

**BALLSBIDGE UNIVERSITY GHANA CAMPUS, FIAPRE-SUNYANI**  
**SCHOOL OF PUBLIC HEALTH**

**Bachelor of Science in Public Health (B.S in Public Health)**

**Overview:**

From disease prevention to wellness programs, public health professionals facilitate the conditions for a healthy, productive, and safe society. Change your world and the world of those around you and create a positive impact on local, national, and international communities with Ballsbridge' public health degree program.

Our B.S in Public Health program prepares students to apply public health skills and competencies across a number of public health-related settings in order to improve the health of populations. Rooted in the principles and competencies of public health, the curriculum prepares students to translate and apply course content into practice. In this public health degree program, students learn about a range of issues affecting population health and healthcare systems, including environmental health, disease prevention, health informatics, family and reproductive health, global health, ethics, and behavioral and cultural issues.

**Learning Outcomes**

Graduates of this program will be prepared to:

1. Explain the historical development and contemporary context of public health, including the infrastructure and organization of public health systems.
2. Critically examine the role of public health in protecting and promoting the health of populations locally and globally.
3. Analyze social, political, and economical issues that impact public health and healthcare delivery systems within and outside of the Ghana.
4. Explain the biological effects of infectious and chronic disease on the human body as well as basic epidemiological principles used to study patterns of disease and injury among diverse populations.
5. Interpret research relating to public health.
6. Analyze how social, behavioral, cultural, and environmental factors impact the health status of individuals and populations.
7. Apply basic principles related to program planning, health finance, and program evaluation, which are used to develop and implement effective public health programs and services for populations.
8. Identify ways in which technology can be used to improve the health of populations as well as the practice of public health.
9. Analyze legal, regulatory, and ethical issues that impact public health practice.
10. Articulate how public health policy is developed and how individuals and groups influence policy change.

11. Demonstrate effective communication and problem-solving skills necessary for addressing contemporary global public health issues.

## **Options**

Students within the School of Public Health have the opportunity to major in any of the following four areas within the field of Public Health: **Health Promotion, Health Informatics, Disease Prevention and Control, and Population, Family and Reproductive Health**. These options are designed to train competent public health professionals with the requisite competencies for Governmental and Non-governmental Organizations in Ghana and beyond.

### **Health Promotion and Wellness:**

With the Health Promotion and Wellness concentration, you can help individuals and communities—and even yourself—embrace a healthier lifestyle and achieve optimal wellness. This concentration will help prepare you for a public health career with an emphasis on raising health literacy. As a public health professional educated in health promotion, you can support the World Health Organization's call to increase prevention efforts, especially those efforts aimed at reducing key risk factors associated with disease and health inequity.

The program's multidisciplinary, multicultural approach helps you position yourself to promote preventive health measures across populations as you explore how nutrition, physical fitness, sexuality and relationships, and stress management affect wellness. Make a positive difference in your community—and in your own life—by becoming an advocate for healthier lifestyle choices.

### **Health Informatics:**

Health informatics has become an integral part of nearly every area of healthcare, including public health. With this concentration, you can learn to apply information technology to promote public safety, enhance health delivery systems, and facilitate the sharing of information between healthcare professionals in order to improve patient care. This concentration can enhance your knowledge of technology safeguards and ethical and legal issues pertaining to public health. You can develop the skills you need for a career in data quality, information security, and data analysis in a governmental, nonprofit, or corporate public health setting.

### **Disease Prevention and Control:**

This option provides an opportunity for interested students to receive specialized training in the surveillance, control, and prevention of public health problems related to communicable diseases throughout the world, with particular emphasis on the problems of underdeveloped nations.

The program allows current or future public health practitioners to expand their knowledge on Tropical and Emerging Infections, and infection control practices and procedures both in

healthcare setting and within the communities. Proven tools such as Immunization, which is used for controlling and eliminating life-threatening infectious diseases is considered in depth.

**Population, Family and Reproductive Health:**

This interdisciplinary field seeks answers for the complex health considerations relating to women, pregnancy, reproduction, and infant and child well being. Students who concentrate in Population, Family, and Reproductive Health are interested in the intersection between these populations, and how governments and communities can work together to protect and advance the health of women, children and families across the world. The focus is on maternal and child health, which is a global priority for public health professionals.

