

Department of Food Technology

GNIT

Minutes of the BOS meeting

Date: 05/04/2016

Venue: Conference Hall, GNIT

Time: 11:00 AM

As per the notice dated 28.03.2016 with Ref. No. GNIT/FT/BOS/2016/01, a BOS meeting was held on 05/04/2016 in presence of following experts and members:

Members present (Internal):

1. Dr. Shubhajit Ray : Head and Chairman
2. Dr. Kakali Bandyopadhyay : Professor, Member
3. Dr. Parimal Chattopadhyay : Professor, Member
4. Dr. Chaitali Chakraborty : Assistant Professor, Member
5. Dr. Anju Paul : Associate Professor, Member
6. Dr. Sunita Adhikari : Assistant Professor, Member
7. Ms. Kaushiki Goswami : Assistant Professor, Member
8. Mr. Amit Kumar Barman : Assistant Professor, Member
9. Ms. Shairee Ganguly : Assistant Professor, Member
10. Ms. Sujata Sardar : Assistant Professor, Member

External Members Present:

1. Dr. D.C Sen : Former Professor & Head, Dept of Dairy Technology, WBUAFS Mohanpur, Nadia, External BOS Member
2. Dr. Deborshi De : Founder Director, Vedantic Organic Research Foundation, Kolkata and CEO, Smart Management Consultancy
3. Ms. Dolanchapa Sikdar : External Student Alumni Member (Ph.D. Scholar. Jadavpur University)

Members Absent:

1. Mr. Aritra Das : Assistant Professor, Internal Member
2. Ms. Shaona Datta : Assistant Professor, Internal Member
3. Ms. Mousumi Ray : Assistant Professor, Internal

Member

The discussion was based on the following agenda:

Agenda:

1. Confirmation of Minutes of last BOS Meeting
2. Approval of draft Vision, Mission, PEO, PSO statements of Dept. of Food Technology
3. Discussion on course which strengthen employability, entrepreneurship and skill development.
4. Finalization of Elective Courses added in R16 Syllabus
5. Finalization of Regulation 16 (R 16) Curriculum of Food Technology wef. 2016- 17 admission batch under autonomy
6. Industry Interactions
7. Miscellaneous

Resolution:

After sufficient discussion and exchange of ideas, the following resolutions were taken:

Agenda 1: Confirmation of Minutes of last BOS Meeting

The minutes of last BOS meeting was duly confirmed and approved

Agenda 2: Approval of drafted Vision, Mission, PEO, PSO statements of Dept. of Food Technology:

The drafted Vision and Mission of Dept. of Food technology along with the consistency of vision and mission statements along with the institutional vision and mission are presented and finalized in front of all BOS members. The vision and mission statements (vide annexure I) of FT department and their consistency with institutional vision and mission were appreciated by the BOS members.

The PEO statements of Food Technology Department (Vide Annexure II) and the consistency of PEOs with departmental mission statement has been reviewed and approved.

The Program Specific Outcomes (Vide Annexure III) of Dept. of Food Technology have been reviewed and approved by the BOS members.

Agenda 3: Discussion on courses which strengthen employability, entrepreneurship and skill development

Three new courses (Technical Skill Development, Technical Model Presentation Skill and Foreign Language) have been introduced in the R 16 curriculum for strengthening employability, entrepreneurship abilities, and technical and overall skill developments. All experts and members discussed and agreed to the same. It was assessed that about 68.13% of the courses being offered under R 16 syllabus for FT contributes to the abovementioned purpose. (Vide Annexure IV)

Agenda 4: Finalization of Elective Courses added in R16 Syllabus

27 Elective courses are selected out of 30 for R16 syllabus after taking Stakeholder's feedback. Further these 27 elective courses are finalized by the BoS Members (Vide Annexure V).

Agenda 5: Finalization of Regulation 16 (R 16) Curriculum of Food technology wef. 2016-17 admission batch under autonomy

Chairperson of BOS Committee has presented stakeholders feedback analysis on curriculum in front of all BOS members.

