

Shannon E. Newton

PROFESSION: Certified Industrial Hygienist

EDUCATION:

MPH Environmental and Occupational Health
University of Arizona, May 2005

B.S. Environmental Engineering
United States Air Force Academy, May 1995

PROFESSIONAL EXPERIENCE:

Senior Lecturer

Coordinator, NIOSH Training Project Grant – Industrial Hygiene

University of Arizona; Mel and Enid Zuckerman College of Public Health

December 2022 – Present

- Instructor for industrial hygiene track courses including EHS 510 *Physical Exposures*, EHS 502 *Environmental Monitoring* (co-teach), EHS 655 *Occupational Exposures* and EOH Core Course EHS 653 *Applied Exposure Assessment*.
- Authored successful general education application for MEZCOPH EHS 100 *One Health in Action* course for UA general catalog inclusion in the category of natural scientist perspective with quantitative reasoning attribute.
- Coordinated NIOSH TPG grant including preparing research progress reports, annual reports, and performance tables. Facilitated the appointment of students in graduate level industrial hygiene for grant stipend and tuition support. Managed budget ensuring support to trainees and alignment with Ruth Kirschstein training grant parameters. Provided mentorship to student trainees ensuring student-centered support for their independent student needs.
- Submitted a successful application to the Board of Certified Safety Professionals (BCSP) for the MEZCOPH MPH Occupational and Environmental Health – Industrial Hygiene track to be considered a Qualified Academic Program (QAP). Provided documentation for domain alignment of the curriculum with the Associate Safety Professional examination blueprint. This designation allows graduates of the MPH EOH-IH track to apply for and obtain the professional designation of Graduate Safety Professional (GSP) upon completion of the MPH, adding value to our program.
- Created a pilot program escape room for outreach and recruitment of high school students to the field of occupational safety and health. Tested the escape room concept with two summer high school student groups at the UA campus: Southwest Environmental Health Sciences Center (SWEHSC) Steps 2 STEM and Environmental Science and Risk Assessment Center (ESRAC) Young Global Leader's programs.
- Coauthored Provosts Investment Fund (PIF) proposal expanding the pilot escape room concept to a virtual platform that could be accessed by high school students in the southwest.

Student Advising:

- Internship Committee Chairman for MPH, EOH-IH student, Jersey Orias (Summer 2023 – Present).
- Faculty advisor for MPH, EOH-IH student, Athira Satheesh (Fall 2023 - Present).
- Faculty advisor for MPH, EOH-IH student, Farhad Wardak (February 2024 - Present).
- Ph.D. Committee Faculty Member for Ph.D. EHS student, Andrew Stafford (Spring 2024 - Present).

Adjunct Lecturer

University of Arizona; Mel and Enid Zuckerman College of Public Health

Fall Semester 2021 – Spring Semester 2022

- Fall Semester 2021 – Instructor for EHS 484/584 *Fundamentals of Industrial and Environmental Health* (3 Units).
- Spring Semester 2022 – Instructor for EHS 655 *Control of Occupational Exposures* (3 Units)

Program Manager for Mining Research

University of Arizona; Mel and Enid Zuckerman College of Public Health

January 2011 – May 2012

- Responsible for industrial hygiene and occupational health research design, sample collection and management, data analysis, and technical writing related to the Institute for Mineral Resources and Mel and Enid Zuckerman College of Public Health collaborative mining research projects under the Science Foundation of Arizona funding source.
- Revised occupational health and industrial hygiene design elements for a Biodiesel Exhaust Health Effects study. Collected preliminary data in support of the successful resubmission of an RO1 application to NIOSH. The RO1 application was awarded to the Mel and Enid Zuckerman College of Public Health.
- Created Mining Safety and Health web page - actively integrated University of Arizona Institute for Mineral Resource collaborative partner information in support of the NIOSH Western Mining Health and Safety Training Grant.
- Drafted Mining Hazardous Noise and Firefighter Overhaul concept papers for submission under NIOSH Broad Agency Announcements.

General Manager, Certified Industrial Hygienist Health Effects Group, Inc.

April 2002 – January 2011

- Served as General Manager for the Health Effects Group, Inc. directing all aspects of industrial hygiene and environmental monitoring.
- Evaluated and designed industrial hygiene sampling strategies for microbial indoor air quality investigations at over 700 schools, commercial buildings, and residential dwellings.
- Designed respiratory protection programs for local industrial facilities to include program management plans and personal fit testing of workers.
- Designed and implemented preventive indoor air quality surveillance program for Arizona schools.
- Provided chemical hazard monitoring for large medical center in Tucson, Arizona – defined exposures to formaldehyde and sevofluorane recommended and evaluated control ventilation.
- Provided consulting services to school insurers regarding fiberglass contamination monitoring, remedial cleaning recommendations, met with concerned parents, provided media interview.
- Provided monitoring for asbestos for 250+ school districts supported by the Arizona School Risk Retention Trust (ASRRT). Ensured NESHAP compliance for renovation and demolition projects.

