SUSTAINABLE TRANSPORTATION SYSTEMS AND PLANNING

OVERVIEW

Transportation is a transdisciplinary field of study that broadly examines the movement of people and goods over space as well as the economic, public health, environmental, and social impacts of those systems.

Local, regional, and global transportation systems are vital to building community, the economy, and quality of life. Transportation designs, programs, and policies impact the environment, energy, culture, equitable mobility between regions and groups, as well as quality of life. Critical transportation system issues and problems in the 21st century will require interdisciplinary teams to design innovative solutions. The overall goal of the certificate is to establish a baseline of transportation system knowledge and to develop advanced critical thinking around interdisciplinary partnerships addressing problems in planning for transportation and mobility.

DEGREES

• Sustainable Transportation Systems and Planning CGS

FACULTY

Aultman-Hall, Lisa M.; Professor, School of Engineering; PHD, McMaster University
McRae, Glenn; Adjunct Lecturer, Department of Community Development and Applied Economics; PHD, Union Institute and University

Courses

TRC 310. Transportation Systems Seminar. 1 Credit.
Introduction to the complex interconnections of engineering, policy, science and social science that characterize mobility systems. Seminar emphasizes academic research, articles and student writing. Prerequisite: Graduate standing or Instructor permission.

TRC 312. Sustainability & Transportatn. 3 Credits.
Introduction to the complex interconnection of engineering, policy, science and social science that characterize transportation systems, mobility problems and solutions. Interdisciplinary teams conduct case studies. Prerequisite: Graduate standing or Instructor permission. Cross-listed with: CE 312, PA 342.

TRC 314. Risk/Behavior in Transportatn. 3 Credits.
In-depth examination of human, environmental and vehicle factors in transportation crashes. Students develop safety research proposals and statistical measurements of risk and rates. Prerequisite: Graduate standing or Instructor permission.

TRC 316. Land Use Policy & Economics. 3 Credits.
Economic and social forces that drive urban and suburban land use patterns, such as urban sprawl, and the policy mechanisms designed to intervene in those processes. Prerequisite: Graduate standing or Instructor permission. Cross-listed with: NR 377.