

Environmental Health BSEH

Expanded Statement of Institutional Purpose

Institutional Mission Reference

The Program in Environmental Health located within the School of Medical Laboratory Sciences and Environmental Health in the College of Health Sciences is one of 22 accredited programs in environmental health available to prepare environmental health specialists in the United States. It is the only Environmental Health program in Virginia. Students graduating from accredited University programs are generally better prepared to enter the environmental health workforce and are eligible to sit for the voluntary National certification/registration examination for environmental health professionals. Environmental Health program curricula are required to meet educational guidelines and standards established by the National Environmental Health Science and Protection Accreditation Council and approved by the United States Department of Education. The broad goal of accreditation of undergraduate environmental health programs is to enhance the education and training of students who intend to become environmental health practitioners/professionals. The undergraduate program in environmental health offers students a high quality baccalaureate degree program that meets national standards of excellence as measured by its accreditation status. Program faculty are committed to excellence in teaching, scholarly activity and service to their profession and community. The program also strives to address Urban issues within the region related to environmental health as students are placed in a variety of internship settings including business, industry, government, public health and the military to work on environmental health problems/concerns associated with these sites. The program also depends on the regional environmental health community and environmental health program alumni for advice, leadership and support.

Institutional Goal(s) Supported

The Environmental Health BS Program supports the University goals of (a) excellent faculty, (b) quality undergraduate academic programs, (c) excellence in teaching, (d) commitment to scholarly activity and creativity, (e) integration of community service into the program through required internships and participation of faculty in service roles in the community, (f) student development outside of the classroom through participation in the campus chapter of the Student National Environmental Health Association, (g) participation of program alumni in the program advisory council, and (h) providing distance learning programs in Environmental, Health and Safety. (Refer to Old Dominion University Strategic Plan. The Environmental Health BS Program also supports Strategic Initiatives 1 (High Quality, Distinctive Undergraduate Programs), Strategic Initiative 5 (Enhances Distance Education Programs and Services) and Strategic Initiative 10 (Develop and Enhance Cooperative Opportunities for Learning) (Refer to University Strategic Plan.

Intended Educational (Student) Outcomes, Methods for Assessment, Criteria for Success, Assessment Results, and Use of Results

Intended Outcome 1

Students will demonstrate learned competencies in the practice of environmental health science

Method for Assessing Outcome 1 and Criterion for Success: Students will be administered the National Environmental Health Association Self Assessment Test (NEHASAT). This 200 item objective test is designed to measure the entry level Environmental Health practitioners technical and behavioral knowledge and skills in the field of environmental health. As an assessment tool it is designed to give the student an understanding of their preparedness to take the voluntary National registration examination (REHS). This test is administered by the faculty at the end of the senior year. The passing grade on this test is 70% and the National pass rate is 54%. Old Dominion Environmental Health students will score on average above the national passing grade and pass rate each year that it is administered.

Summary of Assessment Data Collected for Outcome 1: The following results were observed for the NEHASAT.

Number of students assessed: 25

Mean score: 78.8

Median score: 83.0

Mode: 89.5

High Score: 99.0

Number passing the test based on a 70% passing score: 19/25

Pass rate: 76%

The pass rate exceeded that of the National average.

It should be noted that this test is voluntary although it is included in the requirements of the senior seminar along with other class requirements. It is considered a practice test for those wishing to take the National registration exam for environmental health. Students do not have to pass a national examination to practice in this field.

Alternate Method for Assessing Outcome 1 and Criterion for Success: Students will be administered the Old Dominion University Environmental Health Program Assessment instrument (ODUSAT). This 116 item objective test was developed by the Environmental Health faculty. It is designed to measure the knowledge and skills of program graduates in the core areas of of the curriculum. This assessment tool covers similar topics that are assessed in the NEHASAT. This test is administered by the faculty at the end of the senior year. The passing grade on this test is 70% and the pass rate is established at 54% both of which are identical to the NEHASAT. These scores and rates were established to be equivalent to the NEHASAT. Old Dominion University Environmental Health students will score on average above the national passing grade and pass rate each year that it is administered.

