

SYSE 534

HUMAN SYSTEMS INTEGRATION

Offered every Spring

DESCRIPTION

Evaluation of human capabilities and limitations when designing and evaluating complex systems in order to enhance safety, efficiency, usability, and reduce life cycle costs.

BENEFITS

Consideration of the human (e.g., operator, user, maintainer) is a critical component to systems engineering. The goal of human systems integration is to account for human capabilities and limitations when designing and evaluating complex systems, in order to enhance safety, efficiency, usability, and reduce life cycle costs.

COURSE OBJECTIVES

Topics include transportation, health care, manufacturing, military, and other complex control systems.

Students successfully completing this course will be able to:

- Explain how perception, cognition, biases, trust, and decision-making influence human-system interactions
- Implement concepts of human capabilities and limitations to the design and evaluation of existing and new systems
- Design studies to examine system performance with respect to the human
- Understand basic principles in human-automation interactions and supervisory control

