

COURSE OUTCOME MAPPING

COURSE TITLE: FOOD CHEMISTRY (SEMESTER-1) 2021
batch

COURSE CODE: FT18103

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

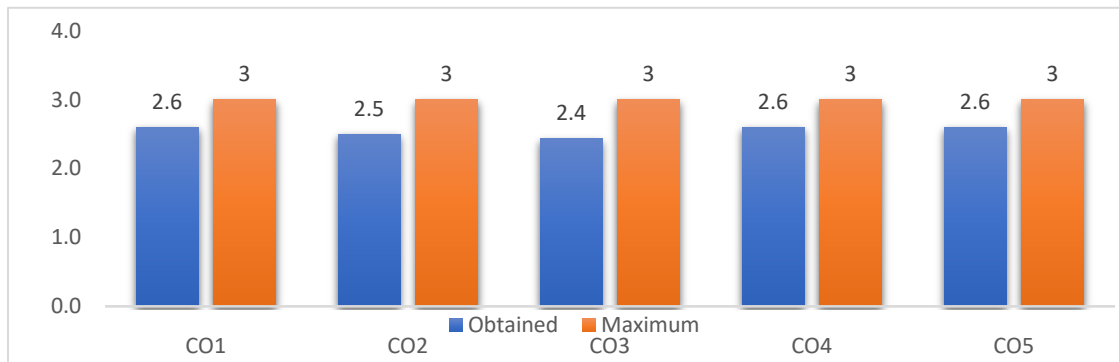
MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Evaluate the importance and role of carbohydrates in food	V(Evaluate)
CO2	Analyse the functional properties of proteins in food	IV (Analyse)
CO3	Explain the oxidative reactions of lipids in food	II(Understand)
CO4	Classify the enzymes of importance in food	II(Understand)
CO5	Evaluate the role of water in food	V(Evaluate)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01		H	H		H	H				H	H	
C02	H	H	H		H	H				H		H
C03		H	H		H	H				H	H	
C04	H	H	H		H	H			H		H	
C05		H	H		H	H			H	H		H

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		External Exam				
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	course internal average	pass%	Attainment level	course external average	course total average
C01	59.2	0.0			81.6	2.0	100.0	3.0	100.0	3.0	79.6	2.0	2.0	95.9	3.0	3.0	2.6
C02	59.2	0.0			81.6	2.0			100.0	3.0	79.6	2.0	1.8	95.9	3.0	3.0	2.5
C03	59.2	0.0	69.4	1.0	81.6	2.0			100.0	3.0	79.6	2.0	1.6	95.9	3.0	3.0	2.4
C04			69.4	1.0	81.6	2.0			100.0	3.0	79.6	2.0	2.0	95.9	3.0	3.0	2.6
C05			69.4	1.0	81.6	2.0			100.0	3.0	79.6	2.0	2.0	95.9	3.0	3.0	2.6

AVERAGE	AVERAGE
3	2.548



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1		H 2.6	H 2.6		H 2.6	H 2.6		
CO2	H 2.5	H 2.5	H 2.5		H 2.5	H 2.5		
CO3		H 2.44	H 2.44		H 2.44	H 2.44		
CO4	H 2.6	H 2.6	H 2.6		H 2.6	H 2.6		
CO5		H 2.6	H 2.6		H 2.6	H 2.6		
AVERAGE OF COS FOR POS	2.55	2.548	2.548		2.548	2.548		
AVERAGE OF POS	2.55	2.5376	2.5376		2.5376	2.5376		
AVERAGE	2.54008							

COURSE OUTCOME MAPPING

**COURSE TITLE: FOOD BIOCHEMISTRY (SEMESTER: 1) 2021
batch**

COURSE CODE: FT18103

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

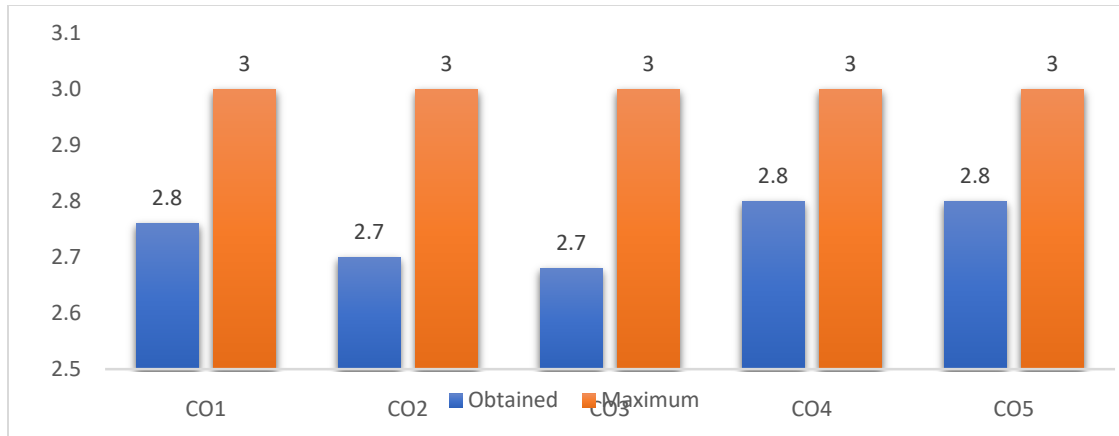
MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Evaluate various analytical methods	V(Evaluate)
CO2	Classify carbohydrates and different metabolic pathways	IV (Analyse)
CO3	Classify lipids and fatty acids and synthesis of fatty acids	IV (Analyse)
CO4	Distinguish transamination and deamination	IV (Analyse)
CO5	Demonstrate protein biosynthesis	II (Understand)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H	H	H					H	S		
C02	H	H							H			H
C03	H		H						H			H
C04	H								H		H	
C05	H		H						H	H		

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		External Exam				
	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	pass%	Attainment level	pass %	Attainment level	co wise internal average	pass %	Attainment level	co wise external average	co wise total average
CO 1	71.4	1.0			75.5	2.0	100.0	3.0	100.0	3.0	85.7	3.0	2.4	87.8	3.0	3.0	2.8
CO 2	71.4	1.0			75.5	2.0			100.0	3.0	85.7	3.0	2.3	87.8	3.0	3.0	2.7
CO 3	71.4	1.0	79.6	2.0	75.5	2.0			100.0	3.0	85.7	3.0	2.2	87.8	3.0	3.0	2.7
CO 4			79.6	2.0	75.5	2.0			100.0	3.0	85.7	3.0	2.5	87.8	3.0	3.0	2.8
CO 5			79.6	2.0	75.5	2.0			100.0	3.0	85.7	3.0	2.5	87.8	3.0	3.0	2.8

AVERAGE	AVERAGE
3	2.748



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.76	H 2.76	H 2.76	H 2.76				
CO2	H 2.7	H 2.7						
CO3	H 2.68		H 2.68					
CO4	H 2.8							
CO5	H 2.8		H 2.8					
AVERAGE OF COS FOR POS	2.748	2.73	2.746666667	2.76				
AVERAGE OF POS	2.7456	2.715	2.742222	2.76				
AVERAGE	2.740705556							

COURSE OUTCOME MAPPING

**COURSE TITLE: TECHNOLOGY OF FOOD PRESERVATION (SEMESTER-1)
2021
batch**

COURSE CODE: FT19104

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

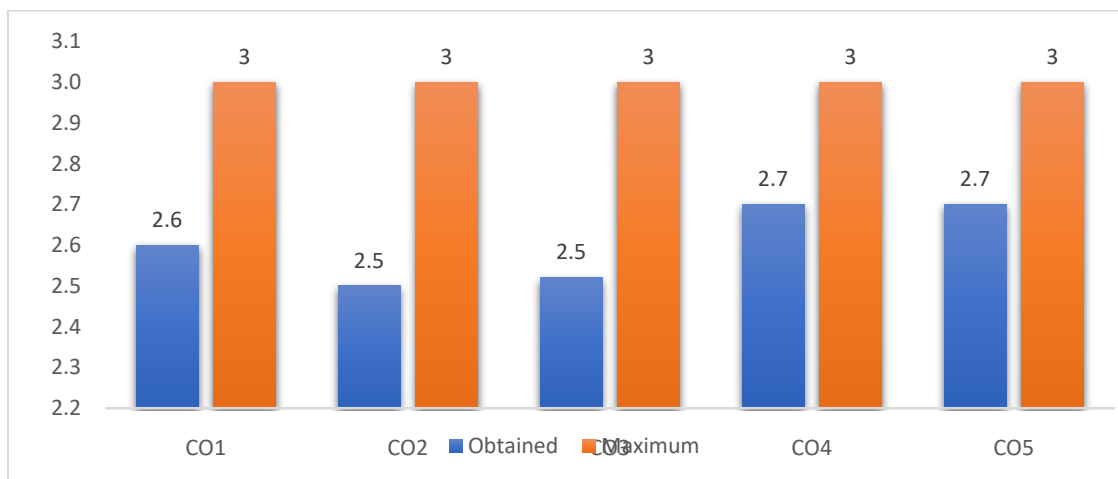
PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H		S					H		H	
C02	H	H							H		H	
C03	H	H	S						H	H	H	
C04	H	H	S						H		H	
C05	H	H							H		H	