Summary of Assessment Data Collected, Alternate Method for Outcome 1: The following results were observed fro the ODUSAT.

Number of students assessed: 25

Mean score: 79.6

Median score: 84.7

Mode: 88.6

High Score: 95.5

Number passing based on a 70% score: 20/25

Pass rate: 80%

Again the pass rate exceeded that of the National average of the NEHASAT in comparison. It should be noted that this test is voluntary although it is included in the requirements of the senior seminar along with other class requirements. It is considered a practice test for those wishing to take the National registration exam for environmental health. Students do not have to pass a national examination to practice in this field.

Alternate Method for Assessing Outcome 1 and Criterion for Success: A Pearson r correlation analysis will be run on the two sets of tests scores each year that they are administered. A Pearson r correlation will be consistently above 0.80 each year the tests are administered and analysis is performed indicating a strong correlation between the National Assessment test and the Program Assessment test.

Summary of Assessment Data Collected, Alternate Method for Outcome 1: The Pearson r correlation for the two tests was: 0.886 exceeding that of the expected standard of 0.80

Use of Assessment Results from Intended Outcome 1 to Improve Academic Program: Item analysis of the questions missed most often on both tests will be conducted to determine areas of weakness and endeavor to continue to raise scores on these tests overall.

Intended Outcome 2

Students will demonstrate field competencies in the practice of Environmental Health Science as evidenced during their required internships.

Method for Assessing Outcome 2 and Criterion for Success: Student internship performance in the practice of Environmental Health will be measured by their preceptors using the Student Field Practice Performance Evaluation of the Environmental Health Program. This 10 item, 5 point Likert scale evaluation with 5 being the highest level of performance and 1 the lowest level of performance is designed to assess the students' preparedness in the practice of Environmental Health at a potential employment setting. Likert scale averages for students will consistently be above 4.00 with 100% of students performing at the 3.50 level or higher and 90% of students performing at 4.50 or higher.

Summary of Assessment Data Collected for Outcome 2: Number of students assessed on internships: 25

Likert scores on the ten areas of evaluation all exceeded 4.00 or higher.

Seven evaluation areas scored at the 4.80 level.

Two evaluation areas scored at the 4.70 level.

One evaluation area scored at the 4.60 level.

100% of the students scored at the 3.50 level or higher.
80% of the students scored at the 4.50 level or higher which was slightly lower than the expectation of 90% of students at that level.

Use of Assessment Results from Intended Outcome 2 to Improve Academic Program:

Written remarks by preceptors of environmental health interns generally are very high to excellent and indicate that students are academically prepared to perform satisfactorily in these professional environmental health settings at the time they enroll in internships. Closer monitoring and supervision of students that are performing below the 4.5 level will be conducted.

Intended Outcome 3

Students will demonstrate critical thinking skills in the field of environmental health both orally and in writing.

Method for Assessing Outcome 3 and Criterion for Success: 100% of students will pass the Senior Capstone Seminar in Environmental Health with 100% of students earning scores of Satisfactory or higher on oral and written debate presentations and papers and 80% will earn scores of Good to Excellent. The Senior Seminar is administered by the program Director.

Summary of Assessment Data Collected for Outcome 3: Number of students enrolled in senior seminar course: 25

All students passed this course. 84% of students scored good - excellent on their oral debate presentations and written issue papers.

Intended Outcome 4

Alumni of the program will be gainfully employed in the field of environmental health after graduation.

Method for Assessing Outcome 4 and Criterion for Success: An alumni survey administered every five years will demonstrate that 90% of graduates from the Environmental Health program are employed in the professional field of environmental health and were employed within 6 months on graduation.

Summary of Assessment Data Collected for Outcome 4: This assessment measure was not conducted during this period.