Introduction to multivariable methods in Epidemiology, including stratified analysis and regression modeling. Students will use statistical software to analyze data from epidemiologic studies. Course Information: Prerequisite(s): EPID 403 and EPID 406; and credit or concurrent registration in BSTT 401; and graduate or professional standing; or consent of the instructor.

EPID 406. Epidemiologic Computing. 3 hours. Hands on course for students using SAS for epidemiologic analysis. Addresses practical issues in statistical programming for epidemiology students. Course Information: Extensive computer use required. Prerequisite(s): Credit or concurrent registration in BSTT 400 and Credit or concurrent registration in EPID 403; or Credit or concurrent registration in BSTT 400 and Credit or concurrent registration in EPID 400; or consent of the instructor.

EPID 408. Biological, Chemical, Explosives, and Nuclear Weapons as Public Health Threats. 3 hours. Preparation, understanding of threats, and rescue & response issues pertaining to potential terrorist incidents from a public health perspective. Course Information: Same as EOHS 408. Prerequisite(s): Graduate or professional standing; or consent of the instructor. Recommended background: EOHS 400 and EPID 410.

EPID 409. The Epidemiology of HIV/AIDS. 2 hours. Review of the HIV/AIDS pandemic and the global response to it focusing on patterns of transmission, risk factors and prevention/intervention. Course Information: Prerequisite(s): EPID 400 or consent of the instructor.

EPID 410. Epidemiology of Infectious Diseases. 2 hours. Epidemiology of selected infectious diseases, including incidence, prevalence and control of disease. Epidemic investigation is emphasized. Course Information: Prerequisite(s): EPID 404 or credit or concurrent registration in EPID 403.

EPID 411. Epidemiology of Chronic Diseases. 3 hours. Selected topics in chronic diseases with critical analysis of current epidemiologic literature. Course Information: Prerequisite(s): EPID 404 or consent of the instructor.

EPID 412. Introduction to Psychosocial Epidemiology. 2 hours. Reviews landmark studies of psychosocial and psychiatric disorders in U.S. communities; evaluates research methodology, case definition, identification, and empirical findings. Course Information: Prerequisite(s): EPID 400 or consent of the instructor.

EPID 428. Epidemiology of Violence. 2 hours. Reviews public health aspects of violence-related mortality and morbidity, examines existing data bases and conceptual frameworks focusing on etiology, epidemiology, surveillance and prevention. Course Information: Prerequisite(s): EPID 400 or consent of the instructor.

EPID 471. Population. 3 or 4 hours. The measurement and study of major trends and differentials in fertility, mortality, migration, growth, and compositional characteristics of the population of the United States and other nations. Course Information: Same as SOC 471. 3 undergraduate hours. 4 graduate hours. Prerequisite(s): 6 hours of upper-division sociology, including SOC 201, or consent of the instructor.
EPID 494. Introductory Special Topics in Epidemiology. 1-4 hours.
Special topics in substantive areas of Epidemiology (including infectious disease, chronic disease, environmental/occupational, social). Course content will vary with each offering. Course Information: May be repeated. Students may register in more than one section per term. Prerequisite(s): EPID 400 or EPID 403 or consent of instructor; and graduate or professional standing.

EPID 500. Applied Methods for the Analysis of Epidemiologic Data. 4 hours.
Students will learn how to apply, interpret and report the findings from quantitative analyses of various types of epidemiologic data, including case-control, cohort, longitudinal and meta-analysis. Course Information: Extensive computer use required. Prerequisite(s): EPID 403 and BSTT 400; or IPHS 402; or IPHS 404 and IPHS 405; or consent of the instructor
Additional course requirements: EPID 404, EPID 406, BSTT 401, and BSTT 505.

EPID 501. Advanced Quantitative Methods in Epidemiology. 4 hours.
The main objective of this course is for students to learn how to quantitatively analyze an epidemiologic dataset and interpret findings in the context of theoretical causal models. Course Information: Prerequisite(s): EPID 403 and EPID 404; and BSTT 401 and BSTT 505; and consent of the instructor.

