



Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH

(Declared as Deemed-to-be University under section 3 of UGC Act, 1956)
(Vide Notification No. F.9-5/2000 - U 3, Ministry of Human Resource Development, Govt. of India, dated 4th July 2002)



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173, Agaram Road, Selaiyur, Tambaram,
Chennai - 600 073. Tamil Nadu.

05.07.2019

From
Head of the Department,
School of Agricultural Sciences,
Bharath Institute of Higher Education and Research,
Chennai- 600 073


To
The Dean,
School of Agricultural Sciences,
Bharath Institute of Higher Education and Research,
Chennai- 600 073

Respected Sir,

Sub: Permission for conducting value added course — Reg.

I'm writing to express my interest in teaching a three-week value-added course on
Fundamentals of Food Processing Technician course beginning on August 3, 2019.

Thanking you sir,


Head of the Department
Head of the Department
School of Agricultural Sciences
Bharath Institute of Higher Education And Research
(Declared as Deemed to be University U/S 3 of UGC Act. 1956)
Chennai-600 073, India.



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Date: 05-07-2019

SCHOOL OF AGRICULTURAL SCIENCES


CIRCULAR

Notification for Value added courses offered by the School of Agricultural Sciences

The School of Agricultural Sciences will offer a 3-week course titled "Fundamentals of Food Processing Technician Course" starting on August 8, 2019. On or before July 30, 2019, interested students should contact Ms. R.M. Gokula Lakshmi, Assistant Professor and Course Coordinator, School of Agricultural Sciences, for registration and further information.

Eligibility- I and II B.Sc., (Hons.)Agriculture


Course Coordinator


Dean - Agriculture
DEAN - AGRICULTURE
BHARATH INSTITUTE OF HIGHER EDUCATION & RESEARCH
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Chennai-600 073. INDIA.

Copy to:

Vice Chancellor

Pro Vice Chancellor

Additional Registrar

Deans

CoE

Heads of Departments



Bharath
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SCHOOL OF AGRICULTURAL SCIENCES

Courses on Fundamentals of Food Processing Technician Course

(2019-2020)

COURSE CO-ORDINATOR DETAILS

Faculty Name : Ms. R.M. Gokula Lakshmi, Assistant Professor,
School of Agricultural Sciences
Email ID : agrikokila@gmail.com
Mobile number : 8870523432

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
SCHOOL OF AGRICULTURAL SCIENCES
VALUE ADDED COURSE SYLLABUS 2019-2020

Courses on Fundamentals of Food Processing Technician Course

Objective:

1. To understand the history and evolution of food processing.
2. To study the structure, composition, nutritional quality of various plant foods.
3. To study about the post harvest changes of various plant foods.
4. To study the structure and composition of various animal foods.

Module: 1 Compositional, Nutritional and Technological aspects of Cereals and Millets

Foods - Structure and composition of cereals. Wheat- structure and composition, types (hard, soft/ strong, weak). Diagrammatic representation of longitudinal structure of wheat grain. Malting, gelatinization of starch, types of browning- Maillard & caramelization. Rice- structure and composition, parboiling of rice- advantages and disadvantages.

Module: 2 Compositional, Nutritional and Technological aspects of Pulses, Fats and oil Foods

- Structure and composition of pulses, toxic constituents in pulses, processing of pulses-soaking, germination, decortications, cooking and fermentation. Classification of lipids, types of fatty acids - saturated fatty acids, unsaturated fatty acids, essential fatty acids, trans fatty acids. Refining of oils, types- steam refining, alkali refining, bleaching, steam deodorization, hydrogenation. Rancidity –Types- hydrolytic and oxidative rancidity and its prevention.

Module: 3 Compositional, Nutritional and Technological aspects of Fruits and Vegetable Foods

- Classification of fruits and vegetables, general composition, enzymatic browning, names and sources of pigments, Dietary fibre. Post harvest changes in fruits and vegetables – Climacteric rise, horticultural maturity, physiological maturity, physiological changes, physical changes, chemical changes, pathological changes during the storage of fruits and vegetables.

Module: 4 Compositional, Nutritional and Technological aspects of Animal foods.

