Course Description

Managers, engineers, and social scientists frequently bring people and technology together to address complex problematic situations in an equitable way that benefits people and the environment. Multiple systems theories and methods have been developed to address these situations, and typical courses in systems focus on a relatively small portion of the rich assortment of available approaches to addressing systems problems. This course introduces students to multiple systems theories and methods via readings, class discussion, in-class active learning exercises, reflective writing assignments, and selected case studies. The course will emphasize critical thinking about how the theories and methods relate to each other and how they might be applied individually and in combination to address complex problematic situations.

Instructor

Dr. C. Robert Kenley, Associate Professor of Engineering Practice, Industrial Engineering

Course Outcomes

As part of the Purdue Core Curriculum on Science, Technology, and Society, students will be able to understand and reflect upon the complex issues raised by technological and scientific changes and its effects on society and the global world by making sense of, evaluating, and responding to present and future changes that shape individuals’ work, public, and personal lives.

This course will teach systems theories for understanding the complex problematic situations that result from the interaction of scientific and technological changes, values held by individuals and groups, and organizational and social structures. Students will also learn approaches applicable to the workplace and the public sphere that respond to these situations by addressing them in an equitable way that benefits people and the environment.

*Undergraduate students from all majors with upper division standing are welcome.