

**Minors and Breadths by Department
(2018–2019)**

MINOR AREAS OF STUDY

MS, DrPH and PhD students must choose a minor in a public health discipline outside of their major. The following minor requirements are listed for each public health discipline. Doctoral students are required to complete one minor area of study and one breadth area of study OR two minor areas of study. For further discussion about how your minor or breadth area can help you meet your career goals, please contact your faculty advisor.

Department of Biostatistics and Data Science

Minor in Biostatistics

The department offers a minor course of study (nine (9) semester credit hours) for MS, DrPH, and PhD students who are majoring in other public health disciplines. Courses required for the minor include:

- Masters students: **PHM 1690** *Introduction to Biostatistics in Public Health*, **PH 1700** *Intermediate Biostatistics* and at least two Biostatistics electives above PH 1700
- Doctoral students: **PHM 1690** *Introduction to Biostatistics in Public Health*, **PH 1700** *Intermediate Biostatistics* and at least three Biostatistics electives above PH 1700

PH 1820 *Regression Techniques* is strongly recommended as an elective for all students.

Department of Epidemiology, Human Genetics and Environmental Sciences

Minor in Epidemiology

The department offers a minor course of study (nine (9) semester credit hours) for MS and PhD students majoring in other public health disciplines. Courses required for the minor include:

- Masters students: **PHM 2612** *Epidemiology I* & two Epidemiology electives
- Doctoral students: **PH 2615** *Epidemiology II*, **PH 2710** *Epidemiology III* & one Epidemiology elective

Department of Epidemiology, Human Genetics and Environmental Sciences

Minor in Environmental Sciences

EOHS also offers a minor course of study (minimum nine (9) semester credit hours) for MS, DrPH, and PhD students majoring in other public health disciplines. The prerequisite science background for these courses is required to take the minor course of study in EOHS.

- Masters students: **PHWM 2100** *Foundations of Environmental and Occupational Health Sciences* & two EOHS electives (**PHM 2130** & **PH 2175** are recommended)
- Doctoral students: **PHD 2135** *Risk Analysis: Principles and Practice* & **PHWD 2106** *Introduction to Doctoral Research Methods in Environmental and Occupational Health Sciences*, OR **PHWD 2108** *Applied Epidemiological Analyses in Environmental and Occupational Health Sciences*, OR **PHWD 2760** *Occupational Epidemiology*; & an EOHS elective

Department of Health Promotion and Behavioral Sciences

Minor in Behavioral Sciences

The department offers a minor course of study (nine (9) semester credit hours) for MS, DrPH, and PhD students majoring in other public health disciplines. The requirements for a minor in Behavioral Sciences include three courses; at least one course from the Theory category and one course from the Methods category are required:

- Theory Courses: **PHD 1113** *Advanced Methods for Planning and Implementing Health Promotion Programs* OR **PHD 1122** *Health Promotion Theories for Individuals and Groups: Part I* OR **PHD 1123** *Community Health Promotion Theory and Practice* OR **PHD 1227** *Health Promotion Theories for Individuals and Groups: Part II*

- Methods Courses: **PHD 1118** *Qualitative Methods* OR **PH 1324** *Applied Discrete Data Analysis using Stata* OR **PHD 1130** *Applied Measurement Theory* OR **PHD 1132** *Latent Variable Models and Factor Analysis* OR **PHD 1420** *Quantitative Research Design for Behavioral Sciences* AND **PHD 1421** *Quantitative Analysis for Behavioral Sciences* OR **PHD 1430** *Systematic Review, Meta-Analysis, and Evidence-Based Public Health* OR **PHD 1431** *Tools and Methods for Systematic Reviews and Meta-Analysis*

Department of Management, Policy and Community Health

Minor in Health Economics

The department offers a minor course of study (nine (9) semester credit hours) for MPH, MS, DrPH, and PhD students majoring in other public health disciplines. Student select three courses for a minor in Health Economics from the approved list: **PHD 3910** *Health Economics*; **PH 3915** *Methods for Economic Evaluation of Health Programs*; **PHD 3930** *Econometrics in Public Health*; **PHD 3931** *Advanced Econometrics*; **PHD 3935** *Advanced Health Economics*; **PH 3998** *Decision Analysis*

Minor in Health Services Research

The department offers a minor course of study (nine (9) semester credit hours) for MPH, MS, DrPH, and PhD students majoring in other public health disciplines. Student select three courses for a minor in Health Services Research from the approved list: **PH 3920** *Health Services Delivery and Performance*; **PHD 3926** *Health Survey Research Design*; **PH 3940** *Healthcare Outcomes and Quality Research*; **PHD 3945** *Advanced Health Services Research Methods*; **PH 3998** *Decision Analysis*