Flesh Foods - Meat, Fish, Poultry - Meat - Definition of carcass, concept of red meat and white meat, composition of meat, marbling, post-mortem changes in meat- rigor mortis, tenderization of meat, ageing of meat. Fish - Classification of fish (fresh water and marine), aquaculture , composition of fish, characteristics of fresh fish, spoilage of fish- microbiological, physiological, biochemical. Poultry - Structure of hen's egg, composition and nutritive value, egg proteins, characteristics of fresh egg, deterioration of egg quality, difference between broiler and layers.

Milk and Milk Products - Definition of milk, chemical composition of milk, its constituents, processing of milk, pasteurization, homogenization. An overview of types of market milk and milk products.

TEXT BOOK REFERENCE:

1. Bawa. A.S, O.P Chauhan etal. Food Science. New India Publishing agency, 2013
2. Roday,S. Food Science, Oxford publication, 2011.
3. B. Srilakshmi, Food science, New Age Publishers,2002
4. Meyer, Food Chemistry, New Age,2004
5. De Sukumar., Outlines of Dairy Technology, Oxford University Press, 2007.

SCHOOL OF AGRICULTURAL SCIENCES

VALUE ADDED COURSE

Courses on Fundamentals of Food Processing Technician Course (2019-2020)

Session	Topic	Date	Duration (Hr)	Resource person
Session 1	Structure and composition of cereals.	03.08.2019	2	Dr. N. Emayavaramban
Session 2	Wheat- structure and composition, types and its dyagramic representation	05.08.2019	2	Dr. N. Emayavaramban
Session 3	Rice- structure and composition, parboiling of rice- advantages and disadvantages.	07.08.2019	3	Ms. R.M. Gokula Lakshmi
Session 4	Structure and composition of pulses, toxic constituents in pulses, processing of pulsesoaking, germination, decortications, cooking and fermentation	09.08.2019	2	Dr. N. Emayavaramban
Session 5	Classification of lipids, types of fatty acids - saturated fatty acids, unsaturated fatty acids, essential fatty acids, trans fatty acids.	10.08.2019	3	Ms. R.M. Gokula Lakshmi
Session 6	Refining of oils, types- steam refining, alkali refining, bleaching, steam deodorization, hydrogenation.	13.08.2019	2	Ms. R.M. Gokula Lakshmi
Session 7	Rancidity –Types- hydrolytic and oxidative rancidity and its prevention.	16.08.2019	2	Mr. Kumari Mannan
Session 8	Classification of fruits and vegetables, general composition, enzymatic browning, names and sources of pigments and dietary fibre	19.08.2021	2	Dr. N. Emayavaramban
Session 9	Post harvest changes in fruits and vegetables – Climacteric rise, horticultural maturity, physiological maturity, physiological changes, physical changes, chemical changes, pathological changes during the storage of fruits and	21.08.2019	3	Dr. L. Jeyanthi Rebacca
Session 10	Meat - Definition of carcass, concept of red meat and white meat, composition of meat, marbling, post-mortem changes in meat- rigor mortis, tenderization of meat, ageing of meat.	23.08.2019	2	Dr. N. Emayavaramban
Session 11	Fish - Classification of fish (fresh water and marine), aquaculture , composition of fish, characteristics of fresh fish, spoilage of fish- microbiological, physiological, biochemical	24.08.2019	2	Ms. R.M. Gokula Lakshmi
Session 12	Poultry - Structure of hen's egg, composition and nutritive value, egg proteins, characteristics of fresh egg, deterioration of egg quality, difference between broiler and layers.	26.08.2019	2	Dr. N. Emayavaramban
Session 13	Definition of milk, chemical composition of milk, its constituents, processing of milk, pasteurization, homogenization. An overview of types of market milk and milk products.	29.08.2019	3	Ms. R.M. Gokula Lakshmi

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
SCHOOL OF AGRICULTURAL SCIENCES
VALUE ADDED COURSE**

Courses on Fundamentals of Food Processing Technician Course (2019-2020)

