



**Dow University of
Health Sciences**

**BS-NUTRITION
AND
FOOD SCIENCES**

**SESSION
2024-25**

**SCHOOL OF
PUBLIC HEALTH**

PROSPECTUS
School of Public Health



MESSAGE FROM THE VICE CHANCELLOR

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

As the Vice Chancellor of Dow University of Health Sciences, it is my pleasure to welcome you to one of Pakistan's leading medical universities. Since its inception in 2004 with just three constituent colleges, DUHS has grown into a thriving academic institution with over

30 constituent and affiliated institutions, now recognized as one of Pakistan's most comprehensive health systems.

This year, I am particularly proud to announce DUHS's continued progress toward our vision of being a preeminent academic institution dedicated to transforming lives through education, healthcare, and innovation. Our global accomplishments, especially within Asia, are a testament to the hard work of our dedicated faculty, who are committed to enhancing the learning experience and expanding our impact.

Founded as Dow Medical College in 1945, our university has a longstanding tradition of scholarship and service to the community. Today, DUHS offers a broad range of programs, from allied health and biomedical sciences to fields such as pharmacy, physical therapy, medical technology, biotechnology, nursing, public health, business administration, radiology technology, psychology, nutritional sciences, midwifery, and optometry.

Our commitment to academic excellence is reflected in our adoption of cutting-edge technology and the affordable, state-of-the-art healthcare provided by Dow University Hospital and our affiliated healthcare centers, research facilities, and diagnostic labs. We are dedicated to building an infrastructure that promotes innovation and research, preparing us to meet the needs of the future while delivering high-quality healthcare services.

To the incoming freshmen, I am confident that your journey at DUHS will prepare you to contribute with dedication, integrity, and compassion—upholding the highest standards of healthcare, both nationally and globally.

Good luck to each of you as you embark on this rewarding path!

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.



VISION STATEMENT DUHS

*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*

Overview of the college/institute


Inception of School of Public Health:

Public health in Pakistan is a need of the country where areas such as issues related to social and behavioral sciences, basic nutrition, policy issues, human resource management and health communication are highly neglected in the past. Considering the high prevalence of diseases in our community, it was imperative to develop the human resources in the country which is well trained to tackle all these 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 taken this initiative and established the first public sector institute of Public Health in the province which deals with all these public health challenges by training the human resource for Pakistan and cater to the healthcare needs.

Introducing our School:

School of Public Health (SPH) was founded in the year 2012. School of Public Health researchers, academics and graduates are expected to play vital role in shaping the future of healthcare in Pakistan. The SPH's academic activity involves not only the basic public health disciplines of biostatistics and epidemiology, but also includes social sciences, health policy and management, and nutritional sciences. Today, we have enrolled over 300 students and we have expanded our academic opportunities. We established our PhD program in Public Health and have initiated the first ever Undergraduate program in Public Health Nutrition. The main programs of the SPH include Masters of Public Health, Masters of Science in Health policy and Management, Masters in Science in Social and Behavioral Sciences, Masters of Science in Public Health Nutrition, Masters in Science in Biostatistics and Epidemiology, and four years BS Nutrition and Food Sciences. Our public health programs are developed and taught by leading academics and practitioners addressing the major public health challenges facing communities now and into the future.

To address the challenges of health care landscape of our community, our research 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. The institute has been successful in producing over 100 research publications concerning global and public health issues in peer review journals in last 3 years. In addition to this the institute has been successful in receiving different national and international research grant on many large projects including Higher Education Commission (HEC), World Food Program, World Health Organization (WHO), Research and Training in Tropical Diseases (TDR) etc.

Mission of School of Public Health:

To produce public health professionals who shall be self-directed long-life learners employing an evidence-based decision-making approach. The SPH aims at developing public health professionals who shall assume leadership positions in academia, health-related institutions, international donor agencies, and research institutions.

