

# PUBLIC HEALTH SCIENCES (SPH)

## School of Medicine

### SPH 092 – Internship in Community Health (1-12 units)

*Course Description:* Students apply theory and concepts learned in the classroom through field work in a community health agency.

*Prerequisite(s):* Consent of instructor; lower division standing.

*Learning Activities:* Internship 3-36 hour(s).

*Grade Mode:* Pass/No Pass only.

### SPH 099 – Research in Community & International Health (1-12 units)

*Course Description:* Work with faculty member in areas of research interest, including but not limited to injury control, international health, health policy, occupational and environmental health, health promotion and wellness, women's health, and health demographics.

*Prerequisite(s):* Consent of instructor; undergraduate standing.

*Learning Activities:* Variable 3-35 hour(s).

*Repeat Credit:* May be repeated 12 unit(s) with consent of instructor.

*Grade Mode:* Pass/No Pass only.

### SPH 101 – Introduction to Public Health (3 units)

This version has ended; see updated course, below.

*Course Description:* Provide basic concepts and controversies in public health, basic science of public health, social and behavioral factors in health and disease, environmental and occupational health issues, the relationship of public health to the medical care system and health care reform.

*Prerequisite(s):* Undergraduate standing.

*Learning Activities:* Lecture 3 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE) or Social Sciences (SS).

### SPH 101 – Introduction to Public Health (3 units)

*Course Description:* Provide basic concepts and controversies in public health, basic science of public health, social and behavioral factors in health and disease, environmental and occupational health issues, the relationship of public health to the medical care system and health care reform.

*Prerequisite(s):* Undergraduate standing.

*Learning Activities:* Lecture 3 hour(s).

*Enrollment Restriction(s):* Pass One and Pass Two open to Senior standing only.

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE) or Social Sciences (SS).

This course version is effective from, and including: Winter Quarter 2026.

### SPH 102 – Introduction to Human Epidemiology (4 units)

This version has ended; see updated course, below.

*Course Description:* Practice of epidemiology as it relates to human populations. Content is fundamental to the Public Health minor and a required core course.

*Learning Activities:* Lecture 2 hour(s), Discussion 2 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE).

### SPH 102 – Introduction to Human Epidemiology (4 units)

*Course Description:* Practice of epidemiology as it relates to human populations. Content is fundamental to the Public Health minor and a required core course.

*Learning Activities:* Lecture 2 hour(s), Discussion 2 hour(s).

*Enrollment Restriction(s):* Pass One and Pass Two open to senior standing only.

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE).

This course version is effective from, and including: Winter Quarter 2026.

### SPH 103 – Introduction to Health Economics, Services, Policy, Administration & Management (3 units)

*Course Description:* American health care system and how public health leaders, administrators, and researchers can make effective contributions to the populations served.

*Learning Activities:* Lecture/Discussion 3 hour(s).

*Enrollment Restriction(s):* Pass One restricted to undergraduates in senior standing.

*Grade Mode:* Letter.

*General Education:* Social Sciences (SS); Quantitative Literacy (QL).

### SPH 104 – Globalization & Health: Evidence & Policies (3 units)

*Course Description:* Provides an overview of the evidence on the multiple effects of globalization policies on health.

*Learning Activities:* Lecture 3 hour(s).

*Grade Mode:* Letter.

*General Education:* Social Sciences (SS); World Cultures (WC).

### SPH 106 – Intermediate Human Epidemiology (4 units)

*Course Description:* Principles of epidemiological methods including causal inference, sources of bias such as confounding, effect measure modification, screening, and interpreting statistical tests of significance. Ethics and history of epidemiology.

*Prerequisite(s):* NUT 113 C or better or GDB 101 C or better or SPH 102 C or better.

*Learning Activities:* Lecture/Discussion 4 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE).

**SPH 107V – Foundations of Epidemiology (4 units)**

*Course Description:* Foundations of epidemiology. Distribution and determinants of disease and injury in populations. Practice of epidemiology as it relates to human populations. Relationship of epidemiology to public health.

