PUBLIC HEALTH SCIENCE (PHS)

PHS 500 INTRO TO PUBLIC HEALTH DSCPLNS (1-3 Hours)

PHS 501 PUBLIC HEALTH & BEHAVIORAL SCI (3 Hours)
This course introduces public health organization and practice, including history, concepts, legal basis, purposes, programs and trends in the evolving of public and private sectors of social and preventive medicine in America. It discusses various behaviorally-related health determinants, and presents a number of theories/models to change behaviors at individual and group levels.

PHS 502 PUBLIC HEALTH POLICY & ADMIN (3 Hours)
This course presents an overarching introduction to national legislative issues and policy processes together with the managerial functions and practices in public and private healthcare organizations. Study emphasis is on the essentials of how executive and supervisory managers professionally perform their roles in the work of leading system-wide teamwork, strategy building, reengineering, resource acquisition, and market effectiveness in competitive environments.

PHS 503 BIOSTATISTICS AND COMPUTER APP (3 Hours)
This course introduces the principles and methods of statistical analysis. Topics include hypothesis testing, confidence limits, sample size, statistical tests of inferences, and simple linear and multivariate analysis. Statistical software packages such as SPSS and Stata will be used in illustrating the basic principles of data analysis.

PHS 504 ENVRNMNTL & OCCUPATIONAL HEALT (3 Hours)
This course introduces major community health concerns and problems in the related fields of environmental and occupational health with an emphasis on disease and disability. Students will review and analyze the policy and ecological change implications of these two public domains.

PHS 505 PRINCIPLES OF EPIDEMIOLOGY (3 Hours)
This course explores the science and practice of epidemiology and its contributions to disease detection, measurement, and prevention in clinical and public health settings. Specific topics include measurement of disease frequency, measurement of disease association, standardization, bias, and study designs. This course also introduces the practical fields of epidemiology.

PHS 506 RESEARCH & QUANTITATIVE MTHDS (3 Hours)
Prerequisite: PHS 503 and PHS 505.
This course introduces students to applied research methods in public health. It emphasizes essential concepts, techniques and methods of research practice. Basic measurement procedures for analyzing health data are examined through SPSS computer software, and the student is required to complete the design of a research study.

PHS 507 APPLIED MASTER'S PROJECT (3 Hours)
Prerequisite: PHS 506 Research and Quantitative Methods.
The Masters¿ Research Project provides a culminating experience of the student¿s scientific and professional practice preparation, including proposal formulation of the problem to be studied or an operational project to be implemented with the evaluating conclusion and defending report of the outcome.

PHS 508 PUBLIC HEALTH INTERNSHIP (3 Hours)
Students conclude their MPH studies with a supervised field experience in their respective specializations. This supervised residency practice operates for the full semester with a student commitment of a minimum of 400 clock hours with the placement organization, recognizing flexible arrangements for the mutual benefit of all parties and including possible compensation. The department, student, preceptor and field setting will abide by a formal affiliation agreement which provides policies and guidelines for the placement expectations and responsibilities. It culminates with an analytical focus on the student¿s concentration area. The report should emphasize the learning objectives and competencies for the internship. Enrollment requires permission of the advisor, the instructor of record, and chair. Completion of the course requires the agency¿s preceptor¿s evaluation.

PHS 511 ORG DESIGN & BEHVR IN PUBLIC H (3 Hours)
This course examines universal organizational theories which adapt to private healthcare and public health services. Students study a framework of analysis looking at the management science explanations of human behavior in these settings from the perspectives of individual worker and patient roles, group and team relationships, and global systems. Topics include professional understanding of organizational culture, conflict, strategic design, change, measuring performance, and creating alliances.

PHS 512 PUB. HEALTH POLICY, LAW & ETHI (3 Hours)
This course provides an overview of principles and policies relating to public health law and ethical applications. This course will explore federal laws and directives, along with state statutes and local ordinances. Recent case law from federal and state courts will be used as illustrations.

PHS 513 FINANCIAL MNGT OF HEALTH SERVS (3 Hours)
Prerequisite: HCA 450 or instructor approvals.
This course explains important financial management techniques applicable to health care settings. Course materials will include the language and function of financial management, analysis of an organization¿s financial position, management of working capital and current assets, budgeting, and the use of financial data for decision making. Students will further their knowledge of computerized information systems through class exercises. Emphasis will be placed on the application of techniques to health services organizations. Students will synthesize techniques through completion of an analysis project and/or research paper in health economic and financing.

