DOW UNIVERSITY OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH



BACHELOR OF SCIENCE IN PUBLIC HEALTH (BSPH)

PROSPECTUS (session 2023-2024)

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Message by the Vice Chancellor

Prof. Dr. Mohammed Saeed Quraishy Vice Chancellor Dow University of Health Sciences

It gives me joy to write this message for the prospectus of the Dow University of Health Sciences, Karachi. DUHS was established in 2004, with just three constituent colleges, and today we are a university with over 30 constituent and affiliated institutions and the most comprehensive health system in Pakistan.

This year, I am also proud to announce that Dow University of Health Sciences, Karachi has continued to enhance the vision of this University by striving to be the pre-eminent academic institution committed to changing and saving lives. This is a credit to the faculty of DUHS, and their commitment to enhance the learning experience offered to our students that we have achieved progress and prosperity globally, particularly within Asia.

This is also the year we are celebrating our 75th anniversary of the founding of Dow Medical College, a symbol of scholarship and service to the community that has evolved into DUHS, with expanded program offerings, such as in the field of allied health and biomedical sciences, such as pharmacy, physical therapy, medical technology, biotechnology, nursing, public health, business administration, and course in radiology technology, nutritional sciences, midwifery, and optometry.

Furthermore, our symbol of academic excellence is fortified by our adoption of the latest technology, and affordable state of the art healthcare offered, which informs the delivery of quality patient care at Dow University Hospital and our many affiliated healthcare centres and research and diagnostic laboratories. We stand committed to providing and creating state-of-the-art infrastructures that fosters innovation, research and is evolving to meet the needs of the future, along with providing superior healthcare services.

Today, we are striving to play a pivotal role in the early diagnosis and treatment of Covid-19 and in the future, I also stand committed to make Dow University of Health Sciences an

empowered institution offering the best of the medical knowledge and quality health services.

I am confident that the doctors and health professionals of this institution will go on to contribute to this nation and serve globally with sincerity and ethics, in order to restore faith and humanity to the delivery of healthcare.

Good luck to the incoming freshman!

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To be a pre-eminent academic institution committed to changing and saving lives.

Mission statement DUHS

Providing outstanding patient centered education, training and clinical care informed by cutting edge research and innovation generating and disseminating new knowledge.



Message by the Principal (SPH)

Prof. Kashif Shafique Principal School of Public Health Director ORIC

As Principal of the School of Public Health (SPH), I envision the School as a part of a vital strategy to invest in advancing public health knowledge through education, research and service. Our mission is to offer academic programs and carry out community based research to help empower students as public health professionals, who can perform well both within academia and other public health institutions.

Since March 2013, the program has grown both in quality and quantity. We have grown from the founding public health Master's program into a fully-fledged School with various specialty tracks, rounding out in a comprehensive and interdisciplinary set of specializations in the discipline of public health education. Today, SPH's strength is qualified and relevant Ph.D. and MPhil/Master-trained faculty, in both the undergraduate and postgraduate programs offered.

The research at the institute encompasses a broad range of public health issues, including adolescent health, violence prevention, obesity, substance abuse, maternal and child health, communicable and non-communicable diseases. Our faculty is committed to high-quality teaching and student mentoring. They are leaders in their ability to carry out research and translate research into community action.

I invite you to learn more about the public health degree programs offered at School of Public Health (SPH). At the SPH, you will receive a challenging and rewarding education that will hopefully embark you on a career path that will make a difference in the field of Public Health.

Introduction of the School of Public Health (SPH), Dow University of Health Sciences

School of Public Health (SPH) was founded in the year 2012. School of Public Health researchers, academics and graduates are expected to play a vital role in shaping the future of healthcare in Pakistan. The SPH's academic activities involves not only the basic public health disciplines of biostatistics and epidemiology, but also includes social sciences, health policy and management, and nutritional sciences, an area underserved within Pakistan where SPH is a pioneering School to offer such a program, with qualified faculty. Public health in Pakistan is a need for the country where issues related to social and behavioral sciences, basic nutrition, policy issues, human resource management of healthcare professionals and health communication have been highly neglected in the past. Considering the high prevalence of diseases in our community, it was imperative to develop the human resource in the country, which is well trained to tackle public health challenges. Therefore, in the present scenario of emerging health problems in our country and keeping in mind the need of a high class training institute, the Dow University of Health Sciences (DUHS) has taken this initiative and established the first public sector institute of Public Health in the province of Sindh, which deals with all these public health challenges by training the human resource required for Pakistan to address these challenges and cater to the healthcare needs of our population.

