The mission of Integrative Systems + Design is to study and promote leadership in the design and creation of innovative products and systems. As a unit with a global focus in the College of Engineering, we develop and deliver programs that integrate multiple disciplines and are responsive to the needs of engineers, managers, and other professionals. Our students take courses on the Ann Arbor campus, online, and at off-campus locations around the world.
HUMAN FACTORS ENGINEERING SHORT COURSE

WHO SHOULD ATTEND
This course is intended for engineers, psychologists, medical professionals, managers, and others interested in human factors, ergonomics, human-computer interaction, or usability. Attendees typically work for industry, government, or the military.

Many participants are not human factors specialists, but mechanical engineers, electrical engineers, psychologists, and others for whom human use of systems is a concern.

PROGRAM LEADER
PAUL GREEN, Ph.D.
Research Professor, Transportation Research Institute and Adjunct Associate Professor, Department of Industrial and Operations Engineering, University of Michigan.
Email pagreen@umich.edu, telephone +1 (734) 763-3795.

2012 INSTRUCTORS (2013 to be announced soon)
MARK ACKERMAN, Ph.D.
Professor, School of Information, University of Michigan

DEBORAH BOEHM-DAVIS, Ph.D.
Professor of Psychology, George Mason University

BRUCE BRADTMILLER, Ph.D.
Owner and President, Anthrotech

NEIL CHARNESS, Ph.D.
Professor of Psychology, Florida State University

MICA ENDSLEY, Ph.D.
Associate Professor of Orthopaedic Surgery; Biomedical Engineering; Industrial and Operations Engineering, University of Michigan

CLAYTON LEWIS, Ph.D.
Professor of Computer Science, University of Colorado

MARK NEWMAN, Ph.D.
Assistant Professor, School of Information, University of Michigan

NADINE SARTER, Ph.D.
Associate Professor of Industrial and Operations Engineering, University of Michigan

DOUGLAS WIEGMANN, Ph.D.
Associate Professor of Industrial and Systems Engineering, University of Wisconsin

PROGRAM COMPONENTS

WEEK ONE of this intensive course is a broad survey of human factors topics important to designers and researchers.
- Introduction to human factors
- Advanced displays
- Anthropometry
- Cognitive task analysis
- Human error
- Human-system integration
- Human vision
- Manual task analysis
- Motor skills and manual controls
- Occupational biomechanics (two lectures)
- Perception, memory and cognition
- Situation awareness
- Visual displays
- Workload

WEEK TWO presents an overview of major topics and issues in human-computer interaction together with mini-workshops and seminars on selected principles, methods, and procedures providing the foundation for effective human-computer systems and web application design.
- Trends in human-computer interaction
- Automation
- Cognitive task analysis
- Computer-supported cooperative work
- Cost-benefit analysis
- Environmental Ergonomics
- GOMS task analysis
- How to apply human factors material
- Inclusive design
- Screen and widget design
- Software human factors
- Speech interfaces
- Usability testing
- User interface evaluation methods
- Web interface design

Small Group, Hands-on Design Experience
- Get an insider’s view of human factors—the major topics for design, evaluation and research that continue to be important; hot topics; and current recommendations for common design problems.
- Benefit from small group, hands-on experience in measuring human anthropometry, estimating task completion times, and using methods from human-computer interaction such as thinking aloud and heuristic evaluation.
- Select special topics of interest to you from 14 seminars and workshops. Example topics include: cognitive task analysis, occupational ergonomic methods, usability testing, root cause analysis, cognitive walkthroughs, and more.

$5,200* COVERS THE ENTIRE TEN-DAY PROGRAM
Week One ...........................................$3,125
Week Two ...........................................$3,125
Both Weeks* .......................................$5,200

Fees are subject to change. Check our current program fee schedule at isd.engin.umich.edu/HumanFactors.

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HOW TO REGISTER
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For further detailed course information, visit www.umich.edu/~driving/shortcourse/index.html

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- Transactional
- Manufacturing
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- Lean-Six Sigma Certification
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- Lean Product Development Certificate
- Lean Office Certificate
- Lean Healthcare Certificate
- Lean Supply Chain for Healthcare Certificate
- Lean Supply Chain & Warehouse Management Certificate
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- Hybrid and Electric Vehicles
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- Energy Systems Engineering [online]
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- Robotics and Autonomous Vehicles

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