The United Nations announced in 2010 the Global Strategy for Women's and Children's Health – a task force organized to educate women across the world about reproductive health, combat infant mortality, and save more than 16 million lives by 2015.

Our courses cover family health and wellness, with particular emphasis on women's health across the life span; sexual and reproductive health and justice; children's health and mental health, disability and children with special needs.

## Curriculum

### Core Courses

Course Code	Course Title	Credits
<b>PUBH 100</b>	Essentials of Public Health	<b>4</b>
<b>PUBH 102</b>	Behavioral and Social Issues in Public Health	<b>4</b>
<b>PUBH 101</b>	Principles of Healthy Living	<b>4</b>
<b>PUBH 200</b>	Environmental Health	<b>4</b>
<b>PUBH 301</b>	Principles of Epidemiology	<b>4</b>
<b>PUBH 300</b>	Biostatistics I	<b>4</b>
<b>PUBH 307</b>	Biostatistics II	<b>4</b>
<b>PUBH 302</b>	Disease Prevention and Control	<b>4</b>
<b>PUBH 201</b>	Principles of Communication in Public Health	<b>4</b>
<b>PUBH 303</b>	Introductory Health Informatics	<b>4</b>
<b>PUBH 205</b>	Ethical and Legal issues in Healthcare	<b>4</b>
<b>PUBH 200</b>	Statistical Methods and Application	<b>4</b>
<b>PUBH 201</b>	Health Promotion & Community Development	<b>4</b>
<b>PUBH 312</b>	Introduction to Research Methods	<b>4</b>
<b>PUBH 202</b>	Public Health Education	<b>4</b>
<b>PUBH 305</b>	Communicable Diseases Control & Management	<b>4</b>
<b>PUBH 308</b>	Alternative and Complimentary Medicine	<b>4</b>
<b>PUBH 304</b>	Introduction to Healthcare Management	<b>4</b>
<b>PUBH 309</b>	Healthcare Finance and Economics	<b>4</b>
<b>PUBH 310</b>	Planning and Implementing Public Health Programs	<b>4</b>
<b>PUBH 311</b>	Evaluating Public Health Programs	<b>4</b>

<b>PUBH 202</b>	Chemistry for Public Health Professional	<b>4</b>
<b>PUBH 203</b>	Public Health Biology	<b>4</b>
<b>PUBH 206</b>	Introduction to Family and Reproductive Health	<b>4</b>
<b>PUBH 204</b>	Current Issues in Nutrition	<b>4</b>
<b>PUBH 423</b>	Research Methods and Analysis	<b>4</b>

### **Electives (Concentrations) for Options**

#### **Health Promotion and Wellness**

Course Code	Course Title	Credits
<b>PUBH 400</b>	Personal Health and Wellness	<b>4</b>
<b>PUBH 401</b>	Nutrition Across the Lifespan	<b>4</b>
<b>PUBH 402</b>	Strategies for Health Communication	<b>4</b>
<b>PUBH 403</b>	Stress Management and Wellness	<b>4</b>
<b>PUBH 404</b>	Core Concepts in Exercise Science	<b>4</b>

#### **Health Informatics**

Course Code	Course Title	Credits
<b>PUBH 405</b>	Introduction to Management and Leadership	<b>4</b>
<b>PUBH 407</b>	IT Infrastructure	<b>4</b>
<b>PUBH 408</b>	Fundamentals of Computer Security	<b>4</b>
<b>PUBH 409</b>	Patient Records Practice and Policy	<b>4</b>
<b>PUBH 410</b>	Structure of the Healthcare Industry	<b>4</b>
<b>PUBH 411</b>	Health Information System Application	<b>4</b>