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		co wise internal average	External Exam			co wise total average
	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level		pass %	Attainment level	co wise external average	
CO1	55.1	0.0			87.8	3.0	100.0	3.0	100.0	3.0	73.5	1.0	2.0	93.9	3.0	3.0	2.6
CO2	55.1	0.0			87.8	3.0			100.0	3.0	73.5	1.0	1.8	93.9	3.0	3.0	2.5
CO3	55.1	0.0	81.6	2.0	87.8	3.0			100.0	3.0	73.5	1.0	1.8	93.9	3.0	3.0	2.5
CO4			81.6	2.0	87.8	3.0			100.0	3.0	73.5	1.0	2.3	93.9	3.0	3.0	2.7
CO5			81.6	2.0	87.8	3.0			100.0	3.0	73.5	1.0	2.3	93.9	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.604



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.6	H 2.6						
CO2	H 2.5	H 2.5						
CO3	H 2.52	H 2.52						
CO4	H 2.7	H 2.7						
CO5	H 2.7	H 2.7						
AVERAGE OF COS FOR POS	2.604	2.604						
AVERAGE OF POS	2.6048	2.6048						
AVERAGE	2.6048							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FOOD AND HUMAN NUTRITION (SEMESTER-1) 2021 batch

COURSE CODE: FT18101

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
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PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

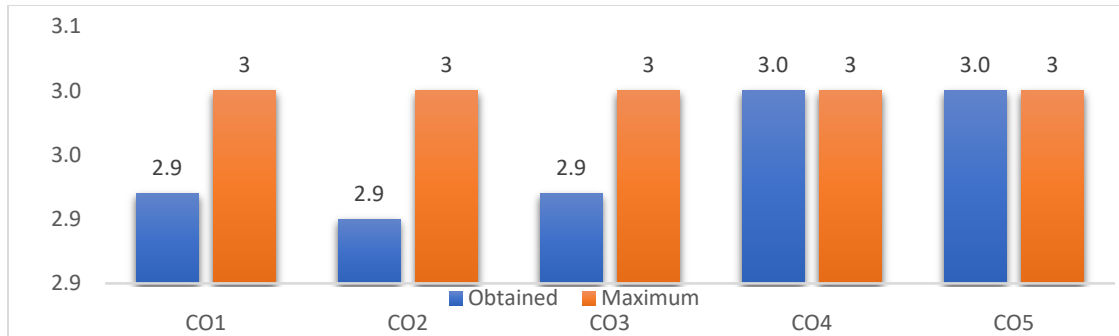
PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Describe the general classification, examples, deficiencies, functions, of nutrients	I(Remember)
CO2	Classify the different vitamins and minerals and their requirements	IV(Analyse)
CO3	Create various diet plans for various age groups	VI(Create)
CO4	Analyse the assessment of nutritional status	IV(Analyse)
CO5	Compare different international agencies in overcoming malnutrition	IV(Analyse)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01		H	H	H	H				H	H	H	
C02		H	H		H	H			H	H	H	
C03	H	H			H	H			H	H	H	
C04	H	H	H		H	H			H	H	H	
C05		H	H	H	S	H			H	H	H	

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE			External Exam			
	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	pass%	Attainment level	co wise internal average	pass %	Attainment level	co wise external average	co wise total average
C01	83.7	2.0			93.9	3.0	100.0	3.0	100.0	3.0	100.0	3.0	2.8	95.9	3.0	3.0	2.9
C02	83.7	2.0			93.9	3.0			100.0	3.0	100.0	3.0	2.8	95.9	3.0	3.0	2.9
C03	83.7	2.0	91.8	3.0	93.9	3.0			100.0	3.0	100.0	3.0	2.8	95.9	3.0	3.0	2.9
C04			91.8	3.0	93.9	3.0			100.0	3.0	100.0	3.0	3.0	95.9	3.0	3.0	3.0
C05			91.8	3.0	93.9	3.0			100.0	3.0	100.0	3.0	3.0	95.9	3.0	3.0	3.0

AVERAGE	AVERAGE
3	2.948



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1		H 2.92	H 2.92	H 2.92	H 2.92			
CO2		H 2.9	H 2.9		H 2.9	H 2.9		
CO3	H 2.92	H 2.92			H 2.92	H 2.92		
CO4	H 3	H 3	H 3		H 3	H 3		
CO5		H 3	H 3	H 3		H 3		
AVERAGE OF COS FOR POS	2.96	2.948	2.955	2.96	2.935	2.955		
AVERAGE OF POS	2.96	2.9536	2.96375	2.98	2.93875	2.955		
AVERAGE	2.958516667							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: DAIRY TECHNOLOGY (semester 3) 2020 batch

COURSE CODE: FT20301

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.
- **PO6. Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: Understand the concept of food science, nutrition and dietetics

PSO2: Analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3: Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

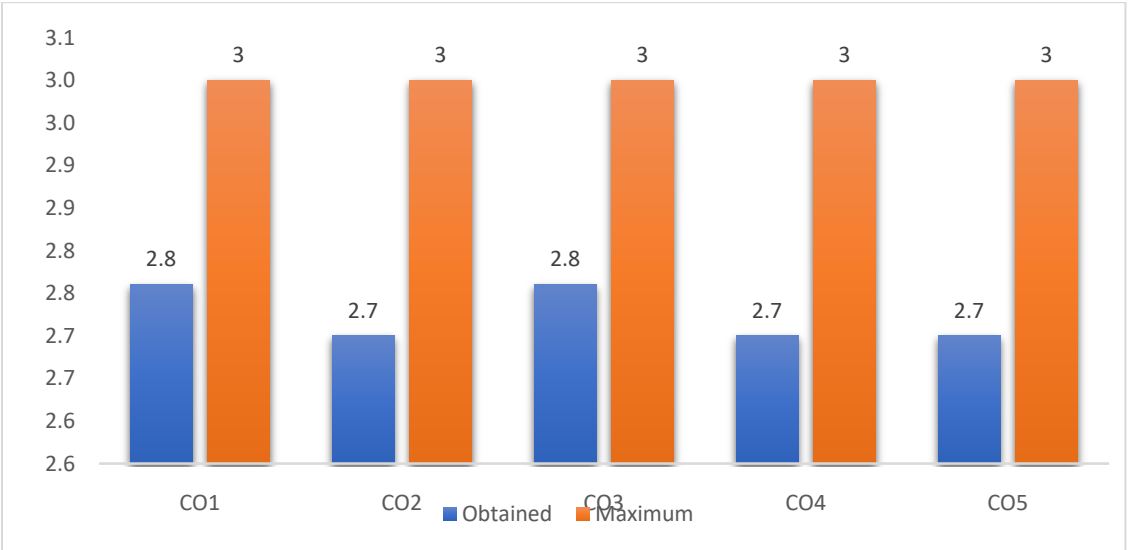
PSO4: Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Explain the concept of processing and preservation of milk	II(Understand)
CO2	Understand cream and butter manufacturing	II(Understand)
CO3	Analyse cheese composition, manufacturing ,defects and controls	IV(Analyse)
CO4	Identify properties and manufacturing of dried milk products	I(Remember)
CO5	Describe ice cream manufacturing and indigenous milk products	I(Remember)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H			H				H			H
C02												
C03			H		H			H		H		H
C04		H	H	H			H	S	H	H		H
C05	H		H			H						H

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		co wise internal average	External Exam			co wise total average
	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level		pass %	Attainment level	co wise external average	
CO 1	98.1	3.0			100.0	3.0	100.0	3.0	100.0	3.0	45.3	0.0	2.4	98.1	3.0	3.0	2.8
CO 2	98.1	3.0			100.0	3.0			100.0	3.0	45.3	0.0	2.3	98.1	3.0	3.0	2.7
CO 3	98.1	3.0	98.1	3.0	100.0	3.0			100.0	3.0	45.3	0.0	2.4	98.1	3.0	3.0	2.8
CO 4			98.1	3.0	100.0	3.0			100.0	3.0	45.3	0.0	2.3	98.1	3.0	3.0	2.7
CO 5			98.1	3.0	100.0	3.0			100.0	3.0	45.3	0.0	2.3	98.1	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.724



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.76	H 2.76			H 2.76			
CO2								
CO3			H 2.76		H 2.76			H 2.76
CO4		H 2.7	H 2.7	H 2.7			H 2.7	
CO5	H 2.7		H 2.7			H 2.7		
AVERAGE OF COS FOR POS	2.73	2.73	2.72	2.7	2.76	2.7	2.7	2.76
AVERAGE OF POS	2.715	2.715	2.72	2.7	2.76	2.7	2.7	2.76
	2.72125							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FOOD PROCESS ENGINEERING-II (semester 3) 2020
batch

COURSE CODE: FT18302

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES (B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.
- **PO6. Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: Understand the concept of food science, nutrition and dietetics

PSO2: Analyse the relationships between various nutrients and physiological disorders and various diet therapies

