Sustainable Development Goals in the Classroom

A UF Faculty Guide for Using the United Nations SDGs

Resources for developing greater global awareness & sustainability literacy

Introduction

In September 2020, the Sustainable Development Solutions Network (SDSN) released ***Accelerating Education for the SDGs in Universities: A guide for universities, colleges, and tertiary and higher education institutions.*** The document expands upon the 2017 publication *Getting Started with the SDGs in Universities.*"As the providers of general, professional and vocational education across all disciplines, and reaching hundreds of millions of learners at all stages in their life, universities are in a unique position – and therefore have a critical responsibility – to provide ESDGs to as many learners as they can within their sphere of influence." (1) This new SDSN guide offers extensive resources and support for the SDGs in higher education institutions.

In January 2020, a group of faculty and staff connected to sustainability and SDG work on the UF campus gathered to discuss potential collaborations across programs. Over the past year, contributors gathered monthly to share resources and determine actionable items we felt would be beneficial to both our group and others. We believe the SDGs offer a framework for interdisciplinary work to advance global awareness and sustainability literacy. We desired to develop a tool to share more about how the SDGs can be an effective tool in the collegiate classroom.

This resulting brief resource offers faculty at the University of Florida a snapshot of the SDGs, current work within undergraduate and graduate courses at UF, and provides additional resources contextual to UF as you consider bringing an aspect of the SDGs to a course or campus effort. We recognize that this is a first step in connecting many ongoing efforts on campus under the umbrella of the SDGs and hope you will consider the 'Next Steps' section to help us continue building resources around the SDGs at UF.

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1 End poverty in all its forms everywhere.

2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

3 Ensure healthy lives and promote well-being for all at all ages.

4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
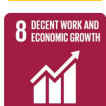
5 Achieve gender equality and empower all women and girls.

6 Ensure availability and sustainable management of water and sanitation for all.

7 Ensure access to affordable, reliable, sustainable and modern energy for all.

8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

10 Reduce inequality within and among countries.

11 Make cities and human settlements inclusive, safe, resilient and sustainable.

12 Ensure sustainable consumption and production patterns.

13 Take urgent action to combat climate change and its impacts.

14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

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.

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.

17 Strengthen the means of implementation and revitalize the global partnership for sustainable development.

"Each of these challenges requires academic knowledge from a range of disciplines and types of analysis."
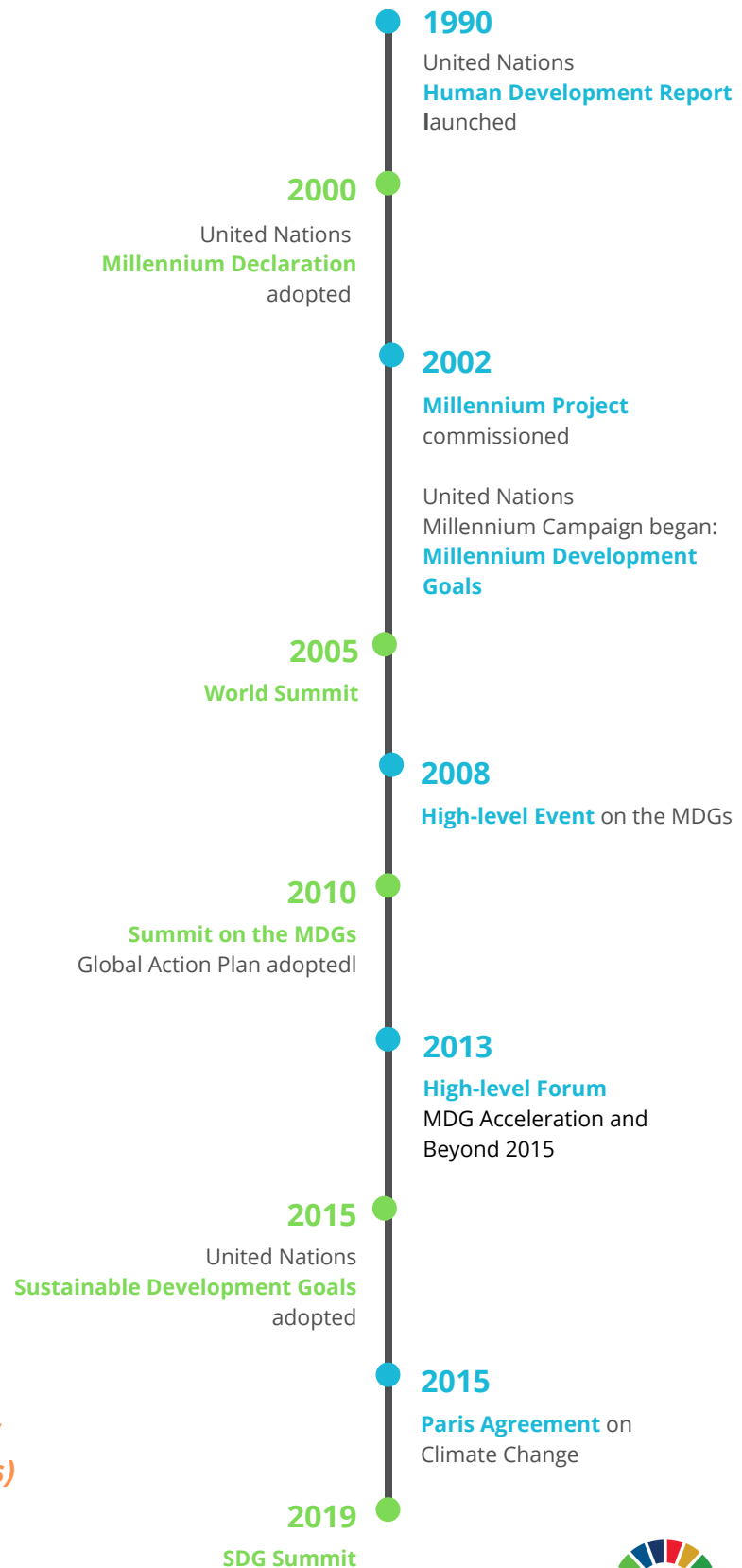*Jeffrey Sachs, President - Sustainable Development Solutions Network (1)*

