



# WOMEN UNIVERSITY SWABI

KHYBER PAKHTUNKHWA-PAKISTAN

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**Department of Food Science & Nutrition**

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### Vice Chancellor's Message

Welcome to Women University Swabi, a university that is committed to empower women through higher education and provide them opportunities to work in a wide array of settings such as education, business, industry, health, and social services sectors.

To me, the job of a university is not only to produce degree holders and commercially marketable human resources, but I believe it is more than that. Universities are required to produce loyal, honest and enlightened human beings who can empathetically understand the needs of society, reverentially work in both national and international community, and take better care of the future generations.

**PROF. DR. SHAHANA UROOJ KAZMI**  
**WOMEN UNIVERSITY SWABI**  
KHYBER PAKHTUNKHWA-PAKISTAN



## **Department of Food Science & Nutrition**

### **Vision**

The mission of the Food Science and Nutrition (FSN) Department at the Women University Swabi is to empower female students, faculty and staff to become lifelong learners by providing a comprehensive education in food sciences and human nutrition, inspiring scholarship and professional excellence, engaging in a collaborative, diverse atmosphere of respect and creating leaders who seize opportunities to serve their global community.

### **Mission**

The mission of the department is to generate knowledge about foods through research, and to apply and disseminate knowledge through teaching and outreach, with the goal of ensuring the availability of safe, nutritious, appealing food, with minimum environmental impact, for the benefit of all people.

**BS** (Hons)

**MS**

Food Science and Technology  
and  
Human Nutrition and Dietetics

**PhD**

Food Science and Technology  
and  
Human Nutrition and Dietetics

## **What is Food Science**

Food Science is a convenient name used to describe the application of scientific principles to create and maintain a wholesome food supply. The commitment of food science and technology professionals to advancing the science of food, ensuring a safe and abundant food supply, and contributing to healthier people everywhere is integral to that evolution. Food scientists and technologists are versatile, interdisciplinary, and collaborative practitioners in a profession at the crossroads of scientific and technological developments. As the food system has drastically changed, from one centered around family food production on individual farms and food preservation to the modern system of today, most people are not connected to their food nor are they familiar with agricultural production and food manufacturing designed for better food safety and quality.

## ***"Feeding the World Today and Tomorrow"***

Food Science has given us

- Frozen Foods
- Canned Foods
- Microwave Meals
- Milk Which Keeps
- Snacks
- Nutritious New Foods
- More Easily Prepared Traditional Foods
- Above All, Variety In Our Diets.

Food science provides a wide range of scientific knowledge to maintain a high quality, abundant food supply. Food Science allows us to make the best use of our food resources and minimize waste.

Most food materials are of biological origin. How they behave in harvesting, processing, distribution, storage and preparation is a complex problem. Full awareness of all important aspects of the problem requires broad-based training.

## National & International Scope

### **1) Quality Control Manager**

The job of a quality control manager can be understood by the people working in that line of work.

They have a responsibility of meeting all the standards of a certain product and make sure that it is of best quality according to the efficiency standards.

They also work with customers and consumers to understand the mindset and develop strategies to meet the requirements of quality of products and to do inspection of everything in order to check and test products for defects etc.

### **2) Product Manager**

After completing degree in food and nutrition, you can easily get hired by food industries and become a product manager. This, too, has a wide scope.

### **3) Food researcher and Scientist**

If one is interested in research based work, they can always opt to become a food scientist.

This is a great chance at learning and discovering new things in the industry which will benefit the whole world, once you succeed.

There are a few universities in Pakistan that offer a PhD degree in food and nutrition. With that in hand, you can always become a senior college professor in the field or even an expert dietitian.



#### **4) Food Inspector**

This is a great field to be in Pakistan. Food inspectors check the hygiene of the food and products including the ingredients, location and types of utensil used in the manufacturing, processing, handling and storage of foods.

This is a very tough job but this is directly linked to the government sector so if you succeed in that and gain an experience of 3 or more years, you can get a really good salary package.

