Sustainability (SUST)

Courses

SUST 1103. Foundations of Sustainability. 3 Hours.
Foundations of Sustainability is an interdisciplinary course to introduce concepts and theories of sustainability at global, regional, and local levels. Emphasis is on four thematic areas of sustainability: social, natural, built and managed systems. The aim is to increase environmental literacy for engagement of sustainability into students’ own disciplines.

SUST 1103H. Honors Foundations of Sustainability. 3 Hours.
Foundations of Sustainability is an interdisciplinary course to introduce concepts and theories of sustainability at global, regional, and local levels. Emphasis is on four thematic areas of sustainability: social, natural, built and managed systems. The aim is to increase environmental literacy for engagement of sustainability into students’ own disciplines. Corequisite: SUST 1103 or instructor consent. This course is equivalent to SUST 1103.

SUST 2103. Applications of Sustainability. 3 Hours.
Applications of Sustainability is an interdisciplinary course introducing data gathering, data analysis or interpretation, and synthesis of data applied to problems in sustainability. Students engage in hands-on, inquiry-based investigation of sustainability issues across four thematic areas: social systems, natural systems, built systems (Architecture & Engineering), and managed systems (Agriculture & Business). Prerequisite: SUST 1103 or instructor consent. This course is equivalent to SUST 2103.

SUST 2103H. Honors Applications of Sustainability. 3 Hours.
Applications of Sustainability is an interdisciplinary course introducing data gathering, data analysis or interpretation, and synthesis of data applied to problems in sustainability. Students engage in hands-on, inquiry-based investigation of sustainability issues across four thematic areas: social systems, natural systems, built systems (Architecture & Engineering), and managed systems (Agriculture & Business). Corequisite: SUST 1103 or instructor consent. This course is equivalent to SUST 2103.

SUST 390V. Special Problems in Sustainability. 1-6 Hour.
Special Problems is intended to fulfill a need in the sustainability curriculum to offer one-time pilot course work in any semester prior to the formal curriculum approval process, offer seminars on unusual but timely topics in sustainability on a one-time basis, or independent study for students seeking additional expertise in sustainability research and scholarship. Prerequisite: SUST 1103 and SUST 2103 or instructor permission. May be repeated for up to 6 hours of degree credit.

SUST 4103. Capstone Experience in Sustainability. 3 Hours.
A capstone experience focused on service learning, research learning, or internship in sustainability. Student engagement in community service, research, or relevant work on sustainability through a summer internship or equivalent experience provides opportunities for students to apply sustainability theories and principles learned from prior course work toward advancing sustainability across society. Prerequisite: SUST 1103 and SUST 2103.

SUST 4603. Environmental Sociology. 3 Hours.
The course provides a social perspective on environmental issues. It examines the linkage between society, ecological systems and the physical environment. It provides conceptual framework(s) for analyzing environmental issues, considers the role of humans in environmental issues, and enhances understanding the complexity of the relationship between societal organization and environmental change. Prerequisite: Junior or senior standing. This course is cross-listed with HDFS 4603, SOCI 4603.

SUST 4693. Environmental Justice. 3 Hours.
This course deals with the ethical, environmental, legal, economic, and social implications of society’s treatment of the poor, the disenfranchised, and minorities who live in the less desirable, deteriorating neighborhoods, communities, and niches of our country. The class integrates science with philosophy, politics, economics, policy, and law, drawing on award-winning films, current news, and case studies. This course is cross-listed with GEOS 4693.

SUST 5103. Analysis and Design of Resilient Systems. 3 Hours.
Introduces students to complex systems theory, change theory, systems analysis and modeling, and design theory for resilient systems. This course draws theory and heuristics from multiple disciplines, including but not limited to engineering, architecture, ecology, risk assessment, management, social sciences, political sciences, the arts and the humanities.

SUST 5203. Decision Making, Analysis and Synthesis in Sustainability. 3 Hours.
Provides an applied framework for analyzing decision dynamics, supporting and promoting more sustainable decisions, and measuring the sustainability of systems. The course applies theories of change, institutional decision theory, social and institutional constructs of sustainability, indicator and metric development across social, ecological, and economic domains, and communication strategies.

SUST 5303. Sustainable Global Food, Energy and Water Systems. 3 Hours.
Provides a detailed review of the existing global food production/distribution and water systems, with an emphasis on scarcity, equity, management and challenges from changing global systems. This course explores the inputs and efficiencies of existing agricultural production systems, and examines equity and value in these systems.

SUST 590V. Special Problems in Sustainability. 1-6 Hour.
Special Problems is intended to fulfill a need in the sustainability curriculum to offer one-time pilot course work in any semester prior to the formal curriculum approval process, offer seminars on unusual but timely topics in sustainability on a one-time basis, or independent study for students seeking additional expertise in sustainability research and scholarship. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.