



**School of Public Health
Dow University of Health Sciences**



Nutrition Prospectus/Handbook

Program

Bachelor of Science in Nutrition

Four Year Undergraduate Program

OVERVIEW OF THE SCHOOL OF PUBLIC HEALTH MISSION & VISION

Inception of The 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 resource 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 270 students and we have expanded our academic opportunities. We established our PhD program in Public Health and also 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 Bachelor of Science in Nutrition. 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 30 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 Higher Education Commission (HEC) research grant on three large projects last year and World Health Organization (WHO), Research and Training in Tropical Diseases (TDR) grant project. Quite a few are in review process for funding.

Institute Vision & Mission:

Vision

To become the center of excellence in Pakistan and the region for education, research, and service in the field of public health.

Mission

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.

BACHELOR OF SCIENCE IN NUTRITION

PREAMBLE:

International ranking on the basis of 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 their relationship with disease process. Awareness about the importance of nutrition in 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 under nutrition, 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 has decided to offer a basic degree course in nutritional sciences in order 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 to populations; provides opportunities for research; and offers practical experiences and training in public health nutrition & clinical dietetics.

OBJECTIVES:

- To provide an opportunity for students to acquire an undergraduate degree in Nutritional Sciences with emphasis in public health nutrition or clinical dietetics.
- To develop professional abilities among students wishing to pursue careers in food and nutrition from both clinical dietetics and public health perspective.
- To train and develop skills required to understand and solve community based food & nutrition health problems.

- To provide knowledge, skill, and training to qualify to work in the clinical setting in hospitals, clinics, and other health care facilities.
- Prepare students to pass the licensure exam and work as qualified dietitians in different medical settings.
- To equip students with key components of analytical, integrative, and critical-thinking skills in order to understand, interpret and conduct food and nutrition research.
- Instill leadership and efficient management qualities in graduates

DEGREE PROGRAM:

A four year program called **Bachelor of Science in Nutrition**, focusing primarily on the various aspects of food and nutrition in a clinical and public health environment. This will be a comprehensive interdisciplinary program that will blend basic sciences with food, nutrition and human health. The program in nutritional sciences will offer two major tracks: The Clinical Dietetic Track and the Public Health Nutrition 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 the 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.

CAREER OPPORTUNITIES:

Nutrition is now a well-recognized health science that has gained a recent momentum nationally, regionally and internationally. For Pakistan it is still in the developing stage, more so for Sind region. Therefore, for Sind this is going to be unique as no university in Sind is providing an undergraduate degree in Nutritional Sciences alone. 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

BS Nutrition at School of Public Health

| | |
|---|--|
| Eligibility | <ul style="list-style-type: none"> • Matric / O level / equivalent examination certificate. • Intermediate Science / ‘A’ Level / equivalent examination minimum marks of 60% aggregate in intermediate Science (Pre-medical) / ‘A’ Level / equivalent examination. • Candidate’s domicile certificate of Sindh. |
| <ul style="list-style-type: none"> • Entrance Test: | <ul style="list-style-type: none"> • Structure Best Choice Questions (BCQs) • Interview by the selection board |

Number of seats
BS Nutrition at School of Public Health

| 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 |

Approved Fee Structure

Fee Structure Detail
BS Nutrition

| Session 2021-22 | (In Rupees) |
|---|--------------------|
| Admission Fee (Once at the Time of Admission)* | Rs. 45,000/- |
| Tuition Fee (2 Semesters)* | Rs. 129,647/- |
| Total without Transport | Rs. 174647 |
| Transport Fee | Rs. 30,000/- |
| Total with Transport | Rs. 194,647 |

The costs of the nutrition degree include the usual tuition and other fees as per the DUHS undergraduate degree policies and procedures.

***Fee structure is subject to change**

1) Recognition by Governing Bodies/ Councils

BS-Nutrition program is recognized by HEC



Office of the Registrar

Dow University of Health Sciences, Karachi.