To address the challenges of healthcare landscape of our country, our research encompasses a broad range of public health issues, including but not limited to adolescent health, violence prevention, substance abuse, maternal and child health, nutrition and healthy living, and communicable and non-communicable diseases. The School has published a substantial number of research publications concerning global and public health issues in peer-reviewed journals and has won competitive funding grants from prestigious agencies, including Higher Education Commission (HEC) Pakistan, the World Health Organization (WHO),

Mission Statement (SPH)

To conduct academic programs and carry out high impact basic and applied research, using state of the art and innovative strategies to help empower students as public health professionals who can perform well in academia and public health institutions. The School of Public Health is also committed to partner with both public and private organizations that can positively impact the health and wellbeing of Pakistani population.

Introduction to Bachelor of Science in Public Health (BSPH)

Public Health primarily focuses on disease prevention and health promotion through organized community efforts to improve the physical, social and mental health and well-being of people across local, regional, national and international fronts. The Public Health professionals use research-based evidence to inform practices and local and national level policies to reduce health inequalities and health risks, thus contributing to the improvement in the global health and socio-economic indicators.

Public Health plays a pivotal role in controlling and reducing communicable and non-communicable diseases by promoting healthy habits and practices that may include physical activity, proper nutrition, sanitation, environment protection, improving health-seeking behaviours, and safer workplace policies. Public Health professionals design, implement and evaluate health promotion and disease prevention programs for general and vulnerable populations, taking into consideration the physical, social, psychological and economic factors that influence their well-being.

In Pakistan, there is a huge burden of chronic and infectious diseases, injuries, disasters, emergencies and pollution hazards. For instance, one in four people is living with diabetes and 33% of adults above 45 years are identified as hypertensive. Every year, almost three million children do not receive the entire course of the most readily available vaccines, leaving them vulnerable to life-threatening diseases. Moreover, Pakistan is vulnerable to various risks arising from several natural and man-made disasters. This has resulted in a double burden of disease primarily due to scarcity of resources, sub-optimal health-seeking behaviours, rapid population growth, poor literacy rates and crumbling socio-economic systems. Emerging infections and preventable diseases contribute to this burden and require well-designed and integrated Public Health programs, with effective disease surveillance and response systems. It is therefore imperative to include Public Health in the current undergraduate academic curricula to develop professionals with critical thinking and analytical skills, for addressing these challenges at all levels of care.

Program Title

Bachelor of Science in Public Health (BSPH)

Scope of the BSPH Program

The proposed BSPH program at SPH, DUHS will enable candidates to acquire positions in the entry-level workforce where they will contribute in generating evidence-based practices, providing health promotion and education, advocating a healthy lifestyle, and prescribing community-tailored interventions.

Program Objectives

BSPH program aims to:

- Offer an undergraduate curriculum of international standards that supports the development of core and cross-cutting competencies in public health, providing a foundation for advanced degree programs in public health
- Prepare the future cadre of professionals to contribute to the public health scientific
 evidence base, by creating opportunities for integration and practical application of
 the learned competencies through a range of educational, research and service
 activities
- 3. Promote engagement of undergraduate students in developing collaborative partnerships with communities and national and international agencies, for the development and implementation of effective public health policies and practices

Core competencies

The goal is to produce public health professionals who can demonstrate analytical and critical thinking, identify social determinants of health, and apply fundamental concepts of epidemiology, health care system, and health policy principles, as well as scientific reasoning, effective communication, technology use, cultural competencies, and sound understanding of bioethics. Furthermore, this course prepares candidates for the Master of Science in Public Health (MSPH) and PhD Public Health programs, which are currently being offered at the School of Public Health (SPH), DUHS. Thus upon completion of BSPH, the candidate will be able to:

- 1. perform as a competent public health workforce
- 2. inculcate the significance of community health over individual health
- 3. understand and apply the basic concepts and approaches to population health
- 4. aspire to excellence in public health promotion, education, and practices
- 5. stimulate the understanding of the importance and need of integrating socio-cultural determinants into the public health
- 6. plan, develop and administer public health programs and policies
- 7. advocate healthy lifestyles and alternative health promotion approaches
- 8. instil the importance of an evidence-based approach to address public health challenges through basic and applied research
- 9. proceed towards an advanced degree program in public health

Career Opportunities

This bachelor's program emphasizes evidence-based approaches to program assessment, planning, implementation and evaluation and is designed to prepare candidates for a variety of careers in a wide range of industries at both national and international levels, including but not limited to provincial and federal health departments, hospitals and medical facilities, local and international non-profit organizations, research and academic institutes and so forth.