Minor in Health Policy

The department offers a minor course of study (nine (9) semester credit hours) for MPH, MS, DrPH, and PhD students majoring in other public health disciplines. Student select three courses for a minor in Health Policy from the approved list: **PHD 3810** *Health Policy in the United States*; **PHD 3812** *Comparative Healthcare Systems: Policy Challenges and Economic Perspectives*; **PH 3815** *Health Policy Analysis*; **PH 3738** *Legal Issues in Healthcare*; **PHD 3830** *Ethics and Policy*; **PH 3736** *U.S. Healthcare Payment Systems and Policy*

Minor in Healthcare Management

The department offers a minor course of study (nine (9) semester credit hours) for MPH, MS, DrPH, and PhD students majoring in other public health disciplines. Students complete a Healthcare Management related **PH 9997** *Practicum* course & select three courses for a minor in Healthcare Management from the approved list:

- Masters and DrPH students: **PHM 3744** *Organizational Behavior and Human Resource Management in Health Services Organizations*; **PHM 3746** *Evaluation and Improvement of Healthcare Quality*; **PHM 3720** *Healthcare Finance*; **PH 3747** *Healthcare Operations Management*; **PH 3735** *Healthcare Strategic Management*
- PhD students: **PHD 3846** *Quality Management and Improvement in Healthcare*; **PHD 3721** *Healthcare Finance*; **PHD 3998** *Operations, Technology & Decision Management*; **PHD 3946** *Strategy, Governance, and Leadership*; **PHD 3743** *Organizational and Management Theory*

Minor in Community Health Practice

The department offers a minor course of study (nine (9) semester credit hours) for MPH, MS, DrPH, and PhD students majoring in other public health disciplines. Student select three courses for a minor in Health Policy from the approved list:

- Masters students: **PHM 3630** *Health Program Planning, Implementation, and Evaluation*; **PH 3998** *Community Assessment Principles, Methods, and Technologies*; **PHM 3922** *Economic and Social Determinants of Health*; **PHM 3620** *Principles and Practice of Public Health*
- Doctoral students: **PHD 3998** *Working with Diverse Communities* OR **PHM 3800** *Working with Diverse Communities & PHD 3998* *Community Engagement and Community-Based Participatory Research & PHD 3998* *Practice-Based Methods and Design*

BREADTH AREAS OF STUDY

Doctoral students are required to complete one major area of study and two additional areas of study. The additional focus areas can be one minor area of study and one breadth area of study OR two minor areas of study. The following are some examples of Breadth topic areas, however a breadth area is not limited to the following. Specific courses can be changed to meet the individual needs of the student with the approval of the committee members.

Department of Biostatistics and Data Science

Bioinformatics Breadth

Courses required for the bioinformatics breadth includes 9 credit hours selected from:

- **PH 1980** *Introduction to Genomics and Bioinformatics*
- **PH 1982** *Evolution of DNA and Protein Sequences*
- **PH 1984** *Population Genetics*
- **PH 1985** *Data Mining and Statistical Learning*
- **PH 1986** *Introduction to Statistical Genetics*
- **PH 1998 ST:** *Advanced Multivariate Analysis with Applications to Genomic Science*
- **PH 2782** *Practical Computational Genetics and Bioinformatics*
- **PH 2998 ST:** *Computational Genomics and NGS Data Analysis*

Department of Management, Policy and Community Health

Leadership Breadth

DrPH students are highly recommended to select a breadth in Leadership. Courses required include 9 credit hours from the following:

- **PH 5200** *Foundations of Leadership*
- **PH 3815** *Health Policy Analysis*
- **PH 3825** *Public Health Law*
- **PH 3830** *Ethics and Policy*
- **PHD 3946** *Strategy, Governance, and Leadership*
- **PHD 3950** *Advanced Leadership Studies in Public Health*
- **PHD 5210** *Selected Readings in Leadership Studies*
- **PH 5220** *Gender and Leadership*

Quantitative Methods Breadth

DrPH students in Community Health Practice are recommended to select a breadth area in Leadership or Methods. Substitutions in either recommended breadth may be made with approval of the student's committee.

- **PH 2710** *Epidemiology III*
- **PHD 2711** *Epidemiology IV*
- **PH 2998** *Applied Epidemiology*
- **PH 1820** *Regression Techniques*
- **PH 1119** *Qualitative Analysis*
- **PHD 3918** *Geographic Information Systems Science*
- **PH 3998** *Demography for Public Health*

Healthcare Information Technology Management (HITM) Breadth

Selection of courses for the HITM breadth could depend on whether the student is pursuing a major or minor within the MPACH department. Students are expected to seek guidance from the HITM coordinator in selection of courses. Courses required include 9 credit hours from the following:

- **PHD 3750** *Policy Issues of Health IT or HI 6324 Health Information Technology Policy**
- **PHD 3998** *Health Care Delivery in EHR Enabled Environment or HI 6328 Health Care Delivery in EHR Enabled Environment**
- **PHD 3998** *Operations, Technology, and Decision Management*
- **HI 5327** *Standards in Health Informatics**
- **HI 5381** *Methods of Public Health Informatics**

*These courses are offered by UTHealth School of Biomedical Informatics