#### **Disease Prevention and Control**

Course Code	Course Title	Credits
<b>PUBH 412</b>	Infectious Disease Epidemiology	<b>4</b>
<b>PUBH 413</b>	Public Health Data, Information, and Decision Making	<b>4</b>
<b>PUBH 414</b>	Immunization and Cold Chain Management	<b>4</b>
<b>PUBH 415</b>	Disease Surveillance and Monitoring	<b>4</b>
<b>PUBH 416</b>	Infectious Disease Prevention Strategies	<b>4</b>
<b>PUBH 417</b>	Infection Control Program Design	<b>4</b>

### **Population, Family and Reproductive Health**

Course Code	Course Title	Credits
<b>PUBH 418</b>	Child Health, Safety and Nutrition	<b>4</b>
<b>PUBH 419</b>	Maternal and Child Health	<b>4</b>
<b>PUBH 420</b>	Children With Special Needs	<b>4</b>
<b>PUBH 421</b>	Mental Health	<b>4</b>
<b>PUBH 422</b>	Family Planning	<b>4</b>

### **General Education Courses**

Course Code	Course Title	Credits
<b>COS 100</b>	Communication Skills I	<b>2</b>
<b>COS 101</b>	Communication Skills II	<b>2</b>
<b>IRS 100</b>	Information Retrieval & Study Skills	<b>2</b>
<b>HNS 104</b>	Essentials of Health and Safety Management	<b>2</b>
<b>MATH 101</b>	Algebra and Probability	<b>2</b>
<b>MATH 102</b>	Probability and Statistical Reasoning	<b>2</b>

<b>SOCI 101</b>	Introduction to Sociology	<b>2</b>
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## Culminating Experience

Course Code	Course Title	Credits
<b>PUBH 206</b>	Practicum I	<b>4</b>
<b>PUBH 306</b>	Practicum II	<b>4</b>
<b>PUBH 406</b>	Research Project	<b>4</b>

## Course Descriptions

### Essentials of Public

This course offers an introduction to the principles and practice of safeguarding and improving the health of populations. Students examine the philosophies, goals, history, and organization of the field of public health. They discuss the role of the government in improving the health and well-being of its citizens. The course explores key concepts of public health, including morbidity and mortality, infectious and chronic disease, social determinants of health, and health disparities within populations.

The course also provides an overview of public health issues that transcend national borders, class, race, ethnicity, and culture. The role of the healthcare provider in preserving and promoting health among diverse populations is discussed.

### Behavioral and Social Issues in Public Health:

Many factors influence the health behavior and wellness of individuals and populations. Understanding these factors helps healthcare professionals reduce health disparities and address healthcare access issues for vulnerable populations. Students in this course examine the cultural and behavioral factors and issues that influence the management and delivery of healthcare services. Students develop a framework for assessing the effect of culture and behavior in a variety of settings and situations. They identify health disparities attributable to diverse cultural and behavioral factors and discuss their implications for healthcare policy. Students also engage in application-based writing assignments to further examine the goals and objectives of addressing health disparities as well as obstacles for confronting vulnerable populations.

### Principles of Epidemiology:

This course focuses on the principles governing the study and practice of epidemiology. Consideration is given to the various methods available to health professionals for selecting and measuring factors of interest, describing their distribution, detecting associations, and identifying populations at risk. The features, advantages, and limitations of common epidemiologic research designs are addressed.

**Environmental Health:**

Human interaction has a major influence on the natural world, resulting in outcomes that can impact human and environmental health. In this course, students learn the principles of environmental health and examine the short- and long-term effects of environmental hazards on human health. Students consider their own interactions with natural and human-made environments to assess the impact of chemical, physical, biological, and social elements on their health. They also explore the potential impact of climate change on population health, emerging global health threats related to the environment, and environmental factors involved in the etiology and transmission of both communicable and non-infectious disease. Using concepts and methods presented in the course, students conduct an environmental risk assessment to determine the health of home environments. They also conduct a written analysis to report their findings, identifying actions to improve inspection results.

**Disease Prevention and Control:**

Through this course, students explore the historical milestones concerning human disease and prevention, morbidity and mortality rates associated with various diseases, and the biological effects of infectious and chronic disease on the human body. Students discuss the general characteristics of disease transmission, symptoms, treatment, prevention, and control among various populations. They also examine psychosocial and behavioral factors that influence human disease.