*Learning Activities:* Web Virtual Lecture 2 hour(s), Web Electronic Discussion 2 hour(s).

*Credit Limitation(s):* Not open to students who took SPH 102 or equivalent course from their institution.

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE).

**SPH 108 – Introduction to Program Planning & Evaluation (3 units)**

*Course Description:* Appropriate techniques of community assessment, planning strategies, data collection, data analysis & evidence-based decision-making.

*Learning Activities:* Learning/Discussion 3 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE).

**SPH 109 – History of Epidemiology in Public Health (2 units)**

*Course Description:* Historic events in public health and the epidemiology that paved the way for disease control and prevention.

*Learning Activities:* Lecture/Discussion 2 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE); Domestic Diversity (DD).

**SPH 111 – Evaluation & Research Methods in Public Health (3 units)**

*Course Description:* Evaluation of programs for professionals in the healthcare, social science, economic and business fields. Evaluations to be conducted for both internal and external purposes.

*Learning Activities:* Lecture/Discussion 3 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE).

**SPH 113 – Health Disparities in the U.S. (3 units)**

*Course Description:* Introduction to the principles and practice of health disparities research.

*Learning Activities:* Lecture 3 hour(s).

*Grade Mode:* Letter.

*General Education:* Social Sciences (SS); Domestic Diversity (DD).

**SPH 114 – Air Pollution & Chemicals in the Environment (3 units)**

*Course Description:* Air pollution and chemicals in our environment, covering relevant tools through a series of case studies. Air pollution, environmental justice issues related to air pollution, including variability in exposure across cities, and the increased impacts of air pollution on individuals. Regulations, interventions to reduce exposure, estimating health burden, and the impacts of climate change.

*Learning Activities:* Lecture/Discussion 3 hour(s).

*Enrollment Restriction(s):* Restricted to upper division students.

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE).

**SPH 120 – Introduction to Health Informatics (3 units)**

*Course Description:* Introduction to concepts of health informatics and the impacts of the field on healthcare, research and public health.

*Prerequisite(s):* Upper division standing or consent of instructor.

*Learning Activities:* Lecture 3 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE).

**SPH 121 – Health Informatics Systems (3 units)**

*Course Description:* Health Informatics with a focus on Information Technology. Data gathering, manipulating, storing, retrieving, and classifying.

*Prerequisite(s):* Upper division standing or consent of instructor.

*Learning Activities:* Lecture 1.5 hour(s), Laboratory 1.5 hour(s), Project.

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE).

**SPH 122 – Data Organization & Visualization in Health Informatics (3 units)**

*Course Description:* Approaches to organizing and representing health data with a focus on visualization. Components of health data, visualization tools, methods and users for decision-making and analysis.

*Prerequisite(s):* Upper division standing or consent of instructor.

*Learning Activities:* Lecture/Discussion 1.5 hour(s), Laboratory 1.5 hour(s), Extensive Problem Solving, Term Paper.

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE).

**SPH 132 – Health Issues Confronting Asian Americans & Pacific Islanders (4 units)**

*Course Description:* Health issues confronting Asian Americans & Pacific Islanders.

*Learning Activities:* Lecture/Discussion 4 hour(s).

*Cross Listing:* ASA 132.

*Grade Mode:* Letter.

*General Education:* Social Sciences (SS).

**SPH 160 – General Health Education & Prevention (5 units)**

*Course Description:* Topics include addiction, substance abuse/prevention, nutrition, stress management, physical fitness, body image, reproductive anatomy & physiology, contraceptive options, safer sex, sexual health, healthy relationships, and other general wellness/health promotion topics. Practice in peer counseling and outreach presentations.

*Learning Activities:* Lecture 4 hour(s), Discussion 1 hour(s).

*Enrollment Restriction(s):* Open to students in the internship program for the Health Education Program only; limited to 50 students.

*Grade Mode:* Pass/No Pass only.