Certified Industrial Hygienist

Envronomics Southwest, LLC, 2000 – 2002

August 2000 – April 2002

- Designed, directed, and implemented the industrial hygiene sampling strategy for indoor air quality microbial investigations in over 1,000 commercial buildings, hospitals, schools, and residential dwellings.
- Designed operating procedures for an industrial manufacturer—deliverables described appropriate work practices, required protective equipment, and toxicological information for the disturbance of mercury-contaminated soil.
- Developed a microbial remediation pamphlet for contractors, which describes acceptable techniques for the removal and treatment of fungi-contaminated building materials in indoor environments.

Director, Bioenvironmental Engineering Section

Peterson Air Force Base, Colorado

August 1998 – August 2000

- Directed industrial hygiene, radiation safety, and environmental sampling and analysis services for three Air Force installations and over 30 geographically separated units in Air Force Space Command. Supervised an office of 18.
- Drafted disaster response plans for Air Force installations detailing emergency response actions to natural disasters, aircraft mishaps, chemical spills, and terrorist attacks by chemical, biological or radiological contaminants.
- Directed industrial hygiene, environmental sampling and analysis, and radiation safety support in the absence of three additional engineers—these efforts resulted in zero compliance findings and an 80% increase in productivity.
- Designed and implemented an environmental air quality study at Eskan Village, Kingdom of Saudi Arabia to quantify the risk to United States Air Force personnel deployed at air bases in Southwest Asia—results of the study were reported to the Under Secretary of Defense for Gulf War Illness.

Bioenvironmental Engineer, United States Air Force 1995 – 2000

Director, Occupational Health and Industrial Hygiene

Holloman Air Force Base, New Mexico

June 1995 – August 1998

- Managed all aspects of industrial hygiene services at USAF installation serving a worker population of 4,600 including 119 industrial workplaces. Supervised occupational health activities in an office of six technicians.
- Supervised the compliance of nine regulatory programs including ventilation control systems, evaluation of chemical and physical hazards, respiratory protection, ergonomics, protective equipment selection, and hazard communication.
- Provided visionary leadership during reorganization of occupational health program and industrial hygiene sampling strategy; transformed failing program into outstanding regulatory condition in less than 14 months.

PROFESSIONAL HONORS:

Delta Omega Honorary Public Health Society, 2005

U.S. Air Force Academy Command Bioenvironmental Engineer of the Year, 1999

Air Combat Command Bioenvironmental Engineer of the Year, 1996

PROFESSIONAL CERTIFICATION:

Certified Industrial Hygienist, Comprehensive Practice, 2000-Present

Board of Global Credentialing (BGC) formerly American Board of Industrial Hygiene (ABIH)

Certificate Number: CP8000

PROFESSIONAL AFFILIATIONS:

American Industrial Hygiene Association, Diplomat

American Industrial Hygiene Association, Local Chapter

American Conference of Governmental Industrial Hygienists

PROFESSIONAL SERVICE:

Guest Lecturer: University of Arizona, Mel and Enid Zuckerman College of Public Health

- 2015: Guest Lectures CPH 457/557 *Food We Eat, Drugs We Take, How We Work and Play* – The US Regulatory Agencies – Lecture Topic: Food and Drug Administration, Zika Exercise/Paper

- 2016: Guest Lecturers CPH 484/584 *Fundamentals of Industrial Hygiene and Environmental Health* – Lecture Topics: Dermal Exposures, Hazardous Noise, and Toxicology
- 2017: Guest Lecturers CPH 484/584 *Fundamentals of Industrial Hygiene and Environmental Health* – Lecture Topics: Dermal Exposures, Hazardous Noise, and Toxicology
- 2018: Guest Lecturers EHS 484/584 *Fundamentals of Industrial Hygiene and Environmental Health* – Lecture Topics: Dermal Exposures, Hazardous Noise, and Toxicology/Multi-Media Exposures
- 2019: Guest Lecturers EHS 510 *Physical Exposures* – Lecturer Topics: Introduction to Physical Exposures, Non-Ionizing Exposures, Thermal Stress and
EHS 484/584 *Fundamentals of Industrial Hygiene and Environmental Health* – Lecture Topics: Dermal Exposures, Hazardous Noise, and Toxicology/Multi-Media Exposures

COMMUNITY SERVICE:

- 2017 – 2023 Sunset Acres II Homeowners Association Officer (Treasurer 2017, President 2018-2021, and Secretary 2022-2023)
- 2011 – 2023 Sonoran Science Academy Science Fair Judge and Volunteer.
- 2015 – Present. Sanctuary United Methodist Church, Vacation Bible Study Volunteer. Decorations Committee and Science Room Teacher.