

Sustainable Development

Director

- David M. Cwiertny (Chemical and Biochemical Engineering/ Chemistry/Civil and Environmental Engineering)

Graduate degree: MS in sustainable development

Website: <https://sdg.grad.uiowa.edu/>

First introduced in the Brundtland Report of 1987, *Our Common Future*, the principle of sustainable development calls for meeting the needs of society today without compromising the ability of future generations to meet their own needs. Today, the United Nations Sustainable Development Goals (UN SDGs) provide a blueprint for sustainable development that addresses global challenges including climate change, access to clean water, healthy air, safe and reliable energy, long-term economic well-being, equity, responsibility to other species, and conflict over limited resources.

Through training centered on the UN SDGs, the sustainable development program prepares students for technical and/or policy leadership roles in the private or public sector to advance the sustainable development of communities in Iowa, across the United States, and around the world. Leveraging existing strengths at the University of Iowa in the areas of resource sustainability and engagement for sustainable communities, the sustainable development program is built on coursework, community-engaged projects, and professional development experiences that culminate in the MS in sustainable development.

This program of study aims to train the next generation of sustainability professionals for career placement opportunities at state and federal agencies, national laboratories, policy think tanks, nongovernmental organizations (NGOs), and in the private sector.

Programs

Graduate Program of Study

Major

- Master of Science in Sustainable Development

Courses

Sustainability Development Goals Courses

SDG:4000 The United Nations Sustainable Development Goals: A Blueprint for a Sustainable Future 3 s.h.

Establishment of baseline competencies among students from diverse backgrounds; introduction to the United Nations sustainable development goals framework; foundational concepts for sustainable development (e.g., life-cycle analysis, systems thinking, data processing, visualization). Same as GEOG:4000.

SDG:5100 Building Future Leaders in Sustainable Development 3 s.h.

Focus on competencies needed to translate training and research into action for social good; topics include ethics, cultural competency, collaboration and team science, use-inspired design, and engagement. Same as CEE:5151.

SDG:5225 Communicating Data Through Stories 3 s.h.

How to communicate science effectively and responsively with multiple audiences from peers and professors to potential employers, policymakers, and the lay public; focus on speaking about science clearly and vividly in ways that can engage varied audiences, especially those outside the student's own field; connecting and finding common ground with an audience, defining goals, identifying main points, speaking without jargon, explaining meaning and context, using storytelling techniques and multimedia elements. Same as CEE:5225, GRAD:5225.

SDG:6000 Sustainable Communities Lab I 3 s.h.

Experience working on a two-semester project involving a current planning issue, usually for a client. Requirements: urban and regional planning graduate standing. Same as URP:6209.

SDG:6210 Sustainable Communities Lab II 3 s.h.

Continuation of URP:6209. Prerequisites: URP:6209. Requirements: urban and regional planning graduate standing. Same as URP:6210.

SDG:6325 Thesis: Sustainable Development 1-5 s.h.