

Public Health Internship Program — Comprehensive Syllabus

Total Credit Hours: 120 CH
Duration: 6 Modules (20 CH each)

Module 1: Public Health Nutrition & Health Promotion (20 CH)

Learning Objectives

By the end of this module, students will be able to:

- Explain the relationship between nutrition, diet, and public health outcomes
- Assess nutritional status at individual and population levels
- Identify key nutritional challenges in different population groups
- Design basic health promotion strategies rooted in nutritional science

Topics & Subtopics

Table

Topic	Hours	Content
1.1 Fundamentals of Public Health Nutrition	5	Macro & micronutrients; dietary guidelines; food-based dietary guides; nutritional requirements across the life cycle
1.2 Nutritional Assessment Methods	4	Anthropometric, biochemical, clinical, and dietary assessment tools; interpreting growth charts; BMI, MUAC, z-scores
1.3 Nutrition Throughout the Lifecycle	4	Maternal nutrition; infant & young child feeding (IYCF); adolescent nutrition; aging & nutrition
1.4 Malnutrition: Double Burden	4	Undernutrition (stunting, wasting, underweight); overnutrition (overweight, obesity); micronutrient deficiencies (iron, iodine, vitamin A, zinc)
1.5 Health Promotion Theories & Models	3	Health Belief Model; Transtheoretical Model; Social Cognitive Theory; Ottawa Charter for Health Promotion

Teaching Methods

Lectures, case studies on community nutritional deficiencies, lab demonstration of anthropometric measurements

Assignments & Assessment (20%)

- Assignment 1: Nutritional assessment report on a community sub-group (10%)
- Quiz: Multiple-choice & short-answer (10%)

Module 2: Epidemiology Basics & Disease Burden Analysis (20 CH)

Learning Objectives

- Define epidemiology and its core principles
- Calculate and interpret basic epidemiological measures
- Analyze disease burden using DALYs, YLLs, and YLDs
- Interpret epidemiological study designs

Topics & Subtopics

Topic	Hours	Content
2.1 Introduction to Epidemiology	4	Definition, history, uses; determinants of health & disease; chain of infection
2.2 Measures of Disease Frequency	5	Incidence, prevalence, attack rate; person-time; standardization of rates
2.3 Measures of Association & Impact	4	Relative risk, odds ratio, attributable risk, population attributable fraction
2.4 Study Designs	4	Cross-sectional, case-control, cohort, randomized controlled trials; strengths & limitations
2.5 Disease Burden Analysis	3	DALYs, QALYs, YLL, YLD; Global Burden of Disease (GBD) study; disability weights

Teaching Methods

Interactive lectures, worked epidemiological calculations, critical appraisal of published studies

Assignments & Assessment (20%)

- Assignment 2: Epidemiological calculation problem set (10%)
- Quiz: Study design identification & interpretation (10%)

Module 3: Chronic Disease Prevention Programs (20 CH)

Learning Objectives

- Describe the epidemiology and risk factors of diabetes, obesity, and hypertension
- Critically evaluate existing prevention programs globally and locally
- Design evidence-based interventions targeting modifiable risk factors
- Understand screening principles for chronic diseases

Topics & Subtopics

Topic	Hours	Content
3.1 Epidemiology of Diabetes	4	Type 1 vs Type 2; global & regional burden; risk factors; complications
3.2 Epidemiology of Obesity	4	Drivers of the obesity epidemic; metabolic syndrome; childhood obesity
3.3 Epidemiology of Hypertension	4	Blood pressure physiology; salt sensitivity; CVD link; target organ damage
3.4 Prevention Program Models	5	Primary, secondary, tertiary prevention; WHO Global Action Plan for NCDs; DPP (Diabetes Prevention Program); community-based lifestyle interventions
3.5 Screening & Monitoring	3	Screening criteria (Wilson-Jungner); blood glucose, BP, BMI screening protocols; monitoring & evaluation frameworks

Teaching Methods

Case-based learning (real NCD program evaluations), group discussion on program effectiveness, screening simulation

Assignments & Assessment (20%)

- Assignment 3: Critical review of an existing chronic disease prevention program (10%)
- Quiz: Risk factor identification & prevention levels (10%)

Module 4: Community Nutrition Planning & Intervention Design (20 CH)