SDGs Overview

In September 2000, the United Nations **Millennium Declaration** outlined fundamental values for international relations and a resolve to address issues of peace, security and disarmament, development, poverty, education, protection of our common environment, human rights, democracy and good governance, and others to strengthen the ties within the United Nations. The subsequent Millennium Campaign – also known as the **Millennium Development Goals (MDGs)** – identified eight specific goals for global leaders to attain by 2015.

The post-2015 agenda process reassessed what global needs should take priority on the international leadership stage through an inclusive process that included a social media campaign and several multi-level stakeholder meetings. While building on the MDGs, the **Sustainable Development Goals (SDGs)** expanded the focus by integrating many aspects of economic, social and environmental sustainability. The SDGs were approved by 193 member states in September 2015, with the official campaign launch in January 2016. Seventeen goals now set forth an ambitious agenda for our world leaders, including the areas of poverty alleviation, zero hunger, clean water and sanitation, climate action, responsible consumption and production, quality education, etc.

"Universities and other higher education institutions have a critical role in helping society achieve the Sustainable Development Goals (SDGs) through their research, learning and teaching, campus operations and leadership."
Sustainable Development Solutions Network (1)

A BRIEF HISTORY OF
UN SUSTAINABLE DEVELOPMENT GOALS

1990
United Nations
Human Development Report launched

2000
United Nations
Millennium Declaration adopted

2002
Millennium Project commissioned

United Nations
Millennium Campaign began:
Millennium Development Goals

2005
World Summit

2008
High-level Event on the MDGs

2010
Summit on the MDGs
Global Action Plan adoptedl

2013
High-level Forum
MDG Acceleration and Beyond 2015

2015
United Nations
Sustainable Development Goals adopted

2015
Paris Agreement on Climate Change

2019
SDG Summit

2

Our Role and Interdisciplinary Reach

Higher education has an essential role in the achievement of the SDGs and sustainable development more broadly. Throughout the world, professionals from nearly all realms of human endeavor must play a role in creating a more sustainable and just world. Thus, the aim, from a higher education perspective, is to provide an **education** in which students pursuing all academic paths gain an understanding of the challenges of sustainable development and begin to envision how they might help address these challenges as professionals in their particular fields of endeavor.

Higher education institutions also play an essential role in disciplinary and interdisciplinary **research** to generate knowledge to better address diverse, sustainable development challenges. Exciting progress in many fields has already been accomplished, but the magnitude of the challenges facing humanity dwarfs efforts underway.

Progress in sustainable development will require raising knowledge and awareness of people around the world of all ages. Thus, higher education institutions are tasked with **outreach** to communities and preparing competent future educators, development workers, and leaders within all disciplines.