Academics:

Degrees and Programs Offered

- Ph.D. Program in Public Health
- Master's in public health – MPH
- Masters of Science in Biostatistics and Epidemiology (MSBE)
- Bachelors of Science in Nutrition
- Bachelors of Science in Public Health

BS NUTRITION AND FOOD SCIENCES

PREAMBLE:

International ranking based on health indicators places Pakistan at the lowest rungs of the ladder with persistently high mortality. The two most important contributing factors are related to low socio-economic status and poor nutritional status. Pakistan is faced with a major problem of malnutrition at all stages of life and its relationship with the disease process. Awareness about the importance of nutrition among our general public and even among health care providers is not enough to promote healthy eating habits to promote good nutrition. The challenges facing food and nutrition professionals today range from problems of undernutrition, food insecurity, and nutritional deficiencies to those of obesity and chronic diseases. Keeping all these factors in mind the School of Public Health at Dow University of Health Sciences offers a degree in BS Nutrition & Food Science to train graduates with proper and recent knowledge of nutrition and its application in daily life.

GOAL:

To provide students with a didactic program that covers the breadth of knowledge in nutrition, from molecules to organisms, populations and food chemistry; provides research opportunities; and offers practical experiences in industries and training in public health nutrition, clinical dietetics, and food science.

OBJECTIVES:


- To enable the graduate to apply fundamentals of human nutrition, clinical dietetics, food science and public health nutrition concepts effectively and efficiently.
- To equip students with effective counseling, practical field experience, and communication skills to implement successfully in the clinical, food science, and public health settings.
- To provide students with a professional learning experience that instills a sense of professional ethics in their discipline.
- To equip students with research and analytical reasoning skills to conduct food and nutrition research
- An explicit goal of the program is to connect the core knowledge with real-life situations that is community-based, industry-based, and or clinical-based nutritional management
- To impart effective leadership and efficient management qualities by providing opportunities to present and take lead on relevant projects.

DEGREE PROGRAM:

A four-year program called **BS Nutrition & Food Sciences** focuses primarily on the various aspects of nutrition & food science in a clinical, public health, and food industry environment.

This comprehensive interdisciplinary program will blend basic sciences with food, nutrition, and human health. This program is going to offer major tracks: The Clinical Dietetic, the Public Health Nutrition & Food Science Track.

Clinical Dietetic Track: Students who wish to pursue the field of nutritional sciences in a clinical setting, where their primary responsibility may be to recommend, plan, and deliver nutrition interventions and nutrition therapy to patients. In addition, these students may also be



equipped to work and manage food service systems /organizations in health care faculties. Once they have completed their academic course work and a supervised dietetic internship, the students can apply for the registered dietitian (RD) credentials by the Pakistan Nutrition & Dietetic Society after passing their registration exams. Those following this track will also be qualified to work in educational and research institutions and in private practice as consultants to individuals, corporations, medical care groups and long term care facilities.

Public Health Nutrition Track: Prepares students in the field of nutritional sciences with a focus on the promotion of good health through nutrition and the primary prevention of nutrition-related illness at the population level. This program will also equip the students to work with the various national and international health-related organizations to develop policies related to nutrition. This program will further train the graduates to develop ideas and identify practical solutions to public health problems at a national and regional level.

Food Science Track: This track will prepare students with the essential aspects of food science, including food chemistry, microbiology, processing, safety, and technology. The aim is to provide students with both theoretical knowledge and practical skills necessary for a career in the food industry or further academic research.

CAREER OPPORTUNITIES:

Nutrition is now a well-recognized health science that has gained recent momentum nationally, regionally and internationally. For Pakistan it is still in the developing stage, more so for Sind region. Graduates of this program will be in great demand in public health sector, NGOs, health care institutions, food industry, pharmaceutical companies, health organizations, hospitals & clinics, schools, academia, research institutes or can pursue further studies in nutrition or any other health related fields.

Eligibility of the candidate

Eligibility	<ul style="list-style-type: none">• HSSC Pre-Medical or Home Economics or equivalent examination (e.g. A-Level, 12th grade etc) duly certified by IBCC with minimum 60% marks.• Candidate's PRC & Domicile of Sindh
--------------------	--

Number of seats

Batch No	Year	Number of Seats	Number of students enrolled
I	2015	30	26
II	2017	100	75
III	2018	30	30
IV	2019	30	30
V	2020	30	33
VI	2021	30	50
VII	2022	30	35
VIII	2023	35	34
IX	2024	35	35

