

# Guidelines on the Conduct of Benchmarking and the Use of Standards for Program Development

## 1. Introduction

In program development, there is a need to ensure that the growing demand for comparability is addressed comprehensively. Comparability can be achieved by the use of benchmarks and standards that provide valid information upon which to structure program contents for equivalency and intended quality. A benchmark in this context, is basically an educational institution and its program in the same field of study against which King Faisal University wants to frame a program in the hope of giving direction to comparability and quality. The quality of the program is indicated by the use of standards as clear reference points.

## 2. General Guidelines

- a. **Selecting the benchmark institutions.** A minimum of 6 institutions, at least one in each of the following: local, regional and international, which are identified as the “best among the bests” whose reputation, accreditation and practices can be adapted to the KFU program requirements. The following shall be the criteria in selecting:
  - i. **Reputable institution** – high ranking among universities in specific field of study as listed in commonly used university ranking lists such as Academic Ranking of World Universities (ARWU), Times Higher Education (THE), and Quacquarelli Symonds (QS), recognized by the industry and professional bodies.
  - ii. **Accredited program** – accreditation by agencies in the specific field of discipline.
  - iii. **Similarity** in program title, qualification level, field of study, offered as standalone or interdisciplinary, and program ownership.
- b. **Determining the areas to be benchmarked.** The following program areas with their elements shall be included:
  - i. **Learning outcomes** – consistency to the Saudi NQF, domains of learning, graduate attributes, and evaluation mechanisms.
  - ii. **Required credit hours for completion** – total credits, and proportion of major courses to the foundation courses consistent to the Saudi NQF.

- iii. **Curriculum content** – course establishment (program of study) and mapping, course descriptions, courses with practicum (lab), pre-requisite and co-requisite courses, field experience (industry exposure), thesis or research requirement, and extra-curricular activities.
  - iv. **Learning and teaching delivery** – teaching and learning plan and strategies, teaching and learning environment.
  - v. **Assessment methods** – student assessment mechanisms, and grading system.
  - vi. **Resources** – physical infrastructures, laboratory requirements, program administration, qualification of faculty, library, classrooms and technologies, and assistance to students.
- c. **Analyzing the benchmark data.** Diversity and commonality in benchmark areas shall be tackled to come up with final agreement in specific elements and trends that will be adopted in the program. Common benchmark elements shall be the priorities in adapting while diversified elements should be settled on the basis of providing advantage to the University.
- d. **Selecting the final elements in each benchmark area.** The final elements shall be selected on the following criteria:
- i. **Commonality** - majority of the benchmark institutions shall have the same element in the specific benchmark area. This result in a clear picture of how comparable the program elements are as compared to other benchmark programs.
  - ii. **Latest** – elements shall be leading edge, latest data.
  - iii. **Good practice** – elements shall give a clear idea about standard practices and their potential benefits to the program.
- e. **Reporting results.** The succeeding form shall be used in reporting benchmark results.

**Benchmark Institutions: (refer to the section 2.a.)**

Institution	Reputation <i>(ranking and recognition)</i>	Accreditation <i>(status of accreditation and accrediting agency)</i>	Program Title, Qualification and Field of Study

**Benchmark Areas and Elements: (refer to the section 2.b.)**

Institution	Benchmark Area	Benchmark Elements

**Analysis (statement to broadly identify element agreement and trend that will be included in the program): (refer to the section 2.c.)**

Benchmark Area and Elements	Commonality	Diversity
1. Learning outcomes		
2. Credit hours		
3. Curriculum content		
4. Learning and teaching delivery		
5. Assessment methods		

6. Resources		
Selected Content ( <i>refer to the section 2.d.</i> ):		
Benchmark Element	Adopted as KFU Program Element	
<b>Learning outcomes</b> – consistency to the Saudi NQF, domains of learning, graduate attributes and evaluation mechanisms.		
<b>Required credit hours for completion</b> – total credits, proportion of major courses to the foundation courses.		
<b>Curriculum content</b> – course establishment (program of study) and mapping, course descriptions, courses with practicum (lab), pre-requisite and co-requisite courses, field experience (industry exposure), thesis or research requirement, extra-curricular activities.		
<b>Assessment methods</b> – student assessment mechanisms. Grading system.		
<b>Resources</b> – physical infrastructures, laboratory requirements, program administration, qualification of faculty, library, classrooms and		

technologies, assistance to students.	
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### Sample Accomplished Form

