

# Scheme of Study

## BS Food Science and Technology

### Semester 1

S. No.	Course Code	Course Title	Credit Hrs.	
			Theory	Lab
1	ENGL-1118	Functional English	3	0
2	MATH-1111/ BTNY-1107	Mathematics-I/Botany	3	0
3	PAKS-1113	Pakistan Studies	2	0
4	FDST-1101/ FDST-1201	Introduction to Food Science and Technology	2	1
5	AGRI-1101/ AGRI-1201	Basic Agriculture	2	1
6	STAT-1101 STAT-1201	Statistical Theory- I	2	1
7	HLTH-1113	Basic Health Awareness	2	0
Credit Hours			19	

### Semester 2

S. No.	Course Code	Course Title	Credit Hrs.	
			Theory	Lab
1	ISLS-1112/ ETIC-1112	Islamic Studies / Ethics	2	0
2	ENGL-1119	Communication Skills	3	0
3	MATH-1112/ ZOO-1171	Mathematics-II (Calculus) / Zoology	3	0
4	FDST-1102/ FDST-1202	Food Processing and Preservation	2	1
5	STAT-1102/ STAT-1202	Statistical Theory- II	2	1
6	AGEN-1102/ AGEN-1202	Fluid Mechanics	2	1
7	SSCI-3120	Constitution and Legal System of Pakistan	2	0
Credit Hours			19	

### Semester 3

S. No.	Course Code	Course Title	Credit Hrs.	
			Theory	Lab
1	INFT-1102/ INFT-1202	Introduction to Computing	2	1
2	BOCH-1101	Introductory Biochemistry	3	0
3	FDST-2101/ FDST-2201	Food Analysis	1	2
4	FDST-2102/ FDST-2202	Unit Operation in Food Processing	2	1
5	FDST-2103/ FDST-2203	Food Plant Layout and Design	2	0
6	FDST-2104/ FDST-2204	Food Safety	3	0
7	FDST-2105/ FDST-2205	Food Microbiology	2	1
Credit Hours			20	

### Semester 4

S. No.	Course Code	Course Title	Credit Hrs.	
			Theory	Lab
1	FDST-2106/ FDST-2206	Food Process Engineering	2	1
2	FDST-2107/ FDST-2207	Food Chemistry	3	0
3	FDST-2108/ FDST-2208	Dairy Technology	2	1
4	FDST-2109/ FDST-2209	Fruits and Vegetables Processing	2	1
5	FDST-2110/ FDST-2210	Fish, poultry and egg processing	2	1
6	HNAD-1101	Fundamentals of Human Nutrition	3	0
Credit Hours			18	

### Semester 5

S. No.	Course Code	Course Title	Credit Hrs.	
			Theory	Lab
1	FDST-3101/ FDST-3201	Meat Technology	2	1
2	FDST-3102/ FDST-3202	Cereal Technology	2	1
3	FDST-3103/ FDST-3203	Sugar Technology	2	1
4	AGRI-3101/ AGRI-3201	Stored Grain Pest Management	2	1
5	FDST-3104/ FDST-3204	Instrumental Techniques in Food Analysis	1	2
6	MSCI-4165	Agricultural Marketing	3	0
Credit Hours			18	

### Semester 6

S. No.	Course Code	Course Title	Credit Hrs.	
			Theory	Lab
1	FDST-3105/ FDST-3205	Bakery Products Technology	2	1
2	FDST-3106/ FDST-3206	Community Nutrition	2	0
3	FDST-3107/ FDST-3207	Confectionery and Snack Foods	2	1
4	FDST-3108/ FDST-3208	Food Packaging	2	1
5	FDST-3109/ FDST-3209	Sensory Evaluation of Foods	2	1
6	FDST-3110/ FDST-3210	Technology of Fats and Oils	2	1
7	FDST-3111/ FDST-3211	Postharvest Technology	2	1
Credit Hours			20	

