



# The Midwest Center for Occupational Health and Safety

MIDWEST CENTER FOR OCCUPATIONAL HEALTH AND SAFETY (MCOHS) EDUCATION AND RESEARCH CENTER (ERC)  
UNIVERSITY OF MINNESOTA – MINNEAPOLIS, MINNESOTA



## GRADUATE EDUCATION OPPORTUNITIES

The mission of the Midwest Center for Occupational Health and Safety (MCOHS) Education and Research Center (ERC), as a center of excellence, is to provide: 1) cutting-edge interdisciplinary academic and research training to prepare exceptional leaders in occupational health and safety, and (2) continuing education (CE) to prepare professionals to address current and emerging threats to the nation's workforce. This ERC, one of 18 nationwide, was designed in response to a mandate of the National Institute for Occupational Safety and Health (NIOSH) -- to provide highly qualified personnel to carry out the purposes of the Occupational Health and Safety Act and reduce the national burden of work-related injury and illness. The MCOHS ERC (<http://www.mcohs.umn.edu>) recognized regionally, nationally, and internationally for its impact, has a service area that includes Minnesota, Wisconsin, and North and South Dakota. This major Center provides graduate degree programs, continuing education and outreach activities, and serves as a regional resource for industry, labor, federal, state, and local government agencies, agriculture, and other interested parties.

The primary facilities for training are the University of Minnesota, School of Public Health (SPH), Division of Environmental Health Sciences, Regions Hospital and HealthPartners Medical Group, and the Department of Occupational and Environmental Medicine, which is affiliated with the University of Minnesota's School of Medicine, Division of Pulmonary Medicine. Several major centers and other resources provide unique opportunities for MCOHS ERC students, faculty, staff, and regional partners. These include the: Minnesota Department of Health; Minnesota Department of Labor and Industry; the University of Minnesota: Regional Injury Prevention Research Center; Center for Violence Prevention and Control; Intelligent Transportation Systems (ITS) Institute, a National University Transportation Center; Upper Midwest Agricultural Safety and Health Center; Masonic Cancer Center; and Centers for Public Health Education and Outreach. University of Minnesota Laboratories include the: Industrial Hygiene Laboratories; Toxicology Laboratory; Veterinary Diagnostic Laboratory; and Human Factors Interdisciplinary Research in Simulation and Transportation Laboratory. The SPH is fully accredited by the Council on Education for Public Health. Clinical rotations and internship opportunities occur at additional sites, including local industry, health clinics, and government agencies.

The MCOHS ERC provides excellence in graduate and continuing professional education in occupational safety and health and incorporates novel distance learning technologies to serve the needs of a diverse national workforce. An innovative administrative structure supports comprehensive efforts in interdisciplinary research, education, and outreach, and strengthens diversity recruitment for the next generation of professionals. Ongoing evaluation and enrichment of strategic planning efforts further strengthen this Center to enable vital contributions that positively impact the safety and health of the nation's workforce.

***Graduates are prepared to assume positions in various institutions including academic and research institutions, government facilities, corporate and industrial settings, health agencies, and health care facilities, among others. Tuition and stipends are available to eligible applicants.***

# ACADEMIC TRAINING PROGRAMS

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## Industrial Hygiene

**Degrees offered:** MS, MPH, PhD

The Industrial Hygiene (IH) program is concerned with the health and safety of people at work, and of the community at large. Specific concerns are with the recognition, evaluation and control of potential workplace hazards, including chemical, physical and biological agents; and the potential health threats posed by workplaces to the community and the environment. Academic coursework is combined with a field experience and a final project. Required courses such as applications of industrial hygiene, measurement and properties of air contaminants, human exposure science, environmental measurements, exposure to physical agents, and control of workplace exposures are balanced by a wide range of elective offerings. IH program faculty are experienced and highly qualified, and they have strong connections with industrial hygiene researchers and practitioners locally and nationwide. Students can participate in hands-on projects funded by companies and trade groups through the Exposure Science and Sustainability Institute (ESSI). The IH program is accredited by ABET. Employers of our recent alumni include 3M, Intel, Caterpillar, Ecolab, the U.S. Navy, the Minnesota Department of Health, Metropolitan Council Environmental Services, Environmental Resources Management (ERM), Western Kentucky University, Drexel University, Keimyung University, and the University of Minnesota.

**Academic Program Director:** Peter Raynor, PhD, Professor

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## Occupational and Environmental Medicine

**Degrees offered:** MPH, board eligibility in Occupational Medicine

The first year of this post-graduate medical training program includes academic experience leading to the MPH degree as well as opportunities for participation in clinically-oriented conferences, grand rounds, and didactic conferences through the Department of Occupational and Environmental Medicine, Regions Hospital. The second year is comprised of clinical rotations in occupational medicine in hospital/clinical settings and industrial locations. Elective periods may be spent on special projects in a variety of state and federal occupational and environmental health agencies. Experience in occupational medicine research is also included. Residents completing the program will be board-eligible in Occupational Medicine. Positions acquired by graduates include: Epidemic Intelligence Service Officer (National Institute for Occupational Safety and Health); Research Director (Regions Hospital); Medical Officer (Agency of Toxic Substances and Disease Registry); and Staff Physician in Occupational Health (Veterans' Administration Medical Center).

