

POPULATION, FAMILY AND REPRODUCTIVE HEALTH, PHD

PhD Program Overview

The emphasis of the PFRH PhD program (<https://publichealth.jhu.edu/academics/phd-dept-of-population-family-and-reproductive-health/>) is to integrate coursework in life course and population health with the application of a range of research methods. The PFRH PhD curriculum is focused on equipping students with a fundamental understanding of statistical methods and their application, epidemiology, research ethics, advanced research methods, and the application of life course perspectives on health, demography, and population dynamics.

Faculty in the PFRH Department have expertise in health throughout the life course with a specific focus on certain populations and areas (<https://publichealth.jhu.edu/departments/population-family-and-reproductive-health/research-and-practice/life-course-framework/>). PhD students select courses related to these areas of study:

- Child and Adolescent Health (<https://publichealth.jhu.edu/departments/population-family-and-reproductive-health/research-and-practice/life-course-framework/child-and-adolescent-health/>)
- Maternal, Fetal, and Perinatal Health (<https://publichealth.jhu.edu/departments/population-family-and-reproductive-health/research-and-practice/maternal-fetal-and-perinatal-health/>)
- Population and Health (<https://publichealth.jhu.edu/departments/population-family-and-reproductive-health/research-and-practice/life-course-framework/population-and-health/>)
- Women's, Sexual and Reproductive Health (<https://publichealth.jhu.edu/departments/population-family-and-reproductive-health/research-and-practice/womens-sexual-and-reproductive-health/>)

School-wide PhD Requirements

Students must choose:

| Code | Title | Credits |
|---|---|-----------|
| Select one of the following series: | | |
| PH.140.621 & PH.140.622 & PH.140.623 & PH.140.624 | Statistical Methods in Public Health I and Statistical Methods in Public Health II and Statistical Methods in Public Health III and Statistical Methods in Public Health IV | 16 |
| PH.140.651 & PH.140.652 & PH.140.653 & PH.140.654 | Methods in Biostatistics I and Methods in Biostatistics II and Methods in Biostatistics III and Methods in Biostatistics IV | 3 |
| PH.550.860 | Academic & Research Ethics at JHSPH | 0 |
| Students must complete all courses meeting the Council on Education for Public Health (CEPH) objectives prior to completing the School-wide Preliminary exam. | | |
| Total Credits | | 19 |

CEPH Requirements

1. Explain public health history, philosophy, and values.

| Code | Title | Credits |
|------------------------------|--|---------|
| Select one of the following: | | |
| PH.380.624 | Maternal and Child Health Legislation and Programs | 4 |
| PH.552.601 | Foundational Principles of Public Health | 0.5 |

2. Identify the core functions of public health and the 10 Essential Services.

| Code | Title | Credits |
|------------------------------|--|---------|
| Select one of the following: | | |
| PH.380.624 | Maternal and Child Health Legislation and Programs | 4 |
| PH.552.601 | Foundational Principles of Public Health | 0.5 |

3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health. **(Must take 380.603 and a qualitative course)**

| Code | Title | Credits |
|------------|---|---------|
| PH.380.603 | Demographic Methods for Public Health | 4 |
| AND | | |
| PH.224.690 | Qualitative Research Theory and Methods | 3 |
| OR | | |
| PH.550.604 | Qualitative Reasoning in Public Health (OR) | 2 |
| OR | | |
| PH.552.603 | The Role of Qualitative Methods and Science in Describing and Assessing a Population's Health | 0.5 |

4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program.

| Code | Title | Credits |
|------------|---------------------------------|---------|
| PH.380.600 | Principles of Population Change | 4 |

5. Discuss the science of primary, secondary, and tertiary prevention in population health, including health promotion, screening, etc.

| Code | Title | Credits |
|------------|-------------------------|---------|
| PH.340.751 | Epidemiologic Methods 1 | 5 |

6. Explain the critical importance of evidence in advancing public health knowledge.

| Code | Title | Credits |
|------------|-------------------------|---------|
| PH.340.751 | Epidemiologic Methods 1 | 5 |

