

Cendara University

Department of Public Health

Course Catalog 2024–2025

B.Sc. in Public Health

Core Required Courses

PH 101 – Introduction to Public Health Credits: 3

Prerequisites: None

Description:

A foundational survey of public health principles, history, and the role of public health in society. Topics include epidemiological methods, health systems, disease prevention, and community engagement.

PH 110 – Global Health Perspectives Credits: 3

Prerequisites: None

Description:

Explores global trends in morbidity and mortality, the impact of globalization on health, and major international health organizations. Students will examine case studies from the Global South and North.

PH 120 – Health Policy and Management Credits: 4

Prerequisites: PH 101

Description:

Analysis of policy-making processes, organizational structure of healthcare systems, and principles of management in public health settings. Students will evaluate the effectiveness of local, national, and global health policies.

PH 201 – Epidemiology I Credits: 4

Prerequisites: PH 101, PH 110

Description:

Introduction to concepts and methods in epidemiology, including study design, measures of disease frequency, and outbreak investigation. Application of epidemiological reasoning to current public health issues.

PH 215 – Biostatistics Credits: 4

Prerequisites: PH 101 or MAT 100

Description:

Covers descriptive and inferential statistical methods relevant to public health research. Students use statistical software to analyze public health data and interpret findings.

PH 230 – Environmental Health Science Credits: 3

Prerequisites: PH 101

Description:

Focuses on physical, chemical, and biological factors that affect human health. Topics include air and water quality, environmental toxins, and regulation of environmental health risks.

PH 260 – Health Promotion and Behavior Credits: 3

Prerequisites: PH 101

Description:

Investigates theories and strategies for promoting healthy behaviors among populations, with emphasis on program design, social determinants of health, and behavioral change models.

PH 350 – Practicum in Public Health Credits: 3

Prerequisites: Completion of at least 75 credits; Department approval

Description:

Structured fieldwork experience in a community or public health organization. Students apply academic knowledge to practical challenges, culminating in a reflective report and presentation.

Elective Courses

PH 320 – Infectious Disease Epidemiology Credits: 3

Prerequisites: PH 201

Description:

Examines epidemiological methods specific to infectious disease. Students analyze patterns, transmission dynamics, and intervention strategies for diseases such as HIV, tuberculosis, and COVID-19.

PH 325 – Chronic Disease Epidemiology Credits: 3

Prerequisites: PH 201

Description:

Addresses epidemiology of non-communicable diseases including cardiovascular disease, diabetes, and cancer. Focus on surveillance, risk factor analysis, and prevention strategies.

PH 331 – Occupational Health Credits: 3

Prerequisites: PH 230

Description:

Introduction to hazards in the workplace and strategies for risk mitigation. Topics include occupational diseases, workplace safety legislation, and occupational health program implementation.

PH 340 – Maternal and Child Health Credits: 3

Prerequisites: PH 101

Description:

Explores public health issues affecting women, infants, and children. Emphasis on health disparities, program development, and policy interventions.

Concentration Courses

Epidemiology Concentration

- PH 405 – Advanced Epidemiologic Methods (Credits: 3)
Prerequisites: PH 201, PH 215
Coverage of advanced study designs, data analysis, and interpretation in epidemiological research. Weekly lab sessions include hands-on data analysis.
- PH 416 – Spatial Epidemiology (Credits: 3)
Prerequisites: PH 201
Application of geographical information systems (GIS) in public health for mapping and analyzing disease trends spatially.

Health Policy Concentration

- PH 410 – Health Economics (Credits: 3)
Prerequisites: PH 120
Economic analysis of health systems, cost-effectiveness in public health, and resource allocation in health care.

- PH 418 – Comparative Health Systems (Credits: 3)
Prerequisites: PH 120
 Comparison of international health care systems, evaluation of policy reforms, and analysis of best practices.