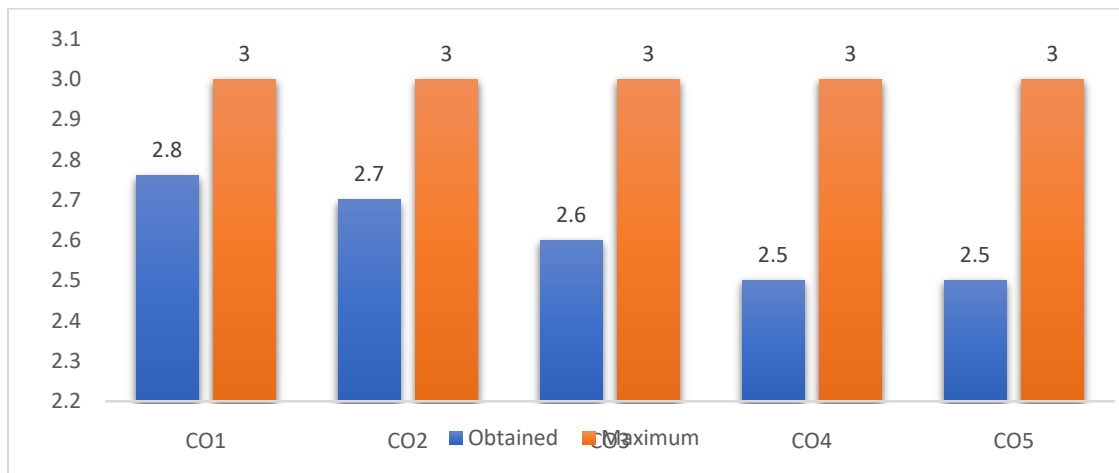
PSO3: Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

PSO4: Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	To develop understanding of concept of viscosity of flow measuring devices	VI(CREATE)
CO2	To apply the laws of heat transfer of food processing	III(APPLY)
CO3	To compare steady and non steady state heat transfer	IV(ANALYSE)
CO4	To identify the combine effects of heat transfer through evaporation and dehydration	IV(ANALYSE)
CO5	To analyse different types of filtrations	IV(ANALYSE)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H						H	H	H		H	
C02		H		H		H	H		H		H	H
C03	H		H		H				H	H	H	
C04	H		H		H				H	H	H	
C05	H				H			H	H			H

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		co wise internal average	External Exam			co wise total average
	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level		pass %	Attainment level	co wise external average	
CO1	100.0	3.0			96.2	3.0	100.0	3.0	100.0	3.0	49.1	0.0	2.4	94.3	3.0	3.0	2.8
CO2	100.0	3.0			96.2	3.0			100.0	3.0	49.1	0.0	2.3	94.3	3.0	3.0	2.7
CO3	100.0	3.0	71.7	1.0	96.2	3.0			100.0	3.0	49.1	0.0	2.0	94.3	3.0	3.0	2.6
CO4			71.7	1.0	96.2	3.0			100.0	3.0	49.1	0.0	1.8	94.3	3.0	3.0	2.5
CO5			71.7	1.0	96.2	3.0			100.0	3.0	49.1	0.0	1.8	94.3	3.0	3.0	2.5



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
<u>CO1</u>	<u>H 2.76</u>	- -	- -	- -	- -	- -	<u>H 2.76</u>	<u>H 2.76</u>
<u>CO2</u>	- -	<u>H 2.7</u>	- -	<u>H 2.7</u>	- -	<u>H 2.7</u>	<u>H 2.7</u>	- -
<u>CO3</u>	<u>H 2.6</u>	- -	<u>H 2.6</u>	- -	<u>H 2.6</u>	- -	- -	- -
<u>CO4</u>	<u>H 2.5</u>	- -	<u>H 2.5</u>	- -	<u>H 2.5</u>	- -	- -	- -
<u>CO5</u>	<u>H 2.5</u>	- -	- -	- -	<u>H 2.5</u>	- -	- -	<u>H 2.5</u>
<u>AVERAGE OF COS FOR POS</u>	<u>2.59</u>	<u>2.7</u>	<u>2.55</u>	<u>2.7</u>	<u>2.533333333</u>	<u>2.7</u>	<u>2.73</u>	<u>2.63</u>
<u>AVERAGE OF POS</u>	- <u>2.5475</u>	- <u>2.7</u>	- <u>2.55</u>	- <u>2.7</u>	- <u>2.533333</u>	- <u>2.7</u>	- <u>2.715</u>	- <u>2.565</u>
<u>AVERAGE</u>	<u>2.626354167</u>							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE: TECHNOLOGY OF CEREALS, PULSES AND LEGUMES (semester 3)
2020 batch**

COURSE CODE: FT20303

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.
- **PO6. Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: Understand the concept of food science, nutrition and dietetics

PSO2: Analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3: Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

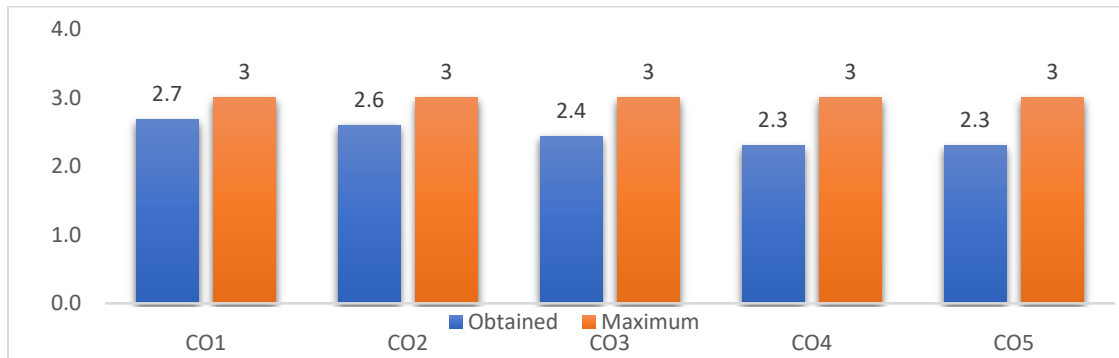
PSO4: Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Explain various methods involved in rice processing	II (UNDERSTAND)
CO2	Explain various milling operations in wheat	II (UNDERSTAND)
CO3	Differentiate steps involved in wet and dry milling of corn	IV (ANALYSE)
CO4	Explain the processing of pulses, legumes and oil seeds	II (UNDERSTAND)
CO5	Explain the technology involved in various cereals, pulses and legume based products	II (UNDERSTAND)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H				H			H	H			H
C02			H		H			H		H		H
C03		H	H	H			H	S	H	H		H
C04	H		H			H						H
C05			H		H			H	H	H		H

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE			External Exam			co wise total average
	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	pass%	Attainment level	co wise internal average	pass %	Attainment level	co wise external average	
C01	98.1	3.0			75.5	2.0	100.0	3.0	100.0	3.0	49.1	0.0	2.2	100.0	3.0	3.0	2.7
C02	98.1	3.0			75.5	2.0			100.0	3.0	49.1	0.0	2.0	100.0	3.0	3.0	2.6
C03	98.1	3.0	60.4	0.0	75.5	2.0			100.0	3.0	49.1	0.0	1.6	100.0	3.0	3.0	2.4
C04			60.4	0.0	75.5	2.0			100.0	3.0	49.1	0.0	1.3	100.0	3.0	3.0	2.3
C05			60.4	0.0	75.5	2.0			100.0	3.0	49.1	0.0	1.3	100.0	3.0	3.0	2.3

AVERAGE	AVERAGE
3	2.464



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.68				H 2.68			H 2.68
CO2			H 2.6		H 2.6			H 2.6
CO3		H 2.44	H 2.44	H 2.44			H 2.44	
CO4	H 2.3		H 2.3			H 2.3		
CO5			H 2.3		H 2.3			H 2.3
AVERAGE OF COS FOR POS	2.49	2.44	2.41	2.44	2.526666667	2.3	2.44	2.526666667
AVERAGE OF POS	2.395	2.44	2.41	2.44	2.475556	2.3	2.44	2.475556
AVERAGE	2.422013889							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: TECHNOLOGY OF FRUITS AND VEGETABLES (semester 3)
2020 batch

COURSE CODE: FT20304

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND TECHNOLOGY

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.
- **PO6. Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1:understand the concept of food science, nutrition and dietetics

PSO2:analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3:apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

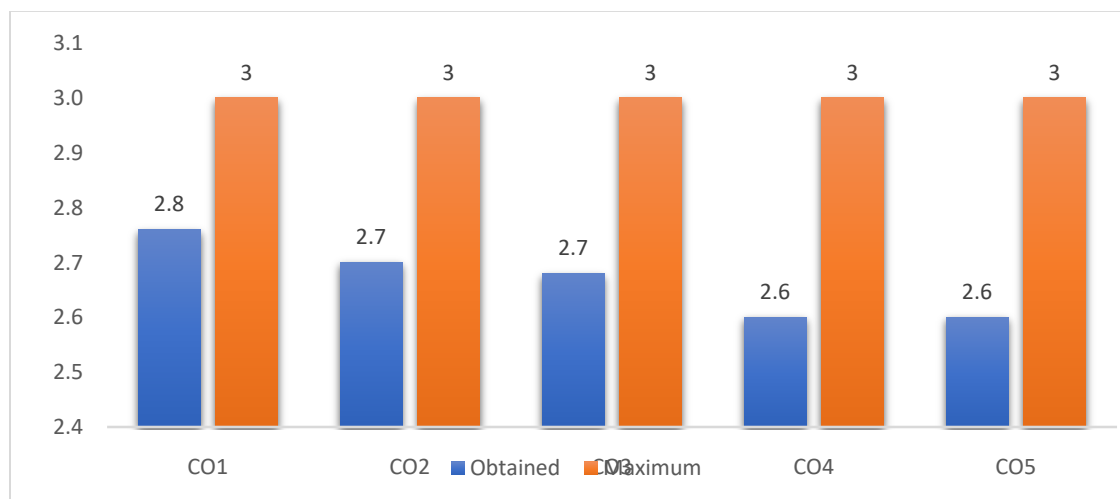
PSO4:combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Explain processing methods and role of fruits and vegetables in human diet	II(UNDERSTAND)
CO2	Tell about Post harvest handling methods and treatments of fruits and vegetables	IV(ANALYSE)
CO3	Explain process of canning, machinery and storage of foods	II(UNDERSTAND)
CO4	Prepare various products of fruits and vegetables	II(APPLY)
CO5	Classify fruit and beverages and methods of preservation	IV(ANALYSE)