7. Explain effects of environmental factors on a population's health.

| Code | Title | Credits |
|------------------------------|------------------------------------|---------|
| Select one of the following: | | |
| PH.380.616 | Child Health Epidemiology | 3 |
| PH.552.607 | Essentials of Environmental Health | 0.5 |

8. Explain biological and genetic factors that affect a population's health.

| Code | Title | Credits |
|------------|------------------------------------|---------|
| PH.380.604 | Life Course Perspectives on Health | 4 |

9. Explain behavioral and psychological factors that affect a population's health.

| Code | Title | Credits |
|--|------------------------------------|---------|
| PH.380.604 | Life Course Perspectives on Health | 4 |
| 10. Explain the social, political, and economic determinants of health and how they contribute to population health and health inequities. | | |
| Code | Title | Credits |
| PH.380.604 | Life Course Perspectives on Health | 4 |
| 11. Explain how globalization affects global burdens of disease. | | |
| Code | Title | Credits |
| PH.380.600 | Principles of Population Change | 4 |
| 12. Explain an ecological perspective on the connections among human health, animal health, and ecosystem health (e.g., One Health). | | |
| Code | Title | Credits |
| PH.552.612 | Essentials of One Health | 0.5 |

PFRH PhD Content Area Competencies

Students must take a minimum of seven unique courses to fulfill these requirements.

| 1. Apply a life course framework to understand population health problems and illustrate how societal, behavioral, and psychological factors interact with biological and genetic factors to affect population health over the life course. | | |
|---|--|---------|
| Code | Title | Credits |
| PH.380.604 | Life Course Perspectives on Health | 4 |
| 2. Evaluate the major explanations and effects of demographic changes on the health of populations. | | |
| Code | Title | Credits |
| PH.380.600 | Principles of Population Change | 4 |
| 3. Calculate and interpret measures of mortality, fertility, and migration. | | |
| Code | Title | Credits |
| PH.380.603 | Demographic Methods for Public Health | 4 |
| 4. Critically review research related to the causes and consequences of major health concerns for selected populations across the life course. | | |
| Code | Title | Credits |
| Select one of the following: | | |
| PH.380.623 | Adolescent Health and Development | 3 |
| PH.380.747 | International Adolescent Health | 3 |
| PH.380.616 | Child Health Epidemiology | 3 |
| PH.380.664 | Reproductive and Perinatal Epidemiology | 4 |
| PH.380.655 | Social and Economic Aspects of Human Fertility | 3 |
| PH.380.750 | Migration and Health: Concepts, Rates, and Relationships | 3 |
| PH.380.666 | Women's Health | 3 |
| 5. Assess the effectiveness of policies and programs designed to promote the health of selected populations across the life course. | | |
| Code | Title | Credits |
| Select one of the following: | | |
| PH.380.624 | Maternal and Child Health Legislation and Programs | 4 |
| PH.380.665 | Family Planning Policies and Programs | 4 |

| | | |
|------------|---|---|
| PH.380.661 | Clinical Aspects of Maternal and Newborn Health | 3 |
| PH.380.667 | Women's Health Policy | 3 |
| PH.380.768 | Selected Topics in Women's Health and Women's Health Policy | 4 |

6. Assess population health and/or health promotion strategies through application of theoretical frameworks.

| Code | Title | Credits |
|------------------------------|--|---------|
| Select one of the following: | | |
| PH.380.642 | Child Health and Development | 3 |
| PH.380.725 | The Social Context of Adolescent Health and Development | 3 |
| PH.380.744 | Nutrition and Growth in Maternal and Child Health | 3 |
| PH.380.655 | Social and Economic Aspects of Human Fertility | 3 |
| PH.380.750 | Migration and Health: Concepts, Rates, and Relationships | 3 |
| PH.380.668 | International Perspectives on Women, Gender, and Health | 3 |