**SPH 161 – Campus Alcohol/Other Drug Abuse Prevention Program Peer Educator Training (4 units)**

*Course Description:* Preparation for internship in campus and community substance abuse prevention and educational intervention. Addiction and other physiological responses to alcohol and other drugs. Harm-reduction strategies for individuals and target populations. Practice in peer counseling skills and outreach presentations to groups.

*Prerequisite(s):* SPH 160 (can be concurrent); and consent of instructor.

*Learning Activities:* Lecture/Discussion 3 hour(s), Practice 1 hour(s).

*Grade Mode:* Pass/No Pass only.

### SPH 162 – Health Advocates Peer Educator Training (4 units)

*Course Description:* Preparation for internship in campus and community health promotion and risk reduction. Nutrition, stress management, physical fitness, body image and disordered eating, skin cancer prevention, and other general wellness/health promotion topics.

*Prerequisite(s):* SPH 160 (can be concurrent); and consent of instructor.

*Learning Activities:* Lecture/Discussion 3 hour(s), Practice 1 hour(s).

*Grade Mode:* Pass/No Pass only.

### SPH 180 – Gun Violence: An Interdisciplinary Perspective (2 units)

*Course Description:* Interdisciplinary approach to understanding the causes, consequences and prevention of gun violence.

*Prerequisite(s):* Required to read and interpret quantitative studies; previous coursework involving research design or data analysis, such as ECN 102 or SPH 102, highly recommended.

*Learning Activities:* Lecture/Discussion 2 hour(s).

*Grade Mode:* Letter.

*General Education:* Social Sciences (SS).

### SPH 190 – Topics in Public Health (1 unit)

*Course Description:* Seminar on key issues and current topics in public health.

*Learning Activities:* Seminar 1 hour(s).

*Enrollment Restriction(s):* Pass one restricted to undergraduate seniors.

*Repeat Credit:* May be repeated.

*Grade Mode:* Pass/No Pass only.

### SPH 190C – Research Conference in Community & International Health (1 unit)

*Course Description:* Weekly conference on research problems, progress, and techniques in Community and International Health. Critical discussion of recent journal articles.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Discussion 1 hour(s).

*Repeat Credit:* May be repeated.

*Grade Mode:* Pass/No Pass only.

### SPH 192 – Internship in Community Health Practice (1-12 units)

*Course Description:* The student, through fieldwork in a community health agency, learns to apply theory and concepts learned in the classroom.

*Prerequisite(s):* Consent of instructor. Upper division and graduate students.

*Learning Activities:* Internship 3-36 hour(s).

*Grade Mode:* Pass/No Pass only.

### SPH 198 – Study in Community & International Health (1-5 units)

*Course Description:* Study and experience for undergraduate students in any number of areas in community and international health.

*Prerequisite(s):* Consent of instructor; undergraduate standing.

*Learning Activities:* Variable.

*Grade Mode:* Pass/No Pass only.

### SPH 199 – Research in Community & International Health (1-5 units)

*Course Description:* Student will work with faculty member in areas of research interest, including but not limited to injury control, international health, health policy, occupational and environmental health, health promotion and wellness, women's health, and health demographics.

*Prerequisite(s):* Consent of instructor; undergraduate standing.

*Learning Activities:* Variable 1-5 hour(s).

*Grade Mode:* Pass/No Pass only.

### SPH 201 – Introduction to Public Health (3 units)

*Course Description:* Provides an overview of public health. Covers the history of public health in the U.S.; defines its major functions and constituencies; and, introduces fundamental principles of epidemiology, biostatistics, behavioral sciences, environmental health, infectious diseases, and reducing health disparities.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Lecture 3 hour(s), Discussion/Laboratory 2 hour(s).

*Repeat Credit:* May be repeated 1 time(s).

*Grade Mode:* Letter.

### SPH 202 – Public Health Issues in California's Central Valley (3 units)

*Course Description:* Public health issues in California's Central Valley, including the influences of migration, racial and ethnic diversity, the agricultural industry, environmental exposures, and rurality.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Lecture 3 hour(s).

*Grade Mode:* Letter.

