



SLS RESOURCE LIST: EDUCATION FOR SUSTAINABLE DEVELOPMENT

Overview:

The Center for Serve-Learn-Sustain aims to help students create sustainable communities, where humans and nature flourish in the present and future. Toward that aim, SLS supports faculty to incorporate Education for Sustainable Development (ESD) into their teaching. ESD “empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society, for present and future generations, while respecting cultural diversity” and focuses on “learning by doing” (UNESCO). This resource list is intended to support course design and redesign that integrates sustainability education and the U.N. Sustainable Development Goals (SDGs) with disciplinary course content. In addition to the resources provided below, toolkit visitors interested in ESD may also want to review the following tool: [SLS Resource List: U.N. Sustainable Development Goals](#).

Helpful Resources on Education for Sustainable Development

- [Issues and trends in Education for Sustainable Development](#) by United Nations Educational, Scientific and Cultural Organization (UNESCO) contains 10 chapters that explains key themes in education for sustainable development and how to integrate those competencies into curricula.
- [This graphic](#) shows the impact Geosciences have in meeting all 17 sustainable development goals and why this role is critical.
- [Identifying Key Issues of Education for Sustainable Development](#) identifies and elaborates upon twelve key issues of ESD that are organized into four groups: approach, contents, teaching, and organization.

ESD Scholarly Framework

- Tina Lynn Evans’ [Competencies and Pedagogies for Sustainability Education: A Roadmap for Sustainability Studies Program Development in Colleges and Universities](#) offers a competency framework and pedagogical recommendations that serves as roadmaps for educators and uses the Bachelor of Arts in Sustainability Studies program at Colorado Mountain College as an example.
- [Incorporating the sustainable development goals in engineering education](#) provides a logic framework to incorporate sustainable development goals (SDGs) in engineering education, examples of academic projects, and recommendations of how these SDGs can be incorporated into higher-education institutions.
- [Key competencies in sustainability in higher education – toward an agreed-upon reference framework](#) is a Delphi study that provides a refined framework that informs program development, implementation, and evaluation.

Resources for Integrating ESD in your Teaching

- [*Education for Sustainable Development Goals: Learning Objectives*](#) contains learning objects for all 17 SDGs and resources on how to integrate ESD in curricula, textbooks, and teacher education.
- [*Sustainable Foundations: A Guide for Teaching the Sustainable Development Goals*](#) provides targets, learning objectives, curriculum connections, reflection and action questions, and case studies for all 17 SDGs.
- [*Current practice of assessing students' sustainability competencies: a review of tools*](#) analyzes and describes assessment tools' main features, strengths and weaknesses, and potential improvements.
- [*Preparing Sustainable Engineers: A Project-Based Learning Experience in Logistics with Refugee Camps*](#) is a case study of project-based learning involving a non-governmental organization to promote sustainability competencies.
- [*The Sustainability Matrix: A Tool for Integrating and Assessing Sustainability in the Bachelor and Master Theses of Engineering Degrees*](#) provides to help engineering students design sustainable projects and analyzes the results of its use in two schools in Spain.
- [*Teaching Ethics and Sustainability to Informatics Engineering, an Almost 20 Years' Experience*](#), analyzes the evolution of teaching courses with the subject of social, environmental, and ethical issues to students of Informatics Engineering over the past 29 years.

Resources for Integrating ESD at the Institutional Level

- [*Getting Started with the SDGs in Universities*](#) is a university-wide approach on deepening engagement with the SDGs. Replete with tools and guidance, this guide is a framework for universities to start integrated SDGs.
- [*Strengthening Sustainability Programs and Curricula at the Undergraduate and Graduate Levels*](#) is an in-depth resource containing chapters that introduce sustainability science, provide a landscape for sustainability education, explain how to build the academic environment, and suggest how to develop a sustainability workforce.
- [*Accelerating Education for The SDGs in Universities*](#) is a guide for university leaders who hopes to accelerate the institutional process of mainstreaming Education for the SDGs in universities. The chapters explain the case for why universities need to accelerate their engagement with SDGs and ways universities can deliver and accelerate education for the SDGs. The resource also provides guidance on how universities can support the implementation of Education for the SDGs.
- [*Assessing the Infusion of Sustainability Principles into University Curricula*](#) assesses the infusion of sustainability principles into university curricula at two Jordanian universities and offers refinement of teaching methods and syllabi revision and development.
- [*Practical Pedagogy for Embedding ESD in Science, Technology, Engineering and Mathematics Curricula*](#) reviews examples of strategies for embedding education for sustainable development within science-related curricula.



Resources from Other Universities

- Newcastle University Learning and Teaching Development Services provides case studies of effective practice for professors' reference. The list of all case studies is found [here](#), a case study of embedding the SDGs within first year biosciences skills teaching is found [here](#), and a co-design sprint to engage the SDGs case study is found [here](#).
- Vanderbilt University's [Center for Teaching](#) creates teaching guides for subjects including [teaching beyond the gender binary](#), [sustainability](#), and [race](#). View the full list of teaching guides [here](#).
- University of Connecticut [Office of Service Learning at CETL](#) provides faculty with course design, articles and research, and orientation [resources](#). The [Service Learning High Impact Teaching Series](#) is a series of video recordings and PowerPoint presentations that help faculty engage service-learning in their curriculum.
- Suffolk University [Center for Community Engagement](#) provides faculty [Service-Learning Resources](#) and informational [video series](#) about topics including [activism in action](#), [understanding world news](#), and [transgender awareness](#).

ESD Course Design Resources

Example Syllabi

- [GGS 307-011: Geography and Geoinformation Science: Sustainable Development Goals](#)
- [SLS 3110: Technology and Sustainable Community Development](#)
- [Foundations of Sustainable Systems](#)
- [German 3696: Sustainability in Germany](#)

Examples of SDG Projects

- [Ecology Lab: The Global Goals for Sustainable Development](#)