EPID 509. Current Topics in HIV/AIDS Research. 3 hours.
Designed to be a collaboration among advanced students in the Graduate College and the instructor to explore, critique and analyze in depth selected topics in current research and practice around HIV/AIDS prevention. Course Information: Prerequisite(s): Grade of B or better in EPID 403 or grade of B or better in EPID 409; or consent of the instructor.

EPID 510. Advanced Epidemiology of Infectious Diseases. 2 hours.
Controversies regarding the etiology, transmission and prevention of selected infectious diseases. Literature reviews and study designs developed by students are a prominent part of course. Course Information: Prerequisite(s): EPID 410 or consent of instructor.

EPID 512. Molecular Epidemiology and Biomarkers of Disease. 3 hours.
Major theoretical concepts and practical issues involved in research involving molecular biomarkers in human populations, emphasizing examples from the cancer research literature. Course Information: Same as PATH 512. Prerequisite(s): Consent of the instructor. Recommended background: Some biology or medical background is recommended for epidemiology students taking this course.

EPID 513. Epidemiology of Aging. 2 hours.
Current methodologic and public health issues in the epidemiology of aging will be explored. Course Information: Prerequisite(s): EPID 401 or EPID 411; and consent of the instructor.

EPID 515. Cancer Epidemiology. 3 hours.
Critical review of topics and issues relevant to cancer epidemiology, to promote synthesis of current knowledge and awareness of research issues. Course Information: Prerequisite(s): EPID 401 and EPID 411; or consent of the instructor.

EPID 516. Advanced Cancer Epidemiology. 2 hours.
Critical review of the epidemiology of selected cancer sites to promote synthesis of knowledge, awareness of methodologic issues, and stimulate future research. Course Information: Prerequisite(s): EPID 501 and EPID 515; or consent of the instructor. Recommended background: EPID 520.

EPID 517. Epidemiology of Cardiovascular Diseases. 2 hours.
Epidemiology and risk factors of cardiovascular diseases. Course Information: Prerequisite(s): EPID 411 or consent of instructor.

EPID 518. The Epidemiology of Pediatric Diseases. 3 hours.
Provides students with experience in pediatric epidemiology through review of seminal studies and available child health data. Course Information: Same as CHSC 518. Extensive computer use required. Prerequisite(s): EPID 404 and EPID 406 and BSTT 401; and graduate or professional standing; or consent of the instructor. Recommended background: EPID 501.

EPID 519. Research Protocol and Grant Development. 1 hour.
A review of funding options and examples of developing fundable research proposals. Course Information: Satisfactory/Unsatisfactory grading only. Prerequisite(s): EPID 400.

EPID 520. Genetics in Epidemiology. 2 hours.
Topics in genetic/molecular epidemiology, including genetics, population genetics, molecular biology, molecular genetics. Familiarizes students with laboratory/statistical concepts and applications in epidemiological studies. Course Information: Prerequisite(s): EPID 401 or consent of the instructor.

EPID 526. Pharmacoepidemiology. 3 hours.
Provides an introduction to pharmacoepidemiology and key concepts and principles that are unique to the study of medications in large populations. Course Information: Same as PSOP 526. Extensive computer use required. Taught online. A computer with sufficient memory and Internet access is required. Prerequisite(s): EPID 400 or EPID 403 or consent of the instructor.

EPID 529. Epidemiology of Sexually Transmitted Infections. 3 hours.
Students in this class will examine the epidemiology of sexually transmitted infections (STIs), the epidemiology of the specific diseases, and how these factors are relevant to their control. Course Information: Prerequisite(s): Credit or concurrent registration in EPID 404; and graduate or professional standing; or consent of the instructor.

EPID 530. Current Topics in Occupational and Environmental Epidemiology. 2 hours.
Reviews the literature on health effects of occupational and environmental exposures and integrates our current knowledge with relevant policy issues. Course Information: Same as EOHS 530. Meets eight weeks of the semester. Prerequisite(s): EPID 403; or consent of the instructor.