"To increase the likelihood of success for these 17 SDGs, higher education institutions worldwide must teach and train today's students – tomorrow's decision-makers – to think both critically and ethically, to learn to cope with ethical dilemmas and apply systems-thinking approaches to serious and complex societal problems." (2)

RESEARCH

Research on the SDGs
Interdisciplinary and transdisciplinary research
Innovations and solutions
National & local implementation
Capacity building for research

EDUCATION

Education for sustainable development
Jobs for implementing the SDGs
Capacity building
Mobilising young people

OPERATIONS & GOVERNANCE

Governance and operations aligned with SDGs
Incorporate into university reporting

EXTERNAL LEADERSHIP

Public engagement
Cross-sectoral dialogue and action
Policy development and advocacy
Advocacy for sector role
Demonstrate sector commitment

University Contributions to the SDGs (3)

UF Office of Sustainability
The mission of the Office of Sustainability is to make the University of Florida – in its operations, education, research, and outreach – a model of sustainability, integrating the goals of ecological restoration, economic development, and social equity.
In pursuing this mandate, the Office of Sustainability will encourage and facilitate the collaborative efforts of faculty, students, and staff to generate knowledge, acquire skills, develop values, and initiate practices that contribute to a sustainable, high quality of life on campus, in the state of Florida, and across the globe.

Reporting Elements
The Office of Sustainability reports on sustainability endeavors across campus, including academics. The data below is from fiscal year 2017-2018 and was collected as part of UF's Sustainability Tracking, Assessment, and Rating System (STARS) report. STARS is a program that is part of the Association for the Advancement for Sustainability Higher Education (AASHE), an international organization of which UF is a member.

3%	22%	8%
UF Courses	**UF Students**	**UF Faculty**
Include Sustainability as a Topic	**Graduate completing a Sustainability Learning Outcome**	**Involved in Sustainability Research**

Interested in learning more about the work the Office of Sustainability does?
- **Visit our website** | https://sustainable.ufl.edu/
- **Follow our e-newsletter** | https://sustainable.ufl.edu/news-events/e-newsletter/
- **Sustainability courses at UF** | https://sustainable.ufl.edu/campus-initiatives/academics-research/sustainability-focused-courses-undergraduate/
- **Sustainability Degree Programs at UF** | https://sustainable.ufl.edu/campus-initiatives/academics-research/

Educational Responsibility

"We need professionals and citizens who have the skills, knolwedge, and mindsets to tackle the complex sustainable development challenges articulated by the SDGs through whichever career or life path they take, including:

- A general understanding of sustainable development and the SDGs
- Cross-cutting skills to make sense of complex challenges and devise and implement solutions
- Specific knowledge and skills for how each profession can contribute to the SDGs
- Mindsets to contribute to positive societal change" (1)

Enhancing Global Awareness

Traditionally, the term "development" has conjured up work carried out in the global "south" to combat poverty, enhance food security and reduce environmental degradation. The adoption of the Agenda 2030 and the associated Sustainable Development Goals (SDGs) has placed emphasis on the fact that **all nations face sustainable development challenges to varying degrees**. For example, the ongoing COVID-19 pandemic has made evident that systemic inequality in the US and other parts of the world – reflected in uneven access to education, nutrition, healthcare and economic opportunities – leads to disproportionate levels of infection and mortality among vulnerable sectors of society. This, and other examples, illustrate that **attaining the SDGs is truly a global challenge involving both the so called "developed" and "less developed" nations.**

Develop a Systems Thinking Mindset

The 2030 Agenda for Sustainable Development emphasizes that the SDGs are integrated and interrelated, and that efforts to achieve a specific SDG or associated targets invariably intersect and interact with efforts to achieve other SDGs and targets. For example, **complex linkages** between poverty, education, nutrition, exposure to environmental hazards and inequality result in minorities and Indigenous peoples suffering a disproportionate burden of the COVID-19 pandemic. As a consequence, **scholars and practitioners focusing on the SDGs, and on development challenges in general, are increasingly applying systems thinking in project, program and policy planning to identify leverage points for system-level change and to help predict likely responses to interventions.** Taking into account the diversity of the contexts in which sustainable development plays out, and the inevitable synergies and trade-offs inherent in the implementation of the SDGs, **systems thinking is both a key knowledge area and a skill of vital importance for researchers and practitioners.**

Engage in Experiential Education

SDGs offer an experiential tool to **deepen a student's connection to learning and problem solving in the realm of complex challenges**. Active learning and reflection allow a student to absorb the issues more deeply, and gain a better understanding of how it impacts their own lives.