PHS 514 HEALTH MNGT INFORMATION SYSTEM (3 Hours)
Prerequisite: Basic knowledge of computing skills.
This course introduces students to systems in managing for-profit and not-for-profit organizations (such as manufacturing, banking, and health care organization) and emphasizes the role of information systems to increase productivity, to improve quality of products and services, and to insure overall effectiveness or organizational operations. Appropriate application software will be used to analyze cases and complete the class project.

PHS 515 MKTG PUBLIC HEALTH & STRATE PL (3 Hours)
This course examines an overview of the strategic planning process and state-of-the-art marketing applications used by community health organizations. Marketing is viewed as a social change opportunity for public health practitioners and the analysis and design of market plans are studied. As an extension of the marketing audit, several key planning strategies and methods are critically reviewed for their relative value to managers and stakeholders in decision making of long-range and short-terms system futures.

PHS 516 HUMAN RESOURCES MNGT IN PUBL H (3 Hours)
This course examines the role of healthcare administrators and supervisors with respect to personnel interviewing, selection, orientation, performance counseling and appraisal; staff development; leadership development; and related functions of human resources management. Issues of job analysis, labor relations, performance appraisal, training and development, and other concerns are studied in relationship to the human resource process system.

PHS 517 MANAGED CARE NETWORKS & PUB HE (3 Hours)
This course introduces the dynamic impact that managed care has had on the delivery of healthcare services and cost containment features of the health plans that thrived in the 1990's. The student will become familiar with all aspects of managed care (HMOs, PPOs, and POS) from effectiveness measurement of these health care plans medical/loss ratios, profit margins and outcomes measurement to the effect on access to quality healthcare services.

PHS 519 HEALTH PROGRAM AND EVALUATION (3 Hours)
This course provides an overview of theories and application of program planning, implementation, and evaluation for public health programs while emphasizing essential components of program planning models and a range or evaluation objectives and designs.

PHS 521 ADVD SEMINAR IN EPIDEMIOLOGY (3 Hours)
Prerequisite: PHS 505.
The hallmark of the course is designing and presenting an epidemiological research study. Emphasis will be placed on the major types of epidemiological study designs: cross-sectional, case-control, cohort, and intervention studies. In addition, diagnostic studies to evaluate screening programs will be discussed.

PHS 522 MULTIVARIATE & PROBABLISTIC BI (3 Hours)
Prerequisite: PHS 503 and PHS 505.
This course addresses modeling and practical application of statistical principals in data analysis. Statistical Software packages such as SAS and SPSS will be used. Topics include probability distributions, simple linear regression, multiple linear regression, log linear modeling, logistic recession, Poisson, and Cox-Proportional Hazard modeling.

PHS 523 CHRONIC AND INFECTIOUS DIS. EP (3 Hours)
Prerequisite: PHS 505.
This course introduces students to various fields of practical epidemiology. This course primarily addresses the epidemiology of cancer, cardiovascular, and infectious diseases.

PHS 524 STAS METHODS FOR APPLIED EPIDE (3 Hours)
Prerequisite: PHS 503 and PHS 505.
This course reviews the basic statistical tools used in epidemiology research. The course includes: sampling and sample size determination, methods to compute confidence intervals and p-values for key epidemiological measures of association, and an overview of regression and statistical methods for analysis of data.

PHS 525 EPIDE. OF MIN. & SPECIAL POPUL (3 Hours)
Prerequisite: PHS 505.
This course introduces the salient features of conducting epidemiological research in special populations with a particular emphasis on African Americans. This course covers the epidemiology of diseases and conditions affecting racial/ethnic minorities, children and the elderly. Other components include psychological and behavioral factors and preventive services.

PHS 528 GENETIC EPIDEMIOLOGY (3 Hours)

PHS 529 PSYCHOSOCIAL EPIDEMIOLOGY (3 Hours)
Prerequisite: PHS 505.
This course provides an overview of the literature incorporating social and personality factors, cultural influences upon individual behavior, stress, and related psychosocial factors as determinants of health. Health and illness determinants are multi-factorial and enmeshed in the social fabric and psychologic constitution of the person and may involve a complex interaction of the person and environment. Psychosocial epidemiological models of chronic disease will be discussed.