Benchmark Institutions:			
Institution	Reputation <i>(ranking and recognition)</i>	Accreditation <i>(status of accreditation and accrediting agency)</i>	Program Title, Qualification and Field of Study
Imam Abdulrahman Bin Faisal University, College of Public Health	801-1000 <sup>th</sup> , THE ranking	Accredited by the NCAAA	Bachelor of Public Health
Drexel University, Dornsife School of Public Health	No. 1 top public school in Philadelphia and top 15% nationwide by US News and World Report	Re-accredited, Council on Education for Public Health	Bachelor of Science in Public Health
George Washington University, Milken Institute School of Public Health (GWU)	Ranked 12 – US News and World Report’s List of Best Public Health programs	Re-accredited, Council on Education for Public Health	Bachelor of Science in Public Health with 3 majors and 4 minors

University of South Florida, College of Public Health (USF)	Ranked 164 in Global Universities Ranking in Social Science and Public Health	Re-accredited, Council on Education for Public Health	Bachelor of Science in Public Health
University of North Carolina – Charlotte, Department of Public Health	#227 National University Ranking  AUPHA member	Re-accredited, Council on Education for Public Health (bachelor, Master, Doctoral)  Association of Schools and Programs of Public Health  Commission on Accreditation of Healthcare Management Education	Bachelor of Science in Public Health Services
Abu Dhabi University, College of Health Sciences (ADU)	701-750 QS ranking  Bizz awards	Accredited by the ministry of Education  Accredited by the Western Association of Schools and Colleges	Bachelor of Science in Public Health

Benchmark Areas and Elements: <i>(refer to the section 2.b.)</i>						
Learning Outcomes						
Domains (PH Core Competencies)	IABFU	GWU	UNCC	ADU	DU	USF
Overview of Public Health	Define public health and related roles and responsibilities of government, non- government agencies, and private organizations	Address the history and philosophy of public health as well as its core values, concepts, and functions across the globe and in society.	Recognize the importance of key events and milestones in the history and development of the field of public health.	Address the history and philosophy of public health as well as its core values, concepts, and functions across the globe and in society.	Understand the interdisciplinary nature of public health in disease prevention and health promotion on both individuals and populations	Discuss the history and philosophy of public health
Role and Importance of Data in Public Health	Draw appropriate inferences for how data illuminates ethical, political, scientific, economic, and overall public health issues	Address the basic concepts, methods, and tools of public health data collection, use, and analysis and why evidence-based approaches are an essential part of public health practice	Apply statistical reasoning and methods in addressing, analyzing, and providing interpretation for solving problems in public health, healthcare, and biomedical, clinical and population-based research	Address the basic concepts, methods, and tools of public health data collection, use, and analysis and why evidence-based approaches are an essential part of public health practice	Calculate and interpret basic measures of disease frequency and association	Identify and apply basic research methods used in public health