Facilities available at SPH

- · Master and PhD faculty members from various backgrounds
- Guest Lecture Series and Seminars
- Dedicated Digital Library/ Computer Lab with a capacity to accommodate 40 students
- Auditorium/Seminar Room

- Food Science Laboratory custom-built for Food and Nutritional sciences
- Clinical Science Lab equipment
- Office of Student Affairs (OSA) which deals with the student related queries and provide their solution

Eligibility for admission to BSPH program at the DUHS:

- HSSC (Intermediate Science) Pre-Medical/ A-Level or Equivalent, Min. 60% marks or equivalent duly certified by IBCC
- Candidate's Domicile of Sindh

No. of seats for BSPH program: 30

Rules for the payment of fee:

Pay order of one year tuition fee (of the respective category) will have to be paid within one month after the start of 2nd, 3rd, and 4th year. In case the fee is not submitted during the given specified time, late payment charges will be charged as follows:

First month after lapse of 1st month......2.5% of tuition fee

Second month......5.0% of tuition fee

Third month......7.5% of tuition fee

Fee of all categories may be increased by 10% every year.

AFTER FOUR MONTHS OF NON-PAYMENT, THE SEAT IS LIABLE TO BE CANCELLED AND STUDENT WILL NOT BE ALLOWED TO APPEAR IN ANY EXAMINATION

Fee deposited is refundable as per the Refund Policy of the DUHS.

Taxes will be applied as per the FBR rules.

Hostel and transport fee will be valid till the last exam of the academic year.

Amount stated in the fee vouchers are excluded of all bank charges.

The fee structure may be revised by the University at any time during the course of the study, due to the unavoidable circumstances.

Curriculum of the Bachelor of Science in Public Health

Scheme of Studies

Structure of the Program: The normal duration of Bachelor of Science in Public Health (BSPH) programme is four (04) years. Each academic year will comprise two semesters and each semester will be of 16 weeks. Final examination will be conducted at the end of each semester.

BSPH- Semester distribution

Compulsory subject: 09

General courses (chosen from other departments): 07

Discipline specific foundation courses: 10

Major courses (including research project and field experience): 14

Total courses: 40

Semester duration: 16 weeks

Semester I

S. No	Course code	Course title	Credits	Category
1	ENG-300	English I (Functional English)	3	Compulsory (Expository writing)
2	BN 101	Pakistan studies	3	Compulsory (civilizational knowledge)
3	BN 307	Introduction to Social Sciences	3	General course
4	BSPH 303	Biology and ecology (including entomology and parasitology)	3	General course
5	BSPH 305	Basic computer skills/ICT	3	Compulsory
	Total credits			5

Semester II

S. No	Course code	Course title	Credits	Category
6	BN 102	Islamiat	3	Compulsory (civilizational knowledge)
7	BN 310	Introduction to Philosophy	3	General course
8	ENG 301	English II (Communicational Skills)	3	Compulsory (expository writing)
9	BSPH 306	Personal hygiene	3	General Course
10	BSPH 304	Medical Anthropology	3	General course
11	BN 304	Microbiology	3	Major course
	Total credits			18

Semester III

S. No	Course code	Course title	Credits	Category
12	ENG 302	English III (technical writing)	3	Compulsory (expository writing)
13	BSPH 401	Concept of health and disease	3	Discipline sp. foundation
14	BSPH 403	Primary Health Care	3	Discipline sp. Foundation
15	BSPH 405	Population Dynamics	3	General course
16	BSPH 407	Development/ Behavioural Psychology	3	General course
17	BN 409	Mathematics	3	Compulsory (quantitative reasoning)
			18	

Semester IV

S. No	Course code	Course title	Credits	Category
18	BSPH 402	International Health (instead of English IV)	3	Compulsory
19	BN 606	Introduction to Epidemiology	3	Discipline sp. foundation
20	BSPH 410	Reproductive Health	3	Discipline sp. Foundation
21	BN 505	Introductory Statistics	3	Compulsory (quantitative reasoning)
22	BN 408	Introduction to Research	3	Major course
	Total credits			5

