



HUMAN SYSTEMS INTEGRATION & DESIGN

The ISE track in Human Systems Integration & Design will be of interest to students who are “people-oriented” and are interested in designing work and work systems that rely on and/or support human performance. Students interested in product design will also find this track valuable. All types of operations can benefit from improvements in Human Systems Integration & Design, including companies involved in:

- healthcare
- transportation
- energy management
- information management
- retail and financial systems
- manufacturing and production systems.

This track in Human Systems Integration & Design focuses on strategies for improving productivity, quality, resilience and safety. In addition to general courses on human factors engineering and design, it includes courses concerned with occupational safety and health, as well as courses concerned with cognitive systems engineering.

This track requires students to complete a minimum of 15 credit hours.

MINIMUM NINE HOURS FROM THE FOLLOWING ELECTIVES (9 hours)

ISE 5110	3	Design of Engineering Experiments
ISE 5610	3	Ergonomics in the Product Design Process
ISE 5620	3	Risk Assessment Tools for Occupational Musculoskeletal Disorders
ISE 5640	3	Occupational Safety: Analysis and Design of Work Environments
ISE 5682.01	3	Fundamentals of Product Design Engineering
ISE 5683	1	Fundamentals of Product Design Engineering Laboratory
ISE 5705	3	Cognitive Engineering Systems: Distributed and Cooperative Work
ISE 5710	3	Behind Human Error: Safety and Complex Systems
ISE 5740	3	Cognitive Engineering Systems: Human-Centered Automation
ISE 5760	3	Visual Analytics and Sensemaking
ISE 5820	3	Systems Thinking in Engineering and Design
ISE 5870	3	Resilience Engineering

MINIMUM SIX HOURS FROM THE FOLLOWING ELECTIVES (6 hours)

- Any ISE technical elective from this track (*listed above*)
- Any ISE technical elective from another track
- Any outside approved elective (*listed on final page*)

Students who were admitted to OSU prior to Autumn 2015 should contact their Academic Advisor for information about their course requirements in this track.