Spring 2020 EDS Courses Satisfying **H&SS CORE Requirements**

**EDNS 315 Engineering for Social and Environmental Responsibility**  |  Dr. Claussen  |  MW 3-4:15 pm

- Satisfies HASS mid-level requirement
- Required for HE minor: Leadership in Social Responsibility
- Required for HE minor: Engineering for Community Development

This course explores how engineers think about and practice social and environmental responsibility. It critically analyzes codes of ethics before moving to a deeper focus on macroethical topics with direct relevance to engineering practice, environmental sustainability, social and environmental justice, social entrepreneurship, corporate social responsibility, and engagement with the public. These issues are examined through a variety of historical and contemporary case studies and a broad range of technologies. Prerequisites: HASS100; EDNS151.

**EDNS 430 Corporate Social Responsibility**  |  Dr. N. Smith  |  TTh 12:30-1:45 pm

- Satisfies HASS 400-level requirement
- Required for HE minor: Leadership in Social Responsibility

Businesses are largely responsible for creating the wealth upon which the well-being of society depends. As they create that wealth, their actions impact society, which is composed of a wide variety of stakeholders. In turn, society shapes the rules and expectations by which businesses must navigate their internal and external environments. This interaction between corporations and society (in its broadest sense) is the concern of Corporate Social Responsibility. This course explores the dimensions of that interaction from a multi-stakeholder perspective using case studies, guest speakers, and field work. Prerequisite: HASS100. Corequisite: HASS200.

**EDNS 479 Engineers Engaging Communities**  |  Dr. Lucena  |  TTh 2-3:15 pm

- Satisfies HASS 400-level requirement
- Area requirement for HE minor: Engineering for Community Development

Engineers and applied scientists face challenges that are profoundly socio-technical in nature, ranging from controversies surrounding new technologies of energy extraction that affect communities to the mercurial “social license to operate” in locations where technical systems impact people. Understanding the perspectives of communities and being able to establish positive working relationships with their members is therefore crucial to the socially responsible practice of engineering and applied science. This course provides students with the conceptual and methodological tools to engage communities in respectful and productive ways. Students will learn ethnographic field methods and participatory research strategies, and critically assess the strengths and limitations of these through a final original research project. Prerequisite: HASS100. Corequisite: HASS200.
Spring 2020 Courses Satisfying HE MINOR Requirements

**EDNS 301 Human-Centered Problem Definition | Dr. McClelland | MWF 10-10:50 am**

- Area 1 requirement for HE minor: Engineering for Community Development
  This class equips students with the knowledge, skills, and attitudes needed to identify, define, and begin solving real problems for real people, within the socio-technical ambiguity that surrounds all engineering problems. The course focuses on problems faced in everyday life, by people from different backgrounds and in different circumstances, so that students will be able to rise to the occasion presented by future workplace challenges. By the end of this course, students will be able to recognize design problems around them, determine whether they are worth solving, and employ a suite of tools to create multiple solutions. The follow-up course – EDNS 401 Projects for People – will enable students to take the best solutions from this course into the prototyping phase.

**HASS 325 Cultural Anthropology | Dr. J. Smith | TTh 11 am -12:15 pm**

- Area elective for HE minor: Leadership in Social Responsibility
  A study of the social behavior and cultural development of humans. Prerequisite: HASS100. Corequisite: HASS200.

**EBGN 340 Energy and Policy | Dr. Maniloff | MW 1-1:50 pm**

- Elective for HE minor: Leadership in Social Responsibility
- Also satisfies HASS mid-level requirement
  This course considers the intersection of energy and environmental policy from an economic perspective. Policy issues addressed include climate change, renewable resources, externalities of energy use, transportation, and economic development and sustainability. Prerequisite: EBGN201.

**CEEN 401 Life-Cycle Assessment | Dr. Landis | Online course**

- Engineering elective for HE minor: Leadership in Social Responsibility
  Which is more sustainable: paper vs plastic, hybrid vs electric vehicles? LCA is a powerful tool used to answer these questions; LCA quantifies the environmental sustainability of a product or process. Students will learn to conduct an LCA during a semester-long project of their choosing. At the end of the course students should be able to sit for the ACLCA professional LCACP certification exam. Prerequisite: Junior standing.

**PEGN 430 Environmental Law and Sustainability | Dr. Battalora | MW 12-3 pm**

- Engineering elective for HE minor: Leadership in Social Responsibility
- Also satisfies HASS 400-level requirement
  In this course students will be introduced to the fundamental legal principles that are relevant to sustainable engineering project development. General principles of United States environmental regulation pertaining to air quality, water quality, waste management, hazardous substances remediation, regulation of chemical manufacture and distribution, natural resources, and energy will be discussed in parallel with international laws pertaining to environmental protection and human rights. In the context of engineering project design, students will explore legal, societal, and ethical risks and risk mitigation methodologies.