PERIYAR UNIVERSITY

Periyar Palkalai Nagar, Salem-636011
(Reaccredited with 'A' Grade by the NAAC)

SCHOOL OF PROFESSIONAL STUDIES

Department of Food Science and Nutrition

B.Voc. FOOD SCIENCE AND NUTRITION
[Alignment with NSDC/NSQF/DGET]

REGULATIONS AND CURRICULAR FRAMEWORK

(Effective from the academic year 2018-2019 and thereafter)

B.Voc. FOOD SCIENCE AND NUTRITION

REGULATIONS (2018-19 onwards)

Preamble

The Department of Food Science and Nutrition aims in developing human resources, to expand and transfer knowledge for continuous improvement of the safety, quality and value of food products. Food Science and Nutrition is an interdisciplinary programme. The department has sanctioned to offer B.Voc. Food Science and Nutrition programme from the academic year 2015 -16 with funding assistance from UGC (Rs.1.7 crores for both the Food Science and Nutrition and Textiles and Apparel Design Programmes).

Programme Objectives of B.Voc. Food Science and Nutrition is

- Engineered to theoretical and practical aspects of the entire food chain from farm to fork.
- Gain insight into the food formulations, food quality testing and management of safe food production.
- Develop skills for various job roles related to Food Science and Technology division and entrepreneurship.

Candidate's eligibility for admission

Any candidate passed +2 examinations in any subject approved by TNBSC/CBSE/ICSE or any Diploma/UG degree, approved by the Association of Indian Universities are eligible to seek admission. Vocational stream students are most preferred.

Duration of the course - Three years (120 days per semester includes 30 days of Apprenticeship)

S.No.	Exit Programme Level	Duration
1.	Certificate in Food Science and Handling	6 months
2.	Diploma in Food Science and Processing	12 months
3.	Advanced Diploma in Food Processing and Quality Control	24 months
4.	B.Voc. in Food Science and Nutrition	36 months

Part A

Credits for General Education Component	- 72
Credits for Skill Component	- 108
Total credits	**- 180**

Part –B

Modular Training Delivery Plan (Extra) – 04	- 08
Total credits	**- 08**

Teaching methodologies

The **classroom teaching** would be through conventional lectures, video presentations and use of OHP and Power point presentations. The lecture would be such that the students should participate actively in the discussion, student's seminar and multi sensory approach in learning. The scientific discussions would be arranged to improve their communicative skills.

In the laboratory, instructions would be given for the **experiments** followed by **demonstration** and finally the students have to do the experiments individually. Periodic tests would be conducted and for the students of slow learners would be given special attention.

The student will be required to undergo an **internship** for a total duration of two weeks in their chosen area of interest in each semester as mentioned in the structure of the programme which will facilitate skills and professional career in the same field.

Modular Training Delivery Plan

Students should undergo one **Modular Training Delivery Plan** in each semester (II, III, IV and V) in accordance with the curriculum as extra credit courses. Each course completion will fetch additional two credits for the students during their course of study.

S.No.	Title of MTDP	Semester	Duration (week)
1.	Minimally Processed Fruits and Vegetables	II	7 days (56 hours)
2.	Sago Processing Technology	III	7 days (56 hours)
3.	Dairy Technology	IV	7 days (56 hours)
4.	Convenience Food Technology	V	7 days (56 hours)

Examinations

Examinations are conducted in semester pattern. The examination for the Semester I, III & V will be held in November/December and that for the Semester II, IV and VI will be in the month of April/May.

Candidates failing in any subject (both General Education and Skill Component) will be permitted to appear for such failed subjects in the same syllabus structure at subsequent examinations for within next 5 years. Failing which, the candidate has to complete the course in the present existing syllabus structure.

Scheme for Evaluation

Evaluation will be done on a continuous basis and will be evaluated five times during the course work. The first evaluation will be in the 4th week, the second in the 8th week, third in the 12th week, fourth week in the 18th week and the end – semester examination in the 20th week. The General Education Component is assessed by the University and Skill Education Component by the University and SSCs.

Grading System

Evaluation of performance of students is based on ten-point scale grading system as given below.

Ten Point Scale			
Grade of Marks	**Grade points**	**Letter Grade**	**Description**
90-100	9.0-10.0	O	Outstanding
80-89	8.0-8.9	D+	Excellent
75-79	7.5-7.9	D	Distinction
70-74	7.0-7.4	A+	Very Good
60-69	6.0-6.9	A	Good
50-59	5.0-5.9	B	Average
00-49	0.0	U	Re-appear
ABSENT	0.0	AAA	ABSENT

Equivalence of the Programme

Candidates completed B.Voc. Food Science and Nutrition is equivalent to B.Sc. Nutrition and Dietetics, BSc. Food Science & Nutrition, BSc. Food science & Technology and B.Sc. Food Technology all its related disciplines awarded by any UGC recognized Universities and Institutions.

