PH Graduate Program

Electives for MS/PhD in Population Health:

Epidemiology option appears on transcript and the requirement on the below list has to be fulfilled. Other elective lists are FYI and provide suggestions for concentration and for meeting total credit requirements for MS or PhD. Specific courses offerings vary and change, and students are strongly recommended to check the UW Course Guide web site for the most current information. Course descriptions are sometimes available at the links provided, which may also list additional courses of interest.

**Electives for Epidemiology Option (MS requires 2 of these and PhD requires 3)**

[https://pophealth.wisc.edu/grad/courses.htm](https://pophealth.wisc.edu/grad/courses.htm)

PHS 621 Intro to Nutritional Epidemiology (1 cr)
PHS 650 (sec 074) Special Topics in Environmental Health Epidemiology (2 cr)
PHS 713 Epidemiology of HIV/AIDS (1 cr)
PHS 740 Health Impact Assessment of Global Environmental Change (3 cr)
PHS 750 Cancer Epidemiology (2 cr)
PHS 780 Public Health Principles and Practice (3 cr)
PHS 786 Social and Behavioral Sciences in Public Health (3 cr)
PHS 789 Principles of Environmental Health (3 cr)
PHS 791 Physical Activity Epidemiology (3 cr)
PHS 801 Epidemiology of Infectious Diseases (3 cr)
PHS 805 Advanced Epidemiology: Causal Inference in Epidemiological Studies (3 cr)*
PHS 806 Advanced Epidemiology: The Practice of Epidemiology (3 cr)*
PHS 807 Reproductive and Perinatal Epidemiology (2 cr)
PHS 847 Cardiovascular Epidemiology (1 cr)
PHS 849 Genetic Epidemiology (3 cr)
PHS 888 Public Health Genomics (1 cr)
PHS 904-103 Analytic Methods of Genetic Epidemiology (3 cr)
PHS 904-104 Global Health Epidemiology (2 cr)
PHS 955 Seminar in Physical Activity Epidemiology (1 cr)

* Note that either PHS805 or PHS806 is required for the Epidemiology option. The other can count as an elective.

**Clinical Concentration**

[https://pophealth.wisc.edu/grad/courses.htm](https://pophealth.wisc.edu/grad/courses.htm)
[https://www.biostat.wisc.edu/department-courses](https://www.biostat.wisc.edu/department-courses)
[https://medhist.wisc.edu/courses/courses.php](https://medhist.wisc.edu/courses/courses.php)
[http://www.stat.wisc.edu/courses/course-listing](http://www.stat.wisc.edu/courses/course-listing)

PHS 471 Introduction to Environmental Health (3 cr)
PHS 502 Air Pollution and Human Health (3 cr)
PHS 621 Introduction to Nutritional Epidemiology (1 cr)
PHS 703 Quality of Health Care: Evaluation and Assurance (1-3 cr)
PHS 713 Epidemiology of HIV/AIDS (1 cr)
PHS 718 International Health Systems (2 cr)
PHS 801 Epidemiology of Infectious Disease (3 cr)
PHS 805 Advanced Epidemiology: Causal Inference in Epidemiological Studies (3 cr)
PHS 806 Advanced Epidemiology: The Practice of Epidemiology (3 cr)
PHS 807 Reproductive and Perinatal Epidemiology (2 cr)
PHS 810 Conspiracies in Public Health (2 cr)
PHS 847 Cardiovascular Epidemiology (1 cr)
PHS 849 Genetic Epidemiology (3 cr)
PHS 850 Cancer Epidemiology (2-3 cr)
PHS 875 Assessment of Medical Technologies (2-3 cr)
PHS 888 Public Health Genomics (1 cr)
PHS 904-003 Analytic Methods in Genetic Epidemiology (2 cr)
PHS 904-004 Global Health Epidemiology (2 cr)
BMI 542 Introduction to Clinical Trials I (3 cr)
BMI 544 Introduction to Clinical Trials II (3 cr)
GEN 731 Clinical Genetics (3 cr)
ISyE 555 Human Performance & Accident Causation (3 cr)
ISyE 559 Patient Safety & Error Reduction in Healthcare (2 cr)
ISyE 653 Organization and Job Design (3 cr)
ISyE 854 Special Topics in Organization Design (1-3 cr)
ISyE 859 Special Topics in Human Factors Engineering (1-3 cr)
MEDHIST 545 Ethical and Regulatory Issues in Clinical Investigation (1 cr)
NUR 761 Health Program Planning, Evaluation, and Quality Improvement (3 cr)
NUTR SCI 631 Clinical Nutrition (4 cr)
STAT 641 Statistical Methods for Clinical Trials I (3 cr)
SOC 952 Event History Analysis (3 cr)

