Environmental and Occupational Health

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Deodutta Roy, Professor
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Janvier Gasana, Associate Professor
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Shimelis Setegn, Research Assistant Professor
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Affiliated Faculty

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Yenny Diaz, Director, Environmental Health and Safety, FIU
Samir Elmir, Director, Environmental Health and Engineering, Miami-Dade County Health Department

The Department offers a Graduate Certificate, a Master’s degree in Public Health with a major in Environmental and Occupational Health (EOH) and a Ph.D. in Public Health with a major in Environmental and Occupational Health.

Application Deadline

The application deadline for PhD and priority deadline for MPH with a major in Environmental and Occupational Health is February 15th. MPH applications submitted prior to this deadline will be considered for admission first. MPH applications submitted after February 15th will be considered for slots that have not been filled until the University’s deadline of June 1st.

MPH in Environmental and Occupational Health

The graduate training programs in Environmental and Occupational Health are both interdisciplinary and interdepartmental. The Department of Environmental and Occupational Health is committed to the highest quality performance of mechanism-based and evidence-based research. The application of this research is to help detect, prevent, and control adverse influences of the environment on human health, based on the understanding of the complex interplay of genetic variations with environmental stressors. Our faculty are pursuing research on how the built environment and environmental stressors interact to influence human health and health-related behaviors that goes beyond the traditional focus on hazardous agents.

Admission Requirements

Applicants to the MPH program with a major in Environmental and Occupational Health (EOH) must meet the following requirements:

1. A Bachelor's (or Master's) degree in biology, chemistry, physics, nursing, medicine, engineering, or other appropriate field with at least one (1) undergraduate biology, and one (1) undergraduate chemistry course from an accredited college or university or, in the case of foreign students, an institution recognized in its own country as preparing students for further study at the graduate level.

2. A minimum 3.0 GPA (on the last 60 undergraduate hours). In addition, applicants are required to submit 1) a current resume; and 2) a written statement of purpose (career goals).

3. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the IBT TOEFL or 6.5 overall on the IELTS is required. Students with diverse backgrounds are encouraged to apply.

4. Submit a GRE, MCAT, DAT or GMAT score. Scores must be no more than five years old.

In addition to the formal application to the University Graduate School, the Department recommends that applicants submit the following documents directly to the College of Public Health and Social Work’s Office of Student and Alumni Affairs:

- three letters of recommendation
- a written statement of purpose
- current curriculum vitae/resume

Curriculum and Course Requirements

For the MPH with specialization in Environmental and Occupational Health (EOH), ALL students are required to complete the college (15 Credits) and departmental MPH core courses (18 Credits), MPH selected electives (6 Credits), a practicum (Capstone 6 Credits) or a thesis or research project. Additional courses should be taken in consultation with an academic advisor as necessary to reach a total of 45 credits. Upon completion of the required college core courses and the departmental content courses, students have the option of concentrating in one of the four EOH subtracks; or concentrating in general Environmental and Occupational Health with no specific subtrack.

General Required School of Public Health Core Courses: (15 credits)

- PHC 6000 Introduction to Public Health Epidemiology 3
- PHC 6065 Public Health Statistics-1 3
- PHC 6102 Introduction to Public Health Policy and Management 3
- PHC 6315 Introduction to Environmental Health 3
- PHC 6410 Health Behavior and Public Health 3

Specialization in Environmental and Occupational Health

Department Core Courses: (18 credits)

- PHC 6307 Exposure Assessment in Environmental & Occupational Epidemiology 3
- PHC 6311 Environmental Health Risk Assessment 3
Elective Sub-track Courses: (12 credits)

**Toxicology**
- PHC 6310 Environmental & Occupational Toxicology 3
- PHC 6538 Genetic Issues in Public Health 3
- PHC 7372 Signal Transduction in Environmental Health & Toxicology 3
- PHC 7374C Advances in Cellular & Environmental Toxicology 3

Or Equivalent level course

**OR**

**Environmental & Occupational Epidemiology**
- PHC 6001 Environmental and Occupational Epidemiology 3
- PHC 6004 Injury Epidemiology and Violence Prevention 3
- PHC 6355 Occupational Health and Safety 3
- PHC 7713 Advanced Environmental & Occupational Epidemiology Research Methods 3

