Epidemiology Graduate Program

Lists of Electives

Please refer to the UW Course Guide for the most current information on course offerings, and to the links provided for available course descriptions.

**Specialization courses for MS and PhD in Epidemiology (9 credits for MS and 12 for PhD required)**

https://pophealth.wisc.edu/grad/courses.htm
http://www.ssc.wisc.edu/soc/courses/syllabi.php

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>STAT 541</td>
<td>Clinical Trials (3cr)</td>
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<tr>
<td>PHS 621</td>
<td>Intro to Nutritional Epidemiology (1 cr)</td>
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<tr>
<td>PHS 650</td>
<td>Special Topics in Environmental Health Epidemiology (2 cr)</td>
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<tr>
<td>PHS 659</td>
<td>Connections: Epidemiology Past, Present, and Future (1cr)</td>
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<tr>
<td>PHS 713</td>
<td>Epidemiology of HIV/AIDS (1 cr)</td>
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<tr>
<td>PHS 750</td>
<td>Cancer Epidemiology (2 cr)</td>
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<tr>
<td>PHS 780</td>
<td>Public Health Principles and Practice (3 cr)</td>
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<tr>
<td>PHS 786</td>
<td>Social and Behavioral Sciences in Public Health (3 cr)</td>
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<tr>
<td>PHS 789</td>
<td>Principles of Environmental Health (3 cr)</td>
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<tr>
<td>PHS 791</td>
<td>Physical Activity Epidemiology (3 cr)</td>
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<tr>
<td>PHS 801</td>
<td>Epidemiology of Infectious Diseases (3 cr)</td>
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<tr>
<td>PHS 805</td>
<td>Advanced Epi.: Causal Inference in Epidem. Studies (3 cr) *</td>
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<tr>
<td>PHS 806</td>
<td>Advanced Epidemiology: The Practice of Epidemiology (3 cr) *</td>
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<tr>
<td>PHS 807</td>
<td>Reproductive and Perinatal Epidemiology (2 cr)</td>
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<tr>
<td>PHS 847</td>
<td>Cardiovascular Epidemiology (1 cr)</td>
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<tr>
<td>PHS 849</td>
<td>Genetic Epidemiology (3 cr)</td>
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<tr>
<td>PHS 888</td>
<td>Public Health Genomics (1 cr)</td>
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<tr>
<td>PHS 904-103</td>
<td>Analytic Methods of Genetic Epidemiology (3 cr)</td>
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<tr>
<td>PHS 904-104</td>
<td>Global Health Epidemiology (2 cr)</td>
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<tr>
<td>PHS 955</td>
<td>Seminar in Physical Activity Epidemiology (1 cr)</td>
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<tr>
<td>SOC 751</td>
<td>Methods of Survey Research: Design &amp; Measurement (3cr)</td>
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<tr>
<td>SOC 752</td>
<td>Methods of Survey Research: Applications (3cr)</td>
</tr>
<tr>
<td>MM&amp;I 603</td>
<td>Clinical and Public Health Microbiology (5 cr)</td>
</tr>
</tbody>
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**Courses that will satisfy the 4th Semester Biostats Requirement (for Epi):**

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 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 471  Statistical Computing (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)
STAT² 761  Decision Trees for Multivariate Analysis (3 cr)
SOC 952¹  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 952  Graphical Models for Causal Inference (3 cr)
EDPSYCH 711  Topic Course (3 cr)
EDPSYCH 773  Factor Analysis, Multidimensional Scaling and Cluster Analysis (3 cr)
EDPSYCH 861  Nonparametric Statistics (3 cr)
EDPSYCH 862  Multivariate Analysis (3 cr)
EDPSYCH 871  Item Response Theory (3 cr)
EDPSYCH 960  Structural Equation Modeling (3 cr)
EDPSYCH 964  Hierarchical Linear Modeling (3 cr)

1) Sociology 952 is a topics course that can be taken with approval for appropriate topics
2) Other Statistics Department courses with numbers 700 and above can be approved on an individual basis for students with required prerequisites in Mathematical Statistics

**Responsible conduct of research and ethics (At least 1 credit is required):**

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

- HST SCI 545  Ethical and Regulatory Issues in Clinical Investigation (1 cr)
- NUR 802  Ethics and the Responsible Conduct of Research (1 cr)
- VET SCI/SURGERY 812  Research Ethics and Career Development (2 cr)
- OBGYN 955  Responsible Conduct of Research for Biomedical Graduate Students (2 cr)
- OBGYN 956  Refresher: Advanced Responsible Conduct of Research (1 cr)

**Suggested elective courses additional to above lists: (Also refer to Population Health Elective lists.)**

[https://www.biostat.wisc.edu/department-courses](https://www.biostat.wisc.edu/department-courses)
[https://pophealth.wisc.edu/grad/courses.htm](https://pophealth.wisc.edu/grad/courses.htm)
BMI 544 Introduction to Clinical Trials II (3 cr)
PHS 780 Public Health: Principles and Practice (3 cr)
PHS 803 Monitoring Population Health
PHS 810 Conspiracies in Public Health (2 cr)
PHS 875 Cost Effectiveness Analysis in Health and Healthcare (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)
SOC 663 Population and Society (3 cr)
SOC 726 Population and Development (3 cr)
SOC 751 Methods of Survey Research: Design & Measurement (3 cr)
SOC 752 Methods of Survey Research: Applications (3 cr)
SOC 901 Biodemography (3 cr)
SOC 971 Mortality and Health (3 cr) (No other versions will apply.)