Fee Structure of BS-NUTRITION AND FOOD SCIENCES

Session 2024-25

Fee Type	Fee Amount
Admission Fee	45,000
Tuition Fee	180,403
Transportation Fee (Optional)	43,000
Documentation Verification Fee (Once Only)	2,500
Library Fee (Yearly)	10,000
Student Activity Charges (Yearly)	10,000
Total with Transport	290,903
Total without Transport	247,903

RULES FOR THE PAYMENT OF FEE

1. Fees of succeeding years (2nd Year to Final Year) are to be paid within ONE MONTH of issuance of fee vouchers or within the due date provided.
2. In case the fee for succeeding year (2nd Year to Final Year) is not submitted during the given specified time, late payment charges will be charged as follows:

First Month (After Lapse of First Month)	2.5%
Second Month	5%
Third Month	7.5%
Fourth Month	10%

After four months of non-payment, the seat is liable to be cancelled and student will not be allowed to appear in any examination

3. Fee of all categories shall be increased by 10% every year.
4. Fee deposited is refundable as per the Refund Policy guidelines of the DUHS.
5. Taxes will be applied as per the FBR and Government rules.
6. Hostel and Transport fee will be valid till the December of every year.
7. Amounts stated in the fee vouchers are excluded of all Bank charges.
8. The Fee Structure may be revised by the university at any time during the course of the study, due to unavoidable circumstances.
9. Associated fees will be charged as per fee structure.

1) Recognition by Governing Bodies/ Councils

BS Nutrition and Food Sciences program is recognized by HEC

For further information, please contact, Administration, School of Public Health,

Phone no: 021-99261441, Ext: 2641, 2649

Email: sph@duhs.edu.pk or visit our website: www.sph.duhs.edu.pk

Curriculum

Program Description

A four-year degree program, called BS Nutrition and Food Sciences, focusing primarily on the various aspects of food and nutrition in a clinical, public health environment and food industry. This will be a comprehensive interdisciplinary program that will blend basic sciences with food, nutrition and human health. This program offers three major tracks: The Clinical Dietetic Track the Public Health Nutrition Track and Food Sciences.

Program Curriculum

Year I Semester I

Course Codes	Course Title	Credits	Category
BN102	Islamic Studies/Ethics	2	Islamic Studies
BN303	Introduction to Food & Nutrition	3	Major Course
BN307	Introduction to Social Sciences	2	Social Sciences
BSPH 305	Basic computer skills/ICT	3	Application of information & Communication Technologies (ICT)
ENG300	English I (Functional English)	3	Functional English
BN101	Pak Studies	2	Ideology and constitution of Pakistan
	Total Credits	15	

Year I Semester II

Course Codes	Course Title	Credits	Category
BN306	Macro & Micronutrients	3	Major Course
BN409	Analytical Skills / Mathematics	3	Quantitative Reasoning
BN505	Introductory Statistics	3	Quantitative Reasoning
BN310	Introduction to Philosophy	2	Arts & Humanities
ENG301	English II (Communicational Skills)	3	Expository Writing
BSPH408	Health promotion, advocacy, and social mobilization	2	(Civics and community engagement)
	Total Credits	16	

Year II Semester III

Course Codes	Course Title	Credits	Category
BN401	Nutrition and Human Metabolism (Macronutrients)	3	Major Course
BN507	Principles of Health Management	3	Entrepreneurship
BN304	Microbiology	3	Major Course
BN410	Health Economics	3	Allied Course
BN302	Biochemistry	3 (2+1)	Natural Sciences
	Total Credits	16	

Year II Semester IV

Course Codes	Course Title	Credits	Category
BN414	Meal Planning	3	Major Course
BN408	Introduction to Research	3	Major Course
BN402	Nutrition and Human Metabolism (Micronutrients)	3	Major Course
BN403	Introduction to Food Science	3	Major Course
BN504	Food Safety & Sanitation	3	Major Course
BN404	Nutrition During Lifecycle	3	Major Course
	Total Credits	18	

Year III Semester V

Course Codes	Course Title	Credits	Category
BN501	Nutrition & Disease	3	Major Course
BN503	Nutritional Assessment	3	Major Course
BN504	Food Service & Institution Management	3	Major Course
BN511	Food Chemistry	3	Major Course
BN513	Food Biotechnology	3	Major Course
BN413	Community Nutrition	3	Major Course
	Total Credits	18	