**OR**

**Global Environmental Health**
- PHC 6355 Occupational Health and Safety 3
- PHC 6374 Environmental Disasters & Human Health 3
- PHC 6422 Legal and Regulatory Aspects of Environmental Health 3
- PHC 6442 Global Public Health 3
- PHC 6763 Global Perspectives of Environmental Health in Caribbean & Latin America 3

Or Equivalent level course

**OR**

**Occupational Hygiene and Management**
- PHC 6356 Fundamentals of Industrial Hygiene 3
- PHC 6422 Legal and Regulatory Aspects of Environmental Health 3
- PHC 6355 Occupational Health and Safety 3
- PHC 6004 Injury Epidemiology and Violence Prevention 3

Or Equivalent level course

**OR**

**General Environmental and Occupational Health with no specific track**

**Intended for students not planning to concentrate in any of the sub-tracks**
- PHC 6310 Environmental & Occupational Toxicology 3
- PHC 6316 Environmental Health Management 3
- PHC 6355 Occupational Health and Safety 3
- PHC 6422 Legal and Regulatory Aspects of Environmental Health 3

**Secondary Elective Course: (6 credits)**

**Courses not chosen in different areas of Environmental & Occupational Health can be taken as electives.**
- PHC 6001 Environmental and Occupational Epidemiology 3
- PHC 6004 Injury Epidemiology and Violence Prevention 3
- PHC 6312C Health Impacts of Air, Water, & Land Pollution 3
- PHC 6316 Environmental Health Management 3
- PHC 6326 Emerging Environmental Health Issues 3
- PHC 6355 Occupational Health and Safety 3
- PHC 6356 Fundamentals of Industrial Hygiene 3
- PHC 6374 Environmental Disasters & Human Health 3
- PHC 6422 Legal & Regulatory Aspects of Environmental Health 3
- PHC 6442 Global Public Health 3
- PHC 6520 Public Health Aspects of Foodborne Disease 3
- PHC 6538 Genetic Issues in Public Health 3
- PHC 6763 Global Perspectives of Environmental Health in Caribbean & Latin America 3

**or any other advisor approved elective**

**Practicum and Culminating Experience: (6 credits)**
- PHC 6945 Practicum in Public Health 3
- PHC 6930C Integrative Seminar in Public Health 3
- PHC 6945 (Practicum) and PHC 6930C (culminating experience) are both required for all MPH students. The Practicum may be taken after completing a minimum of 30 hours, including all core courses. The Practicum may be waived if the student has at least 3 years of relevant practice experience working in a public health practice setting. The waiver request is prepared and submitted by the student, through their Faculty Advisor to the Department Chair for a final decision. If the Practicum requirement is waived, the student will need to substitute 3 additional approved hours so that the total curriculum hour requirement of 45 is met. MPH students are expected to complete PHC 6930c Integrative Seminar in Public Health during their last semester in the program.

**Doctor of Philosophy in Public Health**

**Major in Environmental and Occupational Health**

The Doctor of Philosophy (Ph.D.) in Public Health is available with a major in Environmental and Occupational Health. Students will be expected to demonstrate significant research capacity by completing 60 credits beyond the Master's degree and through the writing of an original dissertation.

**Doctoral Admissions**

Applicants must meet the University's general graduate admission requirements:

1. A four-year bachelor's degree or equivalent from a nationally accredited institution or, in the case of foreign students, from a well established institution of higher learning that is authorized to grant degrees by appropriate authorities in that country.
2. A minimum of a 3.0 GPA, “B” average, in the last 60 upper-division undergraduate coursework, or a graduate degree from a nationally accredited institution.
3. Official GRE scores (scores must be no more than five years old).
4. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or a 6.5 overall on the IELTS is required.

The College also requires:
1. A current resume.
2. Three letters of recommendation.
3. A writing sample (master’s thesis or project, published manuscript, or other).

Potential applicants are strongly encouraged to contact individual faculty to discuss common research interests since admission decisions may require identification of a potential faculty mentor.

**Doctoral Requirements**

A student may enroll for dissertation credits after completing all coursework, passing the candidacy examination (D2), and being advanced to candidacy (D3). Dissertation credits cannot be taken before advancement to candidacy.

