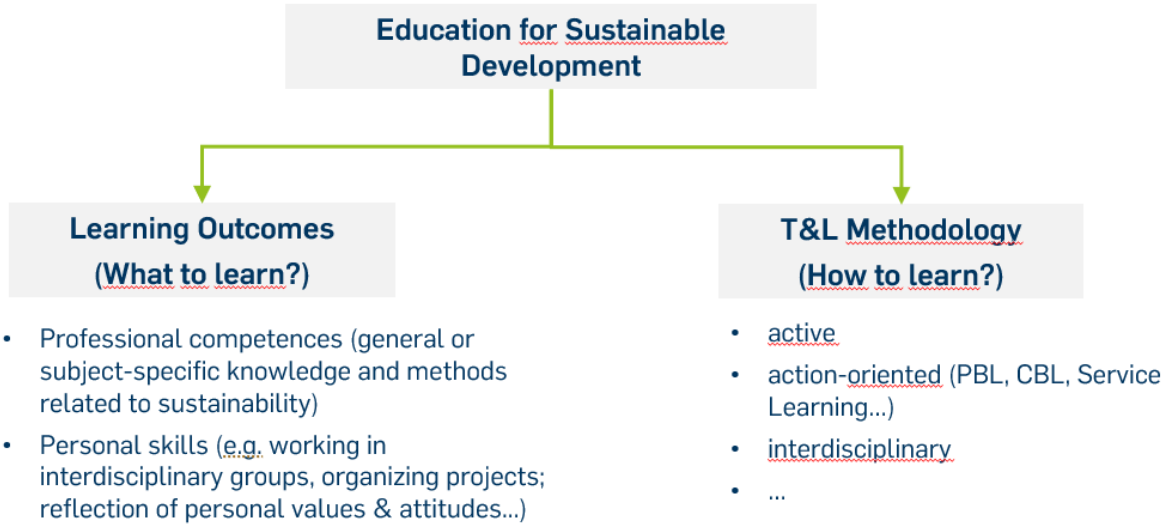
Universities have been charged with leading the just transition to a more sustainable society and all university staff must remember their responsibility in this transition in the short and long term. They are expected to critically think about the complexity and challenges of sustainable career planning for their undergraduate and graduate students as jobs become obsolete very quickly and focus on the **critically important competences that remain for a sustainable future**. These include: systems thinking, transferable/transversal skills, problem-solving skills, digital skills, leadership skills, adaptability and flexibility and green skills (Wilhelm et al., 2019).

In this context, as university teachers, your role is critical. You can enhance your knowledge in sustainability and your engagement with teaching methodologies that are geared toward equipping students with all the necessary knowledge, skills and values underpinned by ESD.

The unprecedented rise and impact of generative artificial intelligence (GenAI) is transforming every aspect of education. ESD is likely be influenced as GenAI can support the achievement of ESD goals through enabling personalized learning, the efficient use of resources and the development of digital skills, problem solving and critical thinking skills. However, **the irresponsible use of AI** may undermine educational equality and overuse of energy resources, so caution needs to be exercised for its integration.

How can I realise Education for sustainable development in Higher Education?

So what does this mean in concrete terms? If you want to implement ESD in your teaching, you have two starting points: the learning outcomes and your teaching methodology.



STARTING POINT 1

Teaching content and developing learning outcomes

At the content level, you can reflect on the extent to which you would like to make individual sustainability goals the subject of your teaching. For example, what should students learn about goal 12 ("Responsible Consumption and Production") or goal 14 ("Life Below Water")? How does your subject relate to these goals (or at least one of them)? You can familiarize students with the UN Sustainable Development Goals in general and then work towards **subject-specific learning outcomes** depending on your subject and specialization. However, learning outcomes that support ESD can also lie beyond the subject in the area of **key competences**, such as skills for working in interdisciplinary projects.

If you want to relate the content of your teaching to sustainability, you can do this **at different levels**. You may want to align an entire **degree program** or perhaps just a **single course**. A smaller start is also possible: even if your course is not fundamentally about sustainability, you can still introduce individual examples from the area of sustainability in a **lecture** or design an activity for a **seminar**.

UNESCO provides a document that presents general learning outcomes in the area of the Sustainable Development Goals, which you can use as an inspiration. Another inspiration for you can be a "mapping tool" from University College Cork which supports reflection on the implementation of the individual sustainability goals.

STARTING POINT 2

Teaching methodology

In terms of methodology, ESD is geared towards enabling students to solve complex sustainability problems through **how the learning is designed**. Students should experience that they can make a difference with regard to global challenges (**self-efficacy**). ESD can also positively shape students sustainability behaviour (Abdullahi et al, 2024). The ability and motivation to act should therefore be supported by the teaching methodology. Your teaching should therefore be designed in such a way that it **enables students to think critically** and **to actively reflect on** and **try out solutions**.