### SPH 203 – Learning & Teaching in Public Health Contexts (2 units)

*Course Description:* Aimed at current and future public health professionals interested in learning more about the educational potential for interactions with community members and other health professionals, all stakeholders in improving the health of communities.

*Prerequisite(s):* Consent of instructor; graduate standing.

*Learning Activities:* Lecture/Discussion 2 hour(s).

*Grade Mode:* Letter.

### SPH 204 – Globalization & Health: Evidence & Policies (3 units)

*Course Description:* Provides an overview of the evidence on the multiple effects of globalization policies on health.

*Learning Activities:* Lecture 3 hour(s).

*Enrollment Restriction(s):* Open to graduate student standing.

*Grade Mode:* Letter.

### SPH 205AY – Epidemiology for Health Professionals (4 units)

*Course Description:* Basic epidemiologic concepts and approaches to epidemiologic research, with examples from human medicine, including outbreak investigation, infectious disease epidemiology, properties of tests.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Lecture 2 hour(s), Web Virtual Lecture 2 hour(s).

*Grade Mode:* Letter.

### SPH 207 – Advanced Epidemiologic Methodology (4 units)

*Course Description:* In-depth integration of advanced epidemiological concepts. Theory, methods, and applications for observational studies including random and systematic error, confounding, counterfactuals, causal inference, effect modification, internal and external validity, estimability, and interpretation of effect measures, and advanced study designs.

*Prerequisite(s):* EPI 206.

*Learning Activities:* Lecture/Discussion 4 hour(s).

*Cross Listing:* EPI 207.

*Grade Mode:* Letter.

### SPH 208 – Principles & Applications of Cancer Prevention & Control (2 units)

*Course Description:* Principles and applications of cancer prevention and control from a public health perspective.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Lecture/Discussion 2 hour(s).

*Grade Mode:* Satisfactory/Unsatisfactory only.

### SPH 209 – History of Epidemiology in Public Health (2 units)

*Course Description:* Introduction to the history of epidemiology in solving major public health problems. Original historical articles will be read/discussed. Topics may include: infectious disease, accidents/adverse events, nutritional deficiencies, community vaccination trials, occupational exposures, cancer, birth defects, cardiovascular disease, and smoking.

*Learning Activities:* Lecture 0.50 hour(s), Discussion 1.50 hour(s).

*Cross Listing:* EPI 209.

*Grade Mode:* Letter.

### SPH 210 – Public Health Informatics (2 units)

*Course Description:* Collection, verification, and utilization of data related to populations; infrastructure, functions, and tools used to generate public health knowledge supporting public health practices and policy development/dissemination.

*Prerequisite(s):* Consent of instructor; graduate standing.

*Learning Activities:* Lecture 2 hour(s), Laboratory 2 hour(s).

*Grade Mode:* Letter.

### SPH 212 – Migration & Health (3 units)

*Course Description:* Principles of migration and health. Topics will include demographics, public health intervention programs, health care delivery, occupational health, and effects of international migration on the health in communities of origin, transit and destination. Guest presentations by outside experts.

*Prerequisite(s):* Graduate standing.

*Learning Activities:* Lecture/Discussion 3 hour(s).

*Grade Mode:* Letter.

### SPH 213 – Health Disparities in the U.S. (3 units)

*Course Description:* Introduction to the principles and practice of health disparities research.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Lecture 3 hour(s).

*Enrollment Restriction(s):* Restricted to Graduate Students.

*Grade Mode:* Letter.

### SPH 214 – Scientific Proposal Writing (3 units)

*Course Description:* Components and writing of research proposals for agencies such as the NIH and NSF.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Lecture/Discussion 2.5 hour(s), Term Paper.

*Enrollment Restriction(s):* Restricted to Public Health Ph.D. students.

*Grade Mode:* Satisfactory/Unsatisfactory Only.

### SPH 215 – GIS for Public Health (3 units)

*Course Description:* Concepts and components of a geographic information system (GIS) and essential skills of operating a functional GIS through the use of ArcGIS software package. Operational processes of spatial data acquisition, editing and QA/QC, metadata development, geodatabase design, spatial query and display, spatial analysis and modeling, preliminary GIS application development, cartographic mapping and dynamic visualization, and GIS implementation basics.