CBCS- STRUCTURE OF THE PROGRAMME

The programme structure comprises of two parts.

Course Component	No. of Courses	Hours of Learning	Marks	Credits
Part A (General Education Component)				
Language I – Tamil/Hindi	02	108	200	06
Language II – Functional English Practical	02	144	200	06
Core Courses	16	864	1600	41
Allied Courses	04	216	400	08
Elective Courses	04	216	400	09
Foundation/Value Education Courses	02	72	200	02
Online Courses	+03	18	-	-
Total	**30+03**	**1638**	**3000**	**72**
Part B (Skill Component)				
NSDC-QP	04	1512	400	72
Apprenticeship	06	1440	300	12
Portfolio	06	(in QP hour)	300	12
Mini Project	06	(in Apprenticeship hour)	300	12
Total	**22**	**2955**	**1300**	**108**

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CURRICULAR FRAMEWORK OF B.Voc. PROGRAMME

SEM	PART	COURSE CODE	COURSE	HRS		CREDIT	MARKS		
				L/T	P		IA	EA	TOTAL
Semester I									
General Education Component									
I	I	18BFSNL01/ 18BFSNLH01	Part I -Tamil-I/ Hindi - I	3	-	3	25	75	100
	II	18BFSNE01	Part II – Functional English Practical - I	2	2	3	25	75	100
	III	18BFSNC01	Core I - Science & Handling of Raw Material	3	-	3	25	75	100
	III	18BFSNA01	Allied I – Food Science and Chemistry Practical -I	1	2	2	40	60	100
	IV	18BFSNV01	Val. Edu. I– Yoga and Fitness Practical		2	1	40	60	100
	IV	18BFSNOC01	Online Course - SWAYAM	1	-	-	-	-	-
	Skill Component								
	V	18BFSNSC01	QP - Purchase Assistant Level – 4	10	4	12	-	100	100
	VI	18BFSNAS01	Apprenticeship	-	-	2	20	30	50
	VII	18BFSNPF01	Portfolio	-	-	2	20	30	50
	VIII	18BFSNMP01	Mini Project	-	-	2	20	30	50
					30	**30**			**750**
Semester II									
General Education Component									
II	I	18BFSNL02/ 18BFSNLH02	Part I - Tamil –II/ Hindi – II	3	-	3	25	75	100
	II	18BFSNE02	Part II – Functional English Practical -II	2	2	3	25	75	100
	III	18BFSNC02	Core II- Food Processing I (Technology of Cereals, Pulses, Oilseeds and Spices)	3	-	3	25	75	100
	III	18BFSNA02	Allied II – Food Science and Chemistry Practical –II	1	2	2	40	60	100
	IV	18BFSNV02	Val. Edu. II – Environmental Studies	2	-	1	25	75	100
	Skill Component								
	V	18BFSNSC02	Plant Baker Level – 5	10	4	12	-	100	100
	VI	18BFSNAS02	Apprenticeship	-	-	2	20	30	50
	VII	18BFSNPF02	Portfolio	-	-	2	20	30	50
	VIII	18BFSNMP02	Mini Project	-	-	2	20	30	50
					30	**30**			**750**

Semester III									
General Education Component									
III	III	18BFSNC03	Core III – Food Processing II (Technology of Fruits and Vegetables, Sugar and Salt)	2	1	2	25	75	100
	III	18BFSNC04	Core IV – Food Processing III (Technology of Milk, Egg and Fleshy Foods)	2	1	3	25	75	100
	III	18BFSNA03	Allied III – Food Product Development and Marketing Practical - I	-	3	2	25	75	100
	III	18BFSNC05	Core V -Practical I – Food Processing and Preservation - I	1	2	2	40	60	100
	IV	18BFSNEL01	Elective I –Nutritional Chemistry	3	-	3	25	75	100
	IV	18BFSNOC02	Online Course - SWAYAM	1	-	-	-	-	-
	Skill Component								
	V	18BFSNSC03	Quality Assurance Manager Level - 6	10	4	12	-	-	-
	VI	18BFSNAS03	Apprenticeship	-	-	2	20	30	50
	VII	18BFSNPF03	Portfolio	-	-	2	20	30	50
	VIII	18BFSNMP03	Mini Project	-	-	2	20	30	50
					30	**30**			**650**
Semester IV									
General Education Component									
IV	III	18BFSNC06	Core VI – Food Quality Control	3	-	3	25	75	100
	III	18BFSNC07	Core VII – Instrumentation and Process Control	3	-	3	25	75	100
	III	18BFSNA04	Allied IV – Food Product Development and Marketing Practical - II	1	2	2	40	60	100
	III	18BFSNC08	Core VIII - Practical II – Food Processing and Preservation II	1	2	2	40	60	100
	IV	18BFSNEL02	Elective II – Human Physiology and Fitness	2	1	2	25	75	100
	Skill Component								
	V	18BFSNSC03	Quality Assurance Manager Level - 6	10	4	12	-	100	100
	VI	18BFSNAS03	Apprenticeship	-	-	2	20	30	50
	VII	18BFSNPF03	Portfolio	-	-	2	20	30	50
	VIII	18BFSNMP03	Mini Project	-	-	2	20	30	50
					30	**30**			**750**
Semester V									

