

Student Learning Outcomes  
**Bachelor in Environmental Health**  
Department of Health Sciences  
College of Applied Science and Technology

Upon successful completion of the program, a graduate of the Bachelor's in Environmental Health will be able to demonstrate the ability to:

1. Anticipate potential environmental health hazards.
2. Recognize existing environmental health hazards.
3. Evaluate existing environmental health hazards.
4. Identify and plan appropriate environmental health interventions.
5. Implement environmental health interventions.
6. Evaluate environmental health interventions.
7. Exhibit appropriate environmental health professional attributes.
8. Apply appropriate environmental health professional communication skills.

## Environmental Health Program Program Assessment Plan

The Environmental Health Program utilizes a variety of assessment approaches including the Department of Health Sciences assessment program, professional accreditations, program faculty meetings, strategic planning, various professional practice & student teaching assessments, certification exams, advisory meetings, and faculty evaluations.

Several of these assessments led to the curriculum revision enacted in 2001. Highlights of this revision included:

- Aligning the curriculum objectives with the state IBHE objectives.
- Change of several key programmatic courses from 200-level from 300-level to allow graduate credit for students in the Environmental Health and Safety Master's Program.

**Table 1: Summary of EH Program Assessment Activities**

<b>Evaluation Programs</b>	<b>Responsible Authority</b>	<b>Evaluators</b>	<b>Evaluation Techniques</b>	<b>Frequency</b>
HSC Assessment Program	Department Chairperson	Students Graduates Employers	Survey Questionnaires	Annually
Program Accreditation	Program faculty	National Environmental Health Accreditation Council (EHAC)	Accreditation	Every six years
Program Faculty Meeting	Program Faculty	Faculty	Open Discussion	Weekly
Strategic Planning	Program Faculty	Faculty	Planning	Annually
Professional Practice Assessments	PP supervisor	Cooperating site supervisors and students	Performance & program evaluations	Every semester
REHS (national) and LEHP (state) Examinations	National Environmental Health Association and state assessment board.	National Environmental Health Association and state assessment board.	Professional Certification Examination	As available information (information not formally accessible)
Advisory guests	EH Program Director	Employers Graduates Students	Discussions	Occasionally
Faculty Evaluations	Department Chairperson	Students	Performance evaluations	Every Semester

What follows are more details on each of these assessment processes and how they have informed and affected practice within the program.

### *Department of Health Sciences (HSC) Assessment Program*

In 1996, the Department of Health Sciences (HSC) Assessment Program was created to implement uniform department-wide quality management program. The department chairperson formed the HSC Assessment Committee, a multidisciplinary committee with faculty representatives from each of the five programs in the Health Sciences Department. The goal of the HSC Assessment Committee was to develop assessment tools to capture feedback from groups with a vested interest in the program graduate performance. Targeted groups included students, graduates, employers, and the institution itself.

In 1998, the Program began using the assessment tools to collect program performance data. The data is collected annually and includes data from:

- Graduating Seniors
- 1<sup>st</sup> Year Graduates
- 5<sup>th</sup> Year Graduates
- Employers

Where appropriate, the results of this evaluation program will be presented to illustrate students and alumni evaluation of the Program.

Program faculty and the department chairperson review the program performance data regularly. Additionally, intradepartmental comparative analyses of each program's assessment data are performed at the departmental chair level to identify opportunities for improvement across the five programs in the department.

### *Professional Accreditations*

Accreditations by professional organizations are a stringent review of the program's merit.

As part of the ongoing EHAC accreditation review, the Environmental Health Program received notice from EHAC of being in compliance with guidelines in 2001. The ISU Environmental Health Program was granted full approval, a six year designation, in 2001.

### *Program Faculty Meetings*

The Program faculty meets weekly to discuss ongoing Program management and curricular issues. Issues are identified and recommendations are presented for modification or correction. Most of the issues discussed in these meeting are addressed at the Program level.

### *Strategic Planning*

Each year the program faculty reviews our programmatic vision, mission and goal statements and selects and prioritizes objectives for the coming year(s) into discernable action items. As with typical strategic planning, we consider the strengths and weaknesses of our own program and the opportunities and threats external to the program.

### *Professional Practice Assessments*

Every student who graduates with a degree in Environmental Health completes either a 9-12 credit hour professional practice experience. As part of this experience students are assessed in a variety of ways and they assess their preparation for PP, the university supervisor, site supervisor and practice site.

Environmental Health faculty identify areas and trends where student performance is unsatisfactory or has potential for improvement. The faculty reviews provide an ongoing opportunity to evaluate the current curricular content through student performance in the “real world.” It also provides the faculty with the opportunity to develop new instructional strategies to improve student performance.

### *National Registered Environmental Health Specialist (REHS) Certification Examination*

Two major organizations have typically provided examinations for students in the Environmental Health Program at the state and national level. The National Environmental Health Association (NEHA), the primary professionally organization for Environmental Health Professionals in the U.S., designs and administers the Registered Environmental Health Specialist (REHS) certification exam. Graduates of the Environmental Health Program at ISU are immediately eligible to take this exam, while graduates from other disciplines must demonstrate their commitment to the profession for two years before being eligible to take these certification exams.

### *State Licensed Environmental Health Professional (LEHP) Certification Examination*

The State of Illinois also designs and administers the Licensed Environmental Health Professional exam. Graduates of the Environmental Health Program at ISU are immediately eligible to take this exam, while graduates from other disciplines must demonstrate their commitment to the profession for two years before being eligible to take these certification exams.