### Semester 7

S. No.	Course Code	Course Title	Credit Hrs.	
			Theory	Lab
1	FDST-4101/ FDST-4201	Food Product Development	2	1
2	FDST-4102/ FDST-4202	Food Biotechnology	2	1
3	FDST-4103/ FDST-4203	Food Laws and Regulations	3	0
4	FDST-4104/ FDST-4204	Food Quality management	3	0
5	FDST-4105/ FDST-4205	Beverage Technology	2	1
6	FDST-4106/ FDST-4206	Extrusion Technology	2	1
7	FDST-4107/ FDST-4207	Research Project and Scientific writing	1	1
Credit Hours			20	

### Semester 8

S. No.	Course Code	Course Title	Credit Hrs.	
			Theory	Lab
1	FDST-4400	Internship	0	04
Credit Hours			04	

GRAND TOTAL

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## BS Human Nutrition & Dietetics

### Semester 1

S. No.	Course Code	Course Title	Credit Hrs.	
			Theory	Lab
1	ENGL-1118	Functional English	3	0
2	MATH-1111	Mathematics (Algebra)-I	3	0
3	PAKS-1113	Pakistan Studies	2	0
4	HNAD-1101	Fundamentals of Human Nutrition	3	0
5	AGRI-1101/ AGRI-1201	Basic Agriculture	2	1
6	FDST-1101/ FDST-1201	Introduction to Food Science & Technology	2	1
7	HLTH-1113	Basic Health Awareness	2	0
Credit Hours			19	

### Semester 2

S. No.	Course Code	Course Title	Credit Hrs.	
			Theory	Lab
1	ISLS-1112/ ETIC-1112	Islamic Studies / Ethics *	2	0
2	FNGL-1119	Communication Skills	3	0
3	HNAD-1102	Macronutrients in Human Nutrition	3	0
4	BOCH-1101	Introductory Biochemistry	3	0
5	STAT-1101/ STAT-1201	Statistical Theory-I	2	1
6	INFT-1102/ INFT-1202	Introduction to Computing	2	1
7	SSCI-3120	Constitution and Legal System of Pakistan	2	0
Credit Hours			19	

### Semester 3

S. No.	Course Code	Course Title	Credit Hrs.	
			Theory	Lab
1	HNAD-2101	Micronutrients in Human Nutrition	3	0
2	HNAD-2102 HNAD-2202	Human Anatomy	2	1
3	HNAD-2103 HNAD-2203	Human Physiology-I	2	1
4	FDST-2104	Food Safety	3	0
5	FDST-2105/ FDST-2205	Food Microbiology	2	1
6	FDST-2107	Food Chemistry	3	0
7	FDST-4102 FDST-4203	Food Biotechnology	2	1
Credit Hours			21	

### Semester 4

S. No.	Course Code	Course Title	Credit Hrs.	
			Theory	Lab
1	HNAD-2104/ HNAD-2204	Human Physiology – II	2	1
2	HNAD-2105/ HNAD-2205	Assessment of Nutritional Status	2	1
3	HNAD-2106	Nutrition Through the Life Cycle	3	0
4	HNAD-2107/ HNAD-2207	General Pathology	2	1
5	FDST-2101/ FDST-2201	Food Analysis	1	2
6	FDST-2109/ FDST-2209	Dairy Technology	2	1
Credit Hours			18	

### Semester 5

S. No.	Course Code	Course Title	Credit Hrs.	
			Theory	Lab
1	HNAD-3101/ HNAD-3201	Dietetics-I	2	1
2	HNAD-3102/ HNAD-3202	Public Health Nutrition	2	1
3	HNAD-3103/ HNAD-3203	Meal Planning and Management	2	1
4	HNAD-3104/ HNAD-3204	Nutritional Education and Awareness	2	1
5	FDST-4103	Food Laws and Regulations	3	0
6	HNAD-3105/ HNAD-3205	Sports Nutrition	2	1
Credit Hours			18	

