List of Approved Emphasis Area Courses (Revised 09/2011)

Environmental Health

240 Topics in Environmental Health Promotion and Education (4). Focuses on design of intervention strategies dependent on the environmental agent, exposure to assessment, SES, health effects, stakeholders, and support base. Programmatic design includes media selection, communication/education, and pre/post surveys. Analysis of transborder and local environmental health promotion programs. Prerequisite: graduate standing or consent of instructor.

265 Advanced Environmental Health Science (4). Explores the complex relationships among exposure processes and adverse health effects of environmental toxins focusing on specific chemicals, sources, transport media, exposure pathways, and human behaviors. Techniques of environmental sampling for exposure assessment are discussed.

270 Human Exposure to Environmental Contaminants (4). Introduces founders of conceptual thought that environmental contaminants can impact health. Theory and principles of exposure assessment, the continuum from emissions of a contaminant into the environment to evidence of health effects in a population.

275 Environmental Modeling and Risk Assessment (4). Surveys the general principles, basic mathematical methods, and practices of environmental modeling and human health risk assessment. Topics include advection-dispersion models, risk management, and risk perception. Students conduct an original risk assessment as a final group project. Prerequisites: Mathematics 2A; Statistics 7 or equivalent introductory statistics course.

283 Advanced Geographic Information Systems (4). Contextual GIS software learning for visualizing and analyzing health-related data. Lectures and computer lab focuses on a health care issue which uses ArcView GIS from ESRI, Inc. to analyze data or solve problems. Includes weekly assignments and project case studies. Prerequisites: Graduate standing or introductory GIS course.

Epidemiology

205 Advanced Epidemiologic Methods (4). Advanced topics in the design and statistical analysis of epidemiologic studies. Topics include simulation methods, counter-matching and multiphase study designs, missing data, and Bayesian analysis. Published simulation studies are discussed and replicated using the R software package. Prerequisite: Public Health 101B or Statistics 111 or Statistics 211 or consent of instructor.

202 Genetic Epidemiology (4). Concentrates on the role of genetic factors in the etiology of disease in human populations with an objective of disease control and prevention, and the role of interactions of genetic factors and environmental exposures in the occurrence of disease. Prerequisites: Public Health 203 or 206; graduate standing or consent of instructor.

201 Cancer Epidemiology (4). Concentrates on understanding how epidemiology plays a role in the search for cancer etiology, prevention, control, and treatment; gives an overview of cancer
research with an appreciation of the multidisciplinary nature of the field. Prerequisites: Public Health 203 or 206; graduate standing or consent of instructor.

**281 Infectious Disease Epidemiology (4).** Covers geographical distribution of infectious diseases and the health and disease risk in diverse human populations. Introduces basic methods for infectious disease epidemiology and case studies of important diseases. Includes surveillance, outbreak investigation, emerging pathogens, traditional and molecular epidemiology. Prerequisite: graduate standing or consent of instructor.

**EPI 205 Environmental Epidemiology (4).** Concentrates on epidemiological approaches to the assessment of community environmental hazards; issues involved in environmental exposure estimation; interdisciplinary approaches to environmental epidemiology, including the use of biomarkers of exposures and susceptibility; epidemiological studies within the context of risk assessment.

**EPI 232 Chronic Disease Epidemiology and Prevention (4).** Epidemiological aspects of chronic human diseases. Topics include methodologies for quantifying aspects of prevalent chronic diseases including risk factors, identification of susceptible groups, societal burdens, promising future research; and the intervention, prevention, and control of diseases in populations.

**Sociocultural Diversity and Health**

**242 Theories of Health Communication (4).** Explores the concepts, constructs, and theories of communication in health and risk contexts. Examines interpersonal, family, organizational, and mediated communicative processes about health care and conditions from a global perspective. Prerequisite: graduate standing.

**245 Health Promotion Planning (4).** Introduces strategic planning integral to intervention planning in public health practice and research, emphasizing the fundamental domains of social and behavioral health science and practices. Students develop an intervention plan for a specific health problem, health behavior, and target population. Prerequisite: graduate standing.

**246 Social Research Methods (4).** An interactive graduate seminar covering topics related to the research process and study design. Begins with conceptualizing research questions, hypotheses, and then turns to topics in measurement and concludes with experimental, quasi-experimental, and observational study designs. Prerequisite: graduate standing.

**259 Special Topics in Social and Behavioral Health Sciences (4).** Current research in Social and Behavioral Health Sciences. Topics vary from quarter to quarter. May be repeated for credit as topics vary. Prerequisite: graduate standing or consent of instructor.

**SOC 263 The Sociology and Demography of Health and Illness (4).** Health from a population perspective. Topics include pandemics; the “McKeown debate” (standard of living vs. public health vs. medicine); long-term health changes in developed countries; health and socio-economic status; immigrant health.
282 Advances in Global Health (4) The global burden of disease, the underlying sectorial determinants of health, and health systems development through multiple frames, including: health economics, infectious and chronic disease, nutrition, unintentional and intentional injury, culture, social and political organization, humanitarian emergencies and international organizations.