Students Name list

S.No	Reg No	Name
1	U18AG002	YASHIKA S
2	U18AG004	SIVAPRIYA S
3	U18AG005	ANBARASAN B
4	U18AG006	YOGESHWARAN K
5	U18AG007	K S HIMA BINDU
6	U18AG008	BALAJI V
7	U18AG009	MUTHUVEL G
8	U18AG010	SOWMYA K
9	U18AG011	VAGGA VARSHINI
10	U18AG012	NARMADHA D
11	U18AG013	JAWAHAR R
12	U18AG014	CHANDRU R
13	U18AG015	VIGNESH T
14	U18AG016	YEDLA RAVI TEJA
15	U18AG018	OGETI VISWANADHA SASTRY
16	U18AG019	ANNAM SONIA
17	U18AG020	GOWSHIK BALA S M
18	U18AG021	GADDE MANEESH KUMAR
19	U18AG022	DINESH R
20	U18AG023	P JYOTHIKA
21	U18AG024	KYNTUMIKI SLONG
22	U18AG025	PRIYA VARSHINI P
23	U18AG026	KARTHIKEYAN V
24	U18AG027	KAVIYA SRI J
25	U18AG028	GADDE SRI NAGA GOPI
26	U18AG029	JAISON JAYAKUMAR M
27	U18AG030	K SAI CHAITANYA
28	U18AG031	MODDU SAI SUJAN
29	U18AG032	PRAVEEN KUMAR G
30	U18AG033	PEGADA JAYASRI
31	U18AG034	SURIYA R
32	U18AG035	NEELAKANTAM SIVANI
33	U18AG036	KAYYURI POOJITHA
34	U18AG038	SAMMANA HARATHI
35	U18AG039	ASI VYSHNAVI
36	U18AG040	BOYAPATI ANUSHA
37	U18AG041	HARINI N
38	U18AG042	BASKARAN V
39	U18AG043	RAJ KUMAR N
40	U18AG044	RISHITHA

41	U19AG001	ABINAYA. M
42	U19AG003	ABIRAMI. J
43	U19AG004	ABISHEK. R
44	U19AG006	BALAJI. B
45	U19AG007	BANDI. MADHURI
46	U19AG010	DHAIRIYA LAKSHMI
47	U19AG011	DHEERATHANA. P
48	U19AG012	DILIP KUMAR. M
49	U19AG013	GANJI. CHANDU
50	U19AG015	GUTTULA TEJASWI
51	U19AG020	KAVIYA SRI. S
52	U19AG021	KAVIYARASAN. R
53	U19AG022	KOMALA. N
54	U19AG024	MANISHA. D.J
55	U19AG045	SURESH BABU. E
56	U19AG045	SURESH BABU. E
57	U19AG046	THENMOZHILA
58	U19AG047	THIRUMAL.B
59	U19AG048	THULASI G.K
60	U19AG049	VISARAPU. LEELA MANI SAIGOPI KRISHNA

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SCHOOL OF AGRICULTURAL SCIENCES

Courses on Fundamentals of Food Processing Technician Course

Certificate of Participation

This is to certify that Mr /Ms. ASI VYSHNAVI (U18AG039) has attended three weeks "Courses on Fundamentals of Food Processing Technician Course" conducted by School of Agricultural Sciences at Bharath Institute of Higher Education and Research, Chennai (TN), India during 3rd August – 28th August 2019.

P.M. Gokul
COURSE COORDINATOR

DEAN-AGRICULTURE
DEAN - AGRICULTURE

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Course Feedback Form

Fundamentals of Food Processing Technician

Date: 29.08.2019

Course Title: Fundamentals of Food Processing Technician

Name: Siva Priya. A

Reg. No.: U18AG1004

Department: School of Agricultural Science

S. No.	Particulars	1	2	3	4	5
(1. Very Unsatisfied 2. Unsatisfied 3. Neutral 4. Satisfied 5. Very satisfied)						
1	Objectives of the course clear to you			✓		
2	Course content met with your expectation				✓	
3	Lecture sequence was well planned			✓		
4	Lectures were clear and easy to understand				✓	
5	Teaching Aids were effective				✓	
6	Instructors encourage interaction and were helpful				✓	
7	The level of the course			✓		
(1. Very Poor 2. Poor 3. Average 4. Good 5. Excellent)						
8	Overall rating of the course			✓		

Please give suggestion for the improvement of the course

S. Sivapriya
Signature



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SCHOOL OF AGRICULTURAL SCIENCES