<p>Identifying and Addressing Population Health Challenges</p>	<p>Apply the basic public health sciences including behavioral and social sciences, biostatistics, epidemiology, environmental health, and prevention of chronic and infectious diseases and injuries to public health problems and their solutions</p>	<p>Address the concepts of population health, and the basic processes, approaches, and interventions that identify and address the major health-related needs and concerns of populations</p>	<p>Assess the health status of populations, determinants of health and illness, and factors contributing to health promotion and disease prevention          Apply the basic public health sciences including behavioral and social sciences, biostatistics, epidemiology, environmental health, and prevention of chronic and infectious diseases and injuries to public health problems and their solutions</p>	<p>Address the concepts of population health, and the basic processes, approaches, and interventions that identify and address the major health-related needs and concerns of populations</p>	<p>Apply "systems thinking," evidence-based principles, and the scientific knowledge base to critical evaluation and decision-making in public health</p>	<p>Apply the core functions of assessment, program and policy development, assurance, and communication in the analysis of public health problems and their solutions</p>
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Human Health	List the leading causes of mortality, morbidity, and health disparities among local regional, and global populations.	Address the underlying science of human health and disease including opportunities for promoting and protecting health across the life course	Describe the patterns of disease and injury in human populations and the application of this study to the control of health problems	Address the underlying science of human health and disease including opportunities for promoting and protecting health across the life course	Identify and address population health challenges through the various public health concentrations	Assess the values and perspectives of diverse individuals, communities, and cultures and their influence on health behaviors, choices, and practices
Determinants of Health	Assess the health status of populations, determinants of health and illness, and factors contributing to health promotion and disease prevention	Evaluate the socio-economic, behavioral, biological, environmental, and other factors that impact human health and contribute to health disparities	Outline environmental factors including biological, physical, and chemical factors that affect the health of a community.	Evaluate the socio-economic, behavioral, biological, environmental, and other factors that impact human health and contribute to health disparities	Apply the basic public health sciences including behavioral and social sciences, biostatistics, epidemiology, environmental health, and prevention of chronic and infectious diseases and injuries to public health problems and their solutions	Apply the core functions of assessment, program and policy development, assurance, and communication in the analysis of public health problems and their solutions

Project Implementation	Describe steps and procedures for the planning, implementation, and evaluation of public health programs, policies, and interventions	Apply the fundamental concepts and features of project implementation, including planning, assessment, and evaluation	Describe steps and procedures for the planning, implementation, and evaluation of public health programs, policies, and interventions ω Develop and adapt approaches to problems that take into account cultural differences and identify community assets and available resources ω Describe the management functions of planning, organizing, leading, and controlling	Apply the fundamental concepts and features of project implementation, including planning, assessment, and evaluation	Identify, interpret, and implement public health laws, regulations, and policies related to specific programs	Demonstrate the ability to apply principles of leadership, policy development, budgeting and program management in the planning, implementation and evaluation of health programs for individuals and populations
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<p>Overview of the Health System</p>		<p>Describe the fundamental characteristics and organizational structures of the health system as well as to the differences in systems in other countries</p>		<p>Describe the fundamental characteristics and organizational structures of the health system as well as to the differences in systems in other countries</p>		
<p>Health Policy, Law, Ethics, and Economics</p>		<p>Discuss the basic concepts of legal, ethical, economic, and regulatory dimensions of health care and public health policy, and the roles, influences and responsibilities of the different agencies and branches of government</p>		<p>Discuss the basic concepts of legal, ethical, economic, and regulatory dimensions of health care and public health policy, and the roles, influences and responsibilities of the different agencies and branches of government</p>		

Health Communications	Effectively present accurate demographic, statistical, programmatic, and scientific information for professional and lay audiences	Use of the basic concepts of public health-specific communication, including technical and professional writing and the use of mass media and electronic technology	Utilize appropriate methods for interacting sensitively, effectively, and professionally with persons from diverse cultural, socioeconomic, educational, racial, ethnic, and professional backgrounds, and persons of all ages and lifestyle preferences	Use of the basic concepts of public health-specific communication, including technical and professional writing and the use of mass media and electronic technology	Communicate health information to a wide range of audiences using all types of media.	
Cross cutting concepts	Embrace a definition of public health that captures the unique characteristics of the field and how these contribute to professional practice	Advocacy for protection and promotion of the public's health at all levels of society	Outline individual and community preparedness considerations regarding health emergencies and public disasters	Advocacy for protection and promotion of the public's health at all levels of society		Address behavioral, social and cultural factors that impact individual and population health and health disparities over the life course