*Learning Activities:* Lecture 3 hour(s).

*Grade Mode:* Letter.

### SPH 220 – Mixed-Methods Approaches to Structural & Community Violence (4 units)

*Course Description:* Mixed-methods approaches to the study and practice of community violence prevention and intervention with a particular emphasis on the social and economic structures and relations of power, privilege, and inequity that increase risk factors associated with violence and decrease protective factors associated with safety.

*Learning Activities:* Lecture 4 hour(s).

*Enrollment Restriction(s):* Open to graduate students only.

*Grade Mode:* Letter.

### SPH 222 – Social & Behavioral Aspects of Public Health (3 units)

*Course Description:* Theories and strategies of health behavior change at the individual, group, community, and environmental levels. Examples include: transtheoretical model, social networks, and social marketing. Theories are applied to solve common public health problems (cancer, obesity, smoking, and HIV/AIDS).

*Prerequisite(s):* STA 102; STA 106; and consent of instructor; graduate standing.

*Learning Activities:* Lecture/Discussion 3 hour(s).

*Grade Mode:* Letter.

### SPH 232 – Health Communication (4 units)

*Course Description:* Health communication theories and research traditions. Topics include consumer health information seeking; physician-patient interaction; information, social marketing, "edutainment," and media advocacy campaigns; social networks and coping; media influences on health; and new communication technologies in health promotion and healthcare delivery.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Seminar 3 hour(s), Term Paper.

*Cross Listing:* CMN 232.

*Grade Mode:* Letter.



**SPH 233 – Persuasive Technologies for Health (4 units)**

*Course Description:* Theorizing, designing and evaluating ethical technology-based health communication interventions. Uses of social media, mobile communication apps, wearable devices, computer-generated tailored messages, educational games, and computational approaches in health promotion and healthcare delivery.

*Learning Activities:* Lecture/Discussion 3 hour(s), Term Paper.

*Cross Listing:* CMN 233.

*Grade Mode:* Letter.

**SPH 235 – Health Communication Campaigns (4 units)**

*Course Description:* Principles of health communication campaign planning, implementation and evaluation. Strategies for changing health behaviors, shaping policy, and improving healthcare organizations' relations with stakeholders.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Lecture/Discussion 3 hour(s), Term Paper.

*Enrollment Restriction(s):* Restricted to graduate students.

*Cross Listing:* CMN 235.

*Grade Mode:* Letter.

**SPH 244 – Introduction to Medical Statistics (4 units)**

*Course Description:* Introduction to statistical methods and software in clinical, laboratory, and population medicine. Graphical and tabular presentation of data; probability, binomial, Poisson, normal, t-, F-, and Chi-square distributions; one and two sample t-test; elementary nonparametric methods; simple linear regression; and correlation.

*Prerequisite(s):* SPH 281; or ability to read a dataset such as a .csv file into SAS and to do data steps (label variables, format values, create new variables) and create summary measures (frequencies and means) in SAS.

*Learning Activities:* Lecture 4 hour(s).

*Cross Listing:* CLH 244.

*Grade Mode:* Letter.

**SPH 244Y – Introduction to Medical Statistics (4 units)**

*Course Description:* Introduction to statistical methods and software in clinical, laboratory, and population medicine. Graphical and tabular presentation of data; probability, binomial, Poisson, normal, t-, F-, and Chi-square distributions; one and two sample t-test; elementary nonparametric methods; simple linear regression; and correlation.

*Prerequisite(s):* SPH 281; or ability to read a dataset such as a .csv file into SAS and to do data steps (label variables, format values, create new variables) and create summary measures (frequencies and means) in SAS.

*Learning Activities:* Discussion/Laboratory 2 hour(s), Web Virtual Lecture 2 hour(s).

*Grade Mode:* Letter.

**SPH 245 – Biostatistics for Biomedical Science (4 units)**

*Course Description:* Analysis of data and design of experiments for laboratory data.