<u>outcomes</u>	<u>PO1</u>	<u>PO2</u>	<u>PO3</u>	<u>PO4</u>	<u>PO5</u>	<u>PO6</u>	<u>PO7</u>	<u>PO8</u>	<u>PS01</u>	<u>PS02</u>	<u>PS03</u>	<u>PS04</u>
C01	<u>H</u>	-	-	-	-	<u>H</u>	<u>H</u>	-	<u>H</u>	-	-	<u>H</u>
C02												
C03	<u>H</u>	<u>H</u>	-	<u>H</u>	-	-	-	-	<u>H</u>	-	-	<u>H</u>
C04	<u>S</u>	-	<u>H</u>	<u>H</u>	-	-	<u>H</u>	-	<u>H</u>	<u>H</u>	-	<u>H</u>
C05	<u>H</u>	-	-	-	<u>H</u>	-	-	<u>H</u>	<u>H</u>	-	-	<u>H</u>

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		co wise internal average	External Exam			co wise total average
	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level		pass%	Attainment level	co wise external average	
CO 1	100.0	3.0			88.7	3.0	100.0	3.0	100.0	3.0	50.9	0.0	2.4	100.0	3.0	3.0	2.8
CO 2	100.0	3.0			88.7	3.0			100.0	3.0	50.9	0.0	2.3	100.0	3.0	3.0	2.7
CO 3	100.0	3.0	79.2	2.0	88.7	3.0			100.0	3.0	50.9	0.0	2.2	100.0	3.0	3.0	2.7
CO 4			79.2	2.0	88.7	3.0			100.0	3.0	50.9	0.0	2.0	100.0	3.0	3.0	2.6
CO 5			79.2	2.0	88.7	3.0			100.0	3.0	50.9	0.0	2.0	100.0	3.0	3.0	2.6

AVERAGE	AVERAGE
3	2.668



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.76					H 2.76	H 2.76	
CO2								
CO3	H 2.68	H 2.68		H 2.68				
CO4			H 2.6	H 2.6			H 2.6	
CO5	H 2.6				H 2.6			H 2.6
AVERAGE OF COS FOR POS	2.68	2.68	2.6	2.64	2.6	2.76	2.68	2.6
AVERAGE OF POS	2.6533333	2.68	2.6	2.64	2.6	2.76	2.64	2.6
AVERAGE	2.646666667							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FOOD MICROBIOLOGY AND FOOD SAFETY (semester 5) 2019 batch

COURSE CODE: FT18501

CREDITS: 3

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
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PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1:understand the concept of food science, nutrition and dietetics

PSO2:analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3:apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

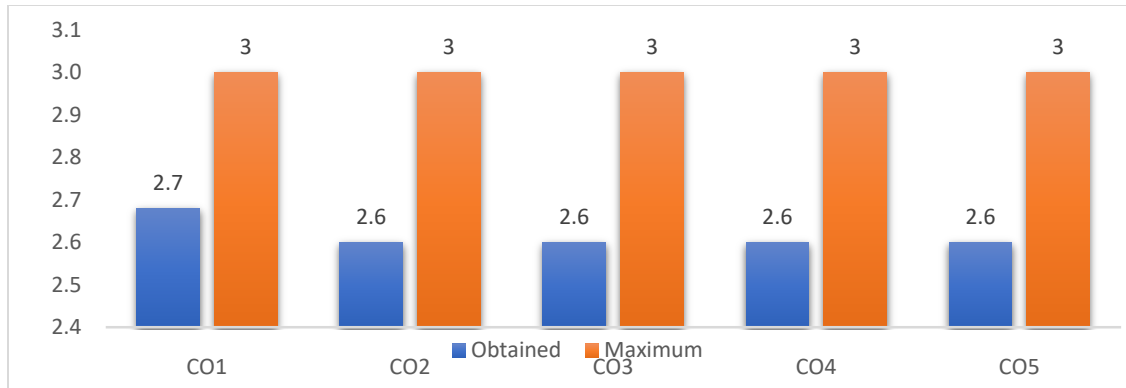
PSO4:combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Identify different microorganisms associated in food spoilage	IV(ANALYSE)
CO2	Understand the factors affecting growth of microorganisms	I(UNDERSTANDING)
CO3	Evaluate the microbial estimation in food	V(EVALUATE)
CO4	Create knowledge on various food hazards	VI(CREATE)
CO5	Analyse the recent concerns in food safety and new and emerging pathogens	IV(ANALYSE)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H			H	H			H	H	H		H
C02	H		H			H			H	H		H
C03	H	H				H		H		H	H	H
C04	H		H		H			H			H	H
C05	H		H					H	H	H		H

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise internal average	External Exam			co wise total average
	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level		pass%	Attainment level	co wise external average	
C O 1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0
C O 2	100.0	3.0			100.0	3.0			100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0
C O 3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0
C O 4			100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0
C O 5			100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0

AVERAGE	AVERAGE
3	2.616



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.68					H 2.68	H 2.68	
CO2								
CO3	H 2.6	H 2.6		H 2.6				
CO4			H 2.6	H 2.6			H 2.6	
CO5	H 2.6				H 2.6			H 2.6
AVERAGE OF COS FOR POS	2.626666667	2.6	2.6	2.6	2.6	2.68	2.64	2.6
AVERAGE OF POS	2.608889	2.6	2.6	2.6	2.6	2.68	2.62	2.6
AVERAGE	2.613611111							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: PRINCIPLES OF MARKETING (semester 5)

2019 batch

COURSE CODE: FT18502

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
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PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: Understand the concept of food science, nutrition and dietetics

PSO2: Analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3: Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

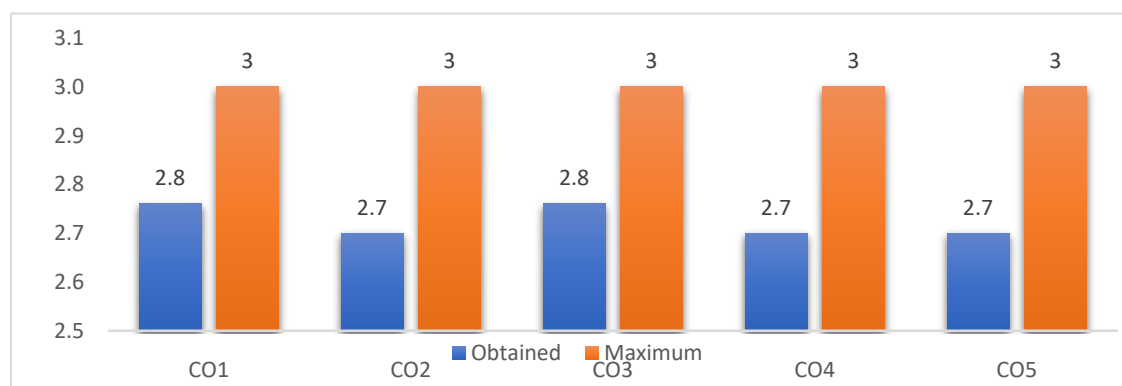
PSO4: Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Explain the concept of marketing and its importance	III(APPLY)
CO2	Evaluate the marketing process	V(EVALUATE)
CO3	Design a new product development	VI(CREATE)
CO4	Understand various channels of distribution	II(UNDERSTAND)
CO5	Identify the consumer behaviour in marketing	I(REMEMEBER)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H			H				H			H
C02												
C03			H		H			H		H		H
C04		H	H	H			H	S	H	H		H
C05	H		H			H						H

C O	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENC E		co wise inter nal aver age	External Exam			co wise tot al ave rage
	pass%	Attai nme nt level	pass %	Attai nme nt level	pass %	Attai nme nt level	pass%	Attai nme nt level	pass%	Attai nme nt level	pass%	Attai nme nt level		pas s%	Attai nme nt level	co wise ext er nal av erage	
C O 1	100.0	3.0			97.9	3.0	100.0	3.0	100.0	3.0	63.8	0.0	2.4	100.0	3.0	3.0	2.8
C O 2	100.0	3.0			97.9	3.0			100.0	3.0	63.8	0.0	2.3	100.0	3.0	3.0	2.7
C O 3	100.0	3.0	100.0	3.0	97.9	3.0			100.0	3.0	63.8	0.0	2.4	100.0	3.0	3.0	2.8
C O 4			100.0	3.0	97.9	3.0			100.0	3.0	63.8	0.0	2.3	100.0	3.0	3.0	2.7
C O 5			100.0	3.0	97.9	3.0			100.0	3.0	63.8	0.0	2.3	100.0	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.724