**Principles of Communication in Public Health:**

The principles and theories of health communication and their application to health promotion and behavior change are the foci of this course. Students examine how to design and deliver health messages to various audiences while remaining sensitive to cultural, socioeconomic, and educational factors influencing the audience.

**Ethical and Legal issues in Healthcare:**

The nature of health services, such as personal evaluations, clinical research, invasive surgeries, and end of life care, facilitates a host of ethical and legal considerations of which professionals must be aware. In this course, students examine the legal and ethical issues that are fundamental

to the practice of healthcare and the conduct of health-related research. They explore a historical overview of events and milestones that have shaped the contemporary regulatory landscape. They also investigate and assess issues of privacy and confidentiality, informed consent, licensing, and malpractice, among others. Additionally, students consider ethical, decision-making models for assuring the quality, safety, and appropriateness of healthcare and services. They also apply ethical principles and legal considerations to real-world scenarios

**Research Methods and Analysis:**

This course examines the basic components required for the conduct of health-related research and provides students with the analytic tools needed to understand and assess research methods described in the scientific literature. Basic research methods are described, including surveys, observational studies, experimental and quasi-experimental design, use of primary and secondary data, and statistical techniques for analyzing and interpreting data.

**Public Health Education:**

Effective delivery of health education and communication often leads to improved health literacy and positive changes in behavior among populations. This course provides students with an overview of health education and its role in improving the health of individuals as well as populations. Students review the philosophical, historical, ethical, and theoretical foundations of health education as well as effective principles for the delivery of healthcare. They also examine the primary responsibilities and competencies of health educators, trends in the field, professional organizations, national certification, and the code of ethics.

**Introduction to Healthcare Management:**

This course presents management concepts and theories designed to influence and improve the performance of healthcare organizations. The external and internal environments of organizations are identified, as well as key management functions, roles, and responsibilities. Essential aspects of healthcare management are addressed.

**Healthcare Finance and Economics:**

This course provides the foundations for economic evaluation and financial management in delivery of healthcare services, including principles of supply and demand. The purpose and methods of financial reporting, such as financial statements and balance sheets, are explained. Financial risk and insurance principles and mechanisms for healthcare reimbursement, including National Health Insurance Scheme and other payer programs are presented. The course also explores the financial, political, and economic aspects of universal healthcare.

**Planning and Implementing Public Health Programs:**

Planning culturally relevant and effective public health programs is essential to improving the health of populations. This course provides an introduction to public health program planning and design, including the process of needs assessment. Students examine and apply various

models and theoretical frameworks of program planning. They also explore fundamental competencies relating to planning, such as writing goals and objectives, selecting strategies, developing budgets, and planning for specific populations. The course introduces concepts related to program implementation, management, and evaluation as they relate to the planning process.

**Evaluating Public Health Programs:**

How do public health professionals know when a program is working? This course provides an introduction to evaluating public health programs. It examines various types of program evaluations, including formative, process, outcome, and impact evaluations. Students learn how to design and conduct practical and effective program evaluations that determine whether program goals are achieved. Students also practice implementing a program evaluation plan to evaluate the effectiveness of a program, and they use the results of the evaluation to improve performance.

**Public Health Biology:**

This course explores the implications that advances in biology have on approaches to public health practice. Topics include the biological and molecular basis of public health, ethical issues related to public health biology, the effects of genetics and genomics on health and disease, the application of biological principles and behavioral theories to disease prevention, control, and management programs, as well as the role of the immune system in individual and population health.

**Health Informatics**

This course examines the use of information technology in public health practice to access, interpret, and evaluate data for decision support and effective communication. Consideration is given to the application of legal and ethical principles in the dissemination of information in public health settings as well as the use of informatics methods and resources as strategic tools to promote public health.

**Biostatistics:**

The application and interpretation of biostatistics in public health research and practice are considered, including descriptive methodologies, statistical inference and probability, analysis of variance, and simple linear regression. Introduction to a statistical computer package such as SPSS is provided.