INSTITUTE OF BIOMEDICAL SCIENCES

Diary No. 045 Date: 21-2-18
Time: 10-00 Receiver Sign: [Signature]

Baba-e-Urdu Road
Karachi-74200
Pakistan
Phone: 021-32745823
Facsimile: 021-99215783
registrar@duhs.edu.pk

Ref. No. DUHS/Reg./2018/1049

Dated the 19th Feb, 2018

MEMORANDUM

In pursuance of the decision of the Syndicate of the Dow University of Health Sciences taken in its 70th Meeting vide Resolution/Decision No: Syn-70/27.01.2018/ Item-22 unanimously approved post-facto approval of Degree Awarding Programs at Dow University of Health Sciences as under :-

| Program | Institute | Specialty | Date of Start / Launch |
|--|---|--|------------------------|
| UNDERGRADUATE PROGRAMS | | | |
| MBBS- Bachelor of Medicine & Bachelor of Surgery | Dow International Medical College | N/A | 2008 |
| BDS- Bachelor of Dental Surgery | Dow Dental College | N/A | 2012 |
| BDS- Bachelor of Dental Surgery | Dow International Dental College | N/A | 2011 |
| BDS- Bachelor of Dental Surgery | Dr. Ishrat ul Ebad Khan Institute of Oral Health Sciences | N/A | 2007 |
| BS DCP – Bachelor of Science in Dental Care Professional | Institute of Physical Medicine & Rehabilitation | 1. Dental Hygienist 2. Dental Technologist | 2007 |
| BS -Occupational Therapy | | N/A | 2007 |
| BS- Prosthetic & Orthotic | Institute of Physical Medicine & Rehabilitation | N/A | 2008 |
| DPT- Doctor of Physiotherapy | | N/A | 2012 |
| BSMT- BS Medical Technology | Institute of Medical Technology | 1. Respiratory & Critical Care 2. Perfusion Sciences 3. Surgical Technology 4. Clinical Laboratory Sciences 5. Ophthalmic Technology | 2007 |



Cont'd.....P/2



Office of the Registrar

Dow University of Health Sciences, Karachi.

Baba-e-Urdu Road
Karachi-74200
Pakistan
Phone: 021-32745826
Facsimile: 021-99215763
registrar@duhs.edu.pk

| Program | Institute | Specialty | Date of Start / Launch |
|--|---|--|------------------------|
| BS Nutrition | School of Public Health | N/A | 2015 |
| Bachelor of Science in Nursing | Institute of Nursing | N/A | 2009 |
| Post RN BSc.N (Nursing) | | N/A | 2006 |
| POSTGRADUATE PROGRAMS | | | |
| MPhil- Master of Philosophy | Dow College of Pharmacy | Pharmaceutical Sciences 1. Pharmacology 2. Pharmaceutics 3. Pharmaceutical Chemistry 4. Pharmacognosy 5. Pharmacy Practice | 2013 |
| Ph.D- Doctorate of Philosophy | Dow College of Pharmacy | Pharmaceutical Sciences 1. Pharmacology 2. Pharmaceutics 3. Pharmaceutical Chemistry 4. Pharmacognosy 5. Pharmacy Practice | 2013 |
| MPhil – Master of Philosophy | Institute of Biomedical Sciences | Basic Medical Sciences | 2008 |
| Ph.D- Doctorate of Philosophy | | 1. Basic Medical Sciences 2. Clinical Sciences 3. Dental Sciences 4. Public Health | 2009 |
| MSAPT- MS Advanced Physio-Therapy | Institute of Physical Medicine & Rehabilitation | N/A | 2009 |
| Masters in Nursing | Institute of Nursing | N/A | 2011 |
| MSPH- Master of Science in Public Health | School of Public Health | 1. Social & Behavioral Sciences 2. Health Policy Management 3. Nutritional Sciences | 2013 |

Cont'd.....P/3

Curriculum BS- Nutrition

Program Description

A four-year degree program, called Bachelor of Science in Nutrition (BS-Nutrition), focusing primarily on the various aspects of food and nutrition in a clinical and public health environment. This will be a comprehensive interdisciplinary program that will blend basic sciences with food, nutrition and human health. The program in nutritional sciences will offer two major tracks: The Clinical Dietetic Track and the Public Health Nutrition Track.

Bachelor of Science in Nutrition Program Curriculum

Year -1

| Course Codes | Semester-1 | Credits |
|--------------|----------------------------------|-----------|
| BN101 | Pakistan Studies | 3 |
| BN301 | Chemistry (Organic) | 3 |
| BN303 | Introduction to Food & Nutrition | 3 |
| BN305 | Basic Physiology | 3 |
| BN307 | Introduction to Social Sciences | 3 |
| ENG300 | English Language | 3 |
| | Total Credits | 18 |
| Course Codes | Semester-II | Credits |
| BN102 | Islamiat | 3 |
| BN302 | Chemistry-II (Bio) | 3 |
| BN304 | Microbiology | 3 |
| BN306 | Macro & Micro Nutrients | 3 |
| BN310 | Introduction to Philosophy | 3 |
| ENG301 | English Writing | 3 |
| | Total Credits | 18 |