Health Services Concentration

https://pophealth.wisc.edu/grad/courses.htm
https://www.biostat.wisc.edu/department-courses
http://www.aae.wisc.edu/students/courses/
https://www.econ.wisc.edu/phd-courses.htm
http://courses.engr.wisc.edu/courses.php?deptCode=ie
http://law.wisc.edu/courseInfo.descriptions.php
http://www.lafollette.wisc.edu/degree-programs/courses
https://socwork.wisc.edu/swcourses?coursertype_select=6
http://www.stat.wisc.edu/courses/course-listing
http://www.ssc.wisc.edu/soc/courses/syllabi.php

PHS 548 Economics of Health Care (3-4 cr)
PHS 703 Quality of Health Care: Evaluation and Assurance (1-3 cr)
PHS 709 Translational and Outcomes Research in Health and Health Care (3 cr)
PHS 729 Preparedness in Public Health (2 cr)
PHS 848 Health Economics (3 cr)
PHS 875 Assessment of Medical Technologies (3 cr)
PHS 879 Politics of Health Policy (2-3 cr)
AAE 706 Applied Risk Analysis (3 cr)
ECON 845 Advanced Topics in Public Finance (1-4 cr)
ECON 846 Advanced Topics in Public Finance (1-4 cr)
ECON 968 Workshop on Public Economics (1-7 cr)
ECON 969 Workshop on Public Economics (1-7 cr)
ISyE 555 Human Performance & Accident Causation (3 cr)
ISyE 559 Patient Safety & Error Reduction in Healthcare (2 cr)
ISyE 653 Organization and Job Design (3 cr)
ISyE 854 Special Topics in Organization Design (1-3 cr)
ISyE 859 Special Topics in Human Factors Engineering (1-3 cr)
LAW 935 Health Law and Administration Seminar (2-3 cr)
NUR 761 Health Program Planning, Evaluation, and Quality Improvement (3 cr)
PUB AFFR 864 Health Policy and Policy Design (3 cr)
PUB AFFR 880 Microeconomic Policy Analysis (3 cr)
PUB AFFR 881 Benefit-Cost Analysis (3 cr)
SOC WRK 875 Health, Aging, and Disability Policy and Services (2 cr)
BMI/PHS 652 Topics in Biostatistics for Epidemiology (1-3 cr)
STAT 349 Introduction to Time Series (3 cr)
STAT 351 Introductory Nonparametric Statistics (3 cr)
STAT 411 Introduction to Sample Survey Theory & Methods (3 cr)
STAT 456 Applied Multivariate Analysis (3 cr)
STAT 575 Statistical Methods for Spatial Data (3 cr)
STAT 641 Statistical Methods for Clinical Trials (3 cr)
SOC 674 Demographic Techniques I (3 cr)
SOC 751 Survey Methods for Social Research (3 cr)
SOC 752 Measurement & Questionnaires for Survey Research (3 cr)
SOC 544 Introduction to Survey Research (3 cr)
SOC 751 Survey Methods for Social Research (3 cr)
SOC 752 Measurement & Questionnaires for Survey Research (3 cr)
SOC 952 Causality: Mathematical and Statistical Applications in Sociology (3 cr)
SOC 952 Event History Analysis (3 cr)
SOC 952 Path Analysis and Structural Equation Models (3 cr)
SOC 977 Spatial Data Analysis (3 cr)
ED PSYCH 711 Design & Analysis of Quasi-Experiments (3 cr)
ED PSYCH 862 Multivariate Analysis (3 cr)
ED PSYCH 964 Hierarchical Linear Modeling (3 cr)

Social & Behavioral Concentration

https://pophealth.wisc.edu/grad/courses.htm
https://socwork.wisc.edu/swcourses?coursetype_select=6
http://www.ssc.wisc.edu/soc/courses/syllabi.php
http://www.stat.wisc.edu/courses/course-listing