	Differentiate among availability, acceptability, and accessibility of health care across diverse populations	Cultural contexts in which public health professionals work	Utilize appropriate methods for interacting sensitively, effectively, and professionally with persons from diverse cultural, socioeconomic, educational, racial, ethnic, and professional backgrounds, and persons of all ages and lifestyle preferences	Cultural contexts in which public health professionals work	Develop and adapt approaches to problems that take into account cultural differences and identify community assets and available resource	Appreciate the importance of working collaboratively with diverse communities and constituencies (e.g. researchers, practitioners, agencies, and organizations)
	Describe the professional responsibilities and ethical obligations for public health and health education practice	Ethical decision making as related to self and society	Demonstrate ethical choices, values and professional practices implicit in public health decisions	Ethical decision making as related to self and society	Apply ethical principles to the collection, maintenance, use, and dissemination of data and information	Promote high standards of personal and organizational integrity, compassion, honesty, and respect for all people

	Describe the professional responsibilities and ethical obligations for public health and health education practice	Independent work and a personal work ethic		Independent work and a personal work ethic		
Required credit hours for completion						
IABFU 144 credit hours		GWU Core: 33 Electives: 35 GC: 57	UNCC Core: 32 Electives: 18 GC: 70	ADU 120 credit hours	DU Core: 39 Electives: 15 GC: 127	USF Core: 33 Electives: 12 GC: 60

Curriculum Content

Core Discipline	IABFU	GWU	UNCC	ADU	DU	USF
<b>BIostatISTICS</b>	Basic Biostatistics (2 credits)	Introductory Statistics (3 units)	Statistics (6 hours)	Biostatistics in Health Sciences (3 hours)	Introduction to Analysis and Math for the Life Sciences (12 credits)	Biostatistics in Society (3 hours)
	Research Methodology (3 credits)	Statistics in Health & Medicine (units)	Research and Statistics (3 hours lec, 3 hours lab)		Inquiry and Exploratory Research (3 credits)	
<b>EPIDEMIOLOGY</b>	Prin. Of Epidemiology (2 credits)	Epidemiology: Measuring Health and Disease (3 units)	Epidemiology (3 hours)	Epidemiology (3 hours)	Epidemiology in Public Health (3 credits)	Introduction to Epidemiology (3 hours)
					Making Sense of PH Data (3 credits)	Survey of Human Disease (3 hours)
<b>ENVIRONMENTAL AND OCCUPATIONAL HEALTH</b>	Essentials of Envi. Health (3 credits)	Health and Environment (3 units)	Environmental Health (3 hours)	Personal Health (3 hours)	Environmental Health (3 credits)	Introduction to Environmental and Occupational Health (3 hours)
	Occupational Health and Safety (3 credits)	Emergency Medical Tech Basic (3 units)	Health and Aging Process (3 hours)	Safety and First Aid (1 hour)	The Social Determinants of Health and Well-Being (3 credits)	Prevention of Mental Illness (3 hours)



	Advanced Envi. Health (3 credits)	Environment, Health and Development (3 units)	Women's Health Issues (3 hours)	Environmental Health (3 hours)		Women's Health: A Public Perspective (3 hours)
	Waste management	Outdoor and Environmental Education (3 units)		Community Health (3 hours)	Environmental and Occupational Health (3 credits)	
	Food safety and hygiene			Worksite Health Promotion (3 hours)	Injury Prevention and Control (3 credits)	
<b>HEALTH SERVICES PLANNING AND ADMINISTRATION</b>	Health Care in Saudi Arabia	Health Services Management and Economics (3 units)	Comparative Health Care System (3 hours)	Comprehensive School Health Program (3 hours)	PH Leadership (3 credits)	Understanding US Health care (3 hours)
	Global Health (3 credits)	Global Health and Development (3 units)	Health Care Administration (3 hours)	Administration of Health Programs (3 hours)		Foundation of Global Health (3 hours)
	Public Health Policies (2 credits)	Health Policy (3 units)	Program Planning and Evaluation (3 hours, lec 3 hours lab)	Community Organization (3 hours)		