Year -2

| Course Codes | Semester-III | Credits |
|---------------------|--|----------------|
| BN401 | Nutrition and Human Metabolism (Macronutrients) | 3 |
| BN404 | Nutrition During Lifecycle | 3 |
| BN405 | Human Development | 3 |
| BN407 | Development/Behavioral Psychology | 3 |
| ENG302 | English III | 3 |
| BN409 | Analytical Skills/Mathematics | 3 |
| | Total Credits | 15 |

| Course Codes | Semester IV | Credits |
|---------------------|--|----------------|
| BN402 | Nutrition and Human Metabolism (Micronutrients) | 3 |
| BN403 | Principles of Food Science | 3 |
| BN506 | Food Safety & Sanitation | 3 |
| BN408 | Introduction to Research | 3 |
| BN505 | Introductory Statistics | 3 |
| | Total Credits | 15 |

Year -3

| Course Codes | Semester-V | Credits |
|---------------------|--|----------------|
| BN508 | Research Techniques & Methods | 3 |
| BN501 | Nutrition & Disease | 3 |
| BN503 | Nutritional Assessment | 3 |
| BN406 | Food Analysis | 3 |
| BN509 | Communication Skills | 3 |
| | Total Credits | 15 |

| Course Codes | Semester-VI | Credits |
|---------------------|--|----------------|
| BN502 | Practical Skills in Nutrition Counseling | 3 |
| BN504 | Food Service & Institution Management | 3 |
| BN507 | Principles of Management | 3 |
| BN410 | Health Economics | 3 |
| BN510 | Nutrigenomics | 3 |
| | Total Credits | 15 |

Year- 4 (At the beginning of the semester the student will give a track selection entry test)

| PUBLIC HEALTH NUTRITION TRACK | | |
|--------------------------------------|---|----------------|
| Course Codes | Semester-VII | Credits |
| BN601 | Fundamentals of Public Health | 3 |
| BN606 | Introduction to Epidemiology | 3 |
| BN605 | Nutritional Problems in Developing Countries | 3 |
| BN607 | Policy & Program in Public Health Nutrition | 3 |
| BN609 | Introduction to Environmental Health | 3 |
| | Total Credits | 15 |
| Course Codes | Semester-VIII (A preliminary internship test will be conducted before the placement of students in different public health organizations for internship purpose) | Credits |
| BN602 | Practicum in public health & community organization. | 12 |
| BN612 | Health & Fitness | 3 |
| | Total Credits | 15 |

| CLINICAL DIETETICS TRACK | | |
|---------------------------------|---|----------------|
| Course Codes | Semester-VII | Credits |
| BN606 | Introduction to Epidemiology | 3 |
| BN611 | Nutrition Care Process in Clinical Nutrition | 3 |
| BN613 | Medical Nutrition Therapy | 3 |
| BN615 | Nutrition & Diet Therapy across life cycle | 3 |
| BN617 | Drug & Nutrient Interaction | 3 |
| | Total Credits | 15 |
| Course Codes | Semester-VIII (A preliminary internship test will be conducted before the placement of students in different hospitals for internship purpose) | Credits |
| BN610 | Dietetic Internship in Hospital Setting | 12 |
| BN612 | Health & Fitness | 3 |
| | Total Credits | 15 |

| COURSE REQUIREMENTS | |
|--------------------------------|---|
| Criteria | Duration of time |
| Total numbers of Credit hours | 126 |
| 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 | 18 | 18 | 36 |
| 2 | 15 | 15 | 30 |
| 3 | 15 | 15 | 30 |
| 4 | 15 | 15 | 30 |
| TOTAL | 63 | 63 | 126 |

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 | enrolled |
| V | 2020 | 35 | enrolled |
| VI | 2021 | 50 | enrolled |

Facilities

- Food Science Laboratory
- Food Preparation Laboratory
- Clinical Science Lab equipments
- 5 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

Guest Lecture Series and Seminars

The aim of the SPH guest lecture series is to foster global and national public health issues awareness among all students at the School. The program consists of a series of dedicated experts from many disciplines and backgrounds to address various aspects of public health.

Office of Student Affairs (OSA)

Office of Student Affairs deals with the student related queries and all problems and their solution. Students can give in or email applications for academic as well as non-academic issues or make an appointment with a member of the staff to get the information and assistance needed.

Members

1. Nasrullah Patel (Administrator SPH)
2. Bushra Khokhar (Assitant Admin Officer)

Contact Information: Email: sph@duhs.edu.pk

Contact Us:

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