PHS 780 Public Health: Principle and Practice (3 cr)
PHS 786 Social and Behavioral Sciences for Public Health (3 cr)
PHS 810 Conspiracies in Public Health (2 cr)
PHS 848 Health Economics (3 cr)
PHS 875 Assessing Medical Technologies (3 cr)
HDFS 725 Theory and Issues in Human Development (3 cr)
HDFS 872 Bridging the Gap Between Research and Action (3 cr)
NUR 713 Family Process, Health & Illness (3 cr)
NUR 817 Research in Communities, Populations, and Systems (3 cr)
PSYCH 710 Design & Analysis of Psychological Experiments (3 cr)
SOC WRK 945 Evaluation Research (3 cr)
SOC 544 Introduction to Survey Research (3 cr)
SOC 663 Population and Society (3cr)
SOC 726 Population and Development (3 cr.)
SOC 756 Demographic Techniques II (3 cr.)
SOC 751 Survey Methods for Social Research (3 cr.)
SOC 752 Measurement and Questionnaires for Survey Research (3cr.)
SOC 901 Biodemography (3 cr.)
SOC 952 Causality: Mathematical and Statistical Applications in Sociology (3 cr)
SOC 952 Event History Analysis (3 cr)
SOC 952 Path Analysis and Structural Equation Models (3 cr)
SOC 971 Mortality and Health (3 cr.) *(No other versions will apply.)*
SOC 977 Spatial Data Analysis (3 cr.)
ED PSYCH 711 Design & Analysis of Quasi-Experiments (3 cr)
ED PSYCH 773 Factor Analysis, Multidimensional Scaling and Cluster Analysis (3 cr)
ED PSYCH 861 Nonparametric Statistics (3 cr)
ED PSYCH 862 Multivariate Analysis (3 cr)
ED PSYCH 871 Item Response Theory (3 cr)
ED PSYCH 960 Structural Equation Modeling (3 cr)
ED PSYCH 964 Hierarchical Linear Modeling (3 cr)
STAT 575 Statistical Methods for Spatial Data (3 cr)

**Statistics Courses**

http://www.stat.wisc.edu/courses/course-listing
https://www.biostat.wisc.edu/department-courses
https://pophealth.wisc.edu/grad/courses.htm
http://www.ssc.wisc.edu/soc/courses/syllabi.php

BMI/PHS 652 Topics in Biostatistics for Epidemiology (1-3 cr)
STAT 349 Introduction to Time Series (3 cr)
STAT 351 Introductory Nonparametric Statistics (3 cr)
STAT 411 Introduction to Sample Survey Theory & Methods (3 cr)
STAT 456 Applied Multivariate Analysis (3 cr)
STAT 575 Statistical Methods for Spatial Data (3 cr)
STAT 641 Statistical Methods for Clinical Trials (3 cr)
STAT 642 Statistical Methods for Epidemiology (3 cr)
SOC 544 Introduction to Survey Research (3 cr)
SOC 751 Survey Methods for Social Research (3 cr)
SOC 752 Measurement & Questionnaires for Survey Research (3 cr)
SOC 952 Causality: Mathematical and Statistical Applications in Sociology (3 cr)
SOC 952 Event History Analysis (3 cr)
SOC 952 Path Analysis and Structural Equation Models (3 cr)
SOC 977 Spatial Data Analysis (3 cr)
ED PSYCH 711 Design & Analysis of Quasi-Experiments (3 cr)
ED PSYCH 773 Factor Analysis, Multidimensional Scaling and Cluster Analysis (3 cr)
ED PSYCH 861 Nonparametric Statistics (3 cr)
ED PSYCH 862 Multivariate Analysis (3 cr)
ED PSYCH 871 Item Response Theory (3 cr)
ED PSYCH 960 Structural Equation Modeling (3 cr)
ED PSYCH 964 Hierarchical Linear Modeling (3 cr)

**Ethics Electives (All students are required to take at least 1 credit):**

https://pophealth.wisc.edu/grad/courses.htm
https://histsci.wisc.edu/courses/courses.php

PHS 650 Bioethics and Law (1 cr)
HST SCI 515 Public Health Ethics (3 cr)
HST SCI 545 Ethical and Regulatory Issues in Clinical Investigation (1 cr)
HST SCI 558 Ethical Problems in Biomedical Technology (3 cr)
HST SCI 559 Topics in Ethics and History of Medicine (3 cr)
HST SCI 565 Ethics of Modern Biotechnology (3 cr)
HST SCI 610 Regenerative Medicine Ethics and Society (1 cr)
HST SCI 728 Biomedical Ethics and Society (1-3 cr)
HST SCI 730 Ethical Issues in Medicine (1 cr)
HST SCI 734 Graduate Studies in Medical Ethics (1-3 cr)
NUR 802 Ethics and the Responsible Conduct of Research (1 cr)