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.76	H 2.76			H 2.76			
CO2								
CO3			H 2.76		H 2.76			H 2.76
CO4		H 2.7	H 2.7	H 2.7			H 2.7	
CO5	H 2.7		H 2.7			H 2.7		
AVERAGE OF COS FOR POS	2.73	2.73	2.72	2.7	2.76	2.7	2.7	2.76
AVERAGE OF POS	2.715	2.715	2.72	2.7	2.76	2.7	2.7	2.76
AVERAGE	2.72125							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: TECHNOLOGY OF FRUITS AND VEGETABLES (semester 5) 2019 batch

COURSE CODE: FT18513

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
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PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: understand the concept of food science, nutrition and dietetics

PSO2:analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3:apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

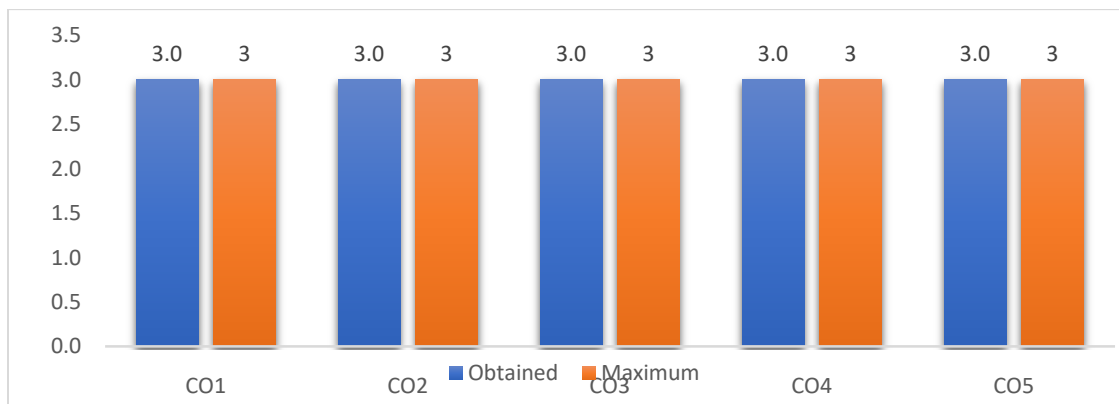
PSO4:combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Explain processing methods and role of fruits and vegetables in human diet	III (Apply)
CO2	Tell about post harvesting methods and treatments of fruits and vegetables	II(UNDERSTAND)
CO3	Explain process of canning, machinery, and storage in foods	III (Apply)
CO4	Prepare various products of fruits and vegetables	III (Apply)
CO5	Classify fruit and beverages and methods of preservation	IV(ANALYSE)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H					H	H		H			H
C02												
C03	H	H		H					H			H
C04	S		H	H			H		H	H		H
C05	H				H			H	H			H

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		co wise internal average	External Exam			co wise total average
	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level		pass%	Attainment level	co wise external average	
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0
CO2	100.0	3.0			100.0	3.0			100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0
CO3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0
CO4			100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0
CO5			100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0

AVERAGE	AVERAGE
3	3



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 3					H 3	H 3	
CO2								
CO3	H 3	H 3		H 3				
CO4			H 3	H 3			H 3	
CO5	H 3				H 3			H 3
AVERAGE OF COS FOR POS	3	3	3	3	3	3	3	3
AVERAGE OF POS	3	3	3	3	3	3	3	3
AVERAGE	3							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF

PROGRAM OUTCOMES:

**COURSE TITLE: TECHNOLOGY OF CEREALS, PULSES AND LEGUMES (semester 5)
2019 batch**

COURSE CODE: FT18515

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.
- **PO6. Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: Understand the concept of food science, nutrition and dietetics

PSO2: Analyse the relationships between various nutrients and physiological disorders and

various diet therapies

PSO3: Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

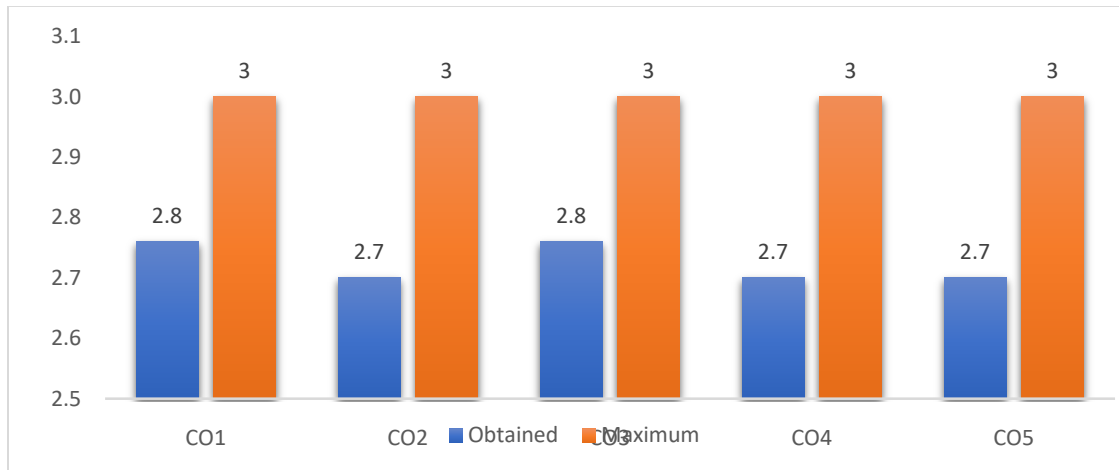
PSO4: Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	2. Explain various methods involved in rice processing	III(APPLY)
CO2	Explain various milling operations in wheat	III(APPLY)
CO3	Differentiate steps involved in wet and dry milling of corn	IV(ANALYSE)
CO4	Explain the processing of pulses, legumes and oil seeds	III(APPLY)
CO5	Explain the technology involved in various cereals, pulses and legume based products	III(APPLY)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H			H				H			H
C02												
C03			H		H			H		H		H
C04		H	H	H			H	S	H	H		H
C05	H		H			H						H

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise internal average	External Exam			co wise total average
	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass %	Attainment level		pass %	Attainment level	co wise external average	
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	0.0	0.0	2.4	100.0	3.0	3.0	2.8
CO2	100.0	3.0			100.0	3.0			100.0	3.0	0.0	0.0	2.3	100.0	3.0	3.0	2.7
CO3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	0.0	0.0	2.4	100.0	3.0	3.0	2.8
CO4			100.0	3.0	100.0	3.0			100.0	3.0	0.0	0.0	2.3	100.0	3.0	3.0	2.7
CO5			100.0	3.0	100.0	3.0			100.0	3.0	0.0	0.0	2.3	100.0	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.724



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.76	H 2.76			H 2.76			
CO2								
CO3			H 2.76		H 2.76			H 2.76
CO4		H 2.7	H 2.7	H 2.7			H 2.7	
CO5	H 2.7		H 2.7			H 2.7		
AVERAGE OF COS FOR POS	2.73	2.73	2.72	2.7	2.76	2.7	2.7	2.76
AVERAGE OF POS	2.715	2.715	2.72	2.7	2.76	2.7	2.7	2.76
AVERAGE	2.72125							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: SUGAR CONFECTIONERY (semester 5) 2019 batch

COURSE CODE: FT18504B

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.
- **PO6. Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: Understand the concept of food science, nutrition and dietetics

PSO2: Analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3: Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

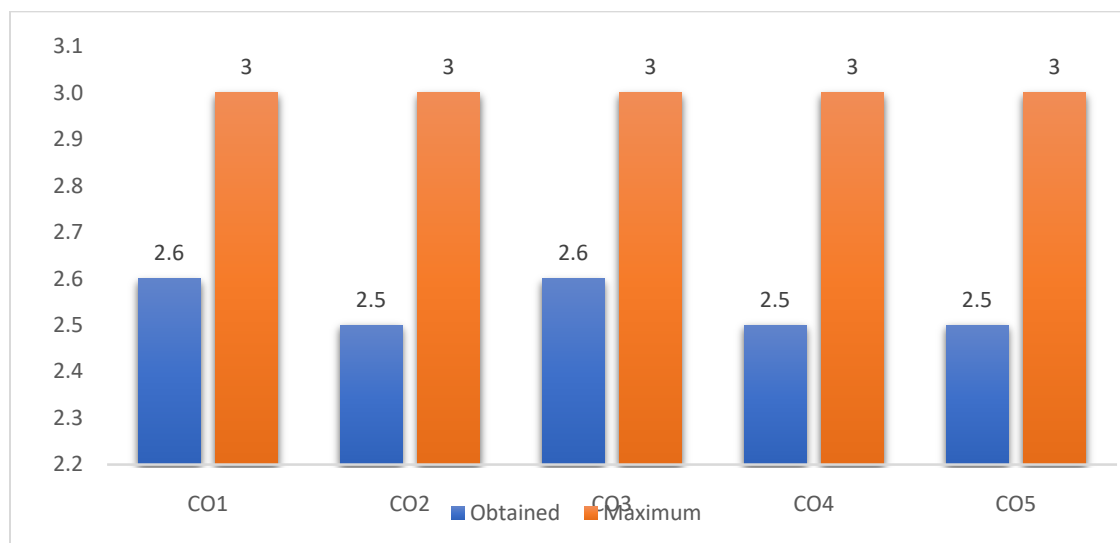
PSO4: Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Compare the different types of sugars and their properties.	V (EVALUATE)
CO2	Apply the uses of oils and fats, milk products, colour and flavors in confectionery items	III(APPLY)
CO3	To develop hard boiled sweets, toffee, caramel, fudge and cocoa chocolate.	VI(CREATE)
CO4	To provide gums and jellies, cream paste, liquorices paste and aerated confectionery.	VI(CREATE)
CO5	To produce tablets, lozenges, panned sweets, gums and cereal bars.	VI(CREATE)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H			H				H			H
C02												
C03			H		H			H		H		H
C04		H	H	H			H	S	H	H		H
C05	H		H			H						H