Learning Objectives

- Conduct a community needs assessment using mixed methods

- Design a nutrition intervention using a logic model framework
- Plan for program implementation, monitoring, and evaluation
- Apply behavior change techniques in community settings

Topics & Subtopics

Topic	Hours	Content
4.1 Community Needs Assessment	5	Asset mapping; community surveys; focus groups; secondary data analysis; prioritizing needs
4.2 Program Design & Logic Models	5	Problem tree analysis; goal setting; inputs, activities, outputs, outcomes, impact; theory of change
4.3 Behavior Change Techniques in Nutrition	4	Goal setting, self-monitoring, motivational interviewing, social support, environmental restructuring
4.4 Implementation Planning	3	Stakeholder mapping; resource planning; timeline; risk assessment
4.5 Monitoring & Evaluation	3	Process, outcome, and impact indicators; data collection tools; feedback loops

Teaching Methods

Field visit or simulated community assessment, logic model workshop, stakeholder role-play

Assignments & Assessment (20%)

- Assignment 4: Community needs assessment report + logic model for a nutrition intervention (10%)
- Quiz: M&E concepts & indicator development (10%)

Module 5: Health Communication, Campaign Planning & Awareness Content (20 CH)

Learning Objectives

- Apply health communication theories to campaign design
- Segment audiences and tailor messages effectively
- Develop awareness content across multiple media platforms
- Plan and pretest communication materials

Topics & Subtopics

Topic	Hours	Content
5.1 Health Communication Foundations	4	Communication models (SMCR, transactional); diffusion of innovations; entertainment-education
5.2 Audience Segmentation & Message Design	5	Demographic, geographic, psychographic, behavioral segmentation; message framing (gain vs loss); cultural tailoring
5.3 Media Channels & Content Formats	4	Mass media (radio, TV, print); digital media (social media, mobile health); interpersonal communication; selecting appropriate channels
5.4 Campaign Planning Process	4	SMART objectives; creative strategy; media planning; budgeting; implementation timeline
5.5 Pretesting & Evaluation of Materials	3	Focus group pretesting; readability tests (SMOG, Flesch); social media analytics; campaign reach & recall

Teaching Methods

Workshop on developing a communication brief, hands-on content creation exercise (poster, script, social media post), peer review of materials

Assignments & Assessment (20%)

- Assignment 5: Communication campaign brief + sample awareness material (10%)
- Quiz: Communication theories & channel selection (10%)

Module 6: Final Project — Public Health Campaign + SDG Integration (20 CH)

Prerequisites

Completion of Modules 1–5

Learning Objectives

- Synthesize knowledge from all preceding modules
- Design a complete public health campaign addressing a real-world issue
- Explicitly align the campaign with relevant Sustainable Development Goals (SDGs)
- Present and defend the project before a panel

Project Components

Component	Hours	Description
6.1 Problem Identification & Justification	3	Select a public health nutrition or NCD issue; justify using epidemiological data; define target population
6.2 SDG Alignment	3	Map campaign objectives to SDG targets (SDG 2 — Zero Hunger; SDG 3 — Good Health & Well-being; SDG 10 — Reduced Inequalities; SDG 17 — Partnerships)
6.3 Campaign Strategy Design	4	Theory-based approach; SMART objectives; audience segmentation; message strategy; logic model
6.4 Content Development	4	Produce at least 2 campaign materials (e.g., infographic, script, social media plan, brochure)
6.5 Implementation & Evaluation Plan	3	Budget; timeline; stakeholder roles; monitoring indicators; evaluation design
6.6 Final Presentation & Defense	3	Oral presentation (15–20 min) with visual support; Q&A with panel

Assessment (20%)

- Written project report (40%)
- Campaign materials (25%)
- Oral presentation & defense (25%)
- Peer feedback participation (10%)

Overall Program Assessment Weighting

Component	Weight
Module Assignments (1–5)	50% (10% each)
Module Quizzes (1–5)	25% (5% each)
Final Project (Module 6)	25%
Total	100%

Recommended Resources (Across Modules)

1. WHO — *Global Nutrition Report* (annual)
2. WHO — *Global Action Plan for the Prevention and Control of NCDs 2013–2030*
3. GBD Study Publications (IHME)
4. Park's Textbook of Preventive and Social Medicine
5. Communication for Behavioural Impact (COMBI) — WHO Toolkit
6. The CDCynergy tool for health communication planning