*Prerequisite(s):* CLH 244 or SPH 244; or an equivalent course and consent of instructor.

*Learning Activities:* Lecture 4 hour(s).

*Cross Listing:* CLH 245.

*Grade Mode:* Letter.

**SPH 246 – Biostatistics for Clinical Research (4 units)**

*Course Description:* Emphasizes critical biostatistics for clinical research and targets biomedical audience. Students will develop understanding for basic planning and analysis of clinical studies and learn to develop collaborations with biostatisticians.

*Prerequisite(s):* SPH 245 or CLH 245.

*Learning Activities:* Lecture 4 hour(s).

*Repeat Credit:* May be repeated.

*Cross Listing:* CLH 246.

*Grade Mode:* Letter.

**SPH 247 – Statistical Analysis for Laboratory Data (4 units)**

*Course Description:* Statistical methods for experimental design and analysis of laboratory data including gene expression arrays, RNA-Seq, and mass spec.

*Prerequisite(s):* CLH 245 or SPH 245.

*Learning Activities:* Lecture 4 hour(s).

*Cross Listing:* CLH 247.

*Grade Mode:* Letter.

**SPH 262 – Principles of Environmental Health Science (3 units)**

*Course Description:* Principles, approaches and issues related to environmental health. Recognizing, assessing, understanding and controlling the impact of people on their environment and the impact of the environment on the public.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Lecture 3 hour(s).

*Grade Mode:* Letter.

**SPH 266 – Applied Analytic Epidemiology (3 units)**

*Course Description:* Principles and applications in analysis of epidemiologic data. Methods of analyzing stratified and matched data, logistic regression for cohort and case-control studies, Poisson regression, survival-time methods.

*Prerequisite(s):* MPM 404; or consent of instructor.

*Learning Activities:* Lecture 2 hour(s), Laboratory 2 hour(s).

*Cross Listing:* PHR 266.

*Grade Mode:* Letter.

**SPH 273 – Health Services Administration (3 units)**

*Course Description:* Structure and function of public and private medical care. Topics include categories and trends in national medical spending, predictors of patient use, causes of death, managed care, HMOs, Medicare, Medicaid, costs of technology, and medical care in other countries.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Lecture 3 hour(s).

*Enrollment Restriction(s):* Limited enrollment.

*Grade Mode:* Letter.

**SPH 274 – Economic Evaluation in Health Care (3 units)**

*Course Description:* Cost-effectiveness/cost-benefit analysis (CE/CBA) methods among various economic evaluation methods. CE/CBA is increasingly used to evaluate alternative choices in public health and clinical practice and to enlighten and inform health policy determinations.

*Prerequisite(s):* At least one semester of graduate level Statistics or consent of instructor.

*Learning Activities:* Lecture/Lab 3 hour(s).

*Grade Mode:* Letter.

### SPH 276 – Critical Assessment in Health Policy & Economics (2 units)

*Course Description:* Aims to develop critical reading skills of the health policy and health economics literature, mainly following the microeconomic paradigm and analytical techniques. Some basic concepts of micro economic theory will be explained.

*Learning Activities:* Lecture/Discussion 2 hour(s).

*Grade Mode:* Letter.

### SPH 277 – Net Benefit Regression (3 units)

*Course Description:* Uses regression methods for cost-effectiveness analysis. Focus on methods that create and explain economic information in person-level data.

*Prerequisite(s):* STA 100 or SPH 244 or MPM 202; or consent of instructor. Graduate student standing.

*Learning Activities:* Lecture/Discussion 3 hour(s).

*Enrollment Restriction(s):* Open to graduate students only.

*Grade Mode:* Letter.

### SPH 280 – Introduction to SAS Programming (3 units)

*Course Description:* Introduction to SAS, an integrated software system for data retrieval and management, data manipulation and programming.

*Prerequisite(s):* Introductory statistics course; e.g., MPM 402, STA 102.

*Learning Activities:* Lecture 2 hour(s), Discussion/Laboratory 1 hour(s).

