APPLIED COGNITIVE SCIENCE AND HUMAN FACTORS (MS, PHD)

INTERDISCIPLINARY PROGRAM
Michigan Tech offers MS and PhD degrees in Applied Cognitive Science and Human Factors (ACSHF) with expertise in the areas of cognitive engineering and decision making, individual differences in human performance, physical ergonomics, human-centered design, and educational technology. This interdisciplinary program, offered by the Department of Cognitive and Learning Sciences, integrates the knowledge of psychologists, engineers, computer scientists, and usability specialists in an effort to optimize the performance, health, and safety of human-technological systems.

These research-intensive programs provide a strong scientific foundation in cognitive science and human factors, with an emphasis on bridging applied and basic approaches to research. Human factors is a scientific discipline concerned with understanding the abilities, characteristics, needs, and limitations of human beings and their influence on interactions with sociotechnical systems. Applied cognitive science is the interdisciplinary study of how to improve information processing in minds and machines. The goal of this program is to develop scholars and practitioners capable of improving the performance of sociotechnical systems through instructional and technological design.

STATE-OF-THE-ART FACILITIES
The ACSHF graduate program boasts a suite of laboratories containing a usability suite, video-based simulation system, driving simulator, eye-movement and motion tracking systems, as well as physiological measurement equipment that supports academic and research development. The J. Robert Van Pelt and John and Ruanne Opie Library currently subscribes to twenty-three journals that are core to this program.

CUTTING-EDGE RESEARCH
Current research projects include work in cognitive modeling; cognitive systems engineering; decision making; decision support technology; driving simulation (pictured above); and eye-tracking (pictured on back with Paul Ward and Joel Suss, cognitive learning and science). Research also focuses on human-centered design; human performance; human-system interaction; knowledge elicitation; individual differences; performance assessment; psychosocial risk factors; risk and human error; STEM education; systems safety engineering; applied ethics; attention; usability; stress, workload, and fatigue. Affiliated faculty work in the Departments of Computer Science, Civil and Environmental Engineering, Electrical and Computer Engineering, Humanities, Kinesiology and Integrative Physiology, and Mechanical Engineering, and have expertise in human-computer interaction simulations, robotics, biomechanics, and work physiology.

To learn more, visit www.mtu.edu/cls/applied/overview/programs.

FACULTY SPOTLIGHT
“One thing that makes our program special is the people. Our faculty and graduates are a group of bold researchers, trained in diverse disciplines, coming together from all corners of the world with a common mission. Together, we are creating a more efficient, user-friendly future.”

Edward Cokely, Associate Professor of Psychology, Director of the Decision Science and Decision Engineering Lab

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Applying is easy—and free!

www.mtu.edu/gradschool/admissions/apply

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ADMISSION REQUIREMENTS
Application deadline: Apply by December 1 for full funding consideration for the fall semester. Applications are reviewed on an individual basis using a holistic approach.

All Students
• Graduate School application
• Statement of purpose
• Official transcripts
• GRE: Recommended Quantitative Score of 153, Verbal Score of 151 and Analytical Writing Score of 4.0 or better
• Three letters of recommendation
• Résumé/cvriculum vitae
• Recommended GPA of 3.5/4.0 or better

International Students
• TOEFL: Recommended score of 90 iBT

FINANCE YOUR FUTURE
Earning your graduate degree is an investment in your career and your future. Here are a few financial aid opportunities you can explore as you look for ways to pay for your degree.
• Graduate teaching assistantships (GTAs) and graduate research assistantships (GRAs) are available to qualified applicants. All students admitted to the Graduate School are considered for these awards.
• Many graduate students are eligible for a new set of federal loans, up to $20,500 per academic year, as an independent student.
• Contact Michigan Tech’s Financial Aid Office at 906-487-2622 or finaid@mtu.edu for more information on financial aid opportunities.

ABOUT MICHIGAN TECH
Michigan Technological University, founded in 1885, has gained worldwide recognition for innovative education and scholarship. Michigan Tech is a leading public research university, exploring the boundaries of knowledge, developing new technologies, and preparing students to create the future for a prosperous and sustainable world. Michigan Tech offers more than seventy graduate degree programs in engineering, forestry and environmental sciences, computing, business and economics, natural and physical sciences, technology, humanities, and social sciences.

ABOUT HOUGHTON
Houghton lies in the heart of Upper Michigan’s scenic Keweenaw Peninsula. The campus overlooks the Keweenaw Waterway and is just a few miles from Lake Superior. The area’s waters and forests, including our 600-acre recreational forest adjoining campus, offer students unparalleled opportunity for outdoor recreation and relaxation. The University’s 7,000 students come from all fifty states and more than sixty nations, making the area a vibrant, multicultural community.