

BOS Minutes

R13

B.Tech - Food Tech.



VIGNAN'S
UNIVERSITY

DEPARTMENT OF CHEMICAL ENGINEERING

03-02-2014

Minutes of Board of Studies: B. Tech Food Technology

A meeting of Board of Studies in Food Technology was held at 10AM on 03/2/2014 at Division of Food Technology, Department of Chemical Engineering, Vignan's University, Vadlamudi.

Agenda of the meeting:

1. Scope of Food Technology
2. Course structure and detailed syllabus for B.Tech in Food Technology

Members Present

The following members were present for the Board of Studies meeting

S.No	Name	Members	Signature
1.	Mr P Bangaraiah, Head, School of Chemical Engineering, Vignan's University	Chairman, BOS	
2.	Dr. B V S Prasad, Dean college of Food Science and Technology, Bapatla	Invited member	
3.	Dr. S Padmaja, Scientist-C, Spice Board, Government of India, Guntur	Invited member	
4.	Mr. T K Varadarajan, General Manager, Priya Food Division, Vijayawada	Invited member	
5.	Mr. M Brahmaiah, General Manager, Sangam Dairy, Vadlamudi	Invited member	
6.	Dr V Madhusudhana Rao, Dean-E&M, Vignan's University	Internal Member	
7.	Mr P Ashok Kumar, Associate Professor, School of Chemical Engineering, Vignan's University	Internal Member	
8.	Dr R Venkata Nadh, Professor, School of Biotechnology, Vignan's University	Internal Member	
9.	Ms. Alka Kumari, Assistant Professor, Department of Food Technology, Vignan's University	Internal Member	



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Minutes of the BOS meeting

1. The chairman welcomed all the members of BOS.
2. The chairman highlighted broad objectives in the course structure of B.Tech Food Technology.
3. The chairman also explained in detail the suggestions and comments communicated from various stakeholders.
4. The members of the BOS thoroughly looked at the proposals of Department of Chemical Engineering in the light of suggestions made by experts and recommended a new course structure for B.Tech Food Technology.

After the discussion it is resolved to

1. It is resolved to propose course structure (as given in separate sheet) and detailed syllabus four-year B. Tech in Food Technology for all four years after thorough discussion. The proposed course structure and syllabus is applicable for 2014 admitted batch onwards (Appendix I).
2. Choice Based Credit System (CBCS) is practiced in the curriculum.
3. The Curriculum is encompassing the courses that enable employability or entrepreneurship or skill development
4. In the B. Tech – Food Technology R13, all the courses are introduced for the first time, so all the courses is considered as new courses (Appendix II).
5. The proposed course structure and syllabus is applicable for 2014 admitted batch onwards.

Chairman BoS



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APPENDIX – I

Course Structure

I Year I Semester

Subject	L	T	P	To	C
Mathematics for Biotechnologists – I	4	-	-	4	4
Engineering Materials	4	-	-	4	4
Fundamentals of Electrical Engineering	4	-	-	4	4
Engineering Chemistry	4	-	-	4	4
Environmental Studies	3	-	-	3	3
Professional Ethics, Values and Human Rights	2	-	-	2	-
Practicals:					
Fundamentals of Electrical Engineering Lab	-	-	3	3	2
Engineering Chemistry Lab	-	-	3	3	2
Engineering Graphics Lab	1	-	3	4	3
TOTAL	22	-	9	31	26

I Year II Semester

Subject	L	T	P	To	C
Mathematics for Biotechnologists – II	4	-	-	4	4
Engineering Physics	4	-	-	4	4
Engineering Mechanics	4	-	-	4	4
Technical English Communication	3	-	-	2	5
Problem Solving and Computer Programming	5	-	-	5	5
Network Security	2	-	-	2	-
Practicals:					
Computer Programming Lab	-	-	3	3	2
Workshop Practice	-	-	3	3	2
Engineering Physics Lab	-	-	3	3	2
TOTAL	22	-	9	30	28



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II Year I Semester

Subject	L	T	P	To	C
Probability and Statistics	4	-	-	4	4
Food Chemistry	4	-	-	4	4
Principles of Cost Accounting	4	-	-	4	4
Food Microbiology	4	-	-	4	4
Bio-Chemistry and Nutrition	4	-	-	4	4
Seminar	-	-	1	1	1
Minor - I	4	-	-	4	4
Practical Course :					
Food Microbiology Lab	-	-	3	3	2
Bio-Chemistry and Nutrition Lab	-	-	3	3	2
Soft Skills Lab	-	-	3	3	2
TOTAL	24	-	10	34	31

II Year II Semester

Subject	L	T	P	To	C
Data Structures	4	-	-	4	4
Principles of Food Preservation	4	-	-	4	4
Fluid Mechanics and Hydraulics	4	-	-	4	4
Heat and Mass Transfer	4	-	-	4	4
Thermodynamics and Heat Engines	4	-	-	4	4
Seminar	-	-	1	1	1
Minor - II	4	-	-	4	4
Practical Course :					
Fluid Mechanics Lab	-	-	3	3	2
Food Processing Lab	-	-	3	3	2
Professional Communication Lab	-	-	3	3	2
TOTAL	24	-	10	34	31