C O	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		co wise internal average	External Exam			
	pass%	Attain ment level	pass %	Attain ment level	pass %	Attain ment level	pass %	Attain ment level	pass%	Atta inment level	pass %	Attain ment level		pass %	Attain ment level	co wise ext er nal av er age	co wise tot al av er age
C O 1	100.0	3.0			73.9	1.0	100.0	3.0	100.0	3.0	56.5	0.0	2.0	100.0	3.0	3.0	2.6
C O 2	100.0	3.0			73.9	1.0			100.0	3.0	56.5	0.0	1.8	100.0	3.0	3.0	2.5
C O 3	100.0	3.0	100.0	3.0	73.9	1.0			100.0	3.0	56.5	0.0	2.0	100.0	3.0	3.0	2.6
C O 4			100.0	3.0	73.9	1.0			100.0	3.0	56.5	0.0	1.8	100.0	3.0	3.0	2.5
C O 5			100.0	3.0	73.9	1.0			100.0	3.0	56.5	0.0	1.8	100.0	3.0	3.0	2.5

AVERAGE	AVERAGE
3	2.54



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.6	H 2.6			H 2.6			
CO2								
CO3			H 2.6		H 2.6			H 2.6
CO4		H 2.5	H 2.5	H 2.5			H 2.5	
CO5	H 2.5		H 2.5			H 2.5		
AVERAGE OF COS FOR POS	2.55	2.55	2.533333333	2.5	2.6	2.5	2.5	2.6
AVERAGE OF POS	2.525	2.525	2.533333	2.5	2.6	2.5	2.5	2.6
AVERAGE	2.535416667							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: TECHNOLOGY OF PLANT AND ANIMAL FOODS
(SEMESTER-5) 2020
batch

COURSE CODE: FT21503B

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

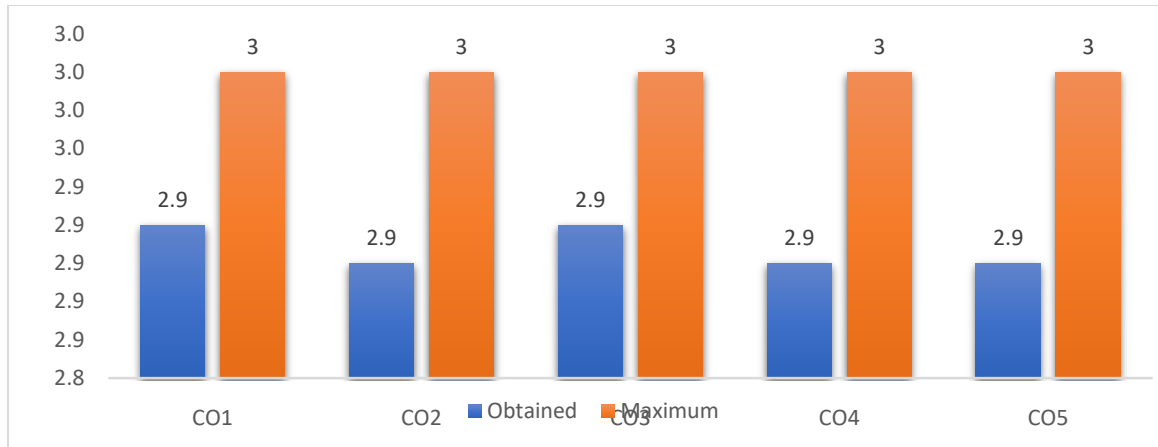
PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Prepare and analyse various fruit based products	IV(ANALYSE)
CO2	Use various technologies for production of cereal legumes and oil seeds products	I(UNDERSTAND)
CO3	Understand the processing of different spice products	I(UNDERSTAND)
CO4	Prepare various animal based products	III(APPLY)
CO5	Understand the physical and changes in meat and egg	I(UNDERSTAND)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H		H	S			S	S		S		H
C02	H		H	H			H	S		H		H
C03	H		H	H	H		H	S		H		H
C04	H		H	H	S		H	S		H		S
C05	H		H	H	S		S	H		H		H

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		External Exam				
	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	co wise internal average	pass %	Attainment level	co wise external average	co wise total average
C01	95.7	3.0			100.0	3.0	100.0	3.0	100.0	3.0	82.6	2.0	2.8	100.0	3.0	3.0	2.9
C02	95.7	3.0			100.0	3.0			100.0	3.0	82.6	2.0	2.8	100.0	3.0	3.0	2.9
C03	95.7	3.0	100.0	3.0	100.0	3.0			100.0	3.0	82.6	2.0	2.8	100.0	3.0	3.0	2.9
C04			100.0	3.0	100.0	3.0			100.0	3.0	82.6	2.0	2.8	100.0	3.0	3.0	2.9
C05			100.0	3.0	100.0	3.0			100.0	3.0	82.6	2.0	2.8	100.0	3.0	3.0	2.9

AVERAGE	AVERAGE
3	2.908



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.92		H 2.92					
CO2	H 2.9		H 2.9	H 2.9			H 2.9	
CO3	H 2.92		H 2.92	H 2.92	H 2.92		H 2.92	
CO4	H 2.9		H 2.9	H 2.9			H 2.9	
CO5	H 2.9		H 2.9	H 2.9				H 2.9
AVERAGE OF COS FOR POS	2.908		2.908	2.905	2.92		2.906666667	2.9
AVERAGE OF POS	2.9056		2.9056	2.905	2.92		2.906667	2.9
AVERAGE	2.907144444							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FOOD SAFETY,QUALITY CONTROL AND SENSORY EVALUATION
(semester 5) 2019 batch

COURSE CODE: FT18505

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering& Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3.Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
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- **PO6.Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: Understand the concept of food science, nutrition and dietetics

PSO2: Analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3: Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

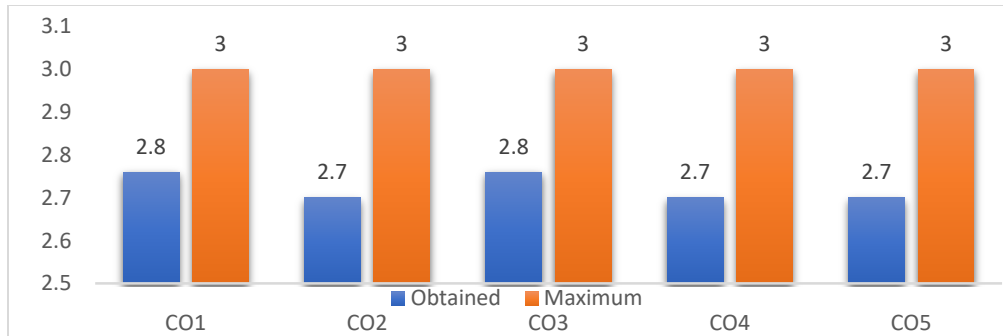
PSO4: Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	4. Create knowledge on various food hazards	VI(CREATE)
CO2	Evaluate the importance of food laws and acts	IV(EVALUATE)
CO3	Analyse quality aspects of food commodities	V(ANALYSE)
CO4	Understand the subjective and objective tests of sensory parameters	II(UNDERSTAND)
CO5	Evaluate the role of sanitation and hygiene in food industry	IV(EVALUATE)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H			H				H			H
C02												
C03			H		H			H		H		H
C04		H	H	H			H	S	H	H		H
C05	H		H			H						H

C O	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		co wise inter nal avera ge	External Exam			co wise total avera ge
	pass%	Attain ment level	pass%	Attain ment level	pass %	Attain ment level	pass %	Attain ment level	pass %	Attain ment level	pass %	Attain ment level		pass %	Attain ment level	co wise ext er nal av er age	
C O 1	97.9	3.0			95.7	3.0	100. 0	3.0	100. 0	3.0	57.4	0.0	2.4	97.9	3.0	3.0	2.8
C O 2	97.9	3.0			95.7	3.0			100. 0	3.0	57.4	0.0	2.3	97.9	3.0	3.0	2.7
C O 3	97.9	3.0	100.0	3.0	95.7	3.0			100. 0	3.0	57.4	0.0	2.4	97.9	3.0	3.0	2.8
C O 4			100.0	3.0	95.7	3.0			100. 0	3.0	57.4	0.0	2.3	97.9	3.0	3.0	2.7
C O 5			100.0	3.0	95.7	3.0			100. 0	3.0	57.4	0.0	2.3	97.9	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.724



