

## WHAT PEOPLE ARE SAYING ABOUT U-M HUMAN FACTORS



*“The expert lecturers, organization, interactive nature, and demonstrations were most valuable.”*

*“Varied content, references, and new contacts reinforce similarities in Human Factors and Ergonomics principles through different industries.”*

*“Appreciated the level of expertise here – course was given by industry leaders and level of interaction was great, particularly for the BCPE exam.”*

*“The mix of workshops and seminars kept the material fresh and interesting.”*



## 5<sup>TH</sup> BEST ENGINEERING GRADUATE SCHOOL

2019 US News and World Report

## SHARPEN YOUR COMPETITIVE EDGE



### ONLINE PROGRAMS

Our online graduate degrees and certificate programs emphasize an interdisciplinary approach in order to create transformative thinkers and innovative leaders.



### PROFESSIONAL PROGRAMS

A leader in professional development for 80 years, Nexus offers a wide range of interdisciplinary short courses and noncredit certificate programs.



### PARTNERSHIP PROGRAMS

Existing programs can be customized for your organization, or we can co-design a new program to meet your organizational needs.

### WHO SHOULD ATTEND

This course is intended for those interested in human factors, usability, ergonomics, or human-computer interaction. Many participants are not human factors specialists, but mechanical engineers, electrical engineers, psychologists, and others for whom human use of systems is a concern. Attendees typically work for industry, government, or the military.

- Human Factors specialist
- Human Factors engineer
- Human factors psychologist
- Engineering psychologist
- Usability engineer
- User experience designer
- Usability analyst
- Ergonomist
- Ergonomics engineer
- Safety engineer
- Forensic expert
- Training needs analyst
- Systems/integration engineer
- Occupational therapist



### TAKE A CLOSER LOOK AT U-M HUMAN FACTORS

Watch a video about the program at: <http://youtu.be/IGOLPLYHk0w>

View photos of class sessions, group work, tours, and more from the past several years at: <http://goo.gl/xmVMIf>

## M COLLEGE OF ENGINEERING NEXUS UNIVERSITY OF MICHIGAN

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# M | NEXUS HUMAN FACTORS ENGINEERING



### DESIGNING SYSTEMS, PRODUCTS, AND SERVICES TO MAKE THEM EASIER, SAFER, AND MORE EFFECTIVE FOR HUMAN USE

Anywhere there is a person using a system product or service...

- Mobile Products
- Consumer Products
- Medical Devices
- Websites
- Military Systems
- Vehicles
- Heavy Equipment
- Office Applications

... there is a need for human factors engineering.

Learn more and register for courses at:

[NEXUS.ENGIN.UMICH.EDU/HUMANFACTORS](http://NEXUS.ENGIN.UMICH.EDU/HUMANFACTORS)



Crash test laboratory at the University of Michigan Transportation Research Institute.

## LEAD FACULTY

### PAUL GREEN, PH.D.

Research Professor, University of Michigan Transportation Research Institute and Adjunct Professor/Research Professor, Department of Industrial and Operations Engineering.



## INSTRUCTORS

### DEBORAH BOEHM-DAVIS, PH.D.

Professor of Psychology and Dean of the College of Humanities and Social Sciences, George Mason University

### BRUCE BRADTMILLER, PH.D.

Owner and President, Anthrotech

### NEIL CHARNESS, PH.D.

Professor of Psychology, Florida State University

### RICHARD HUGHES, PH.D.

Associate Professor of Orthopaedic Surgery; Biomedical Engineering; Industrial and Operations Engineering, University of Michigan

### RICHARD JAGACINSKI, PH.D.

Professor of Psychology, Ohio State University

### DEBRA JONES

Principal Research Associate, SA Technologies

### 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.

Professor of Industrial and Operations Engineering, University of Michigan

### F. JACOB SEAGULL, PH.D.

Associate Professor of Medicine, University of Michigan

### SHERYL ULIN

Ergonomics Research Program Officer, University of Michigan

### DOUGLAS WIEGMANN, PH.D.

Associate Professor of Industrial and Systems Engineering, University of Wisconsin

### KENTARO TOYAMA, PH.D.

W.K. Kellogg Associate Professor of Community Information, University of Michigan

## 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 (2 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
- Collaborative and Social Computing
- 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

For further detailed course information, visit [nexus.engin.umich.edu/HumanFactors](https://nexus.engin.umich.edu/HumanFactors)



## SMALL GROUP, HANDS-ON DESIGN EXPERIENCE

### LEARN FROM PEOPLE WHO WROTE THE BOOK

Work with 13 experts who literally wrote the premier books on Human Factors thinking. But far from just theory, they will give you concepts you can put to work right away.

### GET AN INSIDER'S VIEW OF HUMAN FACTORS

You will experience the major topics for design, evaluation, and research that continue to be important, along with current recommendations for common design problems.

### BENEFIT FROM SMALL GROUP, HANDS-ON EXPERIENCE

Learn how to measure human anthropometry, estimate task completion times, and use methods from human-computer interaction such as thinking aloud and heuristic evaluation, and that is just the beginning!

### SELECT SPECIAL TOPICS OF INTEREST TO YOU

Choose from 14 seminars and workshops. Example topics include: Cognitive task analysis, occupational ergonomic methods, usability testing, root cause analysis, cognitive walkthroughs, and more.

## READY TO LEARN MORE OR REGISTER?

Visit our Human Factors program web page at

**[NEXUS.ENGIN.UMICH.EDU/HUMANFACTORS](https://NEXUS.ENGIN.UMICH.EDU/HUMANFACTORS)**

or send an email to [nexus-answers@umich.edu](mailto:nexus-answers@umich.edu) or call 734.647.7200

### GOBLUE DISCOUNTS

Group Level 1	Enroll 3-4 participants in one course offering	5%
Group Level 2	Enroll 5+ participants in one course offering	10%
Government	Current employees with .gov email (not applicable to government contractors)	10%
Military	Active duty personnel, reservists, retired or disabled veterans	10%
Students	Currently enrolled student from any university; please send photo of stamped student ID	10%
U-M Alumni	U-M alumni from any school or department; please provide uniqrname	15%

