



THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Introduction and Practical Experience in Ergonomics Research

ISE 5650

Credit Hours:

1.00 - 3.00

Course Levels:

Undergraduate (1000-5000 level)

Graduate

Course Components:

Lecture

Course Description:

To provide undergraduate students with the opportunity to engage in applied ergonomics research in a group setting. To provide graduate students the opportunity to engage with undergraduates in a mentoring and collaborative research setting.

Prerequisites and Co-requisites:

Pre-req: STAT 3470 or equivalent

co- or pre-req: ISE 3600 or 3700 or permission of instructor

Course Goals / Objectives:

- Understand the origins and importance of human subjects protection in research and the importance of responsible conduct of research.
 - Learn the value and how to perform a review of the literature
 - Learn about different types of research methods used in ergonomics/human factors research
 - Gain firsthand experience in study planning and design, data collection and analysis, for mixed methods research.
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Course Topics:

- Introduction – what is research?
 - Human subjects protection training and Responsible conduct of research training
 - What do we already know? Literature search/literature review – methods and tools
 - Study planning and design – methods, sample size, participant inclusion/exclusion criteria, data processing, data analysis
 - Learning through piloting
 - IRB application preparation
 - Data collection and analysis
 - Manuscript preparation
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Designation:

Elective