ESD is not fixed to a specific method, but implies the use of approaches such as problem- or project-based learning as well as research-oriented, active approaches. Approaches such as challenge-based or service learning, in which real projects are worked on in coordination or even cooperation with partners outside the university, are also obvious. From a methodological perspective, the assumption that sustainability problems can often only be solved through **interdisciplinary** approaches is also important. If it is possible for your course, you are welcome to work together with partners from other disciplines. In addition, sustainability problems often have a cross-border dimension, making **international cooperation formats such as Virtual Exchange** particularly attractive for ESD teaching. Bear in mind that all this should also be reflected in the type of **assessment**, which could be an action plan or a project report, for example.

Not exactly a methodological consideration, but linked to it is the question of the **ecological footprint of certain approaches in teaching**. You can also reflect on this: What is the environmental impact of online teaching versus face-to-face teaching, virtual versus physical exchange? How can the use of AI in teaching be reduced to the necessary level, given the associated ecological costs of training and operating AI models?

> Overall, we encourage the **'one small change' approach**. This approach to ESD integration gives space to everyone, from novice to expert, to enact one small change to bring sustainability into teaching and learning.

Examples

Would you like to know more specifically how ESD can be designed? Here are five examples (of many possible ones).

UCC

University College Cork: In the Masters in Applied Psychology, students partner with women in the Cork Migrant Centre over a number of weeks in a community-engaged learning module. The focus of the collaboration changes each year, but the broad purpose of the module is to support the migrant centre participants to create pathways for their integration into life in Ireland.

Students gain insights into the ethics and practice of working with minority groups which is beneficial for their future role as Psychology professionals. See written overview of module and a summary video.

KOÇ

Koç University: The Sustainability (ESG) & Business Law, Master of Law (LLM) course at Koç University explores the dynamic interplay between ESG (Environmental, Social, and Governance) developments and business law. It emphasizes their mutual impact on fostering sustainable corporate practices and addressing global challenges. Students critically engage with evolving ESG regulations, market dynamics, and their role in shaping governance and operations. The curriculum integrates real-world applications and interdisciplinary learning.

Through case studies, legal memoranda, and collaborative projects, participants address societal challenges such as climate change, supply chain due diligence, and sustainable finance, focusing on actionable solutions that benefit businesses and communities alike.

RUB

Ruhr University Bochum: The German-Italian dialog course with native speakers “Faccia a Faccia” from the Romance languages seminar was accompanied by an ESD tutor for one semester, who helped to focus on sustainability aspects. The guided tandem course covers different topics each week and aims to promote deeper contact with the language and culture. By connecting the tandem topics with the UN's 17 Sustainable Development Goals, the students received different perspectives on sustainability in order to reflect critically on their own lifestyles, their environment and its impacts.

In addition to the significant intercultural exchange between the students, this example promoted awareness of current structural (global) challenges and skills, values as well as knowledge for responsible and future-oriented action.

4

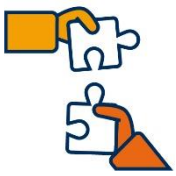
Deusto University and Ruhr University Bochum: The two UNIC-universities implement a Virtual Exchange project with partners from school practice. Teacher students from Spain and Germany collaborated on concepts for implementing Education for Sustainable Development (ESD) in schools. School practitioners and a policy-making institution presented cases of best practices and were involved in discussions with the students. Based on this, the students developed their own ideas, guided by their respective teachers as moderators (Tan et al. 2023, p. 46).

5

University of Liège: A list of courses dealing with sustainability issues has been established for each faculty. In addition, a new, unique, cross-disciplinary course on sustainability and transition issues has been launched at the start of the 2024-2025 academic year. It will be included in the curriculum of all bachelor students.

Who is my societal partner?

ESD can be implemented independently by teachers. However, cooperation makes sense because many sustainability problems can only be solved through interdisciplinary cooperation. You can find partners for joint teaching scenarios on your own campus, in civil society or public administration of your city. However, since many sustainability problems also require international cooperation, collaboration with international university partners is particularly obvious for ESD. The UNIC network supports international cooperation at all partner universities. Find out more from your local UNIC coordinators!



Where can I get help?

Various university institutions can offer you support in designing ESD teaching scenarios. Examples include the Centers for Teaching and Learning, which are generally familiar with ESD as a pedagogical concept. In addition, many universities now have sustainability offices or sustainability officers who have an overview of sustainability activities on campus and related issues. Students are also good partners for designing ESD scenarios, as sustainability issues are often particularly important to them as the next generation. But also think beyond the topic of sustainability: For example, the topic of AI is also linked to sustainability and institutions at your university that deal with AI can help you with specific questions in this context.

Literature and Resources

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