

**University of North Alabama****Industrial Hygiene Program****TPG Annual Report****TPG Summary and Relevance**

The Industrial Hygiene (IH) Program at the University of North Alabama (UNA) offers the degree of Bachelor of Science or Bachelor of Arts with a double major in IH and general chemistry. The UNA IH Program is one of four baccalaureate programs in IH accredited by the Applied Science Accreditation Commission (ASAC) of ABET in the U.S. The program has earned a reputation for graduating a pool of qualified industrial hygienists who are providing valuable services to workers and employers in this geographical region and beyond. During this cycle, the objectives of the NIOSH-TPG were threefold: (i) support the efforts of continuous academic improvement; (ii) promote recruitment of qualified students into the occupational health and safety (OH&S) field; and (iii) expand the educational opportunities and services of the IH Program.

Enrollment in the program is at an all-time high with a trend upward in the last five-year cycle (6% average annual increase). Fifty-five IH students were enrolled in the academic program in the fall semester of 2016 and fifty-one in the spring semester of 2017. One student graduated in the fall semester of 2016 and eleven in the spring semester of 2017. Eight graduates are currently employed practicing in the field of OH&S, one graduate is employed as a laboratory chemist, one graduate is enrolled in seminary school, and two graduates are currently seeking full-time employment. The UNA NIOSH TPG funds a number of academic scholarships that offset, partially, the cost of tuition fees. Eight scholarships were awarded in the fall 2016 and spring 2017 semesters. Program recruitment efforts have been directed to the campus community and high schools of the region.

**Key Personnel and TPG Website**

The description of the UNA IH Program, objectives and outcomes can be found at the UNA Chemistry and Industrial Hygiene Department (<https://www.una.edu/chem-ih/majors-options-and-minor/industrial-hygiene.html>). The principal investigator, Leshan J. Kimbrough, Ph.D., CIH, CSP, can be reached at [lkimbrough2@una.edu](mailto:lkimbrough2@una.edu) or (256) 765-4652.

**Program Highlights of High Impact Outcomes**

In the last five years, the average enrollment of the UNA IH Program has been of 52 students per semester with a range of 40 to 63 students. An important contributor to IH recruitment is the scholarship program created with funding from the NIOSH TPG. These NIOSH scholarships have proven critical in recruiting and retaining of high-caliber students, particularly those with

good scholastic merits who are competitively recruited by other academic institutions and by other majors. Graduates have been successful obtaining employment, receiving job offers before or soon after graduation. A diverse group of companies have offered employment to this academic year's graduates. These companies are: KBRWyle, a subcontractor for NASA, Saint-Gobain, G&G Steel, Hexcel, Tiffin Motor Homes, Brose, Vulcan Materials, and Contractor Service & Fabrication, Inc. Opportunities for pre-professionals internships have also been abundant and varied. Eleven junior/senior students completed internships during the 2016-2017 academic year in companies representing the manufacturing, service, and research and government sectors.

The IH Program received ABET accreditation in 2003 and was re-accredited in 2009. An evaluation for re-accreditation was completed in 2014-2015. The program successfully continued its accreditation through September 30, 2021, after submission of an interim report documenting additional assessment of a learning outcome deemed by the evaluation to be incomplete (submitted June 2016). The main corrective measures adopted as a result of final statement of accreditation involved the improvement of an assessment tool to evaluate ABET Student Outcome (d), "an ability to function on multidisciplinary teams". Formerly, this outcome was assessed by a survey question sent to former students with one to three years of professional practice in OH&S. To further improve this assessment method, student's performance in multidisciplinary teams is now assessed during course activities as well as internship experiences.

UNA continues to add degree options which require supporting components in OH&S provided by the IH Program. UNA most recently introduced the Earth Systems Sustainability and Engineering Technology Bachelors of Science degree programs. The four-year Earth Systems Sustainability degree within the Department of Physics and Earth Science requires students to complete Occupational Safety and Health (IH 301) and Environmental Regulations (CH 465), as supporting courses. The four-year Engineering Technology degree focuses on Electro-Mechanical Engineering and prepares students for a multitude of career choices such as design engineering, robotics, engineering management, automated manufacturing, entrepreneurship and further advanced education. Occupational Safety and Health (IH 301) is a required supporting course for this degree as well. To date, at least six students have completed IH/Safety courses as part of these programs.

UNA is primarily a teaching institution. Research productivity is obviously limited by teaching loads assigned to IH full-time faculty. However, research is important and carried out to foster better education and students' participation in this area of learning. During the 2015-2016 academic year, one senior student presented an undergraduate research project at UNA Research Days on April 10, 2017. Student, Morgan Camp, collaborated with Dr. Kimbrough in a study titled, "Evaluation of Airborne Hazards in the Ammonia Making Process."