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.76	H 2.76			H 2.76			
CO2								
CO3			H 2.76		H 2.76			H 2.76
CO4		H 2.7	H 2.7	H 2.7			H 2.7	
CO5	H 2.7		H 2.7			H 2.7		
AVERAGE OF COS FOR POS	2.73	2.73	2.72	2.7	2.76	2.7	2.7	2.76
AVERAGE OF POS	2.715	2.715	2.72	2.7	2.76	2.7	2.7	2.76
AVERAGE	2.72125							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FOOD ADDITIVES AND TOXICOLOGY (semester 2) 2021
batch

COURSE CODE: FT18202

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
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- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.
- **PO6. Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: understand the concept of food science, nutrition and dietetics

PSO2: analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3: apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

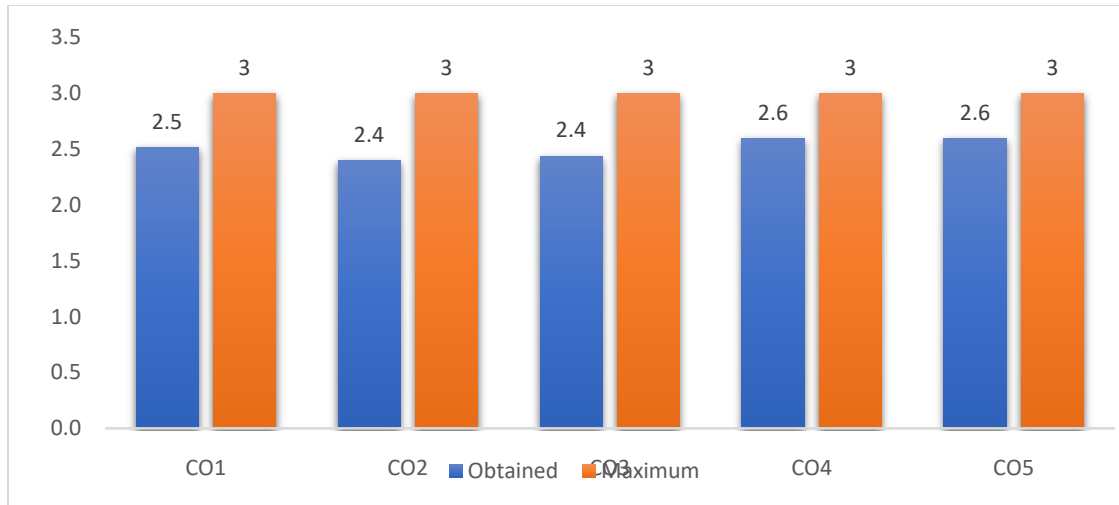
PSO4: combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Explain structure and properties of plant and animal pigments	III(APPLY)
CO2	Classify different food additives and their role in food industry	II(UNDERSTAND)
CO3	Identify the various food colours and flavours and their use in food industry	IV(ANALYSE)
CO4	To evaluate the microbial agents in the food industry	V(EVALUATE)
CO5	Apply the knowledge of role of antioxidants and sweeteners in foods	III(APPLY)

TABLE 1: CO, PO, PSO MAPPING

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H			H	H			H	H	H		H
C02	H		H			H			H	H		H
C03	H	H				H		H		H	H	H
C04	H		H		H			H			H	H
C05	H		H					H	H	H		

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise internal average	External Exam		
	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level		pass %	Attainment level	co wise external average
C01	54.3	0.0			87.0	3.0	95.7	3.0	100.0	3.0	41.3	0.0	1.8	97.8	3.0	3.0
C02	54.3	0.0			87.0	3.0			100.0	3.0	41.3	0.0	1.5	97.8	3.0	3.0
C03	54.3	0.0	76.1	2.0	87.0	3.0			100.0	3.0	41.3	0.0	1.6	97.8	3.0	3.0
C04			76.1	2.0	87.0	3.0			100.0	3.0	41.3	0.0	2.0	97.8	3.0	3.0
C05			76.1	2.0	87.0	3.0			100.0	3.0	41.3	0.0	2.0	97.8	3.0	3.0



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.52			H 2.52	H 2.52			H 2.52
CO2	H 2.4		H 2.4			H 2.4		
CO3	H 2.44	H 2.44				H 2.44		H 2.44
CO4	H 2.6		H 2.6		H 2.6			H 2.6
CO5	H 2.6		H 2.6					H 2.6
AVERAGE OF COS FOR POS	2.512	2.44	2.5333333333	2.52	2.56	2.42		2.54
AVERAGE OF POS	2.5104	2.44	2.5333333	2.52	2.58	2.42		2.545
AVERAGE	2.506961905							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FOOD SUPPLY CHAIN MANAGEMENT (semester 5) 2019 batch

COURSE CODE: FT18506

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.
- **PO6. Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: Understand the concept of food science, nutrition and dietetics

PSO2: Analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3: Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

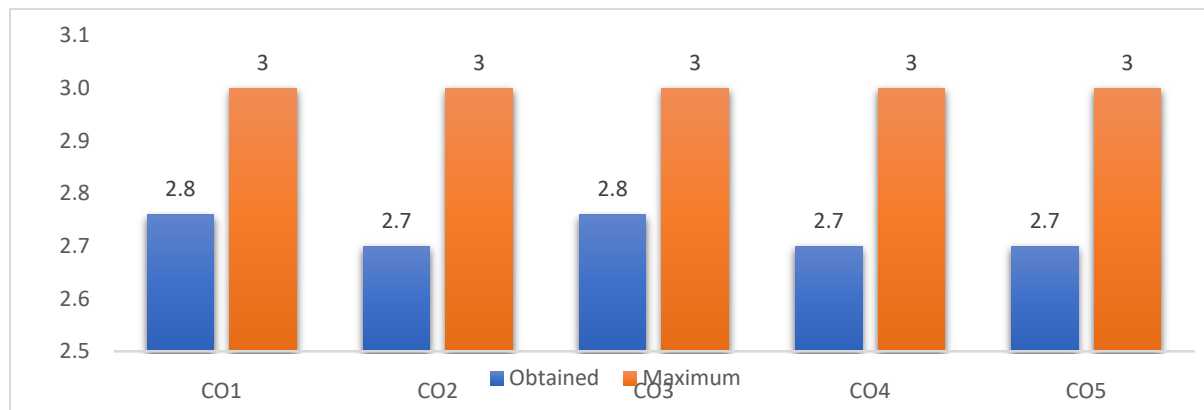
PSO4: Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	5. Explain about the objective and functions of SCM	III(APPLY)
CO2	Create knowledge on value chain and value delivery system in SCM	VI(CREATE)
CO3	Formulating the supply chain strategy	VI(CREATE)
CO4	Use the best practical's and bench marketing	VI(CREATE)
CO5	Create the logistics organization for effective supply chain management	VI(CREATE)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H			H				H			H
C02												
C03			H		H			H		H		H
C04		H	H	H			H	S	H	H		H
C05	H		H			H						H

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		External Exam				
	pass%	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	co wise internal average	pass %	Attainment level	co wise external average	co wise total average
CO 1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	59.6	0.0	2.4	100.0	3.0	3.0	2.8
CO 2	100.0	3.0			100.0	3.0			100.0	3.0	59.6	0.0	2.3	100.0	3.0	3.0	2.7
CO 3	100.0	3.0	89.4	3.0	100.0	3.0			100.0	3.0	59.6	0.0	2.4	100.0	3.0	3.0	2.8
CO 4			89.4	3.0	100.0	3.0			100.0	3.0	59.6	0.0	2.3	100.0	3.0	3.0	2.7
CO 5			89.4	3.0	100.0	3.0			100.0	3.0	59.6	0.0	2.3	100.0	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.724



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.76	H 2.76			H 2.76			
CO2								
CO3			H 2.76		H 2.76			H 2.76
CO4		H 2.7	H 2.7	H 2.7			H 2.7	
CO5	H 2.7		H 2.7			H 2.7		
AVERAGE OF COS FOR POS	2.73	2.73	2.72	2.7	2.76	2.7	2.7	2.76
AVERAGE OF POS	2.715	2.715	2.72	2.7	2.76	2.7	2.7	2.76
AVERAGE	2.72125							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FOOD ADDITIVES AND TOXICOLOGY (semester 2) 2021
batch

COURSE CODE: FT18202

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.
- **PO6. Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: understand the concept of food science, nutrition and dietetics

PSO2:analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3:apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