### Semester 6

S. No.	Course Code	Course Title	Credit Hrs.	
			Theory	Lab
1	HNAD-3106 HNAD-3107/	Nutritional Disorders Dietetics-II	3	0
2	HNAD-3207 HNAD-3108	Nutrition in Emergencies	2	1
3	HNAD-3109	Global Food Issues	3	0
4	HNAD-3110/ HNAD-3210	Infant and Young Child Feeding	3	0
5			2	
6	FDST-4104	Food Quality Management	3	1
7	FDST-2103	Food Plant Layout and Design	2	
Credit Hours			20	

### Semester 7

S. No.	Course Code	Course Title	Credit Hrs.	
			Theory	Lab
1	HNAD-4101/ HNAD-4201	Nutritional Practices in Clinical Care	2	1
2	HNAD-4102/ HNAD-4202	Dietetics-III	2	1
3	HNAD-4103	Drug & Nutrient Interactions	2	0
4	HNAD-4104	Research Methods in Nutrition	3	0
5	HNAD-4105	Nutrition Policies and Programs	3	0
6	BOCH-3114/ BOCH-3214	Clinical Biochemistry	2	1
7	FDST-4107/ FDST-4207	Research Project and Scientific Writing	1	1
Credit Hours			19	

### Semester 8

S. No.	Course Code	Course Title	Credit Hrs.	
			Theory	Lab
1	HNAD-4400	Internship	0	04
Credit Hours			04	

GRAND TOTAL

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## MS Food Technology

### List of Core Courses

S. No.	Course Code	Course Title	Theory	Credit Hrs. Lab.
1	FDST-5101	Food Quality Assurance Management	3	0
2	FDST-5102	Recent Advances in Food Science & Tech	3	0
3	FDST-5103/ FDST-5203	Research Methodology	2	1
4	FDST-5104	Seminar and Special Problem	3	0

### List of Elective Courses (i)

S. No.	Course Code	Course Title	Theory	Lab.
1	FDST-6101	Food Additive	3	0
2	FDST-6102/ FDST-6202	Baking Science and Technology	2	1
3	FDST-6103/ FDST-6203	Technology of Processed Meat	2	1
4	FDST-6104/ FDST-6204	Dairy Processing-I	2	1

### List of Elective Courses (ii)

S. No.	Course Code	Course Title	Theory	Lab.
5	FDST-6105/ FDST-6205	Dairy Processing-II	2	1
6	FDST-6106/ FDST-6206	Advanced Food Biotechnology	2	1
7	FDST-6107/ FDST-6207	Milling of Cereals	2	1
8	FDST-6108/ FDST-6208	Advanced Beverage Technology	2	1
9	FDST-6109/ FDST-6209	Nutraceuticals and Functional Foods	2	1
10	FDST-6110	Food Supply Chain Management	3	0
11	FDST-6111/ FDST-6212	Food Enzymology	2	1

### List of Elective Courses (iii)

S. No.	Course Code	Course Title	Theory	Lab.
12	FDST-6112	Food Toxicology	3	0
13	FDST-6113	Starch Chemistry and Technology	3	0
14	FDST-6114/ FDST-6214	Advanced Food Chemistry	2	1
15	FDST-6115/ FDST-6215	Chemistry of Edible Oils and Fats	2	1
16	FDST-6116/ FDST-6216	Ind. Processing Technol. of Edible Oils & Fats Products	2	1
17	FDST-6117/ FDST-6217	Meat Science	2	1
18	FDST-6217	Food Industrial Waste Management	3	0
19	FDST-6118	Post-Harvest Management	3	0
20	FDST-6119	Food Packaging	3	0
21	FDST-6120/ FDST-6220	Advanced Food Microbiology	2	1
22	FDST-6121/ FDST-6221		2	1

## MS Human Nutrition and Dietetics

### List of Core Courses

S. No.	Course Code	Course Title	Theory	Credit Hrs. Lab.
1	HNAD-5101	Maternal and Child Nutrition	3	0
2	HNAD-5102	Recent Advances in Nutrition and Dietetics	3	0
3	HNAD-5103	Nutrigenomics and Proteomics	2	1
4	HNAD-5203	Seminar and Special Problem	3	0