EPID 535. Applied Methods in Occupational Epidemiology. 2 hours.
Provides students with knowledge of the study designs, measures, and experience in applying statistical methods commonly used in occupational epidemiology. Includes didactic lectures and case studies. Course Information: Same as EOHS 535. Extensive computer use required. Prerequisite(s): Credit or concurrent registration in EPID 404 and EPID 406 and BSTT 401; and graduate or professional standing; or consent of the instructor. Recommended background: EOHS 400.
**EPID 536. Applied Methods in Environmental Epidemiology. 2 hours.**

Provides students with experience in environmental epidemiology methodology through review of literature; discussion of study design and analysis; and analysis of existing data from the National Health and Nutrition Examination Survey. Course Information: Same as EOHS 536. Extensive computer use required. Prerequisite(s): Credit or concurrent registration in EPID 404 and EPID 406 and Credit or concurrent registration in BSTT 401; and graduate or professional standing; or consent of the instructor. Recommended background: Credit or concurrent registration in EOHS 400.

**EPID 545. Reproductive and Perinatal Health. 3 hours.**

Examines the epidemiology of key reproductive and perinatal health outcomes and cutting edge research issues. Course Information: Same as CHSC 545. Prerequisite(s): IPHS 402; and graduate or professional standing; or approval of the department.

**EPID 548. Readings in Reproductive and Perinatal Epidemiology. 3 hours.**

Advanced seminar in reproductive/perinatal epidemiology with particular emphasis on methodological issues. Course Information: Same as CHSC 548. Prerequisite(s): CHSC 511 and EPID 402 and EPID 404; and graduate or professional standing; or approval of the department. Recommended background: Maternal and child health and epidemiology.

**EPID 549. Advanced Applied Methods in MCH Epidemiology. 3 hours.**

Gives conceptual and technical understanding of statistical and epidemiological methods, builds skills/proficiency in applying these. Attention is given to data handling tasks and to statistical/epidemiologic strategies for analysis and presentation. Course Information: Same as CHSC 549. Prerequisite(s): EPID 402 or EPID 404; and BSTT 401 and EPID 406; or consent of the instructor. Recommended background: Maternal and child health and epidemiology.

**EPID 550. Public Health Surveillance. 3 hours.**

Examines the fundamental public health activity known as surveillance from several angles including history, design, illustrative examples, evaluation, data analysis, and communication of findings. Course Information: Meets eight weeks of the semester. Prerequisite(s): EPID 403.

**EPID 554. Occupational and Environmental Epidemiology. 2 hours.**

Methods and issues of environmental epidemiology: outbreak, cluster analysis, cross-sectional, case-control, cohort, ecological, and time series designs; contemporary issues: cancer and reproductive hazards. Course Information: Same as EOHS 554. Prerequisite(s): EPID 401 and BSTT 401 and EOHS 400; or consent of the instructor.

**EPID 555. Outbreak Investigation and Field Epidemiology. 3 hours.**

Emphasize practical issues and decisions that arise during outbreak investigations and will try to prepare the student for participating in and leading outbreak investigations. Course Information: Meets eight weeks of the semester. Prerequisite(s): EPID 403; or consent of the instructor.

**EPID 571. Injury Epidemiology and Prevention. 3 hours.**

Covers general principles of injury epidemiology and intervention research and will engage students in development and application of preventive activities in workplaces and in the community. Course Information: Same as EOHS 571. Prerequisite(s): Grade of B or better in EPID 400 or Grade of B or better in EPID 403; and graduate or professional standing; or consent of the instructor. Recommended background: Grade of B or better in EOHS 400.

**EPID 591. Current Epidemiologic Literature. 2 hours.**

Student presentation of recently published scientific papers of epidemiologic interest, to promote breadth of knowledge and critical examination of evidence. Course Information: Satisfactory/Unsatisfactory grading only. May be repeated. Prerequisite(s): EPID 401 or EPID 403 or consent of instructor.

**EPID 594. Advanced Special Topics in Epidemiology. 1-4 hours.**

Advanced special topics in substantive areas of Epidemiology (including infectious disease, chronic disease, environmental/occupational, social, methods, etc). Course content will vary with each offering. Course Information: May be repeated. Students may register in more than one section per term. Prerequisite(s): EPID 401 or EPID 403 or consent of instructor.

**EPID 595. Epidemiology Research Seminar. 1 hour.**

Current developments in theory and application of biostatistics and epidemiology with presentations by faculty and visiting scientists. Course Information: Satisfactory/Unsatisfactory grading only. May be repeated. Prerequisite(s): Credit or concurrent registration in EPID 400 or EPID 403 or consent of the instructor.