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III Year I Semester

Subject	L	T	P	To	C
Legumes and Oil Seed Technology	4	-	-	4	4
Cereal Processing	4	-	-	4	4
Fruit and Vegetable Processing	4	-	-	4	4
Bakery and Confectionery Products	4	-	-	4	4
Refrigeration Engineering and Cold Chain (Elective-I)	4	-	-	4	4
Engineering Properties of Food Materials (Elective-I)					
Novel Food Processing Techniques (Elective-I)					
Minor - III	4	-	-	4	4
Seminar		-	1	1	1
Practical Course :					
Cereal Processing Lab	-	-	3	3	2
Fruit and Vegetable Processing Lab	-	-	3	3	2
Bakery and Confectionery Products Lab	-	-	3	3	2
TOTAL	24	-	10	34	31

III Year II Semester

Subject	L	T	P	To	C
Managerial Economics	4	-	-	4	4
Food Packing	4	-	-	4	4
Food Safety and Microbial Standards	4	-	-	4	4
Processing of Milk and Milk Products	4	-	-	4	4
Processing of Meat and Poultry Products (Elective-II)	4	-	-	4	4
Food Industry By-Products (Elective-II)		-	-	-	-
Neutraceuticals and Functional Foods (Elective-II)		-	-	-	-
Minor - IV	4	-	-	4	4
Seminar		-	1	1	1



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Practical Course:					
Food Safety and Microbial Standards Lab	-	-	3	3	2
Processing of Milk and Milk Products Lab	-	-	3	3	2
Mini Project		-	3	3	2
TOTAL	24	-	10	34	31

IV Year I Semester

Subject	L	T	P	To	C
Processing of Spices and Planting Crops	4	-	-	4	4
Techniques in Food Analysis	4	-	-	4	4
Food Additives	4	-	-	4	4
Food Processing Equipment	4	-	-	4	4
Elective - III	4	-	-	4	4
Food Plant Layout, Management and Utilities					
Processing of Fish and Marine Products					
Food Quality and Certification					
Elective - IV	4	-	-	4	4
Food Biotechnology					
Food Storage and Transport Engineering					
Food Laws and Regulations					
Practical Course:					
Processing of Spices and Planting Crops Lab	-	-	3	3	2
Techniques in Food Analysis Lab	-	-	3	3	2
Food Processing Equipment Lab	-	-	3	3	2
TOTAL	24	-	9	33	30



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IV Year II Semester

Subject	L	T	P	To	C
Minor - V	4	-	-	4	4
Elective - V	4	-	-	4	4
Instrumentation and Process Control					
Industrial Microbiology					
Product Development and Formulation					
Elective - VI	4	-	-	4	4
Extrusion Technology					
Entrepreneurship Development					
Post Harvest Management of Fruits and Vegetables					
Project work	-	-	20	20	10
	12	-	20	32	22

II Semester

Subject	L	T	P	To	C
Internship (6 months)	-	-	36	36	18
	-	-	36	36	18

L = Lecture ; T = Tutorial ; P = Practical ; To = Total ; C = Credits

The courses that are highlighted denote implementation of 'Choice Based Credit System (CBCS)'

Chairman BoS



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APPENDIX - II

List of courses that enable employability or entrepreneurship or skill development in the

R-13 B.Tech – Food Technology

SL No.	Semester (Year)	Core / Elective	Course Name	Employability/ Entrepreneurship/ Skill development
1	First year (Semester I)	core	Mathematics for Biotechnologists - I	Skill development
2	First year (Semester I)	core	Engineering Materials	Skill development
3	First year (Semester I)	core	Fundamentals of Electrical Science	Skill development
4	First year (Semester I)	core	Engineering Chemistry	Skill development
5	First year (Semester I)	core	Environmental Studies	Skill development
6	First year (Semester I)	core	Professional Ethics, Values and Human Rights	Skill development
7	First year (Semester I)	core	Fundamentals of Electrical Engineering Lab	Skill development
8	First year (Semester I)	core	Engineering Chemistry Lab	Skill development
9	First year (Semester I)	core	Engineering Graphics Lab	Skill development
10	First year (Semester II)	core	Mathematics for Biotechnologists - II	Skill development
11	First year (Semester II)	core	Engineering Physics	Skill development
12	First year (Semester II)	core	Engineering Mechanics	Skill development
13	First year (Semester II)	core	Technical English Communication	Skill development
14	First year (Semester II)	core	Problem Solving and Computer Programming	Skill development
15	First year (Semester II)	core	Network Security	Skill development