PHS 531 HEALTH BEHAVIOR,PROMOTION & ED (3 Hours)
This course provides a comprehensive understanding of health promotion and health education, concepts and applications. It offers students an opportunity to develop a broad understanding of social, cultural and psychological factors as they affect health and health-related behaviors and outcomes at individual, family, and group/community levels. Areas of responsibilities for health educators, as required by the National Commission for Health Education Credentialing (NCHEC) body, are discussed, and students gain competencies essential to pass the Certified Health Education Specialist (CHES) examination. The CHES related skills and competencies in combination with an MPH degree create better job opportunities at state and national levels.

PHS 532 COMMUNITY AND PATIENT HEALTH E (3 Hours)
Prerequisite: Completion of all MPH core courses and PHS 531.
This course examines professional health education practices in most community and individual settings where opportunities exist to acquire and behaviorally deploy personal health knowledge into action. Health risk factors are studied using the socioecological paradigm as applied to a selected community. Furthermore, the roles of the health educator as a community advocate, facilitator and collaborator are explored. Patient education in clinical settings focuses on equipping clinical personnel in the competencies and skills of health promotion techniques.

PHS 533 WELLNESS & MTRNL CHILD HLTH PR (3 Hours)
This course provides the historical perspective, organization and delivery of maternal child health services as well as an analysis of the major health determinants associated with the system of health care and health promotion for this population. Ethical issues, cultural diversity, special and vulnerable populations, disparate health outcomes, environmental health and nutritional issues will be emphasized while highlighted strategies to overcome barriers in health promotion and provision of care.

PHS 534 COMMUNI AND HLTH EDU MARKETING (3 Hours)
Prerequisite: Completion of all MPH core courses, and PHS 531.
This course provides an overview of communication and marketing within a health education context. This course examines communication in health care settings, public health campaigns, and cultural differences in communication.

PHS 535 BEHAVIORAL CHANGE PROG. STRATE (3 Hours)
Prerequisite: PHS 531 Health Behavior Promotion and Education.
This course examines the behavioral science theories which underpin the fundamental ingredients of most change strategies in continuous health program development. Several models/theories that are designed to alter behaviors are discussed. Theories and models of health perception, health promotion and education along and program planning, research and evaluation are explored. Theories of individual health behavior (e.g., Health Belief Model); interpersonal theories (e.g., Social Cognitive Theory), and models for community level behavioral change (e.g., PRECEDE-PROCEDE Model) are discussed; and their applications are shown through research, practices, and actual projects that students undertake in targeted populations. Students also evaluate both classroom case studies and the actual community implementation of health behavior change programs.

PHS 541 ENVL MNGT AND INDUSTRIAL HYGIE (3 Hours)
Prerequisite: PHS 504.
This course introduces students to the basics of Environmental Management and Industrial Hygiene. The course will be divided into two parts. Part I will help students understand the regulatory approaches, effects of pollution and the source of pollutants, and the various environmental management issues. Part II will place an emphasis on control of occupational health hazards that arise as a result of work or during work.

PHS 542 ENVNL & OCPTNL HLTH RISK ASSMT (3 Hours)
This course assists the student in developing the skills necessary to assess, evaluate and recommend control measures to reduce environmental and occupational risks. This course will involve the study of chemical exposures and the harmful actions of chemicals on humans. Students will study scientific methods currently employed to assess human risks to environmental and occupational contaminants.

PHS 543 OCCUPATIONAL HLTH & SAFETY MNG (3 Hours)
This course introduces the field of safety, prevention management, and issues in occupational health. This course will provide the opportunity for the student to apply public health principles and decision making skills with relation to prevention of injury and disease, health promotion, and protection of worker populations from occupational hazards.

PHS 544 ENVL AND OCCUPATIONAL TOXICOLO (3 Hours)
This course examines the basic concepts of toxicology and demonstrates how the basic principles are applied in occupational and environmental regulations. Toxicology, the study of the adverse effects of chemical or physical agents on biological systems, is a pillar of both clinical medicine and public health. Students will acquire the armament to develop, interpret, and utilize toxicological data for solving environmental and occupational health problems.

PHS 545 ENVL PLCY & OCCUP HLTH REGULAT (3 Hours)
Prerequisite: PHS 543.
This course examines Federal laws and regulations concerning environmental and occupational health. This course will introduce students to State environmental policies and occupational health regulations while and emphasize implementation and compliance with environmental and occupational health regulations and laws.