**Complementary/ Alternative Medicine**

This course introduces students to other forms of healthcare systems with reference to orthodox or modern medicine. There will be emphasis on traditional medicine, homeopathy, naturaopathy,

osteopathy, chiropractic, acupuncture, massage, and ayurvedic. Students will have the opportunity to explore most recent innovations in traditional medicine in Ghana and also explore medical pluralism in Ghana. Students will also have the opportunity to review various traditional health systems around the globe such as 1) Intolerant Medical Orthodoxy 2) Tolerant Medical Orthodoxy 3) Parallel Development of Multiple Health Systems 4) Policy of Integration, Active Collaboration Between fully Recognized Health System.

### Practicum

This practicum course gives students the opportunity to examine contemporary global public health issues, as well as to evaluate and synthesize the key concepts and skills they have gained from this program of study. The practicum takes place at a public health setting and it is a field-supervised experience with duration of 4-6 months.

### **Electives (Concentrations) for Options**

#### Health Promotion and Wellness:

##### Personal Health and Wellness

This course is an introduction for students to the essential factors that promote or challenge the development of personal health and healthy lifestyles, including nutrition, physical fitness, stress management, mental and emotional health, sexuality and relationships, violence and injury, and substance abuse. Students examine how cultural and socioeconomic factors influence people's perception of their health as well as their behavior. Students review tools for assessing health and risk and have the opportunity to assess their own health and behavior using a health risk appraisal.

##### Nutrition Across the Lifespan

Human nutritional requirements change over the course of the lifespan. This course examines the fundamentals of nutrition and the variation of nutritional needs at different life stages, including pregnancy, lactation, infancy, childhood, adolescence, adulthood, and old age. Students discuss issues such as obesity and eating disorders as well as the link between diet and disease. Students conduct a personal dietary assessment and analyze the relationship between food choices and health status in their own lives.

##### Strategies for Health Communication

The principles and theories of health communication and their application to health promotion and behavior change are the foci of this course. Students examine how to design and deliver health messages to various audiences while remaining sensitive to cultural, socioeconomic, and

educational factors influencing the audience. Students evaluate important dimensions of intercultural and intracultural communication and study how to make scholarly writing accessible to the general population. They also explore the use of emerging technologies and social media in marketing and communications.

### *Stress Management and Wellness*

This course presents a holistic approach to stress management. It addresses the emotional and physical dimensions of stress as well as their scientific foundations and physiological pathways. Students explore the mind-body connection, they study fundamental principles, theories, and relaxation techniques—including cognitive and physical behavior change interventions—that can help people effectively manage personal stress. Students also discuss related topics such as anger management, conflict resolution, anxiety, and time management.

### *Core Concepts in Exercise Science*

Physical fitness is an important component of overall health and quality of life. In this course, students focus on the fundamental concepts and principles of physical fitness, including flexibility, cardiovascular health, muscular strength, muscular endurance, and body composition as well as the physiological and psychological processes through which exercise influences health. Students create a personalized fitness program and explore the health advantages of a physically active lifestyle, including the mental, social, and psychological benefits. They also examine the harmful effects of a sedentary lifestyle, particularly with regard to the risk of chronic disease.

## **Health Informatics**

### *Introduction to Management and Leadership*

The role and functions of managers, specifically principles and procedures for planning, organizing, leading, and controlling organizations, are addressed in this introductory course. The practical application of theory to reality is emphasized. This course is structured so that students have the opportunity to see the interrelationships among the functions, components, and disciplines that compose the field of management and thereby gain a comprehensive perspective as a foundation for the further study of management.

### *IT Infrastructure*

Information technology (IT) is essential to the function and success of nearly all businesses. Businesses whose systems are lacking or experience failure are at risk of significant loss; therefore, there will always be a need for IT support and innovation. This course introduces fundamental concepts of the IT infrastructure to prepare students for a role in the field of IT. Students learn about the structure and purpose of hardware components (computers, networks, and interface devices) and software components (operating systems, middleware, applications,

and system software). They examine key issues of capacity, performance, reliability, scale, and obsolescence through the evaluation of IT's role in supporting business and individuals. Students take a practical approach to understanding how IT infrastructure can relate to personal goals as they examine the various career options within the field.