Finally, the curriculum of Food Technology discipline was finalized and approved by BOS members (Vide Annexure VI).

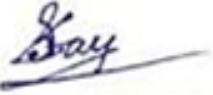
Agenda 6: Industry Interactions

Industry interactions in terms of industry visit, industry mentor meet was placed in front of BOS members. It is suggested to organize some industry visit for 3rd year students in Bakery Industry.

Agenda 7: Miscellaneous

It is suggested to carry out the impact analysis of different industry interactions.

Lastly the meeting was ended with vote of thanks to the Chairman BOS.



Head and Chairman
Dr. Shubhajit Ray

Annexure I

Vision of the Dept. of Food Technology:

DV: To become a nationally and internationally recognized institution of Food Technology by producing competent food technologists with respect to industry, research and entrepreneurship leading towards sustainable growth of the nation and imparting service to the society.

Mission of the Dept. of Food Technology:

To achieve its own vision the Department of Food Technology is committed to

DM-1: To facilitate high quality teaching to produce graduate of international standard

DM-2: To prepare students to face challenges in their professional life through skill development

DM-3: To promote interdisciplinary work culture to acquire knowledge through research activities and interaction with industries

DM-4: To motivate students towards sustainable development of the nation and society through professionalism, proper education, research and social service.

Annexure II

Program Educational Objectives (PEOs) of Dept. of Food Technology:

PEO 1: Graduates will apply the knowledge of engineering to design product and process by analyzing and interpreting experimental data.

PEO 2: Graduates will use modern techniques, skills and engineering tools necessary in food processing sectors for sustainable development.

PEO 3: Graduates will impart knowledge of professional and ethical responsibilities toward the society.

PEO 4: Graduates will work in multi-disciplinary fields as a teamplayer or a teamleader.

PEO 5: Graduates will pursue higher education, research and other creative and innovative efforts in food technology domain through life-long learning.

Annexure III

Program Specific Outcomes (PSOs) of Dept. of Food Technology:

PSO 1: Graduates will be able to comprehend the concepts of Food Technology and to apply them in various areas like food processing, preservation, packaging, analysis, quality control etc.

PSO 2: Graduates will be able to use modern computing technology, analytical skills and engineering tools necessary in food technology and innovation in global and social context.

PSO 3: Graduates will have a successful career and to support devotion for real-world applications using optimal resources as an Entrepreneur in the field of Food Technology.

Annexure IV

Course Name	Course Code	Activities/Content with direct bearing on Employability/ Entrepreneurship/ Skill development
Communicative English	HU 101	Skill Development
Language Lab and Seminar Presentation	HU191	Skill Development, Employability, Entrepreneurship
Workshop Practice	ME192	Skill Development
Engg Drawing & Graphics	ME 291	Skill Development
Soft Skill Development	MC 281	Skill Development
Thermodynamics & Kinetics	FT 301	Employability
Food Microbiology Lab	FT392	Employability, Skill Development
Technical Skill Development	MC381	Skill Development
Biochemistry & Nutrition	FT 401	Employability
Industrial Stoichiometry	CH 401	Employability
Unit Operation of Chemical Engineering-1	CHE414 A	Employability
Transport Phenomena	CHE414 B	Employability
Biochemistry Lab	FT491	Employability, Skill Development
Chemistry of Food Lab - II	FT 492	Employability, Skill Development
Unit operation Lab – I	CHE 484 A	Employability, Skill Development
Transport phenomena Lab	CHE 484 B	Employability, Skill Development
Technical Report Writing & Language Lab Practice	HU 481	Employability, Skill Development
Food process technology – I (cereals, fruits, vegetables, beverages)	FT 501	Employability, Entrepreneurship
Food process technology – II (fish, meat, poultry)	FT 502	Employability, Entrepreneurship
Food process engineering	FT 503	Employability
Unit operations of chemical engineering – II	CHE 514 A	Employability
Separation Process	CHE 514 B	Employability
Food processing lab – I	FT 591	Employability, Skill Development, Entrepreneurship
Food analysis & quality control lab	FT 592	Employability, Skill Development
Unit operation lab – II	CHE 584 A	Employability, Skill Development
Separation Process Lab	CHE 584 B	Employability, Skill Development