The candidacy examination will be prepared and graded by a committee consisting of a minimum of three faculty members. Admission to candidacy requires that a majority of the committee members agree that the student passed the examination. A candidacy examination may not be passed conditionally. A “Pass” on the examination cannot be made contingent upon other factors such as the completion of additional coursework or the preparation of extra research projects. Students will be allowed only two attempts to pass the candidacy examination.

After a doctoral student is admitted to candidacy, continuous registration for at least 3 dissertation credit hours each semester (including the summer term) is required until the dissertation requirement is fulfilled.

**Required Courses**

The major requires a minimum of 75 credit hours beyond the baccalaureate which includes a minimum of 24 credit hours of dissertation credits. There are three components to the Ph.D. curriculum. The first is a core curriculum shared across all majors (12 credit hours). The second component is specific to the major (27 credit hours) and secondary field courses (12 credit hours). The third component consists of the dissertation, including 24 dissertation credit hours.

**Shared Core Courses: (12 credits)**

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHC 6601</td>
<td>Emerging Issues in Public Health</td>
<td>3</td>
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<tr>
<td>PHC 6718</td>
<td>Biostatistics 2</td>
<td>3</td>
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<td></td>
<td>(or other approved Quantitative Methods course)</td>
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<tr>
<td>PHC 7981</td>
<td>Research Concepts and Proposal Development</td>
<td>3</td>
</tr>
<tr>
<td>PHC 7705</td>
<td>Methods in Evidence Based Public Health</td>
<td>3</td>
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**Courses for Environmental and Occupational Health Major** (A minimum of 27 hours which include a minimum of 9 hours in Methods Courses and 18 hours (with minimum of 9 at the 7000 level) in Content Courses.

**Methods Courses: (9 credits)**

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<thead>
<tr>
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<tbody>
<tr>
<td>PHC 6914L</td>
<td>Current Topics in Environmental and Occupational Health Science Research Lab</td>
<td>1-9</td>
</tr>
<tr>
<td>PHC 7713</td>
<td>Advanced Environmental and Occupational Epidemiology Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>PHC 6917</td>
<td>Pre-Doctoral Research</td>
<td>1-6</td>
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</table>

PHC 6914L Course may be taken three times to equal 9 credit hours, OR PHC 6917 may be taken twice, to equal 6 credit hours, along with PHC 7713 totaling the 9 credit hours needed for method courses.

**Content Courses:**

At least 18 credit hours of approved EOH courses. EOH courses selected from approved graduate school courses in consultation with academic advisor.

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<tr>
<td>PHC 7018C</td>
<td>Advanced Environmental Health</td>
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<tr>
<td>PHC 7300</td>
<td>Biological Basis of Environmental Public Health</td>
<td>3</td>
</tr>
<tr>
<td>PHC 7327</td>
<td>Scientific Advances Influencing Environmental Health Decisions</td>
<td>3</td>
</tr>
<tr>
<td>PHC 7372</td>
<td>Signal Transduction in Environmental Health and Toxicology</td>
<td>3</td>
</tr>
<tr>
<td>PHC 7374C</td>
<td>Advances in Cellular &amp; Environmental Toxicology</td>
<td>3</td>
</tr>
<tr>
<td>PHC 6310</td>
<td>Environmental &amp; Occupational Toxicology</td>
<td>3</td>
</tr>
<tr>
<td>PHC 6311</td>
<td>Environmental Health Risk Assessment</td>
<td>3</td>
</tr>
<tr>
<td>PHC 6312C</td>
<td>Health Impacts of Air, Water, and Land Pollution</td>
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<td>3</td>
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<tr>
<td>PHC 6900</td>
<td>Environmental Public Health Genomics and Molecular Toxicology Journal Club</td>
<td>3</td>
</tr>
<tr>
<td>PHC 6907</td>
<td>Independent Study in Public Health</td>
<td>3</td>
</tr>
<tr>
<td>PHC 6920</td>
<td>Special Topics in Environmental and Occupational Health</td>
<td>3</td>
</tr>
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**Secondary Field Courses: (12 credits)**

At least 12 credit hours of approved secondary field courses. Secondary field courses selected from approved graduate school courses in consultation with academic advisor.

**Dissertation Requirements: (24 credits)**
PHC 7980        Dissertation        24

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http://stempel.fiu.edu/students/index.html

For information regarding Ph.D. research project areas, please visit: