H 100. INTRODUCTION TO PUBLIC HEALTH. (4 Credits)
A basic overview of public health. Uses a mix of lectures, guest speakers, classroom activities and homework to help students understand the role of public health in eliminating health disparities, understanding epidemics, and setting policy.
Equivalent to: H 100H

H 100H. INTRODUCTION TO PUBLIC HEALTH. (4 Credits)
A basic overview of public health. Uses a mix of lectures, guest speakers, classroom activities and homework to help students understand the role of public health in eliminating health disparities, understanding epidemics, and setting policy.
Attributes: HNRS – Honors Course Designator
Equivalent to: H 100

H 199. SPECIAL STUDIES. (1-16 Credits)
PREREQ: Departmental approval required. This course is repeatable for 16 credits.

H 206. PROJECTS. (1-16 Credits)
This course is repeatable for 16 credits.

H 210. *INTRODUCTION TO THE HEALTH CARE SYSTEM. (3 Credits)
Provides tools to understand and critically assess the health care delivery system, its components, and the challenges created by its structure. The health care system will be considered from the perspective of several main players [e.g., patients, hospitals, doctors, health plans]. (Bacc Core Course)
Attributes: CPSI – Core, Pers, Soc Proc & Inst

H 220. INTRODUCTION TO HEALTH DATA ANALYSIS. (3 Credits)
Introduction to the application of biostatistics and probability to the health sciences. Topics include quantitative analysis and inference, statistical methods in the biosciences, and quantitative study to evaluate and control health problems.

H 225. *SOCIAL AND INDIVIDUAL HEALTH DETERMINANTS. (4 Credits)
Overview of the macro (social/system/environmental) and micro (individual) contributors to premature disease, disability and population health. Selected behavioral theories supporting health risks and strategies for the prevention of premature disease/disability and the promotion of health. (Bacc Core Course)
Attributes: CPSI – Core, Pers, Soc Proc & Inst

H 250. INTRODUCTION TO HEALTH CARE MANAGEMENT. (3 Credits)
Participants will learn key principles, practices and personalities of health care management. The content is broadly applicable to health care enterprises of every kind: public health organizations, physician practices and clinics, hospitals and health systems, agencies and service organizations, for-profit firms, not-for-profit enterprises, etc.
Prerequisites: H 210 (may be taken concurrently) with C- or better

H 309. PRACTICUM IN HEALTH CARE SERVICES. (3-6 Credits)
Supervised work experience in a health care service setting or health-related agency or program. Weekly progress reports and post-experience summary report and evaluation will be expected. Preplanned with instructor approval. Open to health care administration majors. Graded P/N.
This course is repeatable for 12 credits.
H 385. SAFETY AND HEALTH STANDARDS AND LAWS. (3 Credits)
Emphasis on the Occupational Safety and Health Act; study includes
the scope and duties under the act, enforcement, and adjudication
procedures and OSHA litigation; components of Oregon-OSHA.

H 399. SPECIAL TOPICS. (1-16 Credits)
Equivalent to: H 399H
This course is repeatable for 16 credits.

H 399H. SPECIAL TOPICS. (1-16 Credits)
Attributes: HNRS – Honors Course Designator
Equivalent to: H 399
This course is repeatable for 16 credits.

H 401. RESEARCH AND SCHOLARSHIP. (1-16 Credits)
This course is repeatable for 16 credits.

H 402. INDEPENDENT STUDY. (1-16 Credits)
This course is repeatable for 16 credits.

H 403. THESIS. (1-16 Credits)
This course is repeatable for 16 credits.

H 405. READING AND CONFERENCE. (1-16 Credits)
This course is repeatable for 16 credits.

H 406. PROJECTS. (1-16 Credits)
This course is repeatable for 16 credits.

H 407. SEMINAR. (2 Credits)
Seminar to prepare students for their internship in public health. Focus
is on professionalism, leadership skills, identifying strengths, and
transitioning from college to graduate school or the working world.
Equivalent to: H 407H

H 407H. SEMINAR. (2 Credits)
Seminar to prepare students for their internship in public health. Focus
is on professionalism, leadership skills, identifying strengths, and
transitioning from college to graduate school or the working world.
Attributes: HNRS – Honors Course Designator
Equivalent to: H 407

H 408. WORKSHOP. (1-16 Credits)
PREREQ: Departmental approval required.
This course is repeatable for 16 credits.

H 409. PRACTICUM. (1-6 Credits)
Supervised work experience in a public health or health care
administration setting. Open to majors in public health. Graded P/N.
This course is repeatable for 16 credits.

H 410. INTERNSHIP. (1-12 Credits)
Directed field experience with participation in a community, worksite,
or health agency program. Experience is individually arranged to meet
student needs. Graded P/N.
Prerequisites: H 407 with C- or better
This course is repeatable for 24 credits.

H 418. PUBLIC HEALTH ETHICS AND ISSUES. (3 Credits)
Current ethical issues in public health, including gender and ethnicity in
employment, pharmaceutical controls, product liability, advertising, and
export of high technology.

H 421. MENTAL HEALTH. (3 Credits)
Examination of social, governmental, legal and individual mental health
issues. Brief overview of some major mental disorders.
Prerequisites: H 225 with C- or better and H 320 [C-]

H 422. HEALTH, AGING AND CONTROL OF CHRONIC DISEASES. (4 Credits)
Epidemiology of the major chronic diseases, risk factors, potential
methods of prevention/intervention, ethical issues, and efficacy
of current methods of prevention and control. Emphasis on adult
populations and public health services, policies, and programs at the
local, state, and federal levels designed to promote healthy aging.

H 425. FOUNDATIONS OF EPIDEMIOLOGY. (3 Credits)
Measures of disease frequency; measures of effect; association and
causation; sources of inaccuracy; experimental and observational study
designs. Lec/rec.
Prerequisites: H 220 with C- or better or ST 201 with C- or better or ST 314
with C- or better or ST 351 with C- or better

H 431. HEALTH CARE MARKETING. (3 Credits)
Principles, elements and methods of marketing health care services. Role
of the consumer, governing body, administration and medical staff as well
as impact of professional ethics.

H 432. ECONOMIC ISSUES IN HEALTH AND MEDICAL CARE. (3 Credits)
Application of economic principles to the health care field: the demand
for medical care and insurance, health care suppliers, health care
markets.
Prerequisites: (ECON 201 with C- or better or ECON 201H with C- or
better) and H 210 [C-]

H 434. *HEALTH CARE LAW AND REGULATION. (3 Credits)
Legal aspects of health care delivery; tort law and its applications;
professional liability and liability insurance; laws relative to health care
institutions, cost controls, antitrust and access. (Writing Intensive
Course)
Attributes: CWIC – Core, Skills, WIC
Prerequisites: H 210 with C or better and H 250 [C-] and WR 222 [C-]

H 436. ADVANCED TOPICS IN HEALTH CARE MANAGEMENT. (3 Credits)
Covers how health services are governed and organized; how health care
organizations assess and adapt to change; constraints/opportunities
in shaping organizational performance; leadership; strategic decision-
making and the use of evidence-based management in health care.
Prerequisites: H 210 with C- or better and H 250 [C-]

H 445. *OCUPATIONAL HEALTH. (3 Credits)
Current and historical topics in the area of occupational health, with
particular emphasis on the types of materials that produce human health
effects; clinical and epidemiologic data used to assess the public health
importance of occupational pollutants and to evaluate control strategies.
(Bacc Core Course)
Attributes: CSST – Core, Synthesis, Science/Technology/Society

H 448. PUBLIC HEALTH TOXICOLOGY. (3 Credits)
Introduction to the concepts and principles of toxicology as they apply to
environmental and occupational health.
Prerequisites: H 344 with C- or better

H 449. MASS MEDIA AND HEALTH. (3 Credits)
Designed to examine the effects of mass media on population health,
from the negative impact of advertising of cigarettes, alcohol and junk
food, to the (hopefully) positive impact of public-health campaigns.
Prerequisites: H 225 with C- or better and H 320 [C-]
H 457. FINANCIAL MANAGEMENT OF HEALTH CARE ORGANIZATIONS. (3 Credits)
Utilization of standard financial tools needed to manage the capital resources of health care organizations. Includes funding capital projects, product costing, budgeting methods, capital formation and investment strategies.
Prerequisites: BA 215 with C- or better and H 210 [C-] and H 250 [C-]

H 458. REIMBURSEMENT MECHANISMS. (3 Credits)
Introduces and analyzes the different types of healthcare reimbursement methodologies used in the U.S. health care system.
Prerequisites: H 210 with C- or better

H 461. SEXUALITY: A HEALTH SCIENCE PERSPECTIVE. (3 Credits)
Exploration of the meaning of sexuality from a variety of contemporary health science perspectives; aspects of sex and sexuality fundamental to total health; issues central to the health educator role examined.

H 465. PUBLIC HEALTH AND WOMEN: SOCIAL AND POLICY ISSUES. (3 Credits)
Public health approach to the identification of women's health needs in the United States and in other countries as it relates to the intersection of race, ethnicity, social class, sexual orientation, age, and ability. (Bacc Core Course)
Attributes: CPDP – Core, Perspective, Difference/Power/Discrimination

H 467. LONG-TERM CARE ALTERNATIVES. (3 Credits)
Overview of the long-term care alternatives. Comparisons of nursing homes with community based facilities; adult day care centers, respite to hospice facilities, social HMOs and other services; cost, quality of life and practicality are addressed.

H 468. FINANCING AND ADMINISTRATION OF LONG-TERM CARE. (3 Credits)
Examines the financing and administration of long term care. Emphasis is on a system-wide overview and specific application to nursing facility management.

H 474. PUBLIC HEALTH AND VIOLENCE IN SOCIETY. (3 Credits)
Examination of violence as a major public health issue. Historical, social, environmental, economic, behavioral and psychological aspects of assaultive violence, spousal abuse, rape and sexual assault, child abuse, child sexual abuse, suicide, the effects of the media on violence, drug abuse and violence, and related public health problems in contemporary American society. Emphasis on health and the efficacy of current efforts aimed at ameliorating these problems and potential for alternative public health models for prevention and intervention.

H 476. PLANNING AND EVALUATING HEALTH PROMOTION PROGRAMS. (4 Credits)
A systematic approach to planning, implementing and evaluating health promotion programs in a variety of health related settings. Students will be writing a series of drafts to effectively develop a health promotion program plan. (Writing Intensive Course)
Attributes: CWIC – Core, Skills, WIC
Prerequisites: H 225 with C- or better and H 320 [C-]

H 477. DIETARY INTERVENTIONS FOR PUBLIC HEALTH. (3 Credits)
A public health perspective on the practice of population-based dietary intervention. Examination of relevant theories, research, and practice that pertain to health promoters/educators.
Prerequisites: NUTR 225 with C- or better

H 480. UNDERGRADUATE EOH SEMINAR. (1 Credit)
Explores current topics in environmental health and safety. EOH faculty will discuss their current research interests; EOH graduate student speakers will share their environmental health and safety internship experiences. Documentaries will be viewed to introduce topics of discussion. Features will be discussions relating directly to ongoing, current environmental/occupational health crises, both in the United States and around the world. Graded P/N.
This course is repeatable for 2 credits.

H 489. EMERGENCY AND DISASTER MANAGEMENT. (3 Credits)
Study of preparedness, response, recovery and business resumption strategies, activities and applications needed to effectively deal with emergency and disaster incidents.

H 491. SELECTED TOPICS. (1-3 Credits)
Recent changes and advances in public health and health care administration and their application to special fields of study. Topics vary from term to term and year to year.
Equivalent to: H 491H
This course is repeatable for 6 credits.

H 491H. SPECIAL TOPICS. (1-3 Credits)
Recent changes and advances in public health and health care administration and their application to special fields of study. Topics vary from term to term and year to year.
Attributes: HNRS – Honors Course Designator
Equivalent to: H 491
This course is repeatable for 6 credits.

H 494. APPLIED ERGONOMICS. (3 Credits)
Principles of occupational ergonomics for managing optimal worker performance and well-being.

H 495. DESIGN FOR ENVIRONMENT, SAFETY, AND HEALTH. (3 Credits)
Systematic consideration of environmental, safety, and health concerns at the earliest possible stage in the lifecycle design engineering of products, technologies, and manufacturing processes.

H 501. RESEARCH AND SCHOLARSHIP. (1-16 Credits)
This course is repeatable for 16 credits.

H 503. THESIS. (1-16 Credits)
This course is repeatable for 999 credits.

H 505. READING AND CONFERENCE. (1-16 Credits)
This course is repeatable for 16 credits.

H 506. PROJECTS. (1-16 Credits)
This course is repeatable for 16 credits.

H 507. SEMINAR. (1-16 Credits)
Section 1. Internship (1). Graded P/N.
This course is repeatable for 16 credits.

H 508. WORKSHOP. (1-16 Credits)
This course is repeatable for 16 credits.

H 509. PRACTICUM. (1-16 Credits)
Supervised work experience in a public health or health care administration setting. Open to majors in public health. Graded P/N.
This course is repeatable for 16 credits.

H 510. INTERNSHIP. (1-16 Credits)
Directed field experience with participation in a community, worksite, or health agency program. Experience is individually arranged to meet student needs. Graded P/N.
This course is repeatable for 16 credits.
H 511. COMMUNITY, CULTURE, AND GLOBAL HEALTH. (3 Credits)
Overview of health issues across cultures, ethnic groups, and regional/ national boundaries from a critical and interdisciplinary perspective. Special emphasis on understanding social and behavioral factors that influence health in underserved communities/groups, especially ethnic/racial minorities, women, children, and migrants.

H 512. INTRODUCTION TO ENVIRONMENTAL AND OCCUPATIONAL HEALTH SCIENCES. (3 Credits)
Introduction to environmental and occupational health. Hazards affecting human health are examined in the context of current social, political and regulatory pressures.

H 513. INTEGRATED APPROACH TO PUBLIC HEALTH. (12 Credits)
An integrated approach to introduce students to the core knowledge and methods used in public health, including evidence-based approaches to public health, public health and health care systems, planning and management to promote health, and policy in public health.

H 514. ENVIRONMENT, SAFETY AND HEALTH SEMINAR. (1 Credit)
One-credit graduate seminar on current topics of interest and importance to the environmental health and occupational safety field. Critical reading of research publications, discussion of controversial issues facing ESH professionals, and/or presentation of current ESH research. This course is repeatable for 3 credits.

H 515. RESEARCH METHODS IN SOCIAL AND BEHAVIORAL HEALTH SCIENCES. (3 Credits)
Provides an introduction to quantitative research methods and design. Topics include definition of research problems and questions, hypothesis generation, research design, sampling, variable definition and measurement, data collection, and ethical considerations. Also provides a brief introduction to qualitative and mixed methods.

H 516. RESEARCH METHODS IN GLOBAL HEALTH. (3 Credits)
Overview of research methods used to understand health, illness, health care, and health-seeking behavior in international settings. Special emphasis on the use of qualitative and mixed methods in international health research.

H 518. PUBLIC HEALTH ETHICS AND ISSUES. (3 Credits)
Current ethical issues in public health, including gender and ethnicity in employment, pharmaceutical controls, product liability, advertising, and export of high technology.

H 519. DISPLACEMENT, MIGRATION, AND GLOBAL HEALTH. (3 Credits)
Critical examination of health of displaced/migrant populations with an emphasis on health disparities and social determinants. Understanding intersections of humanitarianism, migration, vulnerability, and displacement from a global health perspective.

H 520. HEALTH DISPARITIES. (3 Credits)
Health disparities based on race/ethnicity, culture, social class, and rural/urban residence, among others; strategies to reduce disparities, promote health, and prevent disease in diverse populations.

H 521. MENTAL HEALTH. (3 Credits)
Focus upon mental health policy development, in relation to federal and state government services and regulations, implementation of services.

H 522. HEALTH, AGING AND CONTROL OF CHRONIC DISEASES. (4 Credits)
Epidemiology of the major chronic diseases, risk factors, potential methods of prevention/intervention, ethical issues, and efficacy of current methods of prevention and control. Emphasis on adult populations and public health services, policies, and programs at the local, state, and federal levels designed to promote healthy aging.

H 523. FOUNDATIONS OF PUBLIC HEALTH. (4 Credits)
Fundamental principles, concepts and tools used in public health to promote the health of populations. Using a combination of case study method, lecture and discussion, students will develop a broad understanding of public health and recognition of how discipline-specializations address the social, behavioral and environmental determinants of public health.

H 524. INTRODUCTION TO BIOSTATISTICS. (4 Credits)
Quantitative analysis and interpretation of health data including probability distributions, estimation of effects, and hypothesis-tests such as Chi-square, one-way ANOVA, and simple linear regression.

H 525. EPIDEMIOLOGICAL METHODS I. (3 Credits)
Introduction to the concepts and methods of epidemiology. Topics include measures of population health, screening, study design, measures of association, and interpretation of epidemiological data. Prerequisites: H 513 with B- or better or HHS 514 with B- or better

H 526. EPIDEMIOLOGIC METHODS II. (3 Credits)
Concepts and methods of epidemiological analysis; standardization; stratified analysis; confounding and its control; planning and conducting epidemiologic research; role of multivariate analysis in epidemiologic research. Prerequisites: H 524 with B- or better and H 525 [B-]

H 527. CRITICAL ASSESSMENT OF INTERNATIONAL HEALTH PROGRAMS. (3 Credits)
Introduces the critical evaluation framework of assessing international health development programs, based on self-determination and community ownership principles. The framework of assessment method includes three levels: upstream evaluation, midstream evaluation, and downstream evaluation.

H 528. GLOBAL HEALTH ISSUES. (3 Credits)
Examines major issues in health developments of global significance, their causes and impacts on international health, and methods and strategies to address them.

H 529. INTERNATIONAL HEALTH. (3 Credits)
Overview of the epidemiological, economic, political, sociological, and cultural factors that impact on international health. Special emphasis on the methods of prevention/intervention utilized in coping with health problems on an international level.

H 530. HEALTH POLICY ANALYSIS AND POLITICS. (3 Credits)
Examination of current health policy issues affecting health care programs, services, and organization as well as the role of politics in public health and health policy. Exploration of processes by which health policy proposals are generated, promoted, defeated, modified and implemented. Prerequisites: H 533 with B- or better or HHS 514 with B- or better

H 532. ECONOMIC ISSUES IN HEALTH AND MEDICAL CARE. (3 Credits)
Application of economics principles to the health care field: the demand for medical care and insurance, health care suppliers, health care markets.

H 533. HEALTH SYSTEMS ORGANIZATION. (3 Credits)
Examines the nature of health and health care services and reviews the role of government and the free market on health services. Alternative ways of organizing, financing, and delivery of health care services are explored.

H 534. HEALTH CARE LAW AND REGULATION. (3 Credits)
Legal aspects of health care delivery; tort law and its applications; professional liability and liability insurance; laws relative to health care institutions, cost controls, antitrust and access.
**H 535. INTERPRETING EPIDEMIOLOGIC EVIDENCE.** (3 Credits)

Intended for students in the human sciences and allied health fields. Introduces basic epidemiology concepts. Topics will include measures of disease frequency, assessing population health, causal logic, quantifying associations between exposures and health outcomes, epidemiologic study design, and threats to study validity (random error, bias, confounding). Examples focus on application of epidemiological methods to a variety of health-related fields.

**H 536. HEALTHCARE ORGANIZATION LEADERSHIP THEORY AND BEHAVIOR.** (3 Credits)

Overview of organization theory and behavior in health care organizations. Emphasis is on developing an understanding of the factors and forces that influence the structures, behaviors, and operations of health care delivery organizations. This understanding will be developed through consideration of organizations, their environments, and the roles of individuals working in management.

**Prerequisites:** H 513 with B- or better or HHS 514 with B- or better

**H 537. INJURY EPIDEMIOLOGY.** (3 Credits)

An overview of the distribution and determinants of injuries, methodological issues specific to injury epidemiology, and approaches to injury control.

**Prerequisites:** H 513 with B- or better or H 525 with B- or better or H 535 with B- or better or HHS 513 with B- or better

**H 538. PUBLIC AND PRIVATE HEALTH INSURANCE.** (3 Credits)

Introduction to the principles and practices of public or social and commercial health insurance, and their financial reimbursement mechanisms.

**H 540. WATER AND HUMAN HEALTH.** (3 Credits)

Critically examine the complex relationship between water quality, human activities, and population health.

**H 541. AIR QUALITY AND HUMAN HEALTH.** (3 Credits)

Examination of the major sources of air pollution, its impact on ecosystems and climate change, and population health. Will also discuss technologies and introduce regulations that are used to control air pollutants.

**H 542. ENVIRONMENTAL AND OCCUPATIONAL HEALTH RISK ASSESSMENT.** (3 Credits)

Understand concepts, principles and practices in modern environmental and occupational risk analysis and how they are utilized to make evidence-based decisions by regulatory agencies.

**H 543. EXPOSURE SCIENCE I.** (4 Credits)

Overview of the concepts, principles and practices in modern environmental and occupational exposure assessment. Exposure Science I provides a broad introduction to environmental and occupational exposure assessment methods, while Exposure Science II focuses on sampling and measurement methods.

**H 544. ENVIRONMENTAL AND OCCUPATIONAL EPIDEMIOLOGY.** (3 Credits)

Examines exposure assessment methodology and epidemiological study designs that are commonly used in environmental and occupational health science in order to characterize the impact of environmental and occupational exposures on population health.

**Prerequisites:** H 525 with C or better

**H 545. OCCUPATIONAL HEALTH.** (3 Credits)

A broad overview of occupational health including recognizing and preventing risks from toxic chemical, radiation and physical hazards in the workplace.

**H 546. PHYSICAL AGENTS AND HUMAN HEALTH.** (3 Credits)

Focus on physical agents (heat, noise, vibration, radiation) and health risks associated with these agents. It covers the range and sources of exposure to physical agents, methods of characterizing these exposures, effects on human health, and the regulations/standards that set limits for physical agents. Lec/lab.

**H 547. GIS AND PUBLIC HEALTH.** (4 Credits)

Applications of geographic information systems (GIS) to public health are reviewed, including mapping, spatial analysis methods, estimating access, and exposure assessment. This course is geared toward individuals involved in public health who have no (or introductory level) knowledge of GIS. Lec/lab.

**H 548. PUBLIC HEALTH TOXICOLOGY.** (3 Credits)

Introduction to the concepts and principles of toxicology as they apply to environmental and occupational health.

**H 549. MASS MEDIA AND HEALTH.** (3 Credits)

Examines the effects of mass media on population health, from the negative impact of advertising of cigarettes, alcohol and junk food, to the (hopefully) positive impact of public health campaigns.

**Prerequisites:** H 571 with C or better

**H 550. SOCIAL EPIDEMIOLOGY.** (3 Credits)

Explores the social determinants of health at the population level. Primary focus is on introduction to methods specific to social epidemiology, but will also provide an overview of current understanding of the empirical associations between social factors and health.

**Prerequisites:** H 525 with B or better

**H 551. APPLIED EPIDEMIOLOGICAL ANALYSIS OF SECONDARY DATA.** (3 Credits)

Practical experience performing a hypothesis-driven epidemiological analysis utilizing secondary surveillance or other appropriate data set, writing an analytical plan, appropriate programming for the analysis (using STATA or SAS), understanding the analysis output, preparing tables, and interpreting results.

**Prerequisites:** H 526 with B- or better and H 560 [B-] and H 580 [B-]

**H 552. DISASTER EPIDEMIOLOGY.** (3 Credits)

Describe the impact of natural and manmade disasters on human health, understand epidemiologic methods specific to disasters, and apply fundamental epidemiologic methods to identify and characterize disaster-related adverse health outcomes.

**Prerequisites:** H 513 with B- or better or H 525 with B- or better or H 535 with B- or better or HHS 514 with B- or better

**H 554. EPIDEMIOLOGY OF AGING.** (3 Credits)

An overview of the core principles of the epidemiology of aging is provided. There will be an emphasis on health and disease processes in older adults. Students will learn essential study design and analytic issues that may arise in studies of aging.

**Prerequisites:** H 513 with B- or better or H 525 with B- or better or H 535 with B- or better or HHS 514 with B- or better

**H 555. CANCER EPIDEMIOLOGY.** (3 Credits)

Introduction to basic concepts and methodology in cancer epidemiology.

**Prerequisites:** H 513 with B- or better or HHS 514 with B- or better or H 525 with B- or better or H 535 with B- or better

**H 556. STRATEGIC MANAGEMENT OF HEALTH SERVICE ORGANIZATIONS.** (3 Credits)

Theories and methodologies of long-range planning and strategic management in health care organizations.
H 557. FINANCIAL MANAGEMENT OF HEALTH CARE ORGANIZATIONS. (3 Credits)
Utilization of standard financial tools needed to manage the capital resources of health care organizations. Includes funding capital projects, product costing, budgeting methods, capital formation and investment strategies.

H 558. REIMBURSEMENT MECHANISMS. (3 Credits)
Techniques used in cost-effectiveness analysis. Examples are drawn from the public health and health economics literature.

H 560. PUBLIC HEALTH SURVEILLANCE. (3 Credits)
An introduction to public health surveillance systems (national and international) for chronic and infectious diseases. Utility of existing surveillance systems for secondary epidemiological data analysis.
Prerequisites: H 524 with B- or better and H 525 [B-]

H 562. INFECTIOUS DISEASE EPIDEMIOLOGY. (3 Credits)
Understand epidemiologic methods specific to infectious diseases, apply fundamental epidemiologic methods to infectious disease questions, and describe the broad trends in global infectious disease burden. The application methods and principles will be explored through lectures, discussions, assignments and writing projects.
Prerequisites: H 513 with B- or better or H 525 with B- or better or H 535 with B- or better or H 514 with B- or better

H 563. PHYSICAL ACTIVITY EPIDEMIOLOGY. (3 Credits)
Physical activity epidemiology will focus on current research, controversial issues, and methodological problems in the epidemiology of physical activity, exercise, and health.
Prerequisites: H 513 with B- or better or HHS 514 with B- or better or H 525 with B- or better or H 535 with B- or better

H 564. COMPUTING TOOLS AND HEALTH DATA ANALYSIS. (3 Credits)
Modern computational biostatistics for analyzing health data, emphasizing important technologies and methods for data processing and understanding of how they work. Topics will evolve over time as new procedures are developed.
Prerequisites: (H 524 with C or better or HDFS 530 with C or better)

H 565. PUBLIC HEALTH AND WOMEN: SOCIAL AND POLICY ISSUES. (3 Credits)
Public health approach to the identification of women's health needs in the United States and in other countries as it relates to the intersection of race, ethnicity, social class, sexual orientation, age, and ability.
Equivalent to: BA 565

H 566. DATA MINING IN PUBLIC HEALTH. (3 Credits)
An introduction to high-dimensional data analysis and data mining techniques used as an information technology tool to extract previously unknown and potentially useful information from large databases in biology, medicine, and public health.

H 567. LONG-TERM CARE ALTERNATIVES. (3 Credits)
Overview of the long-term care alternatives. Comparisons of nursing homes with community based facilities; adult day care centers, respite to hospice facilities, social HMOs and other services; cost, quality of life and practicality are addressed.

H 568. FINANCING AND ADMINISTRATION OF LONG-TERM CARE. (3 Credits)
Examines the financing and administration of long-term care. Emphasis is on a system-wide overview and specific application to nursing facility management.

H 569. MATERNAL AND CHILD HEALTH. (3 Credits)
Women's reproductive health and health of children stressing causation, management, and prevention of public health problems. Epidemiological analysis of morbidity and mortality in children and women of childbearing age; impact of social, political and economic influences on the health of women and children; comparison of issues and problems of industrialized versus developing nations. Consideration of health issues of interest to the many diverse racial and ethnic groups of women and children in the U.S. as well as the global village.

H 571. PRINCIPLES OF HEALTH BEHAVIOR. (3 Credits)
Theoretical approaches to behavior change in health promotion/education research and practice; factors influencing health behaviors, ethical behavior change issues, behavioral interventions for special populations.

H 572. COMMUNITY ORGANIZATION FOR HEALTH PROMOTION AND EDUCATION. (3 Credits)
History, theory, and practice of community organizing for health advocacy; focus on group processes, use of media, leadership, coalitions, grass roots methods and social change.

H 573. INTRODUCTION TO MULTILEVEL/HIERARCHICAL MODELS. (3 Credits)
Introduction to the theory and application of hierarchical models to problems in epidemiology and public health. Hierarchical models will be dealt with using both frequentist and Bayesian frameworks.

H 575. EVALUATION OF HEALTH PROMOTION AND EDUCATION PROGRAMS. (3 Credits)
Provides theoretical and practical bases for program evaluation. Develops basic skills in a variety of approaches to evaluation, including techniques that are particularly suitable for evaluating health promotion, community health improvement, and related health and social services programs. Course learning is synthesized through designing an evaluation framework and methodology for a relevant program.
Prerequisites: H 513 with B- or better or H 515 with B- or better or HHS 514 with B- or better

H 576. PROGRAM PLANNING/PROPOSAL WRITING IN HEALTH/HUMAN SERVICES. (4 Credits)
Planning and preparing of proposals for program initiation, financing, delivery and evaluation in health-related settings; emphasis on funding sources, community, individual, and organizational support.

H 578. INTRODUCTION TO MOLECULAR EPIDEMIOLOGY I. (3 Credits)
A survey of and introduction to the methods and issues arising in genetics and molecular epidemiology, including key biostatistical methods, study designs, and technologies used in the conduct of these studies. Students will gain experience conducting critical reviews of research papers with respect to study design and biostatistical analysis.
Prerequisites: (H 524 with C or better and H 526 [C])

H 580. LINEAR REGRESSION AND ANALYSIS OF TIME TO EVENT DATA. (4 Credits)
Multiple linear regression analysis for measurement data and survival analysis methods for time to event health data, including modes of inference, diagnostics, model selection, and reporting conclusions. Lec/lab.
Prerequisites: (H 524 with C or better or HDFS 530 with C or better)
H 581. GENERALIZED LINEAR MODELS AND CATEGORICAL DATA ANALYSIS. (4 Credits)
Biostatistical methods focusing on binary and count data will provide a foundation for understanding and implementing generalized linear regression and categorical data models that are commonly used to analyze epidemiological and public health data from cohort, case-control, and clinical trial study designs. Lec/lab.

H 582. ANALYSIS OF CORRELATED HEALTH DATA. (3 Credits)
Biostatistical methods for clustered, repeated measures, and longitudinal correlated health data, with an introduction to applications of linear and generalized linear mixed models and generalized estimating equations.
Prerequisites: H 581 with C or better

H 583. ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT. (4 Credits)
Studies the design and management principles and practices in the environment, safety and health field.

H 584. ANALYSIS OF INTERVENTION STUDIES AND CLINICAL TRIALS. (3 Credits)
Principles of data analysis from intervention studies and clinical trials, including professional graphical and tabular presentation, reproducibility and reliability of measurements, and controlling the Type I error rate when analyzing multiple endpoints. Basic principles of designing experiments are also covered including blocking, stratification, interaction, and control of variability.
Prerequisites: (H 524 with C or better or HDFS 530 with C or better)

H 585. ENVIRONMENT, SAFETY AND HEALTH POLICY AND LAW. (3 Credits)
Survey of the environment, safety and health policy and law in the United States. Furnishes the basic knowledge and general understanding about policy and law-related issues important to all environmental health and safety professionals.

H 586. BAYESIAN BIOSTATISTICS IN PUBLIC HEALTH. (3 Credits)
An examination of methods for designing and implementing Bayesian analysis to address scientific questions through hands-on experience with health data. This survey course also covers proper interpretation and communication of results from practical Bayesian methods for biostatistics data analysis, with illustrations of the utility of Bayesian ideas in public health.
Prerequisites: H 581 with C or better

H 587. TIME TO EVENT ANALYSIS OF HEALTH DATA. (3 Credits)
Biostatistical models and methods for survival analysis of time to event data that are routinely encountered in biomedical and health research.
Prerequisites: (H 524 with C or better or HDFS 530 with C or better)

H 588. APPLIED OCCUPATIONAL SAFETY AND HEALTH. (3 Credits)
The management and technical aspects of a workplace safety and health program are identified and assessed. Students completing the course receive a 30-hour OSHA General Industry card.

H 589. EMERGENCY AND DISASTER MANAGEMENT. (3 Credits)
Study of preparedness, response, recovery and business resumption strategies, activities and applications needed to effectively deal with emergency and disaster incidents.

H 590. OCCUPATIONAL ERGONOMICS AND BIOMECHANICS. (3 Credits)
Examines the advanced theories, applications, and contemporary topics of occupational ergonomics and biomechanics. Topics include muscle physiology, work-related musculoskeletal disorders, assessing biomechanical exposure in the workplace, various material handling assessment tools, 3-Dimensional Static Strength Prediction Program, human vibrations, and implementing ergonomic interventions.

H 591. SELECTED TOPICS. (1-3 Credits)
Recent changes and advances in public health and health care administration and their application to special fields of study. Topics vary from term to term and year to year. This course is repeatable for 9 credits.

H 592. SPATIAL EPIDEMIOLOGY. (3 Credits)
An introduction to methods in spatial epidemiology is provided, including spatial exploration of health data, quantifying spatial patterns and clusters, spatial exposure assessment, and explaining patterns and associations.
Prerequisites: H 547 with C or better and H 581 [C]

H 593. REPRODUCTIVE EPIDEMIOLOGY. (3 Credits)
Focuses on current research, controversial issues, and methodological problems in the epidemiology of reproductive health.
Prerequisites: H 513 with B- or better or HHS 514 with B- or better or H 525 with B- or better or H 535 with B- or better

H 594. APPLIED ERGONOMICS. (3 Credits)
Principles of occupational ergonomics for managing optimal worker performance and well-being.

H 595. DESIGN FOR ENVIRONMENT, SAFETY, AND HEALTH. (3 Credits)
Systematic consideration of environmental, safety, and health concerns at the earliest possible stage in the lifecycle design engineering of products, technologies, and manufacturing processes.

H 596. HEALTHCARE EPIDEMIOLOGY. (3 Credits)
Focus on current research, controversial issues, and methodological problems in the epidemiology of healthcare. Topics include institutional infection control, medical errors, screening and diagnostic testing, cost-effectiveness, and others related to the delivery and assessment of healthcare, with a focus on the US healthcare system specifically.
Prerequisites: H 513 with B- or better or H 525 with B- or better or H 535 with B- or better or HHS 514 with B- or better

H 597. METHODS IN FOODBORNE DISEASE OUTBREAK INVESTIGATION. (3 Credits)
Focuses on the practical basis for developing and implementing methods for foodborne disease outbreak detection, investigation and control, using recent outbreaks to highlight underlying principles. Biological characteristics of major foodborne disease pathogens, clinical features of the illnesses its causes and epidemiologic presentations of foodborne outbreaks will be reviewed. The implications of these characteristics will be discussed in a problem solving, interactive format that examines theory and practice in the context of recent outbreaks. Strategies to promote timely decision-making will be emphasized.
Prerequisites: H 513 with B- or better or H 525 with B- or better or H 535 with B- or better or HHS 514 with B- or better

H 598. HEALTH POLICY ANALYSIS METHODS. (3 Credits)
Analysis of public policies affecting health care programs, services and organizations and the impact of those programs on citizens. Health services research methods, including data sources for health policy research and health policy literature.
Prerequisites: H 513 with B- or better and H 533 [B-]

H 599. SPECIAL TOPICS. (1-16 Credits)
This course is repeatable for 24 credits.

H 601. RESEARCH AND SCHOLARSHIP. (1-16 Credits)
PREREQ: Departmental approval required.
This course is repeatable for 16 credits.

H 603. THESIS. (1-16 Credits)
This course is repeatable for 999 credits.
H 605. READING AND CONFERENCE. (1-16 Credits)
This course is repeatable for 16 credits.

H 606. PROJECTS. (1-16 Credits)
This course is repeatable for 16 credits.

H 607. SEMINAR. (1-16 Credits)
This course is repeatable for 16 credits.

H 608. WORKSHOP. (1-16 Credits)
This course is repeatable for 16 credits.

H 610. INTERNSHIP. (1-16 Credits)
This course is repeatable for 16 credits.

H 612. DOCTORAL SEMINAR IN PUBLIC HEALTH: RESEARCH AND PRACTICE. (1 Credit)
Contemporary research and professional issues specific to the discipline of public health. Includes responsible conduct of research, writing for publication, professional development and leadership, and faculty research in public health.
This course is repeatable for 9 credits.

H 613. INDEPENDENT RESEARCH PROJECT. (1-9 Credits)
Independent research project for PhD students, including research design, execution or research, and the formal presentation of findings in written form. Student will develop an original research topic based on knowledge and review of the literature in a public health-relevant area of inquiry. Graded P/N.
This course is repeatable for 9 credits.

H 614. RESEARCH MANUSCRIPT. (4 Credits)
PhD students write a manuscript to submit to a peer-reviewed journal as part of the course requirements. Graded P/N.

H 615. ADVANCED EVALUATION AND RESEARCH DESIGN. (3 Credits)
Provides an in-depth examination of advanced research designs and methods for establishing causal statements about the efficacy, effectiveness and generalizability of public health and social service interventions designed to alter public health and social risk or protective factors.

H 620. ADVANCED TOPICS IN GLOBAL HEALTH INTERVENTION AND PRACTICE. (3 Credits)
Examines the processes and tools involved in planning and evaluating culturally competent health and human service prevention and intervention programs in the global context. Special considerations in program decision-making in the global context (community engagement, cultural competence, sustainability, feasibility, political/ethical issues) will be explored. Provides a key forum for doctoral students to share ongoing developments in their research and practice drawing from fieldwork as well as attended conferences and meetings.

H 622. GLOBAL HEALTH SYSTEMS, POLICY AND POLITICS. (3 Credits)
Focuses on learning to identify key stakeholders in the politics of global health, and to be able to describe political and policy processes involved in negotiating global health decisions. Employment of theories and evidence from both the global North and South to explain political processes affecting public health practice and programs.

H 626. GLOBAL HEALTH SYSTEM FINANCE AND STRENGTHENING. (3 Credits)
Introduces an analytical framework of health system finance strengthening for global health, from local community to national level and international level. Develops the analytical skill and knowledge for examining the source and mechanism of financing health systems and identify, mobilize, organize, and manage domestic and global health resources. Provides training to examine equity and efficiency of financial burden in a health system, and the strategies to strengthen it.

H 630. QUANTITATIVE HEALTH POLICY RESEARCH METHODS I. (4 Credits)
Contemporary doctoral-level quantitative health policy/services research methods emphasizing linear regression models, data sources for health policy research, and health policy research literature.
Prerequisites: H 524 with B- or better

H 632. APPLIED HEALTH ECONOMICS. (4 Credits)
Advanced doctoral-level quantitative health policy/services research methods emphasizing causal inference when potential endogeneity is present.
Prerequisites: H 630 with B- or better

H 635. COST EFFECTIVENESS ANALYSIS IN HEALTH AND MEDICAL CARE. (3 Credits)
The primary objective of this course is to introduce students to cost-effectiveness studies in health and medical care. Covers the core concepts of CEA, quality adjusted life years, cost calculations, and decision rules.

H 638. PUBLIC AND PRIVATE HEALTH INSURANCE. (3 Credits)
Introduction to the principles and practices of public or social and commercial health insurance, their finance mechanisms, and theoretical foundation behind the selection of certain system of health insurance and finance method.
Prerequisites: H 533 with C or better

H 639. COMMUNITY-BASED PARTICIPATORY RESEARCH. (4 Credits)
Focuses on initiating and conducting research in partnership with communities. Includes in-depth examination of community-based participatory research (CBPR) elements, principles, theories, and approaches; how researchers can successfully partner with communities; and research with minority and/or underprivileged communities; with examples from environmental health, gerontology, and health promotion.

H 642. ENVIRONMENTAL AND REGULATORY RISK ASSESSMENT. (3 Credits)
Understand concepts, principles and practices in modern risk analysis and how they are utilized to make evidence-based decisions in public health. Focus will be on real world examples of risk assessment by environmental and occupational regulatory agencies.

H 650. REPORTING RESULTS: WRITING FOR EPIDEMIOLOGY. (3 Credits)
Applied experience writing a scientific paper to disseminate results, including deciding on authorship, preparing a lay summary, revising and responding to peer review, and serving as a reviewer.
Prerequisites: H 526 with B- or better and H 551 [B-] and H 580 [B-]

H 651. ADVANCED EPIDEMIOLOGICAL METHODS. (4 Credits)
Covers advanced topics in epidemiology. Course expands on many of the same topics as H 526, and explores them in greater breadth and depth. Topics include causal theory, measures of disease and association, confounding, selection bias, predictive models, directed acyclic graphs, effect modification, mediation, indirect and direct effects, study design, and other contemporary topics.
Prerequisites: H 526 with B- or better and H 581 [B-]
H 652. CAUSAL INFERENCE IN EPIDEMIOLOGY. (3 Credits)
Discussion of the theoretical framework of causal statistics and the development of modern methods including propensity scores and marginal structural models. Focus is on the inverse probability of treatment weighting; discussion of other estimation methods will be included. Additional topics may include longitudinal causal models, causal mediation, instrumental variables, and other contemporary topics. Applied examples will be used for illustration.
Prerequisites: H 651 with B- or better

H 659. QUANTITATIVE HEALTH POLICY RESEARCH METHODS II. (4 Credits)
Advanced doctoral-level quantitative health policy/services research methods emphasizing health care utilization, expenditures, and outcomes data.
Prerequisites: H 630 with B- or better

H 662. ADVANCED METHODS IN INFECTIOUS DISEASE EPIDEMIOLOGY. (3 Credits)
Covers advanced methods and principles for infectious disease research, including framing infectious disease issues into testable hypotheses, designing epidemiologic studies using appropriate sampling strategies, and identifying strengths and weaknesses of various epidemiologic research methods.
Prerequisites: H 526 with B- or better and H 562 [B-]

H 671. ADVANCED THEORIES OF HEALTH BEHAVIOR. (3 Credits)
Provides an in-depth examination of major theories of health behavior (both health compromising and health enhancing).

H 672. ADVANCED QUALITATIVE METHODS IN HEALTH BEHAVIOR. (3 Credits)
Provides an in-depth examination of the use of qualitative methods in health behavior research and practice.

H 673. MEASUREMENT OF HEALTH BEHAVIOR CONCEPTS. (4 Credits)
Provides in-depth study and field work for graduate students in public health and related fields of the methods used in the conceptualization, development, and evaluation of quantitative measures of health behavior and related concepts.

H 675. DEVELOPMENT OF HEALTH BEHAVIOR INTERVENTIONS. (3 Credits)
Examines the application of social/behavioral theories in health promotion interventions and in conducting intervention research in diverse populations. The course will focus on program development, on implementation strategies, and on translation into practice.

H 676. ADVANCED TOPICS IN HEALTH PROMOTION AND HEALTH BEHAVIOR. (3 Credits)
Examines topics of relevance to health promotion and health behavior. Specific topics include current issues and emerging research findings, with a focus on social and behavior science perspectives, analysis of public health problems, and application of principles and practices of health promotion and health behavior.
This course is repeatable for 6 credits.

H 681. ADVANCED TOPICS IN ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY. (3 Credits)
Advanced topics in the environment, safety and health discipline. Content varies with each offering.

H 682. ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY: MOVING FROM RESEARCH TO PRACTICE. (3 Credits)
An examination of research transfer models that can be adapted and implemented to environmental and occupational settings. Case studies and content will vary with each course offering.