Premise: Until recently, most EHS managers came of age during an era where the primary focus was on compliance. This role is changing, and increasingly, the focus is shifting towards reducing operational risk, driving operational excellence, reducing costs, and streamlining business processes. The implementation of environmental and energy management systems based on international voluntary consensus standards is the leading strategy for bringing this change about.

Goal: Prepare students for this changing role by developing and enhancing the knowledge and capabilities of organizational professionals to implement organizational management systems for environmental and energy sustainability in line with international standards ISO 14000, Environmental Management Systems, and ISO 50000, Energy Management Systems.

Constituencies: Environmental and energy managers and professionals in the public and private sectors, and graduate level students aspiring to government or industry positions that require management system implementation capabilities.

Outcome for student: Understanding of management system principles and concepts that undergird the specifications in the ISO 14000 and 50000 standards, and ability to organize and lead organizational efforts to create and implement such systems.

Topics Covered: Principles and concepts of management systems, justifying the organizational need for the system, forming the system implementation team, evaluating organizational requirements, risks and operations that need to be managed, scoping the system, setting objectives, metrics and operational controls, creating action plans, system maintenance with corrective actions, updates, audits and management reviews, and helpful tools and aids for management system development and implementation.

Formats: one-semester three-credit course, guest lecturers, readings, case study.

Class size: 20-25 students.

Venue: George Washington University.


Course Materials: Binder with PowerPoint slides and course notes; implementation tools and aids; selections from the literature; and, access to ISO 14000 and 50000 standards.
Instructor: Mr. Joe Cascio, Esq. was Federal Environmental Executive (FEE) in the Council on Environmental Quality, Executive Office of the President. As the leader, from 1991 to 2003, of the U.S. delegation to ISO that negotiated the ISO 14000 series of Environmental Management Standards, Mr. Cascio acquired unique credentials in this field. From 2003 to 2013, he led the international ISO subcommittee on environmental performance evaluation and has been co-chair of the American Society for Quality (ASQ) Liaison Group on ISO Management System Standards (MSS) for the past twenty-three years. He has worked on and with ESH management systems since 1984 and has consulted in the private and public sectors both nationally and internationally since 1996. At GW, Mr. Cascio is Co-Director of the Environmental and Energy Management Institute (EEMI).

Guest Speakers: Professionals with credentials and visibility in the fields of environmental and energy systems will be invited as guest speakers to augment instruction on compliance as assurance, performance metrics, operational controls and system auditing. Mr. Ed Pinero, Chair of the ISO Technical Committee that developed the ISO 50000 Energy Management Standards, will deliver selected lectures on energy management systems. Mr. Pinero preceded Mr. Cascio as FEE from 2004 to 2005.