Department of Epidemiology
College of Human Medicine

390 Disease in Society: Introduction to Epidemiology and Public Health
Spring. 4(4-0) Interdepartmental with Social Science. Administered by Epidemiology.

Human epidemiology and population health issues facing contemporary society. Developed and less-developed settings. Health-related information in the mass media and scholarly publications.

546 Information Management: Fundamentals of Epidemiology and Biostatistics
Spring. 1(1-0) RB: Undergraduate mathematics and/or statistics R: Open only to graduate-professional students in the College of Human Medicine.

Introduction to accessing, analyzing, and applying information to patients and to populations. Offered first ten weeks of the semester.

305 Readings in the Historical Roots of Epidemiological Thought
Fall. 3(3-0) Interdepartmental with History. Administered by Epidemiology.

Historical evolution of models of disease causation and population perspectives on disease.

810 Introductory Epidemiology
Fall. 2(2-0) R: Open to graduate students in the Department of Epidemiology or approval of department. SA: HM 810

Disease from a population perspective as the interaction of host, agent, and environment. Case definition, measuring frequency of disease, mortality and morbidity data, and major study designs.

811 Epidemiology Exercises and Applications
Fall. 1(1-0) R: Open to graduate students in the Department of Epidemiology or approval of department. C: EPI 810 concurrently and STT 425 concurrently.

Theoretical, conceptual, and methodological issues in epidemiological practice.

812 Causal Inference in Epidemiology
Fall. 3(3-0) RB: EPI 810 and LCS 829 R: Open to graduate students in the Epidemiology major or approval of department. SA: HM 812

Causality in epidemiology. Application of theoretical concepts to the design, analysis, and assessment of epidemiologic research.

813 Investigation of Disease Outbreaks
Fall, Spring. Summer: 3 credits. RB: EPI 810 or concurrently R: Open to graduate students in the Epidemiology major or approval of department. SA: HM 813

Principles of and practice in investigating disease outbreaks.

814 Nutritional Epidemiology
Fall of odd years. 3(3-0) RB: EPI 810 or concurrently R: Open to graduate students in the Epidemiology major or approval of department. SA: HM 814

Methodologies used in epidemiologic studies of diet and health in the context of U.S. and international dietary patterns. Relationship between diet and specific diseases.

815 Epidemiology of Cardiovascular Disease
Fall of even years. 3(3-0) RB: EPI 810 R: Open to graduate students in the Epidemiology major or approval of department. SA: HM 815


816 Perinatal Epidemiology
Summer of odd years. 3(3-0) RB: EPI 810 R: Open only to graduate students in the Epidemiology major or approval of department. SA: HM 816

Epidemiology of adverse health states in pregnancy and the puerperium. Impact of these health states on subsequent child development.

817 Epidemiology of Communicable Diseases
Fall of even years. 3(3-0) RB: EPI 810 R: Open to graduate students in the Epidemiology major or approval of department. SA: HM 817

Application of principles of epidemiology to research in communicable diseases relevant to public health in the U.S. and other countries.

818 The Epidemiology of Zoonotic Diseases
Fall. 3(3-0) Interdepartmental with Veterinary Medicine. Administered by Epidemiology. RB: EPI 810 R: Open to graduate students in the Epidemiology major or approval of department. SA: HM 818

Human susceptibility to diseases of animals. Modes of transmission, surveillance, and strategies for prevention of specific zoonotic diseases.

819 Spatial Epidemiology and Medical Geography
Summer of even years. 3(3-0) Interdepartmental with Geography. Administered by Epidemiology. RB: EPI 810 R: Open to graduate students in the Epidemiology major or approval of department. SA: HM 819

Concepts, techniques, and utilization of spatio-epidemiologic analyses for human health.

820 Evidence-Based Medicine
Spring of even years. 3(3-0) Interdepartmental with Medicine. Administered by Epidemiology. P:M: (EPI 810 or concurrently) and (STT 421 or concurrently) and (STT 422 or concurrently)

Methodology of clinical epidemiology and health services outcomes research. Linkage of epidemiology with daily clinical problems.