*Cross Listing:* EPI 280.

*Grade Mode:* Letter.

### SPH 281 – Data Management in SAS (1 unit)

*Course Description:* SAS programming for graduate students in the public health sciences or other fields who plan to use SAS software for data analysis.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Discussion/Laboratory 1.50 hour(s).

*Grade Mode:* Satisfactory/Unsatisfactory only.

### SPH 283 – Program Planning & Evaluation (3 units)

*Course Description:* Assessment of population needs, assets and capacities that affect communities' health. Design and selection of methods for evaluating a population-based program.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Lecture 3 hour(s), Discussion/Laboratory 2 hour(s).

*Grade Mode:* Letter.

### SPH 290 – Topics in Public Health (1 unit)

*Course Description:* Key issues and current topics in public health. Begins in August summer session II. Must enroll in August, then Fall and Winter. Course is a series but grades and units are given at end of each quarter.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Seminar 1 hour(s).

*Enrollment Restriction(s):* Restricted to Graduate Students.

*Repeat Credit:* May be repeated 10 time(s).

*Grade Mode:* Satisfactory/Unsatisfactory only.

### SPH 291 – Public Health Sciences Doctoral Seminar (1 unit)

*Course Description:* Seminar to explore research on translational science and rural health; includes presentations of student research in progress.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Seminar 1 hour(s).

*Repeat Credit:* May be repeated 6 time(s) when topic differs; with consent of instructor.

*Grade Mode:* Satisfactory/Unsatisfactory only.

### SPH 292A – Public Health Translational Science Rotation (1-7 units)

*Course Description:* Public Health Translational Science Rotation for Ph.D. students in Public Health Sciences.

*Prerequisite(s):* Ph.D. student in Public Health Sciences or consent of instructor.

*Learning Activities:* Variable 1-7 hour(s).

*Repeat Credit:* May be repeated 8 unit(s) with consent of instructor.

*Grade Mode:* Satisfactory/Unsatisfactory only.

### SPH 292B – Public Health Translational Science Rotation (1-7 units)

*Course Description:* Public Health Translational Science Rotation for Ph.D. students in Public Health Sciences.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Variable 1-3 hour(s).

*Enrollment Restriction(s):* Open to Ph.D. students in Public Health Sciences.

*Repeat Credit:* May be repeated 8 unit(s) with consent of instructor.

*Grade Mode:* Satisfactory/Unsatisfactory only.

### SPH 295 – International Health (2 units)

*Course Description:* Forum for learning health issues and health care systems in other countries. Topics include health care for refugees, the impact of political strife on health, the health care professional in international settings.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Lecture/Discussion 2 hour(s).

*Grade Mode:* Satisfactory/Unsatisfactory only.

### SPH 297 – Public Health Practicum (1-16 units)

*Course Description:* Practical fieldwork experience in public health. Placement site will vary based on the interest and experience of each student.

*Prerequisite(s):* Consent of instructor; open to Master of Public Health students.

*Learning Activities:* Variable 3-32 hour(s).

*Repeat Credit:* May be repeated 4 time(s).

*Grade Mode:* Satisfactory/Unsatisfactory only.

### SPH 298 – Study in Community & International Health (1-5 units)

*Course Description:* Study and experience for graduate students in any number of areas in community and international health.

*Prerequisite(s):* Consent of instructor; graduate student in good academic standing.

*Learning Activities:* Variable 3-15 hour(s).

*Grade Mode:* Satisfactory/Unsatisfactory only.

### **SPH 299 – Research in Community & International Health (1-12 units)**

*Course Description:* Work with faculty member in areas of research interest, including but not limited to injury control, international health, health policy, occupational and environmental health, health promotion and wellness, women's health, and health demographics.

*Prerequisite(s):* Consent of instructor; graduate standing.

*Learning Activities:* Variable 3-36 hour(s).

*Grade Mode:* Satisfactory/Unsatisfactory only.