### List of Elective Courses (i)

S. No.	Course Code	Course Title	Theory	Lab.
1	HNAD-6101	Nutritional Controversies	3	0
2	HNAD-6102/ HNAD-6202	Clinical Nutrition and Dietetics	2	1
3	HNAD-6103/ HNAD-6203	Therapeutic and Complementary Nutrition	2	1
4	HNAD-6104	Personalized Nutrition	3	0
5	HNAD-6105/ HNAD-6205	Nutrition in Institutions	2	1

### List of Elective Courses (ii)

S. No.	Course Code	Course Title	Theory	Lab.
6	HNAD-6106/ HNAD-6206	Sports and Exercise Nutrition	2	1
7	HNAD-6107/ HNAD-6207	Applied Dietetics	2	1
8	HNAD-6108	Pediatric and Geriatric Nutrition	3	0
9	HNAD-6109	Professional Dietetics Practices	3	0
10	HNAD-6110	Diet Diversification and Health Promotion	3	0
11	HNAD-6111/ HNAD-6211	Public Health Nutrition	2	1
12	HNAD-6112	Vegetarian Nutrition	3	0
13	HNAD-6113	Bioactive Components and Health	2	1
14	HNAD-6114/ HNAD-6214	Physiology of Digestion and Metabolism	2	1

### List of Elective Courses (iii)

S. No.	Course Code	Course Title	Theory	Lab.
15	HNAD-6115	Food and Nutritional Security: Policy to Practice	3	0
16	HNAD-6116/ HNAD-6216	Nutritional Epidemiology and Research Methods	2	1
17	HNAD-6117	International Nutrition	3	0
18	HNAD-6118/ HNAD-6218	Public Health Microbiology	2	1

## MS Food Safety and Quality Management

### List of Core Courses

S. No.	Course Code	Course Title	Theory	Credit Hrs. Lab.
1	FSQM-5101	Food Auditing and Inspections	3	0
2	FSQM-5102 FSQM-5202	Food Traceability and Authenticity	3	0
3	FSQM-5103	Research Methodology	2	1
4	FSQM-5104	Seminar and Special Problem	3	0

### List of Elective Courses

S. No.	Course Code	Course Title	Theory	Lab.
1	FSQM-6101 FSQM-6202	Food Safety and Quality	2	1
2	FSQM-6102	Food Quality Management	3	0
3	FSQM-6103 FSQM-6203	Food Safety and Quality Control Systems	2	1
4	FSQM-6104	Food laws and Regulations	3	0

S. No.	Course Code	Course Title	Theory	Lab.
5	FSQM-6105	Public Health	3	0
6	FSQM-6106	Hygiene and Food Plant Sanitation	3	0
7	FSQM-6107	Food Labeling	3	0
8	FSQM-6108	Safe Handling of Foods	3	0
9	FSQM-6109	Preharvest and Postharvest Food Safety	3	0
10	FSQM-6110	Consumer Behavior & Preferences-	3	0
11	FSQM-6111 FSQM-6211	Food of Animal Origin	2	1

S. No.	Course Code	Course Title	Theory	Lab.
12	FSQM-6112 FSQM-6212	Food Sampling Techniques and Analysis	1	2
13	FSQM-6113	Food Related Legal System in Pakistan	3	0
14	FSQM-6114 FSQM-6214	Food Inspection, Investigation and Judgment	2	1
15	FSQM-6115	Food Safety Standards and Trades	3	0
16	FSQM-6116	Compliance Strategies and Effective	3	0
17	FDST-6101	Food Additive	3	0
18	FDST-6109/ FDST-6209	Nutraceuticals and Functional Foods	2	1
19	FDST-6110	Food Supply Chain Management	3	0
20	FDST-6112	Food Toxicology	3	0
21	FDST-6118	Food Industrial Waste Management	3	0

S. No.	Course Code	Course Title	Theory	Lab.
21	FDST-6119	Post-Harvest Management	3	0
22	FDST-6120/ FDST-6220	Food Packaging	2	1
23	FDST-6121/ FDST-6221	Advanced Food Microbiology	2	1



*Health Awareness Seminar Group Photo (Department of Food Sciences)*