	Health Economics (2 credits)	Health Law (3 units)	Health Economics (3 hours)	Health Care Organization and Management (3 hours)		
	Health Informatics (3 credits)		Health Care Policy (3 hours)		Management Information System (3 credits)	
			Health Education (3 hours)			
<b>SOCIAL AND BEHAVIORAL SCIENCE</b>	Health Education and Promotion (3 credits)	Principles of Health Education and Health Promotion (3 units)	PH Education and Promotion (3 hours)	Foundation of Health Education	Overview of Issues in Global Health (3 credits)	Health, Behavior and Society (3 hours)
		Impact of Culture Upon Health (3 units)	Behavioral Change Theories and Practice (3 hours)	Methods of Community Health Education (4 hours)	Introduction to Health and Human Rights (3 credits)	
			Culture Health and Disease (3 hours)			

			Sociology of Health and Illness (3 hours)			
<b>Intro to PH</b>	Intro to Public Health (3 credits)	Introduction to PH and Health Services (3 units)	Foundation of PH (3 hours)		Public Health 101	Introduction to Public Health (3 hours)
		History of PH (3 units)			Introduction to the History of PH (3 credits)	
	Evidence-based Public Health (3 credits)	Intro to Preventive Medicine (3 units)			Intro to Community Health (3 credits)	
<b>PH Microbiology</b>	Communicable Diseases (3 credits) Infection Control (3 credits) Microbiology (3 credits) Medical Entomology and Parasitology (2 credits)	PH Biology (3 units)		General Microbiology (6 hours)	PH Biology	Emerging Infectious Diseases (3 hours)

<b>Seminar</b>		Senior Seminar (3 units)	PH Capstone (3 hours)			Field Seminar (3 credits)
		Various Topics in PH (3 units)				Special Topics in PH (3 hours)
<b>Ethics</b>	Public Health Ethics and Laws	Human Rights and Ethics (3 units)	Health Care Ethics (3 hours)	Human Values and the Health Sciences (3 hours)	PH Ethics (3 hours)	Health Care Ethics (3 hours)
<b>Nutrition</b>	Nutrition (2 credits) Food safety and Hygiene (3 credits)	Basic Nutrition (3 units)		Human Nutrition (3 hours)		Foundations of Food safety (3 hours)
		Sports and Nutrition (3 units)				
<b>Internship</b>	One year	Service Learning in PH (3 units)	PH Internship (160 hours)	Internship (6 hours)	Capstone Experience (9 credits)	
<b>PH Project</b>	Graduation Project (6 credits)	Independent Study (3 units)	Health-related Study Abroad			6 major works/Major Issues

Learning and Teaching						
Institution	IABFU	GWU	UNCC	ADU	DU	USF
	<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Seminars</li> <li>• Group work</li> <li>• Practical demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Seminar</li> <li>• Course works</li> <li>• Research project</li> <li>• Group projects</li> <li>• Group and individual presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Tutorials</li> <li>• Course work</li> <li>• Research projects</li> <li>• presentations</li> </ul>	<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Seminars</li> <li>• Practical</li> <li>• Workshops</li> <li>• Simulations</li> <li>• Problem-based learning</li> <li>• Self-directed learning</li> </ul>	<ul style="list-style-type: none"> <li>• Lectures and online activities</li> <li>• Research</li> <li>• Project work</li> <li>• Presentations</li> <li>• Practical</li> </ul>	<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Practical</li> <li>• Research project</li> <li>• Seminars</li> <li>• Group works</li> <li>• presentations</li> </ul>
Assessment Methods						
Institution	IABFU	GWU	UNCC	ADU	DU	USF
Assessment methods	<ul style="list-style-type: none"> <li>• Formative and summative assessments</li> <li>• Training portfolio</li> <li>• Project report</li> </ul>	<ul style="list-style-type: none"> <li>• Examination</li> <li>• Training portfolio</li> <li>• Project report</li> <li>• Seminar presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Examination</li> <li>• Case-based discussion</li> <li>• Completion of research</li> </ul>	<ul style="list-style-type: none"> <li>• Examination</li> <li>• Workplace-based assessment</li> <li>• Reflective case study</li> </ul>	<ul style="list-style-type: none"> <li>• Examination</li> <li>• Direct observation of practical skills, training portfolio</li> </ul>	<ul style="list-style-type: none"> <li>• Examination</li> <li>• Case study</li> <li>• Project report</li> <li>• Completion of research</li> </ul>