#### **5) NGO based Jobs**

You can work as a Nutritionist there and take control of the food intake and also the food quality consumed by the people. With a degree in food and nutrition, you can act as a Public Health Nutritionist in non governmental organizations and play your part in spreading some good in the world.

#### **6) Fitness consultants**

This is another way of utilizing your degree. One can become a fitness expert and a consultant once they have cleared their specific degree. One can also open their own gym and fitness clinics. As a person studying diet and nutrition is fully qualified in delivering the guidelines about the correct consumption of nutrients in your diet, they are automatically fit to guide you about your fitness queries. Whether they are working out plans, diet plans and helping people to gain/lose weight. Fitness experts even deal with people who are suffering from certain diseases and help them with a non-medical approach.

#### **7) Food Auditors in Hotels**

This field is also related to food safety and hygiene conditions.

You can become a food auditor at a company or a hotel and their job basically to ensure that food safety standards are upheld.

### **Job Opportunities:**

#### **Some of the Job profiles include:**

Food technologist: Production/Operation/ QA/QC  
New Product & Process Development  
Marketing & Sales, Business development & Marketing analysis  
Procurement & Supply chain management  
Teaching institutes

#### **Types of companies with career opportunities:**

Corporate Food manufacturing companies  
Food research laboratories  
Food quality & Certification organizations  
Food Packaging companies  
Food machinery & Instruments manufacturing companies  
Flavour houses  
Agricultural commodities export ventures

### **Five reasons why one should choose Food Science & Nutrition**

- 1) Job Security:** Nobody can survive without eating food. Therefore, food industries will always keep processing food and hiring professionals.
- 2) Diverse Environment:** As food industry is diverse, with literally thousands of different opportunities for a food scientist/ food technologist. You can work with a milk processing industry, a winery, bakery industry, meat processing, flavour development, etc. As you study multidisciplinary subjects, it opens up a myriad of opportunities.
- 3) Salary possibilities:** A degree in food science offers many opportunities to earn top- salaries with a good growth rate.
- 4) The Food:** If you are a food lover, then, working in this industry would be like a dream come true. Creating and testing products will expose you to good food. You will also get an opportunity to explore new dishes and flavours.
- 5) Travel opportunities:** Most of the food industries are global. Depending on your position, you often get opportunities to travel to different countries for work, training, business expansion etc.

# BS (4 Years) Food Science & Nutrition

(4 Years)  
8 Semesters

Total Credit Hours 130

## Eligibility Criteria

Fsc / A level or equivalent with Biology and Chemistry  
Minimum 45% marks at intermediate level or equivalent.

## Scheme of Studies Food Science & Nutrition

Course No.	Title of Course	Credit Hours
<b>1<sup>st</sup> Semester</b>		
FSN-301	Principles of Human Nutrition	2 (2+0)
FSN-302	Introduction to Food Science	3(2+1)
FSN-303	General Microbiology I	3 (2+1)
ENG-1	English I	3 (3+0)
ITC-1	Introduction to Computer Science	3(2+1)
PS-1	Pakistan Studies	3 (3+0)
Total		17
<b>2<sup>nd</sup> Semester</b>		
FSN-304	Macronutrients in Human Nutrition	3(3+0)
ENG-II-3204	English-II	3(3+0)
Isl -3202	Islamic Studies	3(3+0)
FSN-305	Food Chemistry	3(3+0)
FSN-306	Unit Operation in Food Processing	3(2+1)
FSN-307	General Microbiology II	3(2+1)
Total		18
<b>3<sup>rd</sup> Semester</b>		
FSN-401	Micronutrients in Human Nutrition	3(3+0)
FSN-402	Food Biotechnology	3(2+1)
FSN-403	Confectionery and Snack Foods	3(2+1)
FSN-404	Food Processing and Preservation	3(2+1)
FSN-405	Food Microbiology	3(2+1)
BS-1	Bio-Statistics	3(3+0)
Total		18