General Education Component									
V	III	18BFSNC09	Core IX – Food Microbiology	3	-	3	25	75	100
	III	18BFSNC10	Core X – Food Packaging Technology	3	-	3	25	75	100
	III	18BFSNC11	Core XI - Practical III – Food Microbiology	1	2	2	40	60	100
	III	18BFSNC12	Core XII - Practical IV Food Quality Analysis	2	1	2	25	75	100
	IV	18BFSNEL03	Elective III – Life Cycle Nutrition	2	1	2	25	75	100
	IV	18BFSNOC03	Online Course - SWAYAM	1	-	-	-	-	-
	Skill Component								
	V	18BFSNSC04	Food Production Manager Level – 7	10	4	12	-	-	-
	VI	18BFSNAS04	Apprenticeship	-	-	2	20	30	50
	VII	18BFSNPF04	Portfolio	-	-	2	20	30	50
	VIII	18BFSNMP04	Mini Project	-	-	2	20	30	50
					30	**30**			**650**
Semester VI									
General Education Component									
VI	III	18BFSNC13	Core XIII–Food Industrial by-products and Waste Management	3	-	3	25	75	100
	III	18BFSNC14	Core XIV – Nutraceuticals	3	-	3	25	75	100
	III	18BFSNC15	Core XV – Practical V – Nutrition Assessment and Diet Planning	1	2	2	40	60	100
	III	18BFSNC16	Core XVI – Practical VI – IT application in Food Industry	1	2	2	40	60	100
	IV	18BFSNEL04	Elective IV – Therapeutic Nutrition	1	2	2	25	75	100
	Skill Component								
	V	18BFSNSC04	Food Production Manager Level – 7	10	4	12	-	100	100
	VI	18BFSNAS04	Apprenticeship	-	-	2	20	30	50
	VII	18BFSNPF04	Portfolio	-	-	2	20	30	50
	VIII	18BFSNMP04	Mini Project	-	-	2	20	30	50
					30	**30**			**750**
TOTAL				**180 Hrs**		**180 Credits**		**4300 Marks**	

Note :- L- Lecture, T-Tutorial, P- Practical, C- Credit, IA – Internal Assessment, EA – External Assessment

Part I - Tamil
Part II - Functional English Practical
Part III - Core / Allied/Elective
Part IV - Foundation / Value Education/MOOC
Part V - NSDC (National Skill Development Corporation) / Skill Based Subjects

Part VI – Apprenticeship
Part VII – Portfolio
Part VIII – Mini Project

Credit Calculation Table

(UGC Guidelines for curricular aspects, Assessment criteria and credit system in skill based vocational courses under NSQF)

Method of teaching	Hours	Credits
Lecture	1	1
Tutorial/Demonstration	1	1
Practical/Internship/On the job training/ self Learning	2	1

Scheme for Internal Marks in Theory (Max.marks-25)
Seminar, Activity, ICT Application, Case Studies and Assignment – 10 (each 5 marks)
Internal Tests- 10 (Five tests: Each 2 Marks)
Attendance -5 marks

Scheme for Internal Marks in Practical (Max.marks-40)
Performance Assessment in Practical Class – 15 marks
Model Test (Best one of two tests) – 10 marks
Attendance -5 marks
Timely submission of Record - 10 marks

Pattern of Question paper (Theory)
Duration of the examination - 3 hours, Maximum marks – 75

Part A
Answer All Questions (Multiple choice questions) 20X1 = 20

Part B
Answer the following questions (Answer any 5 out of 8 questions) 5X3 =15

Part C
Answer All Questions (Either or choice) 5X8 = 40
Total 75 marks

(All parts of question should have equal importance to all five units in the syllabus