Resources						
Institution	IABFU	GWU	UNCC	ADU	DU	USF
	Computer lab for biostatistics and epidemiology  Microbiology lab  Biosafety lab  Environmental health lab	Infectious disease lab  Environmental lab  Biostatistics and Epidemiology lab  Drinking water testing lab  Substance abuse testing lab	Environmental health lab  Biostatistics and Epidemiology lab  Infectious disease lab  Lab for analysis of food and dairy products	Microbiology lab  Biostatistics and Epidemiology lab  Environmental science lab  Food chem lab  Substance abuse testing lab	Environmental health lab  Emergency response lab  Drinking water testing lab  Newborn screening lab  Biostatistics and Epidemiology lab  Air surveillance and analysis lab	Microbiology lab  Environmental health lab  Biostatistics and Epidemiology lab  Drinking water lab  Substance abuse testing lab

Analysis (statement to broadly identify element agreement and trend that will be included in the program): *(refer to the section 2.c.)*

Benchmark Area and Elements	Commonality	Diversity
<p>1. Learning outcomes</p>	<p>Knowledge:</p> <ul style="list-style-type: none"> <li>• Overview, history, philosophy of public health</li> <li>• Concepts, methods and tools of public health data collection, use and analysis</li> <li>• Concepts of population health and diseases, health interventions, identification of health needs</li> <li>• Health assessment, health policies, health communication</li> <li>• Health disparities in local and global populations</li> <li>• Organizational structure of health system</li> <li>• Legal, ethical regulatory dimensions of public health</li> </ul> <p>Skills:</p> <ul style="list-style-type: none"> <li>• Assess the health status of a population</li> <li>• Evaluate factors that impact health</li> <li>• Prevention of diseases and injuries</li> <li>• Plan, implement and evaluate public health programs, policies and interventions</li> <li>• Implement public health laws, regulations and policies</li> <li>• Communicate health information</li> </ul>	<p>Knowledge:</p> <ul style="list-style-type: none"> <li>• Basic social sciences</li> <li>• Health emergencies and public disasters</li> </ul> <p>Skills:</p> <ul style="list-style-type: none"> <li>• Health emergencies and public disasters</li> <li>•</li> </ul> <p>Values:</p> <ul style="list-style-type: none"> <li>•</li> </ul>

	<p>Values:</p> <ul style="list-style-type: none"> <li>• Advocacy for protection and promotion of public's health</li> <li>• Community-oriented, prevention-motivated</li> <li>• Interact sensitively and professionally</li> <li>• Apply ethical principles</li> </ul>	
2. Credit hours	<p>Core: 32-39 credits  Electives: 12-18 credits  General courses: 57-70 credits</p>	<p>Electives: 35 credits  General courses: 127 credits</p>
3. Curriculum content	<ul style="list-style-type: none"> <li>• Biostatistics</li> <li>• Epidemiology</li> <li>• Environmental Health</li> <li>• Occupational Health</li> <li>• Health Care system</li> <li>• Global Health</li> <li>• Health administration</li> <li>• Health economics</li> <li>• Health informatics</li> <li>• Health education and promotion</li> <li>• Introduction to public health</li> <li>• Public health microbiology</li> <li>• Seminars</li> <li>• PH laws and ethics</li> <li>• Graduation project</li> <li>• Internship</li> <li>• Special topics</li> </ul>	<ul style="list-style-type: none"> <li>• Basic Nutrition</li> <li>• Food safety</li> <li>• Sports Nutrition</li> <li>• Health related study abroad</li> <li>• PH biology</li> <li>• Sociology of health and Illness</li> <li>• Behavioral theories</li> <li>• Culture health and disease</li> <li>• Injury prevention and control</li> <li>• Emergency Medical tech</li> <li>• Disaster management</li> </ul>