7. Evaluate the effect of health systems on the health of selected populations across the life course.

| Code | Title | Credits |
|------------------------------|--|---------|
| Select one of the following: | | |
| PH.380.661 | Clinical Aspects of Maternal and Newborn Health | 3 |
| PH.380.760 | Clinical Aspects of Reproductive Health | 3 |
| PH.221.627 | Issues in the Reduction of Maternal and Neonatal Mortality in Low income Countries | 4 |
| PH.380.665 | Family Planning Policies and Programs | 4 |
| PH.380.624 | Maternal and Child Health Legislation and Programs | 4 |
| PH.380.721 | Schools and Health | 3 |

PFRH PhD Research Methods Requirements

- Evaluate and apply study designs and strategies for measurement and data collection to address research and evaluation questions about the health of populations.

| Code | Title | Credits |
|-------------------------------|---|---------|
| Take the following 4 courses: | | |
| PH.340.751 | Epidemiologic Methods 1 | 5 |
| PH.340.752 | Epidemiologic Methods 2 | 5 |
| PH.380.711 | Issues in Survey Research Design | 3 |
| PH.330.657 | Statistics for Psychosocial Research: Measurement | 4 |

- Analyze data using methodological tools appropriate to the study question and available data.

| Code | Title | Credits |
|------------------------------|--|---------|
| Select 1-2 of the following: | | |
| PH.340.753 | Epidemiologic Methods 3 | 5 |
| PH.140.640 | Statistical Methods for Sample Surveys | 3 |
| PH.140.655 | Analysis of Multilevel and Longitudinal Data | 4 |

| | | |
|------------|--|---|
| PH.140.658 | Statistics for Psychosocial Research: Structural Models | 4 |
| PH.224.690 | Qualitative Research Theory and Methods | 3 |
| PH.224.691 | Qualitative Data Analysis | 3 |
| PH.410.710 | Concepts in Qualitative Research for Social and Behavioral Sciences | 3 |
| PH.410.712 | Theory and Practice in Qualitative Data Analysis and Interpretation for The Social and Behavioral Sciences | 3 |

- Interpret data based on the strength of evidence, recognize study limitations, and draw appropriate inferences.

| Code | Title | Credits |
|-------------------------------|--|---------|
| Take the following 3 courses: | | |
| PH.380.823 | Research Seminar in Population, Family and Reproductive Health I | 2 |
| PH.380.824 | Research Seminar in Population, Family and Reproductive Health II | 2 |
| PH.380.662 | Critiquing the Research Literature in Maternal, Child, and Reproductive Health | 4 |

PFRH PhD Program Policies

For a full list of program policies, please visit the PhD in PFRH (<https://publichealth.jhu.edu/academics/phd-dept-of-population-family-and-reproductive-health/>) page where students can find our handbook.

PhD Program Competencies

According to the requirements of the Council on Education for Public Health (CEPH), all BSPH degree students must be grounded in foundational public health knowledge. Please view the list of specific CEPH requirements by degree type (<https://e-catalogue.jhu.edu/public-health/ceph-requirements/>).

All **PFRH doctoral students** must meet proficiency in the following **PFRH PhD content area competencies**:

1. Apply a life course framework to understand population health problems and illustrate how societal, behavioral, and psychological factors interact with biological and genetic factors to affect population health over the life course.
2. Evaluate the major explanations and effects of demographic changes on the health of populations.
3. Calculate and interpret measures of mortality, fertility, and migration.
4. Critically review research related to the causes and consequences of major health concerns for selected populations across the life course.
5. Assess the effectiveness of policies and programs designed to promote the health of selected populations across the life course.
6. Assess population health and/or health promotion strategies through application of theoretical frameworks.
7. Evaluate the effect of health systems on the health of selected populations across the life course.

Additionally, all **PFRH doctoral students** must attain proficiency in the following **PFRH PhD research methods competencies**:

1. Evaluate and apply study designs for addressing research and evaluation questions about the health of populations.
2. Evaluate and apply rigorous strategies for measurement and data collection across a range of study designs.

3. Analyze data using methodological tools appropriate to the study question and available data.
4. Interpret data based on the strength of evidence, recognize study limitations, and draw appropriate inferences.
5. Participate in the preparation of a peer-reviewed manuscript.