### *Other Professional Certification Examinations*

A wide variety of other certifications are available for specialization areas in the field of Environmental Health, including the Qualified Environmental Professional (QEP),

Certified Industrial Hygienist (CIH), Hazardous Materials (CHMM), and many others. Pass rates serve as one indicator for how well prepared graduates are on the professionally defined responsibilities and competencies.

### *Student/alumni certification rates*

Unfortunately, due to concerns about the distribution of sensitive information, certification rates for students or alumni in the Environmental Health Program are not currently available. However, informal feedback from alumni indicates that ISU EH graduates do very well on these professional exams, which is supported by other assessment techniques implemented.

### *EH Advisory Committee*

During past years the program has hosted advisory committee meetings on an ad hoc basis. As part of the curriculum revision since the last program review meetings were held with a panel of alumni and another with students. We have also solicited feedback from alumni during state professional association meetings.

This is an area of our assessment program that could be improved. We could more proactively involve an advisory in the ongoing assessment of the program. The Environmental Health Program currently plans to restructure the EH Advisory Committee for re-implementation in fall of '04.

### *Faculty Evaluations*

The program faculty are evaluated on through student and peer/self-assessment.

#### *Student Evaluations*

Students complete faculty evaluations at the completion of every course. An individual who is not associated with the course administers the evaluations to the students. This assessment process is "blind" to promote student honesty on the evaluation. Individual faculty data are compared to aggregate faculty data from other departmental faculty. From these data, faculty then identify opportunities for improvement in their individual courses and instructional approaches. Faculty then respond to potential areas for improvement in their annual DFSC documents.

#### *Peer /self-assessment Evaluations*

Annually, each faculty member is required to develop a self-assessment document or portfolio for review by the department chairperson and the Department Faculty Status Committee. Areas of evaluations include scholarship, teaching and service activities. Student evaluations of faculty instruction and any professional activity evaluations are included in the faculty portfolio. These evaluations can have an impact on the faculty member's retention, salary, promotion and tenure status.

**Environmental Health Program  
Program Changes Based on Assessment Data**

Curricular/objective consistency and currency

The current EH curriculum is consistent with the program objective and up-to-date with current professional standards and expectations. The current EH Program curriculum is fully approved by the National Environmental Health Accreditation Council (EHAC).

The last major program revision was in conducted during the 2001 academic year and implemented in Fall, 2001. The changes in the curriculum are summarized in Table 1. Specific changes in the curriculum are underlined.

**Table 1: Curriculum changes**

<p><b>1. Environmental Health electives change from 200-level to 300-level</b></p> <p>Old Catalog Copy</p> <ul style="list-style-type: none"> <li>• <u>HSC 247: Waste Management Practices</u></li> <li>• <u>HSC 252: Water Quality and Treatment</u></li> <li>• <u>HSC 257: Air Quality and Pollution Control</u></li> </ul> <p><b>2. Alignment of program objectives with IBHE student learning outcomes (please refer to table 1.1 below)</b></p> <p><b>3. Modification of required core curriculum courses to better reflect IBHE student learning outcomes and student needs.</b></p> <ul style="list-style-type: none"> <li>• <u>HSC 258: Epidemiology</u></li> <li>• <u>HSC 249: Toxicology</u></li> </ul>	<p><b>1. Environmental Health electives change from 200-level to 300-level</b></p> <p>New/Current Catalog Copy</p> <ul style="list-style-type: none"> <li>• <u>HSC 347: Waste Management Practices</u></li> <li>• <u>HSC 352: Water Quality and Treatment</u></li> <li>• <u>HSC 357: Air Quality and Pollution Control</u></li> </ul> <p><i>Note: These courses will revert to their former 200-level with approved curriculum changes for spring, '04 due to the suspension of enrollment in the EH&amp;S Master's Program. This should allow undergraduates greater flexibility concerning the sequence of courses within their academic plan of study.</i></p>
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**Table 1.1: Environmental Health Program IBHE student outcomes**

<b>Outcomes</b>	<b>Courses</b>	<b>Activities (internal)</b>	<b>Application (external)</b>
<i>Anticipate hazards</i>	All required and elective EH courses	Exams, term project, group work, etc.	Professional Practice and Advisory Council evaluation, etc.
<i>Recognize hazards</i>	All required and elective EH courses	Exams, term project, group work, etc.	Professional Practice and Advisory Council evaluation
<i>Evaluate hazards</i>	All required and elective EH courses	Exams, term project, group work, etc.	Professional Practice and Advisory Council evaluation
<i>Identify interventions</i>	All required and elective EH courses	Exams, term project, group work, etc.	Professional Practice and Advisory Council evaluation
<i>Implement interventions</i>	All required and elective EH courses	Exams, term project, group work, etc.	Professional Practice and Advisory Council evaluation
<i>Evaluate interventions</i>	All required and elective EH courses	Exams, term project, group work, etc.	Professional Practice and Advisory Council evaluation

<i>Professional attributes</i>	All required and elective EH courses	Exams, term project, group work, etc.	Professional Practice and Advisory Council evaluation
<i>Professional communication</i>	All required and elective EH courses	Exams, term project, group work, etc.	Professional Practice and Advisory Council evaluation