Year III Semester VI

Course Codes	Course Title	Credits	
BN502	Practical Skills in Nutrition Counseling	3	Major Course
BN611	Nutrition Care Process in Clinical Nutrition	3	Major Course
BN512	Food Toxicology	3	Major Course
BN510	Nutrigenomics	3	Allied Course
BN514	Industrial Economics & Management	3	Major Course
	Total Credits	15	

Year IV Semester VII & VIII

PUBLIC HEALTH NUTRITION TRACK

Semester VII	Course Codes	Course Title	Credits	
	BN601	Fundamentals of Public Health	3	Major Course
	BN605	Nutritional Problems in Developing Countries	3	Major Course
	BN607	Policy & program in Public Health Nutrition	3	Major Course
	BN609	Introduction to Environmental Health	3	Major Course
	BN606	Introduction to Epidemiology	3	Allied Course
		Total Credits	15	
Semester VIII	Course Codes	Course Title	Credits	
	BN602	Practicum in Public Health organization.	3	Internship
	BN612	Health & Fitness	3	Allied Course
	BN614	Nutrition in Health Care System:	3	Major Course
	BN616	Principles and Programs in Maternal and Child Health	3	Major Course
	BN618	Capstone Project	3	Capstone
		Total Credits	15	

CLINICAL DIETETICS TRACK

Semester VII	Course Codes	Course Title	Credits	
	BN613	Clinical Nutrition I	3	Major Course
	BN613	Clinical Nutrition II	3	Major Course
	BN615	Nutrition & Diet Therapy Across Life cycle	3	Major Course
	BN617	Drug & Nutrient Interaction	3	Major Course
	BN606	Introduction to Epidemiology	3	Allied Course
		Total Credits	15	
Semester VIII	Course Codes	Course Title	Credits	
	BN610	Dietetic Internship in Hospital Setting	3	Internship
	BN612	Health & Fitness	3	Allied Course
	BN620	Enteral & Parenteral Nutrition Support	3	Major Course
	BN622	Nutraceuticals & Functional Foods	3	Major Course
	BN618	Capstone Project	3	Capstone
		Total Credits	15	
		Total Credits		

FOOD SCIENCE TRACK

Semester VII	Course Codes	Course Title	Credits	
	BN619	Industrial methods of food preservation	3	Major Course
	BN621	Food Additives	3	Major Course
	BN623	Food Safety & Quality Assurance	3	Major Course
	BN625	Utilization of Food Industry Waste	3	Major Course
	BN606	Introduction to Epidemiology	3	Allied Course
		Total Credits	15	
Semester VIII	Course Codes	Course Title	Credits	
	BN610	Internship at F&B organization	3	Internship
	BN612	Health & Fitness	3	Allied Course
	BN624	Food Product Development	3	Major Course
	BN626	Industrial Methods in Food Analysis	3	Major
	BN618	Capstone Project	3	
		Total Credits	15	
		Total Credits		

COURSE REQUIREMENTS

Criteria	Duration of time
Total numbers of Credit hours	128
Duration	4 years (8 semesters)
Semester duration	Total 16 weeks (14 weeks for teaching, & 2 weeks of exams)
Semesters	8
Credit Load per Semester	15-18
Number of courses per semester	5-6

Semester wise Credit Hours Distribution			
YEAR	SEMESTER-1	SEMESTER-2	Total
1	15	16	31
2	16	18	34
3	18	15	33
4	15	15	30
TOTAL	64	64	128

Assessment Methods- Semester system

For Physical Classes Semester Session:

- The curriculum has been designed for the semester system of examination. 70% final Exam based on BCQs/SAQs and 30% internal evaluation. Further details on evaluation & examination will be described for individual courses as part of the syllabus.
- For the final (8th Semester) evaluation and examination will be conducted by the SPH through internal & external examiners. The detail of the grading criteria is submitted to the examination department as a separate document.

For Hybrid/Virtual Classes Semester Session:

- The curriculum has been designed for the semester system of examination. 40% final Exam based on BCQs/SAQs and 60% internal evaluation. Further details on evaluation & examination will be described for individual courses as part of the syllabus.
- For the final (8th Semester) evaluation and examination will be conducted by the SPH through internal & external examiners. The detail of the grading criteria is submitted to the examination department as a separate document.