Technical Model Development and Presentation	MC 581	Employability, Skill Development, Entrepreneurship
Food process technology – III (milk and milk products)	FT601	Employability, Entrepreneurship
Food process technology – IV (edible fats and oils)	FT602	Employability, Entrepreneurship
Bakery, confectionary and extruded foods	FT603	Employability, Entrepreneurship
Microbial technology & food biotechnology	FT604	Employability, Entrepreneurship
Data structure and algorithm	CS (FT) 615 A	Employability
Database Management System	CS (FT) 615 B	Employability
Software Engineering	CS (FT) 615 C	Employability
Food processing lab – II	FT691	Employability, Skill Development, Entrepreneurship
Microbial technology lab	FT692	Employability, Skill Development
Data structure and algorithm Lab	CS(FT) 685 A	Employability, Skill Development
Database Management System Lab	CS(FT) 685 B	Employability, Skill Development
Software Engineering Lab	CS(FT) 685 C	Employability, Skill Development
Waste Management of Food Industries	FT701	Employability
Enzyme Technology	FT702 A	Employability
Renewable Energy Technology	FT702 B	Employability
Plant Maintenance, Safety & Hygiene	FT702 C	Employability
Modeling & Simulation of Food Processes	FT703 A	Employability
Protein Technology	FT703 B	Employability
Food Packaging Technology	FT703 C	Employability
Process Instrumentation	EI(FT) 701 A	Employability
Process Control Systems	EI(FT) 701 B	Employability
Food Engineering lab	FT791	Employability, Skill Development
Instrumentation Laboratory	EI (FT)791 A	Employability, Skill Development
Process Control Systems Laboratory	EI (FT)791 B	Employability, Skill Development
Report and Seminar on Industrial Training	FT792	Employability, Skill Development
Principles of Management	HU 804	Employability, Entrepreneurship
Project Engineering & Food Plant Layout	FT801	Employability, Entrepreneurship
Principles of Biochemical Engineering	FT802 A	Employability

Entrepreneurship Development for Food Technologists	FT802 B	Employability, Entrepreneurship
Functional Foods & Nutraceuticals	FT802 C	Employability
Product Development & Quality Assurance Lab	FT892	Employability, Skill Development, Entrepreneurship

Annexure V

Professional Elective Courses relevant to chosen specialization/Branch (PE)

Sl No	Course Code	Course Name	Contact Hours /Week				Credit Points
			L	T	P	Total	
1	CHE 414 A	Unit Operation of Chemical Engineering-1	2	2	0	4	3
2	CHE 414 B	Transport Phenomena					
3	CHE 484 A	Unit operation Lab-I	0	0	3	3	2
4	CHE 484 B	Transport phenomena Lab					
5	CHE 514 A	Unit Operations of Chemical Engineering- II	2	2	0	4	3
6	CHE 514 B	Separation Process					
7	CHE 584 A	Unit Operation Lab-II	0	0	4	4	3
8	CHE 584 B	Separation Process Lab					
9	FT 702 A	Enzyme Technology	3	0	0	3	3
10	FT 702 B	Renewable Energy Technology					
11	FT 702 C	Plant Maintenance, Safety & Hygiene					
12	FT 703 A	Modeling & Simulation of Food Processes	3	0	0	3	3
13	FT 703 B	Protein Technology					
14	FT 703 C	Food Packaging Technology					
15	FT 802 A	Principles of Biochemical Engineering	2	2	0	4	3
16	FT 802 B	Entrepreneurship Development for Food Technologists					
17	FT 802 C	Functional Foods & Nutraceuticals					
		Total Credit:					20