Course Feedback Form

Fundamentals of Food Processing Technician

Date: 29.08.2019

Course Title: Fundamentals of Food Processing Technician

Name: R. Dinesh

Reg. No.: U18A6022

Department: School of Agricultural Sciences

S. No.	Particulars	1	2	3	4	5
(1. Very Unsatisfied 2. Unsatisfied 3. Neutral 4. Satisfied 5. Very satisfied)						
1	Objectives of the course clear to you			✓		
2	Course content met with your expectation			✓		
3	Lecture sequence was well planned				✓	
4	Lectures were clear and easy to understand					✓
5	Teaching Aids were effective				✓	
6	Instructors encourage interaction and were helpful			✓		
7	The level of the course					
(1. Very Poor 2. Poor 3. Average 4. Good 5. Excellent)						
8	Overall rating of the course					✓

Please give suggestion for the improvement of the course

R. Dinesh
Signature

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
SCHOOL OF AGRICULTURAL SCIENCES
VALUE ADDED COURSE
Courses on Fundamentals of Food Processing Technician Course (2019-2020)
Students Feedback

S.No	Reg No	Name	Rating
			3.5
1	U18AG002	YASHIKA S	4.5
2	U18AG004	SIVAPRIYA S	4.5
3	U18AG005	ANBARASAN B	3
4	U18AG006	YOGESHWARAN K	4.4
5	U18AG007	K S HIMA BINDU	3.5
6	U18AG008	BALAJI V	4.5
7	U18AG009	MUTHUVEL G	5
8	U18AG010	SOWMYA K	4.5
9	U18AG011	VAGGA VARSHINI	5
10	U18AG012	NARMADHA D	4.6
11	U18AG013	JAWAHAR R	5
12	U18AG014	CHANDRU R	4.4
13	U18AG015	VIGNESH T	3.7
14	U18AG016	YEDLA RAVI TEJA	4.5
15	U18AG018	OGETI VISWANADHA SASTRY	4.5
16	U18AG019	ANNAM SONIA	5
17	U18AG020	GOWSHIK BALA S M	5
18	U18AG021	GADDE MANEESH KUMAR	5
19	U18AG022	DINESH R	5
20	U18AG023	P JYOTHIKA	4.5
21	U18AG024	KYNTUMIKI SLONG	5
22	U18AG025	PRIYA VARSHINI P	4.5
23	U18AG026	KARTHIKEYAN V	5
24	U18AG027	KAVIYA SRI J	4.5
25	U18AG028	GADDE SRI NAGA GOPI	4
26	U18AG029	JAISON JAYAKUMAR M	5
27	U18AG030	K SAI CHAITANYA	4.5
28	U18AG031	MODDU SAI SUJAN	5
29	U18AG032	PRAVEEN KUMAR G	4
30	U18AG033	PEGADA JAYASRI	4.5
31	U18AG034	SURIYA R	5
32	U18AG035	NEELAKANTAM SIVANI	5
33	U18AG036	KAYYURI POOJITHA	5
34	U18AG038	SAMMANA HARATHI	4.5
35	U18AG039	ASI VYSHNAVI	5
36	U18AG040	BOYAPATI ANUSHA	4.5
37	U18AG041	HARINI N	4.5
38	U18AG042	BASKARAN V	5
39	U18AG043	RAJ KUMAR N	5
40	U18AG044	RISHITHA	5

41	U19AG001	ABINAYA. M	5
42	U19AG003	ABIRAMI. J	4.5
43	U19AG004	ABISHEK. R	5
44	U19AG006	BALAJI. B	5
45	U19AG007	BANDI. MADHURI	4.5
46	U19AG010	DHAIRIYA LAKSHMI	4
47	U19AG011	DHEERATHANA. P	5
48	U19AG012	DILIP KUMAR. M	5
49	U19AG013	GANJI. CHANDU	4.5
50	U19AG015	GUTTULA TEJASWI	4
51	U19AG020	KAVIYA SRI. S	4.5
52	U19AG021	KAVIYARASAN. R	4.5
53	U19AG022	KOMALA. N	5
54	U19AG024	MANISHA. D.J	4
55	U19AG045	SURESH BABU. E	4
56	U19AG045	SURESH BABU. E	4.5
57	U19AG046	THENMOZHIA	4.5
58	U19AG047	THIRUMAL.B	4
59	U19AG048	THULASI G.K	4.5
60	U19AG049	VISARAPU. LEELA MANI SAIGOPI KRISHNA	4

FUNDAMENTALS OF FOOD PROCESSING TECHNICIAN