### **SPH 461 – Clerkship in Community Health Group Practice (3-9 units)**

*Course Description:* Overview of local community health in group practice situations. Students participate in treatment at several clinic sites in Yolo County. Topics include primary care, environmental health, maternal and child health, jail health, and preventive health care for the aged.

*Prerequisite(s):* Third- or fourth-year medical student.

*Learning Activities:* Clinical Activity.

*Grade Mode:* Satisfactory/Unsatisfactory only.

### **SPH 465 – Community Health Preceptorship (3-18 units)**

*Course Description:* Participate at state or county health department or other public health organization in on-going investigations into current public health problems, e.g., birth defects, cancer control, diabetes, hypertension, injury control, infectious diseases, aging, Alzheimer's disease, and smoking and tobacco use control.

*Prerequisite(s):* Consent of instructor; fourth-year medical student in good academic standing.

*Learning Activities:* Clinical Activity 5-40 hour(s).

*Grade Mode:* Honors/Pass/Fail.

### **SPH 466 – Occupational & Environmental Medicine Elective (6-12 units)**

*Course Description:* Participate in activities of Occupational and Environmental Health Unit. Major activity is involvement in an epidemiologic research project of the University. Participate in Occupational and Environmental Medicine Clinic at UC Davis Medical Center and other sites, as arranged.

*Prerequisite(s):* Consent of instructor; fourth-year medical student in good academic standing.

*Learning Activities:* Clinical Activity, Laboratory, Variable 6-12 hour(s).

*Grade Mode:* Honors/Pass/Fail.

### **SPH 470 – Clinical Selective in Occupational & Environmental Medicine (3-6 units)**

*Course Description:* Outpatient clinical experience in Occupational and Environmental Medicine at UCDMC and other sites, as arranged. Gain experience in evaluating occ/env medical conditions, use of medical literature resources, the worker's compensation system, and toxicological principles.

*Prerequisite(s):* Consent of instructor; fourth-year medical student in good academic standing.

*Learning Activities:* Clinical Activity 9-18 hour(s).

*Credit Limitation(s):* Students may take up to four weeks for 6 units.

*Grade Mode:* Honors/Pass/Fail.

### **SPH 480 – Insights in Occupational & Environmental Medicine (1-3 units)**

*Course Description:* Observe and participate in research and clinical activities in occupational and environmental medicine which include conferences, occupational and environmental medicine clinical activities and field visits. Develop and present small individual research projects.

*Prerequisite(s):* Consent of instructor; first- or second-year medical student in good academic standing.

*Learning Activities:* Clinical Activity 3-9 hour(s).

*Grade Mode:* Pass/Fail only.

### **SPH 495 – International Health (2 units)**

*Course Description:* Forum for learning health issues and health care systems in other countries. Topics include health care for refugees, the impact of political strife on health, the health care professional in international settings.

*Prerequisite(s):* Consent of instructor; medical student in good academic standing.

*Learning Activities:* Lecture/Discussion 2 hour(s).

*Grade Mode:* Honors/Pass/Fail.

### **SPH 496 – Current Issues in Public Health (1 unit)**

*Course Description:* Topical issues in public health. Speakers from the local public health community address issues such as disease control programs, access to care.

*Learning Activities:* Lecture/Discussion 1 hour(s).

*Repeat Credit:* May be repeated 3 time(s).

*Grade Mode:* Pass/Fail only.

### **SPH 498 – Study in Public Health Sciences (1-6 units)**

*Course Description:* Study and experience for medical students in areas in community and international health.

*Prerequisite(s):* Consent of instructor; medical student in good academic standing.

*Learning Activities:* Variable 3-18 hour(s).

*Repeat Credit:* May be repeated.

*Grade Mode:* Honors/Pass/Fail.

### **SPH 499 – Research in Public Health Sciences (1-9 units)**

*Course Description:* Work with faculty member in areas of research interest, including but not limited to public health, injury control, international health, health policy, occupational and environmental health, health promotion and wellness, women's health, and health demographics.

*Prerequisite(s):* Medical students with consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated.

*Grade Mode:* Honors/Pass/Fail.