Open Elective Courses-Electives from other technical and / or emerging subjects (OE):

Sl No	Course Code	Course Name	Contact Hours /Week				Credit Points
			L	T	P	Total	
1	CS (FT)615 A	Data Structure and Algorithm	3	0	0	3	3
2	CS (FT)615 B	Database Management System					
3	CS (FT)615 C	Software Engineering					
4	CS(FT)685 A	Data Structure and Algorithm Lab	0	0	3	3	2
5	CS(FT)685 B	Database Management System Lab					
6	CS(FT)685 C	Software Engineering Lab					
7	EI(FT) 701 A	Process Instrumentation	3	0	0	3	3
8	EI(FT) 701 B	Process Control Systems					
9	EI (FT)791 A	Instrumentation Laboratory	0	0	3	3	2
10	EI (FT)791 B	Process Control Systems Laboratory					
		Total Credit:					10

Annexure VI

Autonomy Curriculum of B.Tech. in Food Technology Program implemented from the Academic Year 2016-17

1 st year 1 st Semester							
Sl No	Paper Code	Theory	Contact Hours /Week				Credit Points
			L	T	P	Total	
1	M 101	Mathematics -I	3	1	0	4	4
2	PH101	Physics - I	3	1	0	4	4
3	EC101	Basic Electronics Engineering	3	1	0	4	4
4	HU 101	Communicative English	2	0	0	2	2
5	ME 101	Engineering Mechanics	3	1	0	4	4
Total of Theory						18	18
A. PRACTICAL							
6	HU191	Lang. Lab. and Seminar Presentation	0	0	2	2	1
7	PH191	Physics -ILab	0	0	3	3	2
8	EC191	Basic Electronics Engineering Lab	0	0	3	3	2
9	ME192	Workshop Practice	0	0	3	3	2
B. SESSIONAL							
10	XC181	Extra Curricular Activity (NSS/ NCC)	0	0	2	2	1
Total of Practical & Sessional						13	08

1 st year, 2 nd Semester							
Sl No	Paper Code	Theory	Contact Hours /Week				Credit Points
			L	T	P	Total	
1	M 201	Mathematics -II	3	1	0	4	4
2	CH 201	Chemistry	3	1	0	4	4
3	EE 201	Basic Electrical Engineering	3	1	0	4	4
4	CS 201	Computer Fundamentals & Principle of Computer Programming	3	1	0	4	4
5	ME 201	Engineering Thermodynamics & Fluid Mechanics	3	1	0	4	4
Total of Theory						20	20
B. PRACTICAL							
6	CS291	Computer Fundamentals & Principle of Computer Programming Lab	0	0	3	3	2
7	CH 291	Chemistry Lab	0	0	3	3	2
8	EE 291	Basic Electrical Engineering Lab	0	0	3	3	2
9	ME 291	Engg Drawing & Graphics	0	0	3	3	2
Total of Practical						12	08
C.SESSIONAL							
10	MC 281	Soft Skill Development	0	0	2	2	0

2nd Year, 3rd SEMESTER

A.THEORY:

	Field	Code	Subjects	Contacts (Periods/ week)				Credit points
				L	T	P	Total	
1	HS	CH(FT) 301	Environmental Engineering	2	1	0	3	3
2	BS	CH(FT) 302	Chemistry-2	2	2	0	4	3
3	ES	FT 301	Thermodynamics & Kinetics	2	2	0	4	3
4	PC	FT 302	Food Microbiology	2	2	0	4	3
5	PC	FT303	Chemistry of food	2	2	0	4	3
Total Theory							19	15

B.PRACTICAL:

	Field	Code	Subjects	Contacts (Periods/ week)				Credit points
				L	T	P	Total	
1	HS	CH (FT)391	Environmental Engineering Lab	0	0	3	3	2
2	BS	CH(FT)392	Chemistry-2 Lab	0	0	3	3	2
3	PC	FT391	Chemistry of Food Lab – I	0	0	3	3	2
4	PC	FT392	Food Microbiology Lab	0	0	3	3	2
C.SESSIONAL								
5	MC	MC381	Technical Skill Development	0	0	2	2	0
Total Practical and Sessional							14	8
Total 3 rd Semester							33	23

2nd Year: 4th SEMESTER

A:THEO

RY:

	Field	Code	Subjects	Contacts (Periods/ week)				Credit points
				L	T	P	Total	
1	BS	M(CS) 401	Numerical Methods	3	0	0	3	3
2	PC	FT 401	Biochemistry & Nutrition	2	2	0	4	3
3	ES	CH 401	Industrial Stoichiometry	2	2	0	4	3
4	PC	FT 402	Principles of Food Preservation	2	2	0	4	3
5	PE	CHE 414 (A/B)	Unit Operation of Chemical Engineering-1/ Transport Phenomena	2	2	0	4	3
Total Theory							19	15

B.PRACTICAL:

	Field	Code	Subjects	Contacts (Periods/ week)				Credit points
				L	T	P	Total	
1.	PC	FT491	Biochemistry Lab	0	0	3	3	2
2	PC	FT 492	Chemistry of Food Lab - II	0	0	3	3	2
3	PE	CHE 484 (A/B)	Unit operation Lab – I/ Transport phenomena Lab	0	0	3	3	2
4	BS	M(CS) 491	Numerical methods lab	0	0	3	3	2
5	HS	HU 481	Technical Report Writing & Language Lab Practice	0	0	2	2	1
Total practical							14	9
Total 4 th semester							33	24

3rd Year, 5th SEMESTER

A.THEORY:

Sl. no.	Field	Code	Subjects	Contact hours/week				Credit points
				L	T	P	Total	
1	HS	HU 503	Economics for Engineers	2	0	0	2	2
2	PC	FT 501	Food process technology – I (cereals, fruits, vegetables, beverages)	2	2	0	4	3
3	PC	FT 502	Food process technology – II (fish, meat, poultry)	2	2	0	4	3
4	PC	FT 503	Food process engineering	2	2	0	4	3
5	PE	CHE 514 (A/B)	Unit operations of chemical engineering – II/ Separation Process	2	2	0	4	3
Total Theory							18	14

B.PRACTICAL:

Sl. no.	Field	Code	Subjects	Contact hours/week				Credit points
				L	T	P	Total	
1	PC	FT 591	Food processing lab – I	0	0	4	4	3
2	PC	FT 592	Food analysis & quality control lab	0	0	4	4	3
3	PE	CHE 584 (A/B)	Unit operation lab – II/ Separation Process Lab	0	0	4	4	3
C.SESSIONAL								
4	MC	MC 581	Technical Model Development and Presentation	0	0	2	2	0
Total Practical and Sessional							14	9
Total 5 th Semester							32	23

3rd Year: 6th SEMESTER

A: THEORY:

Sl. no.	Field	Code	Subjects	Contact hours/week				Credit points
				L	T	P	Total	
1	PC	FT 601	Food process technology – III (milk and milk products)	2	2	0	4	3
2	PC	FT 602	Food process technology – IV (edible fats and oils)	2	2	0	4	3
3	PC	FT 603	Bakery, confectionary and extruded foods	3	0	0	3	3
4	PC	FT 604	Microbial technology & food biotechnology	2	2	0	4	3
5	OE	CS (FT)615 (A/B/C)	Data structure and algorithm/ Database Management System/Software Engineering	3	0	0	3	3
Total Theory							18	15

B.PRACTICAL:

Sl. no.	Field	Code	Subjects	Contact hours/week				Credit points
				L	T	P	Total	
1	PC	FT 691	Food processing lab – II	0	0	4	4	3
2	PC	FT 692	Microbial technology lab	0	0	3	3	2
3	OE	CS(FT)685 (A/B/C)	Data structure and algorithm Lab/ Database Management System Lab/Software Engineering Lab	0	0	3	3	2
4	HS	HU 681	Group Discussion	0	0	2	2	1
Total practical							12	8
Total 6 th semester							30	23