### *Fundamentals of Computer Security*

Insecure security systems can cause major risks and vulnerabilities for companies. Breaches in personal employee information, financial information, or company secrets can elicit the downfall of an organization. In this course, students learn the importance of such concerns as well as key concepts of computer and information security, including technical, privacy, organizational, social, and policy issues. They examine fundamental notions of authentication, authorization, and encryption. Students learn about economic and human impact issues through the analysis of case studies of security and privacy breaches. Through discussions, applications, and group projects, students also examine risk management, informal system security methods, and corporate governance.

### *Patient Records Practice and Policy*

As in most industries, healthcare relies heavily on information technology to provide the infrastructure for healthcare delivery in the global marketplace. Through this course, students have the opportunity to gain the necessary skills to understand the complexities of healthcare information systems components. Students examine the trends in the development of standardized patient records for a variety of health-related applications. They use requisite skills in requirements analysis and design to address the challenges in the field and engage in coursework on topics including privacy, confidentiality, and standardization. Students assess and discuss a variety of topics, such as medical devices, guidelines, and standards as well as the differences among electronic health records, electronic medical records, and personal health records.

### *Structure of the Healthcare Industry*

What determines patients' plan of care and what role does technology play in their diagnosis and treatment? Through this course, students have the opportunity to answer questions such as these as well as to gain a broad understanding of healthcare as a complex business system. Students examine the main elements of the healthcare industry in Ghana and elsewhere, analyzing the interests and information needs of healthcare professionals, provider organizations, researchers, pharmaceutical companies, public health agencies, regulators, insurers, individuals, and others. They examine classic literature and current articles in the field to gain an appreciation of the trends toward and obstacles to information exchange. Though this course, students also have the

opportunity to survey the various professional careers available in healthcare and consider their goals and interests in relation to these opportunities.

### *Health Information System Application*

The cost of delivering healthcare in Ghana continues to grow exponentially; therefore, the industry is in need of ways to optimize the financial components associated with delivery while focusing on better quality of care. Through this course, students learn about healthcare information systems applications designed to add value to the delivery of healthcare from a financial and clinical outcomes-based perspective. Students examine some of the most important classes of healthcare information systems, ranging from patient care management to epidemiology to billing to research data analysis. Case studies provide students with a practical opportunity to exercise their information systems design and analysis skills as well as to consider social and ethical issues related to the field.

## **Population, Family and Reproductive Health**

### *Child Health, Safety, and Nutrition*

Growth and development in young children are influenced by many factors, including nutrition, safety, and health. Public Health professionals in this course learn about these factors and examine the professional's role in supporting children's healthy development within the context of early childhood care and education as well as in family and community settings. They also assess and discuss the prevention of health problems common to young children, methods of promoting wellness and fitness, child safety, emergency preparedness and procedures, and child mental health.

### *Maternal and Child Health*

Sexuality encompasses diverse behaviors and meanings that are shaped by individual, social, cultural, and historical factors. From the local to the global level, a significant number of public health challenges involve sexual and reproductive health. Among them are HIV/AIDS and other sexually transmitted infections, unintended pregnancies, access to family planning services, sex education, maternal mortality, sexual violence, and discrimination against/stigmatization of sexually non-conforming individuals. Another set of public health challenges involve promoting sexual and reproductive rights and agency, as well as respect for the dignity, equality and rights of all persons.

### *Children with Special Need*

Educators understand that all individuals are unique with varying abilities and needs. This course provides education professionals with an overview of exceptionalities in children from birth

through adolescence. They engage in coursework that highlights early identification, referral, intervention, inclusion, and the related psychosocial needs of children and their families. They discuss complexities related to labeling children, inclusion, and challenging myths and stereotypes.

### *Infant Mental Health*

Positive developmental progress in infants depends on many factors, including the overall promotion of mental health, prevention of occurrence or escalation of mental health problems, and the effective treatment of mental health needs. Education professionals in this course explore current research in the field of infant mental health, through which they gain practical insight on protective and risk factors in family environments; social and emotional developmental challenges; developmentally appropriate infant screening and assessment; diagnostic classification systems for infant mental health; effective intervention strategies; and collaborative services approaches.