

Minors and Breadths by Department (2017—2018)

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

BIOSTATISTICS MINOR

Course of study – required:

- At least nine (9) semester credit hours for MS, DrPH and PhD students majoring in other public health disciplines
- For MS students, courses required for the minor are:
 - PH 1690 Foundations of Biostatistics
 - PH 1700 Intermediate Biostatistics
 - Two biostatistics courses above PH 1700
- For doctoral students, courses required for the minor are:
 - PH 1700 Intermediate Biostatistics (or the equivalent)
 - Three biostatistics courses above PH 1700 or listed below
- For MPACH doctoral students, PHD 3931 Advanced Econometrics has been approved as a course for a minor in Biostatistics
- PH 1820 Regression Techniques (formerly Applied Statistical Analysis I) is strongly recommended for the biostatistics minor for all degree programs

Department of Epidemiology, Human Genetics and Environmental Sciences

EPIDEMIOLOGY MINOR

Course of study – required:

- Nine (9) semester credit hours for MS, DrPH, and PhD students majoring in other public health disciplines
- For MS students, minor requirements are:
 - PHM 2612 Epidemiology I (3 credits)
 - Two electives in Epidemiology (6 credits). PH 2615 and PH 2710 are recommended.
- For doctoral students, minor requirements are:
 - PH 2615 Epidemiology II (3 credits)
 - PH 2710 Epidemiology III (3 credits)
 - At least one additional course in Epidemiology. PHD 2711 Epidemiology IV (3 credits) recommended.

Department of Epidemiology, Human Genetics and Environmental Sciences**Environmental and Occupational Health Sciences Program****ENVIRONMENTAL SCIENCES MINOR**

Course of study – required:

- 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 in Environmental Sciences.
- For MS students, minor requirements are:
 - PHWM 2100 Foundations of Environmental and Occupational Health Sciences (required)
 - PHM 2130 Recognition of Environmental and Occupational Hazards (recommended)
 - PH 2175 Toxicology I (recommended)
- For doctoral students, minor requirements are:
 - PHD 2135 Risk Analysis: Principles and Practice
 - One of the following courses:
 - PHWD 2106 Introduction to Doctoral Research Methods in Environmental and Occupational Health Sciences
 - PHWD 2108 Applied Epidemiological Analyses in Environmental and Occupational Health Sciences
 - PHWD 2760 Occupational Epidemiology
 - Any other EOHS course, at master's or doctoral level, may be used to fulfill the remaining credit hour obligations

Department of Health Promotion and Behavioral Sciences**BEHAVIORAL SCIENCES MINOR**

Course of study – required:

- 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 from the department of Health Promotion and Behavioral Sciences. Courses should cover primary theory and methods in health promotion and behavioral sciences and/or program evaluation and intervention development (especially for the DrPH student).
- The following courses, though not required, are offered as suggestions for the minor:

Theory Courses

- PHD 1113 Advanced Methods for Planning and Implementing Health Promotion Programs
- PHD 1122 Health Promotion Theory and Methods: A Teaching and Learning Experience for Doctoral Students
- PHD 1123 Health Promotion Theory and Methods II
- PHD 1227 Advanced and Emerging Theories in Health Promotion

Methods Courses

- PHM 1118 Introduction to Qualitative Research Methods
- PHD 1130 Applied Measurement Theory
- PHD 1132 Latent Variable Models and Factor Analysis
- PH 1324 Applied Discrete Data Analysis using Stata
- PHD 1420 and PHD 1421 Research Design and Analysis in Behavioral Sciences I and II
- PHD 1430 Systematic Review, Meta-Analysis, and Evidence-Based Public Health
- PHD 1431 Tools and Methods for Systematic Reviews and Meta-Analysis

Department of Management, Policy and Community Health
MANAGEMENT, POLICY AND COMMUNITY HEALTH MINOR

Course of study – required:

- Nine (9) semester credit hours for MS, DrPH, and PhD students majoring in other public health disciplines
- Students are expected to take courses focusing in one of the following areas: Health Economics; Health Services Research; Health Policy; Healthcare Management; or Community Health Practice.
- Specific courses can be changed to meet the individual needs of the student with the approval of the MPACH member of the student committee. If the committee does not have a MPACH member, the student is expected to seek guidance from a MPACH faculty member in their desired minor area in choosing minor courses as described below.
- In general, the courses in each topic area should be chosen from the following sets of courses:

Health Economics (select 3 courses)

- 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

Health Services Research (select 3 courses)

- 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

Health Policy (select 3 courses)