4. Learning and teaching delivery	<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Seminars</li> <li>• Group work</li> <li>• Projects</li> <li>• Practical</li> <li>• presentations</li> </ul>	<ul style="list-style-type: none"> <li>• none</li> </ul>
5. Assessment methods	<ul style="list-style-type: none"> <li>• Examinations (formative and summative)</li> <li>• Project report</li> <li>• Presentation</li> <li>• Research</li> <li>• Training portfolio</li> </ul>	<ul style="list-style-type: none"> <li>• none</li> </ul>
6. Resources	<ul style="list-style-type: none"> <li>• Computer lab for biostatistics and epidemiology</li> <li>• Microbiology lab (water, food testing, microbial testing)</li> <li>• Environmental health lab (air, water, soil testing)</li> <li>• Chemistry lab (water, food, substance abuse testing)</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Newborn screening lab</li> </ul>

Selected Content *(refer to the section 2.d.):*

Benchmark Element	Adopted as KFU Program Element
<p><b>Learning outcomes</b> – consistency to the Saudi NQF, domains of learning, graduate attributes and evaluation mechanisms.</p>	<p>Knowledge:</p> <ul style="list-style-type: none"> <li>• Define public health and related roles and responsibilities of government, non-government agencies, and private organizations.</li> <li>• Describe how the methods of epidemiology and surveillance are used to safeguard the population’s health.</li> <li>• Identify scientific data, including tools of informatics and other information for assessing the well-being of a community.</li> <li>• Discuss major local, national and global health challenges and other evolving demographics that affects population health.</li> </ul> <p>Skills:</p> <ul style="list-style-type: none"> <li>• Assess the source and quality of health information and data as related to individual and community health.</li> <li>• Engage in collaborative and interdisciplinary approaches and teamwork for improving population health.</li> <li>• Design structure, financing and delivery of public health services.</li> <li>• Outline approaches for assessing and controlling hazards that affect community health.</li> </ul> <p>Values:</p> <ul style="list-style-type: none"> <li>• Champion the role of prevention in promoting a healthy community.</li> <li>• Advocate for evidence-based social changes that improve the health of individuals and communities.</li> </ul>

<p><b>Required credit hours for completion</b> – total credits, proportion of major courses to the foundation courses.</p>	<p>Total credits: 120  Foundation courses: 46  Major courses: 74</p>
<p><b>Curriculum content</b> – course establishment (program of study) and mapping, course descriptions, courses with practicum (lab), pre-requisite and co-requisite courses, field experience (industry exposure), thesis or research requirement, extra-curricular activities.</p>	<ul style="list-style-type: none"> <li>• Biostatistics</li> <li>• Epidemiology</li> <li>• Environmental Health</li> <li>• Occupational Health</li> <li>• Health Care system</li> <li>• Global Health</li> <li>• Health administration</li> <li>• Health economics</li> <li>• Health informatics</li> <li>• Health education and promotion</li> <li>• Introduction to public health</li> <li>• Public health microbiology</li> <li>• Public Health Intervention Project</li> <li>• PH laws and ethics</li> <li>• Research project</li> <li>• Internship</li> <li>• Special topics</li> <li>• Nutrition</li> <li>• Disaster management</li> <li>• Non-communicable diseases and injuries</li> </ul>

<p><b>Learning and Teaching Delivery</b></p>	<ul style="list-style-type: none"> <li>• Lecture discussions</li> <li>• Individual and group activities</li> <li>• Case studies,</li> <li>• Interactive seminars</li> <li>• Online activity</li> <li>• Self-directed learning</li> <li>• Peer-led learning</li> </ul>
<p><b>Assessment methods</b> – student assessment mechanisms. Grading system.</p>	<ul style="list-style-type: none"> <li>• Reports</li> <li>• Creation of online resources</li> <li>• Oral presentations</li> <li>• Project work</li> <li>• Reflective learning portfolios</li> <li>• Work-based assessments</li> <li>• Self and peer assessment</li> </ul>
<p><b>Resources</b> – physical infrastructures, laboratory requirements, program administration, qualification of faculty, library, classrooms and technologies, assistance to students.</p>	<ul style="list-style-type: none"> <li>• Computer lab for biostatistics and epidemiology</li> <li>• Microbiology lab (water, food testing, microbial testing)</li> <li>• Environmental health lab (air, water, soil testing)</li> <li>• Chemistry lab (water, food, substance abuse testing)</li> </ul>