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16	First year (Semester II)	core	Computer programming lab	Skill development
17	First year (Semester II)	core	workshop practice	Skill development
18	First year (Semester II)	core	engineering physics lab	Skill development
19	Second year (Semester I)	core	Probability and Statistics	Skill development
20	Second year (Semester I)	core	Food Chemistry	Skill development
21	Second year (Semester I)	core	Principles of Cost Accounting	Skill development
22	Second year (Semester I)	core	Food Microbiology	Skill development
23	Second year (Semester I)	core	Bio-Chemistry and Nutrition	Skill development
24	Second year (Semester I)	core	Minor-I Seminar	Employability
25	Second year (Semester I)	core	Food Microbiology lab	Employability
26	Second year (Semester I)	core	Bio-Chemistry lab	Employability
27	Second year (Semester I)	core	soft skills lab	Skill development
28	Second year (Semester II)	core	Data Structures	Skill development
29	Second year (Semester II)	core	Principles of Food Preservation	Skill development
30	Second year (Semester II)	core	Fluid Mechanics and Hydraulics	Skill development
31	Second year (Semester II)	core	Heat and Mass Transfer	Skill development
32	Second year (Semester II)	core	Thermodynamics and Heat Engines	Skill development
33	Second year (Semester II)	core	Minor-II Seminar	Employability
34	Second year (Semester II)	core	Fluid Mechanics lab	Employability
35	Second year (Semester II)	core	Food Processing Lab	Employability
36	Second year (Semester II)	core	professional communication lab	Skill development



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37	Third year (Semester I)	core	Legumes and Oil Seeds Technology	Employability
38	Third year (Semester I)	core	Cereal Processing	Skill development
39	Third year (Semester I)	core	Fruit and Vegetable Processing	Skill development
40	Third year (Semester I)	core	Bakery and Confectionery Products	Skill development
41	Third year (Semester I)	Department elective I	Refrigeration Engineering and Cold Chain	Skill development
42	Third year (Semester I)	Department elective I	Engineering Properties of Food Materials	Skill development
43	Third year (Semester I)	Department elective I	Novel Food Processing Techniques	Skill development
44	Third year (Semester I)	core	Minor-III Seminar	Employability
45	Third year (Semester I)	core	cereal Processing lab	Skill development
46	Third year (Semester I)	core	Fruit and Vegetable Processing lab	Employability
47	Third year (Semester I)	core	bakery and Confectionery Products lab	Skill development
48	Third year (Semester II)	core	Managerial Economics	Skill development
49	Third year (Semester II)	core	Food Packing	Skill development
50	Third year (Semester II)	core	Food Safety and Microbial Standards	Employability
51	Third year (Semester II)	core	Processing of Milk and Milk Products	Skill development
52	Third year (Semester II)	Department elective II	Processing of Meat and Poultry Products	Skill development
53	Third year (Semester II)	Department elective II	Food Industry By-Products	Employability



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54	Third year (Semester II)	Department elective II	Nutraceuticals and Functional Foods	Skill development
55	Third year (Semester II)	core	Minor-IV Seminar	Employability
56	Third year (Semester II)	core	food safety and Microbial Standards lab	Employability
57	Third year (Semester II)	core	Processing of Milk and Milk Products lab	Employability
58	Third year (Semester II)	core	mini project	Employability
59	Fourth year (Semester I)	core	Processing of Spices and Planting Crops	Employability
60	Fourth year (Semester I)	core	Techniques in Food Analysis	Employability
61	Fourth year (Semester I)	core	Food Additives	Skill development
62	Fourth year (Semester I)	core	Food Processing Equipment	Employability
63	Fourth year (Semester I)	core	Food Plant Layout, Management and Utilities	Skill development
64	Fourth year (Semester I)	core	Processing of Fish and Marine Products	Employability
65	Fourth year (Semester I)	core	Food Quality and Certification	Employability
66	Fourth year (Semester I)	Department elective III	Food Biotechnology	Skill development
67	Fourth year (Semester I)	Department elective III	Food Storage and Transport Engineering	Employability
68	Fourth year (Semester I)	Department elective III	Food Laws and Regulations	Skill development
69	Fourth year (Semester I)	core	processing of spices and Planting Crops lab	Employability
70	Fourth year (Semester I)	core	techniques in Food Analysis lab	Employability



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71	Fourth year (Semester I)	core	food processing - equipment lab	Employability
72	Fourth year (Semester II)	core	Instrumentation and Process Control	Employability
73	Fourth year (Semester II)	core	Industrial Microbiology	Skill development
74	Fourth year (Semester II)	core	Product Development and Formulation	Skill development
75	Fourth year (Semester II)	Department elective IV	Extrusion Technology	Employability
76	Fourth year (Semester II)	Department elective IV	Entrepreneurship Development	Employability
77	Fourth year (Semester II)	Department elective IV	Post Harvest Management of Fruits and Vegetable	Skill development
78	Fourth year (Semester II)	core	Project Work	Employability
79	Fourth year (Semester II)	core	Internship (6 months)	Employability

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