Community Health Concentration

- PH 420 – Community Assessment and Intervention (Credits: 3)
Prerequisites: PH 260
 Methods for community-based health assessment, planning, and interventions. Emphasis on participatory research and needs assessment.
- PH 430 – Program Planning and Evaluation (Credits: 3)
Prerequisites: PH 260
 Introduction to designing, implementing, and evaluating public health programs within communities.

Capstone

PH 499 – Senior Seminar in Public Health Credits: 3

Prerequisites: Senior standing, completion of core courses

Description:

Integrative course focusing on analysis and synthesis of public health knowledge. Students complete a significant project or research paper addressing an emerging public health issue.

M.Sc. in Public Health

Core Graduate Courses

PH 501 – Methods in Population Health Research Credits: 4

Prerequisites: Undergraduate degree in health sciences or related field

Description:

Seminar and lab-based exploration of quantitative and qualitative methods for population health research. Focus on research ethics, study design, data collection, and proposal development.

PH 510 – Advanced Epidemiology Credits: 4

Prerequisites: PH 201 or equivalent

Description:

Intensive study of epidemiologic theory and advanced analytic techniques. Topics include modeling, causal inference, and longitudinal data analysis.

PH 520 – Health Informatics Credits: 3

Prerequisites: None

Description:

Introduction to the use of health information systems, electronic health records, and data analytics in public health practice and research.

PH 531 – Environmental and Occupational Health Credits: 3

Prerequisites: None

Description:

Explores environmental and workplace hazards, assessment tools, and regulatory approaches. Case studies highlight the intersection of environment, policy, and health outcomes.

PH 540 – Public Health Policy Analysis Credits: 3

Prerequisites: PH 120 or equivalent

Description:

Examines frameworks and tools for analyzing, developing, and evaluating public health policies. Emphasizes critical appraisal of policy interventions and their impacts.

PH 550 – Leadership and Ethics in Public Health Credits: 3

Prerequisites: None

Description:

Focuses on leadership principles, ethical issues in health, and professional conduct. Includes discussions of current dilemmas and leadership case studies.

PH 590 – Thesis Research Seminar Credits: 3

Prerequisites: Completion of at least 21 credits in M.Sc. program

Description:

Seminar supporting design and implementation of independent research. Students present progress and receive feedback from faculty and peers.

Graduate Electives

PH 605 – Advanced Biostatistics Credits: 3

Prerequisites: PH 215 or equivalent; permission of instructor

Description:

Topics include multivariate analysis, survival analysis, and advanced modeling techniques with application to public health data sets.

PH 610 – Health Program Evaluation Credits: 3

Prerequisites: PH 430 or equivalent

Description:

Evaluation frameworks and tools for assessing effectiveness and efficiency of community health interventions and health programs.

PH 621 – Epidemiology of Non-Communicable Diseases Credits: 3

Prerequisites: PH 510

Description:

Detailed study of epidemiology, risk factors, and control strategies for chronic diseases and conditions with global and national relevance.

PH 625 – Environmental Risk Assessment Credits: 3

Prerequisites: PH 531

Description:

Methods for evaluating environmental exposures, risk characterizations, and regulatory responses at the population level.

PH 635 – Sexual and Reproductive Health Credits: 3

Prerequisites: PH 340 or equivalent

Description:

Comprehensive overview of public health interventions, policies, and research in sexual and reproductive health, including maternal morbidity and access to reproductive health services.

PH 645 – Health Communication Strategies Credits: 3

Prerequisites: None

Description:

Design and assessment of health communication campaigns, use of digital media in health promotion, and the impact of communication on health behaviors.

PH 699 – Independent Research in Public Health Credits: Variable (1–4)

Prerequisites: Approval of faculty supervisor

Description:

Opportunity for students to pursue independent research under faculty guidance, culminating in a research report or manuscript for publication.

Additional Information

The Department of Public Health encourages students to consult academic advisors for optimal course sequencing within their chosen concentration. Most courses are offered annually; selected electives may rotate in alternate years.

Questions regarding prerequisites, credit transfers, or program structure can be directed to the Public Health Office, Cendara University, or science.advising@cendara.edu.
