
Annual Progress Report

TPG Summary

1. Program Description

Millersville University (MU) offers an undergraduate degree program in Occupational Safety & Environmental Health (OSEH). The OSEH program is one of only three schools in the nation that offers a degree that is accredited by the Accreditation Board for Engineering and Technology (ABET) under the Environmental, Health, and Safety Criteria. Historically, the OSEH program at Millersville University has provided a strong educational experience that prepares graduates for entry-level positions in safety and health or to pursue graduate degrees in specialized areas within Safety and Environmental Health.

The Occupational Safety & Environmental Health (OSEH) program is designed for people interested in professions in the safety and health fields. The general education courses are used to develop basic science knowledge, while the major courses focus on the application of science and mathematics in the technical and managerial aspects of safety and health. Objectives of the program include:

- Prepare students to enter the occupational safety and environmental health profession as a generalist with skills necessary to begin a successful career.
- Encourage interest in continued professional development through formal graduate study and through other professional development courses and programs.
- Provide fundamental education necessary for success on the Board of Safety Professionals' Safety Fundamentals Exam (ASP).
- Provide a solid educational foundation on which the graduate can build a career in an OSEH area, as well as develop a multitude of scientific, social, and culturally based pursuits.
- Prepare students to function within multidisciplinary teams.
- Provide information, knowledge, and training that can lead to safer and healthier work environments throughout the region.

In addition to overall program objectives, each course within the OSEH curriculum has a well-defined set of objectives specific to that course. Meeting the objectives of each course establishes the educational foundation necessary to support the overall program goals.

ABET Accreditation and The Board of Certified Safety Practitioner's (BCSP) Program:

ABET accreditation allows the OSEH program to participate in the Graduate Safety Practitioner (GSP) designation program offered by the Board of Certified Safety Professionals (BCSP) to ABET-accredited safety programs. All graduates of the OSEH program received the GSP designation. This designation is equivalent to the Associate Safety Professional (ASP) that is received upon successfully passing the Safety Fundamental Exam (ASP) portion of the BCSP certification process. Feedback from industry supervisors during the internship and cooperative education experiences continues to be very positive and highly complimentary with respect to students' preparation.

Main Goals of the Training Program Grant:

The main goals of the Training Program Grant (TPG) were to (1) provide financial assistance to students in the OSEH program. This being a key factor in attracting outstanding academic candidates, (2) Help in retaining those students through completion of the program, (3) attract and retain qualified minority students, (4) permit expansion of the undergraduate program course offerings and Continuing Education Courses and Programs, and (5) supplement student and faculty travel to professional conferences identified by NIOSH as essential to program objectives.

Over the last funding period, the TPG was been used to supplement student and staff travel to professional development conferences and to also support continuing education of full-time OSEH faculty. Continuing education opportunities are an important part of remaining up to date with current trends in safety and health, maintaining and improving current skills, and continuing to develop the professionalism necessary to properly train future safety and health professionals.

Key Personnel:

- Jack Ogutu, Ph.D., Program Coordinator
- Mehdi Khalighi, Ph.D., MPH, Tenure-Track Faculty
- **Betty-Jo Legutko, Ph.D., Tenure-Track Faculty (New hire)**
- Len Litowitz, PhD., Department Chair
- Kenneth Delucca, PhD., Internship Supervisor
- Amy Fasano, MPH, Adjunct Instructor
- Julie Keich, M.S., CSP, Adjunct Instructor
- Edward Krow, M.S., Adjunct Instructor
- Jeff Hannis, M.S., Adjunct Instructor

2. Program Highlights

The OSEH program continues to successfully prepare students to enter the EHS profession. Placement of graduates into jobs or graduate programs following graduation is approximately 95 percent. The program continues to experience an increase in enrollment of underrepresented minority students. In the last 2 years alone the program has experienced ~ 20% increase in its student population. The current enrollment stands at 140 Out of this, ~ 9 % students are minority students (*approximately 13 students who identify as minority are enrolled in the program*).

Over the past budget year, funds from the TPG have helped provide financial assistance to 12 students working towards a B.S. degree in OSEH in tuition and fees assistance.

Over the past budget year, the NIOSH grantees accomplished the following:

- **Undergraduate student research**

Four OSEH students are working on a research project to determine the effectiveness of a new harness design in preventing suspension trauma. Tuition support is being provided for one of the students through the NIOSH grant. We will support the students to travel the ASSE conference to present their findings. Their research is entitled: *“Suspension Trauma: Differences in health risks between workers hanging from the dorsal attachment versus hanging from the waist”*

Two students from our program presented their research at the ASSE Professional Development Conference in Denver, Colorado. Travel to the conference was supported by the NIOSH grant.

- Waugh, R. and **Ogutu, J.** (June, 2017). Ergonomics Assessment of the Molding Process at DSM Biomedical. American Society of Safety Engineers, Professional Development Conference. **Denver, CO.**
- Belew, J and **Ogutu, J.** (June, 2017). A Comparative Analysis of Ergonomics Assessment Tools in Assessing Risks of Musculoskeletal Disorders. American Society of Safety Engineers, Professional Development Conference. **Denver, CO.**

- **Providing Safety Training & Consulting Services to Local Companies**

Trainings:

Dr. Betty-Jo Legutko and Dr. Jack Ogutu conducted training on *“Enhancing Safety Culture”* at the General Dynamics Safety Symposium, Red Lion, PA. The training was attended by General Dynamic’s safety managers from six different locations across the United States.

In the spring of 2017, I was among the first group of faculty members to be involved with the Millersville University-Corporate University. I was contracted to provide training in ergonomics to members of the Lancaster Chamber of Commerce.

Industry Engagement:

In the past year I have had the opportunity to be involved in a few consulting assignments. The first project was an Environmental Health & Safety gap analysis that we did for Landis Retirement Homes. The second project is ongoing; I am working with my students to conduct ergonomics assessments for Jack Williams Tire at their three locations: one in Moosic, PA, and two in Camp Hill, PA.

- **Continuing Education**

Continuing education for the full time OSEH faculty is an important part of remaining up-to-date with current trends in safety and health, maintaining and improving current skills, and continuing to develop the professionalism necessary to properly train future safety and health professionals. During this funding period, program faculty and students plan to attend the following conferences and professional development events:

- ASSE PDC in Denver, Colorado, from June 19 – 22, 2017
- AIHA Conference in Seattle, Washington, from June, 4 – 7, 2017
- CPSA – AIHA – ASSE 2017 PDC in State College, PA. April 5 -6, 2017
- Eight students were partially funded (travel and accommodation) to attend the ASSE PDC in Denver, Colorado from June 19 – 22, 2017.

3. Future Plans

In addition to continuing to meet the overall program goals and objectives outlined above, during the next budget period, the program intends to complete the following major activities:

- Complete the revisions to the current courses in the curriculum. The goal of this process is to ensure that the most recent course content is included and that redundancies between courses are minimized. In combination with the activities of the advisory board, this will help to ensure that the OSEH program continues to develop outstanding graduates.
- Encourage undergraduate student research. The goal is to ensure that more students are engaging in research activities related to occupational safety and health. Student engagement in research will help prepare those who are interested in pursuing further studies in EHS.

4. Publications

- Bennett, M. & **Ogutu, J.** Chapter Title: “ Risk Management Teams”, Book Title: ASSE Leadership and Development, **2016**. Editors; Olawoyin, R. and Hill, D.
- Olawoyin, R., McGlothlin, C., Conserve, D., and **Ogutu, J.** Environmental Health Risk Perception of Hydraulic Fracturing in the US. *Cogent Environmental Science 2: 1209994 (2016)*.