Semester V

S. No	Course code	Course title	Credits	Category
23	BSPH 501	Mental Health	3	Discipline sp. Foundation
24	BSPH 408	Health promotion, advocacy and social mobilization	3	Discipline sp. foundation
25	BSPH 505	Community pediatrics	3	Discipline sp. Foundation
26	BSPH 406	Basic Biostatistics	3	Discipline sp. foundation
27	BSPH 509	Fundamental of infectious diseases	3	Major course
		Total credits	1	5

Semester VI

S. No	Course code	Course title	Credits	Category
28	BSPH 502	Communicable disease epidemiology	3	Major course
29	BSPH 504	Non communicable disease epidemiology	3	Major course
30	BN 507	Principles of Health Management	3	Major course
31	BSPH 508	Applied epidemiology	3	Major course
32	BSPH 601	District health management	3	Major course
33	BN 410	Health economics	3	Major course
Total credits			,	18

Semester VII

S. No	Course code	Course title	Credits	Category
34	BSPH 603	Health professional education	3	Major
				course
35	BSPH 605	Disaster management	3	Major
				course
36	BN 607	Policy and Program in Public Health	3	Major
				course
37	BN 609	Introduction to Environmental	3	Discipline sp.
		Health		Foundation
38	BN 605	Nutritional Problems in Developing	3	Discipline sp.
		Countries		Foundation
		Total credits	1	5

Semester VIII

S. No	Course code	Course title	Credits	Category
39	BSPH 602	Research project	3	Research
40	BSPH 608	Public Health field experience/internship	12	Internship
	Total credits			5

Total program credits: 129

Assessment method:

The curriculum of BSPH has been designed for the semester system of examination. The courses will be evaluated by internal assessment and final exam based on following distribution:

- Internal evaluation: 30%
- Final exams: 70% (Best choice questions and Short Answer Questions)

Further details on evaluation and examination will be described for the individual courses as part of the syllabus.

^{*}For Public Health internship, 70% marks will be reserved for attendance, internship performance and internship portfolio, while 30% marks will be reserved for the final evaluation (presentation and viva)

^{**}The research project will be evaluated by the School of Public Health, through project defense

Faculty - School of Public Health (DUHS)

Dr.Kashif Shafique

Professor & Principal, School of Public Health (DUHS)
Director, Office of Research, Innovation & Commercialization (DUHS)
PhD, MPH (UK), MBBS

Dr. Mohammad Zafar Iqbal Hydrie

Professor, School of Public Health (DUHS)
Post Doc (Canada), PhD (Norway), MPhil, MBBS

Dr. Nilofer Fatimi Safdar

Associate Professor, Nutritional Sciences PhD, MS, (USA) M.Sc., RDN.

Dr. M. Tahir Rizwan Khan

Assistant Professor

Qualification: MPhil, MSBE, MBBS

Dr. Sumaira Nasim

Assistant Professor

Qualification: PhD, (UK), MPH (Australia) M.Sc.

Dr. Shahkamal Hashmi

Assistant Professor

Qualification: Ph.D, MPH, MS, MBBS

Dr. Habiba Shah

Assistant Professor PhD, M.Sc.

Dr. Abdur Rasheed

Assistant Professor

Qualification: PhD, MPhil, M.Sc.

Dr. Owais Raza

Assistant Professor PhD (Iran), MBBS

Dr. Mansoor Ahmed

Assistant Professor PhD (South Korea), MBBS

Dr. Maria Atif

Assistant Professor Ph.D. (Australia), MPH, MBBS

Nida Jawed

Senior Lecturer MSPH, MSc. RDN

Tahreem Hussain

Senior Lecturer

Mphil (Food and Nutrition), RD

Dr. Waqas Ahmed Farooqui

Lecturer
PhD (Statistics)

Mehreen Amer

Lecturer MSPH , MSc, RD

Sukaina Shabbir

Lecturer
MSPH, MSc (Food & Nutrition), RDN

Nadia Shah

Lecturer Health Economics Mphil., MSc.

Sidra Mashkoor

Lecturer M.Sc., RD

Sarah Almas Ghouri

Lecturer BS (Nutrition), RD

Tooba Zaidi

Lecturer MSPH, MSc, RDN

Syeda Mehreen Zaidi

Lecturer
BS (Nutrition), PGD (Dietetics), RD

Sidra Zaheer

Lecturer PhD, M.Sc.,

Dr. Hira Fatima Waseem

Lecturer PhD. M.Sc.

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