**Academic Program Director:** Steven R. Kirkhorn, MD, MPH, Associate Professor

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**Clinical Program Director:** Ralph S. Bovard, MD, MPH, Assistant Professor

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## Occupational and Environmental Health Nursing

**Degrees offered:** MPH, PhD

Occupational and Environmental Health Nurses (OEHN) address the health and safety of people at work, their families, and the broader community. Our academic program prepares OEHNs to develop, manage, and evaluate health services, programs, and policies designed to promote population health and prevent work-related injuries and disease. This program provides a rich learning environment for students that includes classes, seminars, field work and research experiences that are tightly woven into the curriculum. The academic program has a strong emphasis on mentoring students and promoting interaction with alumni and program board members. Two degree options exist for study: The PhD program is for students interested in a career of research and teaching, and the Master of Public Health (MPH) degree emphasizes program management. The core curriculum includes course work in public health and occupational health sciences, research methods and statistics, management and occupational and environmental health nursing. Students obtain field experience in occupational and public health settings with experienced mentors. Positions acquired by graduates include: Assistant and Associate Professors (University of Minnesota, Kent State University, St. Catherine's University); Occupational Health Manager (3M); Employee / Occupational Health Manager (Hennepin County Medical Center); Nurse Practitioner (United Health Care); Regional Safety Manager (Pillsbury Company); Director of Continuing Education (Midwest Center for Occupational Health and Safety); and School and Environmental Health Nurse (Minneapolis Public Schools).

**Academic Program Director:** Patricia M. McGovern, PhD, MPH, RN, Professor

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## Occupational Injury Prevention Research Training Program

**Degree offered:** PhD

The Occupational Injury Prevention Research Training Program (OIPRTP) is designed to train doctoral-level occupational injury prevention researchers and educators to address a variety of occupational injury problems, scientifically. This program addresses the serious deficiencies identified by the Institute of Medicine by providing academic and research training in occupational injury and epidemiology and occupational safety engineering and science.

The OIPRTP builds on extensive high quality training and research experiences that have achieved national and international recognition and prepares graduates for a variety of positions in academic and other research settings, including corporations, state or federal agencies, and health care settings. Positions initially acquired by graduates, in national and international locations, include: Safety Investigator in Chronic Disease and Environmental Epidemiology; Assistant Professor, Department of Medicine and Coordinator, Polytrauma and Blast-Related Injuries QUERI, Veterans' Administration Medical Center; Research Project Director; Head - Epidemiology (Dow Corning Corporation); Research/Safety Engineering Manager, Technology Laboratory (Nike); State Program Administrative Principal, Injury/Illness Data Analyst; Post-Doctoral Fellow, Environmental and Occupational Health Sciences; Associate Professor, College of Public Health, Occupational Safety and Health; Consultant, Injury/Occupational Injury Prevention; Epidemiologist III – Lead Epidemiologist, State Health Department; Fellowship, National Institute for Occupational Safety and Health, Center for Workers' Compensation Studies.

**Academic Program Director:** *Susan Goodwin Gerberich, PhD, MSPH, Mayo Professor in Public Health and Leon S. Robertson Professor in Injury Prevention*

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**Academic Program Co-Director:** *Marizen Ramirez, PhD, MPH, Associate Professor*

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## Occupational Health Services Research and Policy

**Degrees offered:** PhD

The Division of Environmental Health Sciences (EnHS) and the Division of Health Policy Management (HPM) in the School of Public Health have established a unique, collaborative doctoral-level education program in occupational health services research and policy. Through interdisciplinary coursework, seminars, and research training students acquire the capacity to design and conduct original research addressing issues of access, cost and quality of health care services and health outcomes for workers and their families, which will help meet the demand for more rigorous evaluation of occupational health and safety policies and programs. The program builds on existing doctoral programs offered by both divisions. Students may enter through either division. All students take a rigorous program in research design, statistics, sampling, survey methodology, econometrics, health economics, occupational and environmental epidemiology and toxicology, exposure assessment and policy. Graduates of the program will be the future experts and leaders in the emerging field of occupational health services research working in academia, governmental agencies, industries and health plans. Positions acquired by graduates include: Senior Analyst (Abt Associates); Health Catalyst (Allina Health); Epidemiologist (Center for Occupational Health and Safety, Minnesota Department of Health); Health Research Scientist / Coordinator for Research (Veterans' Health Administration), and Assistant Professor (University of Texas Health Sciences Center, San Antonio).

**Academic Program Director:** *Patricia M. McGovern, PhD, RN, Professor*

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**Academic Program Co Director:** *Bryan Dowd, PhD, Professor*

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## Occupational and Environmental Epidemiology

Degrees offered: MPH, PhD

This training program draws on the strengths of two divisions in the School of Public Health: Environmental Health Sciences (EnHS) and Epidemiology and Community Health (EpiCH). Doctoral students are admitted from either division and MPH students will be admitted from EnHS. This program offers rigorous training in epidemiologic methods applied to occupational and environmental health problems and incorporates state-of-the-art methods in an interdisciplinary training environment. The program draws on the resources from faculty in both divisions with expertise in epidemiologic methods, exposure assessment, and epidemiology of cancer, cardiovascular diseases, reproductive health, infectious diseases, and respiratory health. In addition to training doctoral students, this program will support MPH students interested in integrating occupational epidemiology in environmental health sciences with specific emphasis on infectious diseases and food systems. Graduates of the program have obtained positions in academia, research organizations, and public health departments.

**Academic Program - Director:** Bruce H. Alexander, PhD, Professor

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## CONTINUING EDUCATION PROGRAM

### Continuing Education in Occupational Health and Safety

This program provides comprehensive professional continuing education in occupational and environmental medicine, industrial hygiene, safety/injury prevention, occupational and environmental health nursing, and management of hazardous substances in occupational environments. Courses range from short updates to five-day certificate-based trainings. The program is affiliated with the National Institute for Occupational Safety and Health, the Occupational Safety and Health Administration, the National Institute of Environmental Health Sciences, and the US Environmental Protection Agency, and draws on expertise from professionals in academia, government, labor, and business.

**Program Director:** Julie Alcorn-Webb, MA, BA, RN

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