Development Theory and Practice | MDP Program | AFS 6305/LAS 6943
This course provides a critical introduction to development; it serves as the foundation course for the Master's in Sustainable Development Practice (MDP) and the Graduate Certificate in Sustainable Development Practice (SDP). Both conceptual and practical issues are addressed in relation to each course topic with a multi-disciplinary approach that focuses on the inter-relationships among approaches. Participants learn to describe and analyze complex development issues, paying attention to cross-sector linkages and regional comparisons.

Systems Thinking in One Health | Graduate Course| PHC 6446
This course utilizes the SDGs as the backbone to teaching the concepts of systems thinking and one health, and includes lecturers from different disciplines across UF and around the world. The One Health Center of Excellence at the University of Florida focuses on understanding the interconnections between the health of humans, animals, plants, and the environment.

Challenge 2050: Global Uncertainty | Undergraduate Course | ALS 2410
This course utilizes the SDGs as a framework for discussing global challenges and the leadership processes and tools needed to address them through systems thinking and a fact-based world view. This course is the prerequisite to complete the Undergraduate Global Leadership & Change Certificate.

Sustainable Solutions in the Built Environment | Undergraduate Course| DCP 3210
This course utilizes the SDGs as an integral part of each module for discussion, and through application in class projects.

Field & Fork Campus Food Program | Multiple Engagement Opportunities
The Field & Fork program is a collaboration with the College of Agriculture and Life Sciences and Student Affairs, designed to both teach sustainable food system and provide fresh produce to people experiencing food insecurity. With an educational farm, it offers UF courses, internships, volunteering, and community events to connect across the interdisciplinary facets of sustainable agriculture, and grow for those in need.

Textbook Selection
The Age of Sustainable Development (2015, Columbia University Press) is authored by Jeffrey Sachs , special advisor to Secretary-General Ban Ki-moon of the United Nations on the Sustainable Development Goals, director of the UN Sustainable Development Solutions Network, and Professor of Sustainable Development at Columbia University. Introductory chapters of the book define sustainable development and trace the history of economic development, emphasizing the priority to end extreme poverty while respecting planetary boundaries. Subsequent chapters address MDG/SDGs of social inclusion, education for all, health for all, food security, resilient cities, climate change, and saving biodiversity / ecosystem services. The concluding chapter introduces the SDGs.

Current Events | COVID-19 Examples | Interdisciplinary Connections
The 2030 Agenda for Sustainable Development is based on the understanding that the 17 SDGs are interconnected and indivisible, in recognition of the interdisciplinarity of sustainable development challenges. The ongoing COVID-19 pandemic illustrates this fact. A disproportionate number of deaths have impacted Black and Hispanic communities (SDG 3) that have been subjected historically to factors including systemic inequality (SDG10), higher levels of poverty (SDG1), less nutritious diets (SDG2) and lower levels of education (SDG4) that have been shown to limit employment opportunities (SDG8). Interdisciplinarity, like that described here, is inherent to nearly all sustainable development challenges, indicating the importance of recognizing key linkages and interactions across the SDGs when taking on specific challenges.

"My" SDG Assignment Connections
In Systems Thinking in One Health, each student is assigned a sustainable development goal at the beginning of the semester. Throughout the course, assignments (discussion board prompts, 3 minute presentations or videos, etc.) are framed from their sustainable developmental goal's point of view. It allows "role play" by taking on a goal as their own.

Service-Learning Connections
With the SDG framework, students can connect service-learning opportunities to one of the SDGs; communication and reporting of their learning experience is framed through the lens of the selected SDG and organizational context.

SDGs in the News or SDGs Around Me Journal
A personal journal throughout a semester enables either general observation of the SDGs in a student's personal life or through media, or specific observation focused on one SDG per week for the duration of the semester. This practice develops greater awareness of how the SDGs connect to many facets of our daily lives.

SDG Classroom Resources

ActNow Campaign | https://www.un.org/en/actnow/
ActNow, the UN campaign for individual action on climate change and sustainability, provides students with the opportunity to commit to one or more simple actions (i.e. 5-minute shower, drive less, recycle).

SDG Fund Library| https://www.sdgfund.org/library
The Sustainable Development Goals Fund provides access to downloadable Publications that are tagged and searchable by associated SDGs.

SDG Fund Case Studies | https://www.sdgfund.org/case-studies
The Sustainable Development Goals Fund also houses an online database of sustainable development case studies with associated SDGs noted.

