

ENGINEERING FOR SUSTAINABLE DEVELOPMENT, MINOR

Engineers will be increasingly called upon to help devise solutions to the tremendous problems of poverty, inequality, and social and environmental dislocation that afflict major parts of the globe in the 21st century. Working as an engineer in this context involves negotiating highly complex social, economic, and political realities and dealing with a wide range of institutions and actors, including national and local governments, multilateral lenders such as the World Bank, diverse non-governmental organizations (NGOs), and local communities. It also increasingly involves working in interdisciplinary teams with social scientists, public health and medical workers, humanitarian aid workers, bankers, politicians, and the like. “Sustainable” development implies a development path that is socially equitable, culturally sensitive, and environmentally appropriate over a multi-generational time frame.

The minor in Engineering for Sustainable Development exposes engineering students to some of the key issues related to development, methods of information-gathering in diverse and difficult settings, and working effectively with non-engineers on complex problems. The minor is open to undergraduates in any of the engineering disciplines in the Whiting School of Engineering. Students in Arts & Sciences may also pursue the minor with the permission of the program director.

For further information, please contact Erica Schoenberger via email (ericas@jhu.edu) (ericas@jhu.edu) or at 410-516-6158.

Program Requirements

The minor encompasses seven courses. The core course is EN.570.110 Introduction to Engineering for Sustainable Development. Six additional courses will be selected in a program devised in consultation with the minor advisor.

Code	Title	Credits
Core Course		
EN.570.110	Introduction to Engineering for Sustainable Development	3

Of the Six Additional Courses:

- Three must be grouped around a specific theme, region, or within a specific discipline. Themes might include, for example, public health, environment, or economic development. Regions include Africa, Latin America, or Asia. Disciplinary concentrations might be in Anthropology, Economics, Geography, History, Political Science, Public Health, or Sociology.
- Three of the courses must be at the 300-level or above.
- One of the courses must cover methods for gathering and evaluating information in a development context.

Examples include:

Code	Title	Credits
AS.230.202	Research Methods for the Social Sciences	3
AS.280.345	Public Health Biostatistics	4
AS.280.350	Fundamentals of Epidemiology	4