Number of Students Graduated and Studying

BS Nutrition Program			
Batch No	Year	Number of Students Studying	Number of students graduated
I	2015	23	23
II	2017	71	70
III	2018	29	29
IV	2019	29	29
V	2020	35	enrolled
VI	2021	50	enrolled
VII	2022	35	enrolled
VIII	2023	34	enrolled
IX	2024	35	enrolled

Facilities

- Food Science Laboratory
- Food Preparation Laboratory
- Clinical Science Lab equipments
- Five Lecture halls, each with a capacity of 30 students
- Digital Library/ Computer Lab with a capacity to accommodate 40 students
- Chemistry/ Bio chemistry Laboratory at DIMC
- Library Facilities -SPH
- Auditorium with a capacity of 70 seats
- Training Facilities
 - SPH provide its students with number of internship opportunities to gain the field experience

Faculty

Faculty List- School of Public Health, DUHS			
S.No.	Name	Designation	Email
1.	Prof.. Kashif Shafique	Professor & Principal	k.shafique@duhs.edu.pk
2.	Prof. Mohammad Zafar Iqbal Hydrie	Professor	zafar.hydrice@duhs.edu.pk
3.	Dr. Nilofer Fatimi Safdar	Associate Professor Director Nutritional Sciences (Adjunct faculty)	nilofer.safdar@duhs.edu.pk
4.	Ms. Nida Jawed	Sr. Lecturer & Program Director BS-Nutrition	nida.jawed@duhs.edu.pk
5.	Dr. Maria Atif	Assistant Professor	maria.atif@duhs.edu.pk

6.	Ms. Tahreem Hussain	Senior Lecturer, Program Director MSPH Nutrition	tahreem.hussain@duhs.edu.pk
7.	Dr. Sumaira Naseem	Assistant Professor	sumaira.nasim@duhs.edu.pk
8.	Dr. Habiba Shah	Assistant Professor	habiba.shah@duhs.edu.pk
9.	Ms. Nadia Shah	Senior Lecturer	nadia.shah@duhs.edu.pk
10	Ms. Shabana Siddiqui	Senior Lecturer	sn.siddiqui@duhs.edu.pk
11	Ms. Sidra Zaheer	Senior Lecturer	sidra.zaheer@duhs.edu.pk
12	Ms. Mehreen Amer	Lecturer	mehreen.amer@duhs.edu.pk
13	Ms. Mehreen Zaidi	Lecturer	mehreen.zaidi@duhs.edu.pk
14	Ms. Sidra Sirajuddin	Lecturer	sidra.sirajuddin@duhs.edu.pk
15	Ms. Sukaina Shabbir	Lecturer	sukaina.shabbir@duhs.edu.pk
16	Ms. Tooba Zaidi	Lecturer	tooba.zaidi@duhs.edu.pk

Research Activities


In addition to their teaching, our faculty is engaged in a wide range of research activities related to the health of populations. Research in the school is supported by grants and awards from numerous national and international organizations, including the following:

- World Health Organization
- The Conservation, Food and Health Foundation
- National Research Program for Universities (NRPU) By Higher Education Commission of Pakistan
- Health Research Institute (HRI). National Institutes of Health, Ministry of National Health Services, Regulations and Coordination. Government of Pakistan
- Pharmaceutical Industry

Also, as a part of continuous research activities, we have developed collaborative partnerships with different academic and research organizations.

Co- curricular activities/societies

Students and faculty at School use a community based participatory research approach to enhance the relevance to population health and the likelihood of implementation, effectiveness, reach, sustainability, and dissemination. The goal of the community based participatory research is to build the capacity of our community partners by providing participants with our awareness sessions on various areas of public health including mental health prediabetes, school health program on road safety, preventing road traffic injuries, food and nutrition security. The school also arranged medical camps, seminars, nutrition



assessments, behavior change communications for prevention of disease and promotion of health. Other than this our students also participate in different sports activities like indoor games, for example chess, and outdoor activities like badminton, cricket and handball.

Contact Us:

School of Public Health, Dow University of Health Sciences, Ojha Campus, Suparco Road, Gulzar e Hijri, Scheme 33, Karachi

Tel: 021-99261441, 2641-2649417

Email: sph@duhs.edu.pk