Sustainable Development Solutions Network | https://www.unsdsn.org
SDSN promotes integrated approaches to implement the Sustainable Development Goals (SDGs) and the Paris Agreement on Climate Change, through education, research, policy analysis, and global cooperation.

SDG Academy | https://sdgacademy.org/
The SDG Academy, SDSN's flagship education initiative, creates and curates free massive open online courses and educational materials on sustainable development and the SDGs.

Sulitest | https://www.sulitest.org
With a mission to expand sustainable knowledge, skills, and mindset that motivates individuals to become deeply committed to build a sustainable future and to make informed and effective decisions, Sulitest provides citizens and organizations with internationally recognized and locally relevant tools to engage learning and assess the degree of awareness on sustainability challenges and solutions of their stakeholders.

Gapminder | https://www.gapminder.org
Gapminder is an independent Swedish foundation with no political, religious or economic affiliations. Gapminder is a fact tank, not a think tank. Gapminder fights devastating misconceptions about global development. Gapminder produces free teaching resources making the world understandable based on reliable statistics. Gapminder promotes a fact-based worldview everyone can understand. Gapminder collaborates with universities, UN, public agencies and non-governmental organizations.

Key Definitions

Sustainability is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (4)

Development is a multidimensional process in which the capacity of a nation increases in terms of initiating major changes in social structures, attitudes, institutions, economic growth, reduction of inequality, and eradication of absolute poverty. (5)

Economic Sustainability is development that supports economic growth (or a defined level of economic production) over time, while protecting the environmental, social, and cultural aspects of the community.

Social Sustainability is development that supports the ability of current and future generations to create and maintain healthy communities, promote well-being, and provide a good quality of life via equity, diversity, connectivity, and participation. (6)

Environmental Sustainability is development that protects and maintains renewable and nonrenewable environmental resources and limits pollution creation for current and future generations. (7)

Sustainability Literacy is the knowledge, skills and mindsets that allow individuals to become deeply committed to building a sustainable future and assisting in making informed and effective decisions to this end.

Key Acronyms

AASHE Association for Advancement of Sustainability in Higher Education
STARS Sustainability Tracking, Assessment & Rating System
SDG Sustainable Development Goals
SDSN Sustainable Development Solutions Network
UN United Nations
UNDP United Nations Development Program

Develop a Basic Understanding of the SDGs
- Reflect on how the SDGs connect to your discipline
- Explore some of the recommended resources in this document.
- Take the Gapminder Worldview Upgrader Quiz to understand potential misconceptions about the UN Goals (https://upgrader.gapminder.org/t/sdg-world-un-goals/)
- Explore personal habits connected to the SDGs
- Commit to one of the ten simple actions in the Act Now Campaign (https://www.un.org/en/actnow)

Consider how you can connect the SDGs to a course you teach
- Identify sustainability related courses in your department
- Encourage student enrollment to a course that includes the SDGs
- Consider adding sustainability as a topic within your class, as it connects to your course content.
- Explore syllabi from across campus connected to sustainability and the SDGs
- Develop a class with a focus on sustainability framed through the SDGs
- Include activities that benefit or increase awareness of community organizations
- Encourage students to commit to one of the Act Now Campaign actions

Engage in discussion on campus regarding the SDGs
- Share what you are currently doing to include the SDGs in your course(s) with the UF Office of Sustainability
- Join the SDG Working Group to develop further resources for UF faculty and students
- Mentor a student group for co-curricular engagement with the SDGs
- Explore relevant committees within your department to make recommendations for additional engagement
- Advocate for the use of the SDGs as a framework for global awareness
- Encourage undergraduate students to explore graduate programs that focus on the SDGs (MDP)

Sources

(**1**) Sustainable Development Solutions Network. (2020). *Accelerating education for the SDGs in universities: A guide for universities, colleges, and tertiary and higher education institutions. https://resources.unsdsn.org/accelerating-education-for-the-sdgs-in-universities-a-guide-for-universities-colleges-and-tertiary-and-higher-education-institutions*

(**2**) Levi, L. & Rothstein, B. (2018, November 9). Universities must lead on sustainable Development Goals. *University World News.* https://www.universityworldnews.com/post.php?story=20181106131352348

(**3**) Sustainable Development Solutions Network Australia/Pacific. (2017). Getting started with the SDGs in universities: A guide for universities, higher education institutions, and the academic sector. https://resources.unsdsn.org/getting-started-with-the-sdgs-in-universities

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