PHS 555 MATERNAL AND CHILD NUTRITION (3 Hours)
This course presents important aspects of growth and development, nutritional requirements and concerns, and dietary recommendations from conception to adulthood. Emphasis is on the special nutritional concerns of minorities and the medical, psycho-social, and environmental factors influencing nutritional status. Topics in current controversies, chronic disease prevention, nutrition education, and health promotion are also covered.

PHS 556 CULTURAL NUTRITION & HLTH DISP (3 Hours)
This course addresses food and its role in the culture and food beliefs and practices of various religious and ethnic groups in the United States. It emphasizes the impact of culture, socio-economic differences, and other factors on food practices and health beliefs to prepare students to provide culturally sensitive services to communities and clients.

PHS 564 COMPARATIVE & INTERTL HLTH SYS (3 Hours)
This course introduces important methodological approaches to comparative analyses. For analytical purposes, the health systems of the world will be classified into four major categories. Important examples from each of these categories will be discussed. Specific objectives of the course are: to discuss the health system categories and their determinants; to identify important components of a health system; and to illustrate the health system categories by selecting country case studies. Health care reform proposals of various countries will also be discussed.

PHS 565 HLTHCARE IN DEVELOPING COUNTRI (3 Hours)
This course introduces the students to health care in settings with severe resource constraints, rapid population growth, critical competing priorities, poor data collection, and high disease burden. Students are prepared for effectiveness in international health by studying infectious disease control, nutrition, environmental health, health practices, and needs for sustainability as they apply to the tropical setting.

PHS 571 STATISTICAL THEORY (3 Hours)
Prerequisite: PHS 503 or an equivalent introductory course in biostatistics.
This course is an introduction to the mathematical foundation of statistics and statistical theory. It provides an in depth coverage that includes probability theory, probability distributions, random variables, theories of statistical testing, interval estimation, and hypothesis testing The course starts with defining a sample space and the random variable then expounds to include distribution and density functions and concludes with applications of hypothesis testing and confidence interval estimation.

PHS 572 STATISTICAL COMPUTER APPS (3 Hours)
The purpose of this course is to teach two statistical computing applications: Statistical Packages for the Social Sciences (SPSS) and Statistical Analysis Software (SAS). This course covers the basic and intermediate applications of these two statistical programming applications. For SPSS, students will learn the following: the basic components of the software (input, analysis and output interfaces), usng the data editor, creating SPSS data file, create and recode variables, and set propertise of variables. For SAS students will learn the following: components to a SAS program, syntax of SAS program, comment statements, the various features of the Data Step, Procedure (PROC) Steps, common features of both Steps, and SAS Utilities will be covered in much detail. Students will apply the knowledge and skills acquired to the generation of statistical reports using descriptive statistics and related charts. The common feature of the PROC Step of statistical methods ranging from Descriptive Statistics through Analysis of Variance.

PHS 587 SPECIAL TOPICS (1-3 Hours)

PHS 598 CONTEMPORARY ISSUES IN PUBL HL (3 Hours)
This course highlights selective topics in public health relevant to today¿s changing public health forum and environment. The topics are designed to encompass a broad range of public health issues. Thus, topics for discussion are addressed within each of the following core areas of public health: Behavioral Health, Biostatics, Environmental Health, Epidemiology and Health-Related Conditions, and Health Care Planning and Organization.

PHS 599 INDEPENDENT STUDY (1-3 Hours)
This is an individual directed study in a specific concentration of public health selected by the student and approved by the professor.

PHS 601 ADVD BIOSTATS & CMPTR SCI APPL (3 Hours)
This course is an advanced, intermediate level course in biostatistics with emphasis on statistical and analytical techniques important to researchers and practitioners within the public health setting. This course provides in depth coverage of bio-statistical methods including statisitcal inference, sample size calculation, and multivariate regression techniques. This course is offered as an advanced PSH 701 with modification in the theoretical exercises and course expectations for examinations.

PHS 602 SAS PROGRAMMING (3 Hours)

PHS 701 ADV BIOSTATISTICS & COMPTR SCI (3 Hours)
This is an advanced course in biostatistics with emphasis on statistical inference, sample size calculations, and multiple regression techniques. The course emphasizes the use of computer software packages in conducting statistical procedures. The software packages include SPSS, SAS, Epi Info, GIS, and others. Emphasis is placed on selecting the appropriate statistical test and the most appropriate analytical procedure. Advanced Biostatistics Lab I course (PHS 711) must be taken simultaneously with this course.

PHS 702 DISEASE PATHOGENESIS&RISK FCTR (3 Hours)
This course addresses the major behavioral factors causing diseases in the nation. The course focuses on cardiovascular disease, cancer, HIV, and other chronic diseases. Disease pathology and pathogenesis are described, and their major determinants and behavioral risk factors are examined. Current models and theories of disease prevention and health promotion are addressed. Students will learn how to implement effective strategies and interventions to reduce risk factors and diseases.

PHS 703 DESGNG RES STUD ON MIN&SPEC PO (3 Hours)
This course examines unique health problems and concerns among African Americans, rural populations, women, children, other minorities and special populations. It describes basic study designs and their strengths and limitations, and addresses specific cultural competencies, research codes of ethics, and health disparities. It also addresses strategies for designing studies and interventions involving lay community leaders, faith-based organizations, and innovative means to reach special communities.

PHS 704 SURV & QUANT RESEARCH METHODS (3 Hours)
This course explores descriptive research methods and emphasizes the importance of using a mixed approach of qualitative and quantitative techniques. Students are provided with an overview of survey research methodology. Questionnaire and interview design, scale construction, methods of administration, response rate, reliability measurements, scale construction and validity are discussed. Also, specific qualitative methods and techniques such as participant observation, interviewing, focus groups, and use of personal documents and records are discussed.

PHS 705 ADVOCACY AND PUBLIC HLTH POLIC (3 Hours)
This course introduces advocacy and support measures for the promotion and formation of new legislation and the establishment of public health policies. Important federal, state, and international legislation is analyzed. The course also addresses the trends and processes by which public health programs are established in the United States and around the world.

PHS 706 PRIN OF ENVMNTAL & OCCU HLTH (3 Hours)

PHS 707 LEADERSHIP FOR PHS PROFESSNLS (3 Hours)
The purpose of this course is to provide students with a foundation not only in the study of leadership practice and theory, but also for the broader concept of leading people and health organization across multiple and interconnected disciplines. It is important for leaders to work collaboratively and appreciate all areas of public health and the important roles that all disciplines play, such as social work, urban planning, anthropology, and education.

PHS 711 ADVANCED BIOSTATISTICS LAB I (1 Hour)
These laboratory courses accompany the Advanced Biostatistics and Computer Applications courses. The computer laboratory courses provide practical experience with the computer software programs discussed in the class. The biostatistics course (PHS 701) and Lab I must be taken at the same time. Lab II and Lab III are taken during the following semesters. Each lab course is a one-hour credit.

PHS 712 Advanced Biostatistics Laboratory II (3 Hours)
SAS statistical software is used for research analysis of public health and clinical data. This course provides hands-on programming approaches to programming and statistical computing skills. It include techniques for entering, data management, and manipulating data combined with step-by-step instruction for analyzing the data using SAS.

PHS 713 ADVANCED BIOSTATISTICS LAB III (1 Hour)
These laboratory courses accompany the Advanced Biostatistics and Computer Applications courses. The computer laboratory courses provide practical experience with the computer software programs discussed in the class. The biostatistics course (PHS 701) and Lab I must be taken at the same time. Lab II and Lab III are taken during the following semesters. Each lab course is a one-hour credit.

PHS 750 COMMUNITY RESEARCH PRACTICUM (1-3 Hours)
This is a supervised community experience where students participate in a community-oriented service or practice to gain first hand knowledge of community issues and decision-making processes. In the context of this experience, the student begins developing a research agenda that should be relevant to community needs and/or practices. Students are required to register for the 1-credit hour practicum during the second semester and maintain enrollment each semester for three consecutive semesters, with the third semester culminating as the capstone experience. A final paper of publishable quality is required for completion of the course and registering for the dissertation.

PHS 755 INDEPENDENT STUDIES IN PUB HLT (1-3 Hours)
This is an individually directed study in a specific concentration in public health selected by the student and approved by the professor.

PHS 798 DISSERTATION (1-15 Hours)
Prerequisite: Consent of the Chair of the Dissertation Committee each semester of enrollment.
Students will complete doctoral level research that demonstrates the ability to conduct a rigorous project within a specific concentration. The research topic, approved by the dissertation committee, should reflect the candidate¿s interest in a problem unique to public health. The completion of a minimum of 45 semester credit hours is required before enrolling in this course. Enrollment must be continuous until the research experience culminates in the successful defense of the dissertation.