4th Year: 7th SEMESTER

A. THEORY:

Sl. no.	Field	Code	Subjects	Contact hours/week				Credit
				L	T	P	Total	
1	HS	HU702	Values and Ethics in Profession	2	0	0	2	2
2	PC	FT 701	Waste Management of Food Industries	2	2	0	4	3
3	PE	FT 702 (A/B/C)	Elective – I (Enzyme Technology / Renewable Energy Technology / Plant Maintenance, Safety & Hygiene)	3	0	0	3	3
4	PE	FT 703(A/B/C)	Elective – II (Modeling & Simulation of Food Processes / Protein Technology / Food Packaging Technology)	3	0	0	3	3
5	OE	EI (FT) 701 (A/B)	Process Instrumentation/ Process Control Systems	3	0	0	3	3
Total Theory							15	14

A. PRACTICAL & SESSIONAL:

Sl. no.	Field	Code	Subjects	Contact hours/week				Credit
				L	T	P	Total	
1	PC	FT 791	Food Engineering lab	0	0	3	3	2
2	OE	EI (FT) 791 (A/B)	Instrumentation Laboratory/Process Control Systems Laboratory	0	0	3	3	2
3	Sessional	FT 792	Report and Seminar on Industrial Training	-	-	-	-	3
4	Sessional	FT 793	Project part 1	0	0	6	6	4
5	Sessional	FT 794	Seminar	0	0	3	3	2
6	Sessional (MC)	MC781	Foreign Language	0	0	2	2	0
Total Practical and Sessional							17	13
Total 7 Semester							32	27

4th Year: 8th SEMESTER

A. THEORY:

Sl. no.	Field	Code	Subjects	Contact hours/week				Credit point
				L	T	P	Total	
1	HS	HU 804	Principles of Management	2	1	0	3	3
2	PC	FT 801	Project Engineering & Food Plant Layout	2	2	0	4	3
3	PE	FT 802 (A/B/C)	Elective – III (Principles of Biochemical Engineering /Entrepreneurship Development for Food Technologists / Functional Foods & Nutraceuticals)	2	2	0	4	3
Total Theory							11	9

B. PRACTICAL & SESSIONAL:

Sl. no.	Field	Code	Subjects	Contact hours/week				Credit
				L	T	P	Total	
1	Sessional	FT 891	Project part 2	0	0	12	12	8
2	PC	FT 892	Product Development & Quality Assurance Lab	0	0	4	4	3
3	Sessional	FT 893	Grand Viva	-	-	-	-	3
Total Practical and Sessional							16	14
Total 8 semester							27	23

Total Credit

Sl. No.	Year	Semester	Total Credit	
			Theory	Lab
1	1 st	1 st	18	8
2	1 st	2 nd	20	8
			38	16
			Total (1st Year)= 54	
3	2 nd	3 rd	15	8
4	2 nd	4 th	15	9
5	3 rd	5 th	15	9
6	3 rd	6 th	15	8
7	4 th	7 th	14	13
8	4 th	8 th	9	14
			83	61
			Total (2nd -4th Year)= 144	
Total (1st -4th Year)			121	77
Grand Total (AICTE Norm)			198	

1st Year-4th Year Credit Calculation

Field	HS	BS	ES	PC	PE	OE	Sessional
Credit	18	30	36	64	20	10	20
% of Credit Coverage	9.09	15.15	18.18	32.3	10.10	5.05	10.10
AICTE Norms	5-10%	15-20%	15-20%	30-40%	10-15%	5-10%	10-15%

HS	Humanities and Social Sciences	PC	Professional -Core
BS	Basic Sciences	PE	Professional -Electives
ES	Engineering Sciences	OE	Open Electives