Course No.	Title of Course	Credit Hours
<b>4<sup>th</sup> Semester</b>		
FSN-406	Food Safety and Quality Management	3(3+0)
FSN-407	Beverage Technology	3(2+1)
FSN-408	Nutrition Through the Life Cycle	3(3+0)
FSN-409	Post-Harvest Technology	3(2+1)
FSN-410	Cereal Technology	3(2+1)
Total		15
<b>5<sup>th</sup> Semester</b>		
FSN-501	Food Packaging	3(2+1)
FSN-502	Sensory Evaluation of Foods	3(2+1)
FSN-503	Food Safety	3(3+0)
FSN-504	Milk and Meat Hygiene and Public Health	3(2+1)
FSN-505	Food and Drug Laws	2(2+0)
FSN-506	Assessment of Nutritional Status	3(2+1)
Total		17
<b>6<sup>th</sup> Semester</b>		
FSN- 601	Food Additives	3(2+1)
FSN-602	Food Supplements	2(2+0)
FSN-603	Nutritional Education & Awareness	3(2+1)
FSN-604	Dairy Technology	3(2+1)
FSN-605	Food Product Development	3(2+1)
FSN-606	Nutrition Through Social Protection	3(3+0)
Total		17
<b>7<sup>th</sup> Semester</b>		
FSN-701	Instrumental Techniques in Food Analysis	3(2+1)
FSN-702	Clinical Biochemistry	3(2+1)
FSN-703	Global Food Issues	3(3+0)
FSN-704	Research Projects and Scientific Writing	3(2+1)
FSN-705	Nutritional Practices in Clinical Care	3(2+1)
<b>Total</b>		15
<b>8<sup>th</sup> Semester</b>		
FSN- 801	Nutrition Policies and Program	3(3+0)
FSN- 802	Food Services and Management	3(3+0)
FSN-803	Food Toxins & Allergens	3(2+0)
FSN- 804	Internship and Report Writing	4(0+4)
Total		13

Dr. Zia-ud-Din has obtained his PhD from Huazhong Agricultural University Wuhan China in the year 2018 and worked as Assistant Professor at Department of Agriculture, University of Swabi till May, 2022. He has recently joined the Women University Swabi at Department of Food Science and Nutrition as Assistant Professor. He has published 32 research papers in International peer reviewed journals with impact factor of more than 200 and H-index of 14.



**Dr Zia-ud-Din**  
**HOD**

Dr. Imran Ullah Shah has obtained his PhD from Harbin Medical University China in the year 2020 and worked as Assistant Professor at Department of Human Nutrition and Dietetics, Iqra University Karachi till November, 2021. After that, he joined the Department of Public Health and Nutrition in University of Haripur. He has recently joined the Women University Swabi at Department of Food Science and Nutrition as Assistant Professor. He has published 10 research papers in International peer reviewed journals with impact factor of more than 30.



**Dr Imran Ullah**  
**Shah**  
**Assistant Professor**

Miss Jannat-ul-Mawa has obtained her M.Sc. (Hons) degree in Food Science and Technology from The University of Agriculture, Peashawar. After that, she has joined the Women University Swabi at Department of Food Science and Nutrition and working as lecturer. She has 9 research papers in the peer reviewed journals.



**Miss**  
**Janat ul Mawa**  
**Lecturer**

Miss Nabila Khan has obtained her M.Sc. (Hons) degree in Food Science and Technology from The University of Agriculture, Peashawar. After that, she has joined the Women University Swabi at Department of Food Science and Nutrition and working as lecturer. She has 10 research papers in the peer reviewed journals.



**Miss**  
**Nabila Khan**  
**Lecturer**



## Academic Calender (Session 2021-2022) Women University, Swabi

Spring 2022	Study period	28 <sup>th</sup> March,2022- 29 July ,2022
	Mid Term Examination (After 8 Weeks)	23 <sup>th</sup> May 2022-27 <sup>th</sup> May,2022
	Final Term Examination (After 8 weeks)	25 <sup>th</sup> July,2022-29 <sup>nd</sup> July,2022
Fall 2022	Study period	1 <sup>st</sup> September to 13 January ,2023
	Mid Term Examination (After 8 weeks)	27 <sup>th</sup> , October 2022 – 2 <sup>nd</sup> November,2022
	Final Term Examination (After 8 weeks)	04 <sup>th</sup> January,2022-13th January ,2023



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