- PH 3736 U.S. Healthcare Payment Systems and Policy
- PH 3738 Legal Issues in Healthcare
- PHD 3810 Health Policy in the United States
- PHD 3812 Comparative Healthcare Systems: Policy Challenges and Economic Perspectives
- PH 3815 Health Policy Analysis
- PHD 3830 Ethics and Policy

Healthcare Management

- MS minor requirements (Select 3 or more courses totaling a minimum of 9 credit hours, in addition to Healthcare Management Practicum)
 - PHM 3998 Accounting for Healthcare Management and PHM 3720 Healthcare Finance
 - PHM 3720 Healthcare Finance
 - PH 3735 Healthcare Strategic Management
 - PHM 3744 Organizational Behavior and Human Resource Management in Health Services Organizations
 - PHM 3746 Evaluation and Improvement of Healthcare Quality
 - PH 3747 Healthcare Operations Management
 - PH 9997 Practicum (must be in Healthcare Management and approved by HCM faculty member)
- PhD minor requirements (select 3 courses)
 - PHD 3721 Healthcare Finance
 - PHD 3743 Organizational and Management Theory
 - PHD 3846 Quality Management and Improvement in Healthcare
 - PHD 3946 Strategy, Governance, and Leadership
 - PHD 3998 Operations, Technology & Decision Management

Community Health Practice

- MS minor requirements (select 3 courses)
 - PHM 3630 Health Program Planning, Implementation, and Evaluation
 - PH 3998 Community Assessment Principles, Methods, and Technologies
 - PHM 3922 Economic and Social Determinants of Health
 - PH 3620 Principles and Practice of Public Health
- DrPH minor requirements (select 3 courses)
 - PHD 3998 Working with Diverse Communities (2 credits) **or** PH 3800 Working with Diverse Communities (3 credits)
 - 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 three courses (9 credit hours) selected from:

Courses (Choose three courses selected from the list below)

- PH 1980 Introduction to Genomics and Bioinformatics (3 credits)
- PH 1982 Evolution of DNA and Protein Sequences (3 credits)
- PH 1984 Population Genetics (3 credits)
- PH 1985 Data Mining and Statistical Learning (3 credits)
- PH 1986 Introduction to Statistical Genetics (3 credits)
- PH 1998 Advanced Multivariate Analysis with Applications to Genomic Science (3 credits)
- PH 2782 Practical Computational Genetics and Bioinformatics (3 credits)
- PH 2998 Computational Genomics and NGS Data Analysis (3 credits)

Department of Management, Policy and Community Health

LEADERSHIP BREADTH

DrPH students are highly recommended to select a breadth in Leadership.

Courses (Choose any of the courses listed or others as defined by your committee for a total of 9 credits)

- PH 5200 Foundations of Leadership (3 credits)
- PH 3815 Health Policy Analysis (3 credits)
- PH 3825 Public Health Law (3 credits)
- PH 3830 Ethics and Policy (3 credits)
- PHD 3946 Strategy, Governance, and Leadership (3 credits)
- PHD 3950 Advanced Leadership Studies in Public Health (3 credits)
- PHD 5210 Selected Readings in Leadership Studies (2 credits)
- PH 5220 Gender and Leadership (3 credits)

Department of Management, Policy and Community Health

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.

Courses (Choose any of the courses listed or others as defined by your committee for a total of 9 credits)

- PH 2710 Epidemiology III (3 credits)
- PHD 2711 Epidemiology IV (3 credits)
- PH 2998 Applied Epidemiology (3 credits)
- PH 1820 Regression Techniques (3 credits)
- PH 1119 Qualitative Analysis (3 credits)
- PHD 3918 Geographic Information Systems Science (3 credits)
- PH 3998 Demography for Public Health (3 credits)

Department of Management, Policy and Community 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 (Choose any of the courses listed for a total of 9 credits)

- PHD 3750 Policy Issues of Health IT - co taught by UTSPH and SBMI (3 credits), **or** HI 6324 Health Information Technology Policy* (3 credits)
- PHD 3998 Health Care Delivery in EHR Enabled Environment (3 credits), **or** HI 6328 Health Care Delivery in EHR Enabled Environment* (3 credits)
- PHD 3998 Operations, Technology, and Decision Management (3 credits)
- HI 5327 Standards in Health Informatics* (3 credits)
- HI 5381 Methods of Public Health Informatics* (3 credits)

*These courses are offered by UTHealth School of Biomedical Informatics

Interdepartmental BREADTH AREAS

Interdepartmental concentrations offered at the school can also be considered as a breadth. The concentrations are listed below. See <https://sph.uth.edu/academics/concentrations/> for required courses and electives for each area of study.

- Global Health
- Health Disparities
- Leadership Studies
- Maternal and Child Health
- Nutrition and Public Health
- Physical Activity and Health