

Program Educational Objectives (PEOs) are the long term goals the UC DEH Comprehensive IH Practice Program has developed to track how effective the program is in training leaders in the field. These are the things we expect that our graduates will be doing in their careers over the 3-5 years after graduation. The PEOs for this program are: We anticipate that within 2-5 years following graduation our graduates will be working in a related field and rated by their employers as better than graduates from other IH programs in these areas. UC graduates will demonstrate a high level of technical and scientific competence in the anticipation, recognition, evaluation and control of occupational and environmental exposures, including the design and development of long-range goals and programs. This may include participation in global professional activities. They will solve real-world problems by combining observation, evaluation of the literature, measurement and other data collection and analysis of data. They will be able to communicate effectively regarding potential hazards, risk reduction approaches and required actions within the health and safety team, with varying levels of organizational management and other affected stake-holders. They will apply the professional code of ethics in all aspects of your practice. They will be involved in continuous improvement by enrolling in continuing education courses and experiences, by seeking professional certification and by being active in professional organizations such as ACGIH, ASSE and AIHA.

Student Outcomes are essentially the things that we want students in the Comprehensive IH Program to learn during their time here at UC DEH. Student outcomes were established by discussion of faculty, presentation to and ratification by the EAB in 2006. Revision of these outcomes will be carried out using the same pathway when data from program constituencies indicates that they must be changed to address changes in the field or emphasis that is needed because of new situations and conditions in workplaces. Since the outcomes remain consistent with both the current ABET ASAC criteria and the apparent needs of the constituencies no changes have occurred over the last 6 years. The program specific student outcomes developed by the faculty are associated with an ABET-ASAC outcome. Below are listed the ABET ASAC outcomes (A-K, extended to L by program personnel), followed by the program-specific outcome(s) in effect in for the 2006-07 academic year and maintained through 2014:

A. Identify agents, factors and stressors generated by and/or associated with defined sources, unit operations and/or processes:

Identify potential health hazards of workplace processes and operations

B. Describe qualitative and quantitative aspects of

generation of agents, factors and stressors: Describe the underlying processes of the generation of hazards in occupational and environmental settings; Describe qualitative and quantitative aspects of hazards associated with specific occupational or environmental sources

C. Understand physiological and/or toxicological interactions of physical, chemical, biological and ergonomic agents, factors and/or stressors with the human

body: Understand the relation between exposures and health outcomes; Compare and contrast the potential for differences in response to hazards due to personal factors among some subjects at risk of exposure and the subsequent need to modify programs and practices

D. Assess qualitative and quantitative aspects of exposure assessment, dose-response, and risk characterization based

on applicable pathways and modes of entry: Describe how to evaluate potential adverse outcomes of chemical or physical exposures, based on similarity of the exposure to documented hazards; Describe occupational hygiene aspects of emerging technologies; Describe the basic principles of conducting sampling and analysis for exposure assessment; Describe the basic principles of evaluating engineering and non-engineering controls to reduce exposure; Develop and implement an exposure assessment plan to evaluate potential hazards and existing controls; Gather, manage and analyze quantitative (e.g., measurements of exposure or system performance) and qualitative (e.g., written programs) data to evaluate potential hazards and existing controls in order to reduce risk;

E. Calculate, interpret and apply statistical and epidemiological data: Apply epidemiologic and/or statistical concepts to the interpretation of exposure data;

F. Recommend and evaluate engineering, administrative and personal protective equipment controls and/or other interventions to reduce or eliminate hazards: Identify and recommend appropriate methods to reduce exposure (using engineering controls, personal protective equipment or administrative controls), or deficiencies in written programs and policies; Design work process/practice interventions

G. Demonstrate an understanding of applicable business and managerial practices: Produce accurate oral and written reports, including descriptions of occupational processes and activities, exposure assessment plans and evaluation of occupational and environmental work settings; Describe approaches to interact with higher-level decision makers in various management structures; Manage resources effectively; Display effective leadership.

H. Interpret and apply applicable occupational and environmental regulations: Understand, interpret and apply occupational and environmental regulations; Apply guidelines, standards and laws in interpreting qualitative and quantitative data for exposure assessment for risk characterization.

I. Understand fundamental aspects of safety and environmental health: Apply the professional code of ethics to a scenario.

J. Attain recognized professional certification
Explain the importance of ethics in the practice of occupational and environmental hygiene;
Understand the need for and resources available for continuing professional development after graduation; Describe the requirements to obtain professional certification;

K. Conduct a research activity resulting in a report that demonstrates mastery of the subject and high level of professional and public communications skills: Design a research question, develop a plan and conduct research as part of a thesis; Communicate effectively with a variety of stakeholders (e.g., labor, management, government, peers, safety and health professionals, allied professionals); Produce a technical scientific report on research

L. Demonstrate advanced qualitative and quantitative problem-solving skills: Function effectively as part of a multidisciplinary team to investigate and propose a solution to an exposure hazard in a workplace.