822 Environmental Epidemiology
Fall of odd years. 3(3-2) M: (EPI 810 or concurrently) and (STT 421 or concurrently) RB: Basic science in biology, physiology, immunology R: Open only to graduate students in the Department of Epidemiology or approval of department.

Epidemiology of environmental health effects and risk communication.

823 Cancer Epidemiology
Spring of odd years. 3(3-0) P:M: EPI 810 and STT 421 R: Open to graduate students in the Epidemiology major or approval of department. SA: HM 823


824 Reproductive Epidemiology
Fall of even years. 3(3-0) M: (EPI 810 or concurrently) and (STT 421 or concurrently) RB: Social science or biological science R: Open only to graduate students in the Department of Epidemiology or approval of department.

Epidemiology of reproductive events.

825 Research Methods in Epidemiology
Fall. 3(3-0) P:M: STT 422 R: Open to graduate students in the Epidemiology major or approval of department. SA: HM 825

Historical development of where and how science is practiced in the United States. Scientific culture, sociology, and ethical standards. Principles, standards, and practices which define scientific integrity and responsible research conduct.

827 The Nature and Practice of Scientific Integrity
Spring. 3(3-0) P:M: EPI 810

Historical development of where and how science is practiced in the United States. Scientific culture, sociology, and ethical standards. Principles, standards, and practices which define scientific integrity and responsible research conduct.

830 Epidemiology of Foodborne Diseases and Food Safety: An Overview
Fall. 3(3-0) Interdepartmental with Large Animal Clinical Sciences. Administered by Large Animal Clinical Sciences. RB: (VM 533) or approval of department. R: Open only to graduate students in the colleges of Human Medicine, Osteopathic Medicine, or Veterinary Medicine.


835 Topics and Methods in Neuroepidemiology
Spring of even years. 3(3-0) Interdepartmental with Neurology and Ophthalmology. Administered by Epidemiology. P:M: EPI 810

Epidemiology of neurologic conditions and discussion of the inherent difficulty in studying these disorders.
Analysis of Survival Data
Spring of even years. 3(3-0) Interdepartmental with Statistics and Probability. Administered by Statistics and Probability. RB: STT 422 or STT 442 or STT 862

SAS Programming I: Essentials
Fall, 1(1-0) R: Open only to graduate students in the Epidemiology major or approval of department.
A programming approach to plan and write simple SAS programs to solve common data management and data analysis problems.

SAS Programming II: Data Management and Analysis
Spring 1(1-0) P:M: EPI 851 R: Open only to graduate students in the Epidemiology major or approval of department.
A programming approach to plan and write SAS programs to solve common data management and data analysis problems.

SAS Programming III: Research Data Analysis Using SAS
Summer 1(1-0) P:M: EPI 852 R: Open only to graduate students in the Epidemiology major or approval of department.
A programming approach to plan and write SAS programs to solve data management and data analysis problems in research settings.

Independent Study in Epidemiology
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: EPI 810 R: Open only to master's students in the Epidemiology major. Approval of department. SA: HM 890
Independent study in areas relevant to epidemiology such as population genetics.

Master's Thesis Research
Fall, Spring, Summer. 1 to 12 credits. A student may earn a maximum of 36 credits in all enrollments for this course. R: Open only to master's students in the Epidemiology major. Approval of department. SA: HM 899
Master's thesis research.

Themes in Contemporary Epidemiology
Fall of odd years. 3(3-0) RB: Master of Science in Epidemiology
Discussion and critique of important contemporary themes in epidemiology as reflected in current publications in the field.

Advanced Methods in Epidemiology and Applied Statistics
Spring of even years. 3(3-0) Interdepartmental with Statistics and Probability. Administered by Epidemiology. P:M: EPI 826
Pattern recognition and cluster analysis, longitudinal data analysis, path analysis, repeated measures and time-series analysis.

Research Seminar
Spring of even years. 3(3-0) P:M: EPI 810 and LCS 829 and EPI 812 RB: Master of Science in Epidemiology or equivalent.
Conceptualization, development, and writing of research proposals in epidemiology and other forms of clinical field research.