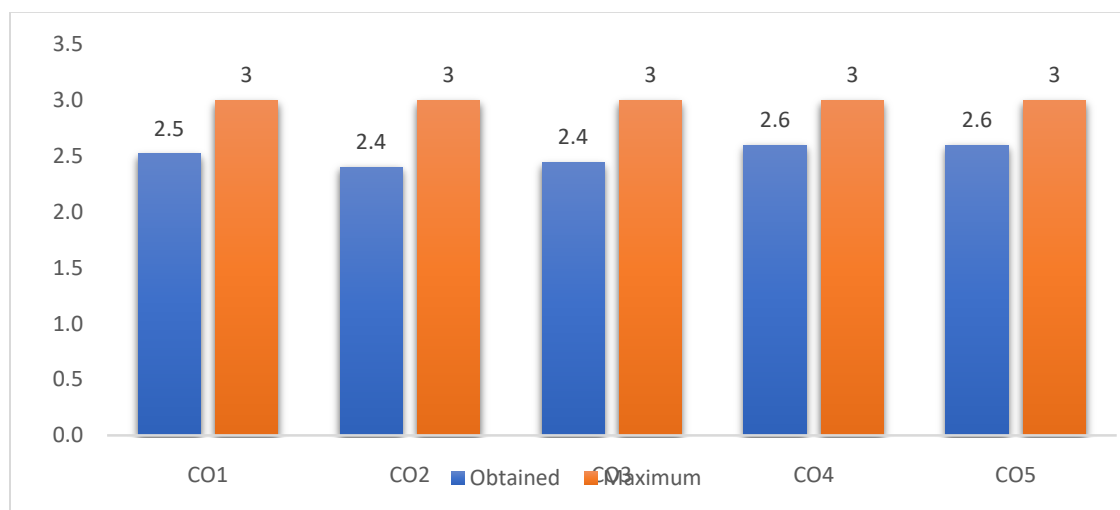
PSO4:combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Explain structure and properties of plant and animal pigments	III(APPLY)
CO2	Classify different food additives and their role in food industry	II(UNDERSTAND)
CO3	Identify the various food colours and flavours and their use in food industry	IV(ANALYSE)
CO4	To evaluate the microbial agents in the food industry	V(EVALUATE)
CO5	Apply the knowledge of role of antioxidants and sweeteners in foods	III(APPLY)

TABLE 1: CO, PO, PSO MAPPING

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H			H	H			H	H	H		H
C02	H		H			H			H	H		H
C03	H	H				H		H		H	H	H
C04	H		H		H			H			H	H
C05	H		H					H	H	H		

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		co wise internal average	External Exam		
	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level		pass %	Attainment level	co wise external average
CO1	54.3	0.0			87.0	3.0	95.7	3.0	100.0	3.0	41.3	0.0	1.8	97.8	3.0	3.0
CO2	54.3	0.0			87.0	3.0			100.0	3.0	41.3	0.0	1.5	97.8	3.0	3.0
CO3	54.3	0.0	76.1	2.0	87.0	3.0			100.0	3.0	41.3	0.0	1.6	97.8	3.0	3.0
CO4			76.1	2.0	87.0	3.0			100.0	3.0	41.3	0.0	2.0	97.8	3.0	3.0
CO5			76.1	2.0	87.0	3.0			100.0	3.0	41.3	0.0	2.0	97.8	3.0	3.0



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.52			H 2.52	H 2.52			H 2.52
CO2	H 2.4		H 2.4			H 2.4		
CO3	H 2.44	H 2.44				H 2.44		H 2.44
CO4	H 2.6		H 2.6		H 2.6			H 2.6
CO5	H 2.6		H 2.6					H 2.6
AVERAGE OF COS FOR POS	2.512	2.44	2.5333333333	2.52	2.56	2.42		2.54
AVERAGE OF POS	2.5104	2.44	2.5333333	2.52	2.58	2.42		2.545
AVERAGE	2.506961905							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF

PROGRAM OUTCOMES:

COURSE TITLE: FOOD PROCESS ENGINEERING-1 (semester 2) 2021
batch

COURSE CODE: FT18203

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.
- **PO6. Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: Understand the concept of food science, nutrition and dietetics

PSO2: Analyse the relationships between various nutrients and physiological disorders and

various diet therapies

PSO3: Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

PSO4: Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	To develop understanding the concept of viscosity and flow measuring instruments	II(UNDERSTAND)
CO2	To apply the laws of heat transfer to food processing	III(APPLY)
CO3	To compare the steady and non-steady state heat transfer	V(EVALUATE)
CO4	To identify the combine effects of heat transfer through evaporation and dehydration	IV(ANALYSE)
CO5	To analyse different types of filtrations	IV(ANALYSE)

outcome s	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PS0 1	PS0 2	PS0 3	PS0 4
C01	H	H			H				H			H
C02												
C03			H		H			H		H		H
C04		H	H	H			H	S	H	H		H
C05	H		H			H						H

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		External Exam			co wise total average	
	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	co wise internal average	pass %	Attainment level		co wise external average
CO1	80.4	2.0			84.8	2.0	100.0	3.0	100.0	3.0	54.3	0.0	2.0	84.8	2.0	2.0	2.0
CO2	80.4	2.0			84.8	2.0			100.0	3.0	54.3	0.0	1.8	84.8	2.0	2.0	1.9
CO3	80.4	2.0	91.3	3.0	84.8	2.0			100.0	3.0	54.3	0.0	2.0	84.8	2.0	2.0	2.0
CO4			91.3	3.0	84.8	2.0			100.0	3.0	54.3	0.0	2.0	84.8	2.0	2.0	2.0
CO5			91.3	3.0	84.8	2.0			100.0	3.0	54.3	0.0	2.0	84.8	2.0	2.0	2.0

AVERAGE	AVERAGE
2	1.98

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2	H 2			H 2			
CO2								
CO3			H 2		H 2			H 2
CO4		H 2	H 2	H 2			H 2	
CO5	H 2		H 2			H 2		
AVERAGE OF COS FOR POS	2	2	2	2	2	2	2	2
AVERAGE OF POS	2	2	2	2	2	2	2	2
AVERAGE	2							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: MICROBIOLOGY OF FOOD AND WATER (semester 2)
2021 batch

COURSE CODE: FT18205

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.
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- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1:understand the concept of food science, nutrition and dietetics

PSO2:analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3:apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

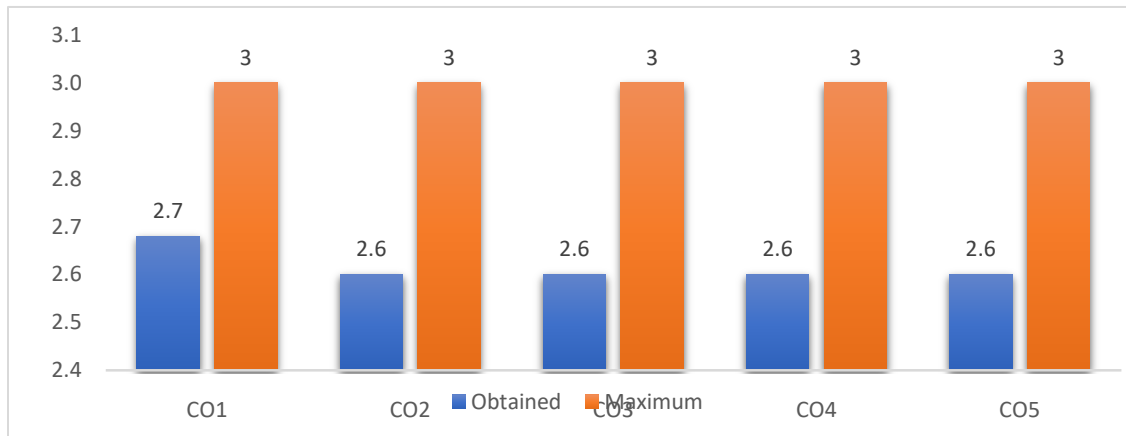
PSO4:combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Identify different microorganisms associated with foods	IV (Analyze)
CO2	Evaluate the microbial estimation in food	V (Evaluate)
CO3	Analyze microorganisms associated with various food groups	IV (Analyze)
CO4	Evaluate the various food preservation techniques	V (Evaluate)
CO5	Explain various food borne illnesses	II (Understand)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H					H	H		H			H
C02												
C03	H	H		H					H			H
C04	S		H	H			H		H	H		H
C05	H				H			H	H			H

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		co wise internal average	External Exam			co wise total average
	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level		pass %	Attainment level	co wise external average	
CO1	82.6	2.0			95.7	3.0	100.0	3.0	100.0	3.0	58.7	0.0	2.2	89.1	3.0	3.0	2.7
CO2	82.6	2.0			95.7	3.0			100.0	3.0	58.7	0.0	2.0	89.1	3.0	3.0	2.6
CO3	82.6	2.0	76.1	2.0	95.7	3.0			100.0	3.0	58.7	0.0	2.0	89.1	3.0	3.0	2.6
CO4			76.1	2.0	95.7	3.0			100.0	3.0	58.7	0.0	2.0	89.1	3.0	3.0	2.6
CO5			76.1	2.0	95.7	3.0			100.0	3.0	58.7	0.0	2.0	89.1	3.0	3.0	2.6

AVERAGE	AVERAGE
3	2.616



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.68					H 2.68	H 2.68	
CO2								
CO3	H 2.6	H 2.6		H 2.6				
CO4			H 2.6	H 2.6			H 2.6	
CO5	H 2.6				H 2.6			H 2.6
AVERAGE OF COS FOR POS	2.626666667	2.6	2.6	2.6	2.6	2.68	2.64	2.6
AVERAGE OF POS	2.608889	2.6	2.6	2.6	2.6	2.68	2.62	2.6
AVERAGE	2.613611111							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: TECHNOLOGY OF ANIMAL BASED FOODS (SEMESTER-4)
2020
batch

COURSE CODE: FT20401

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

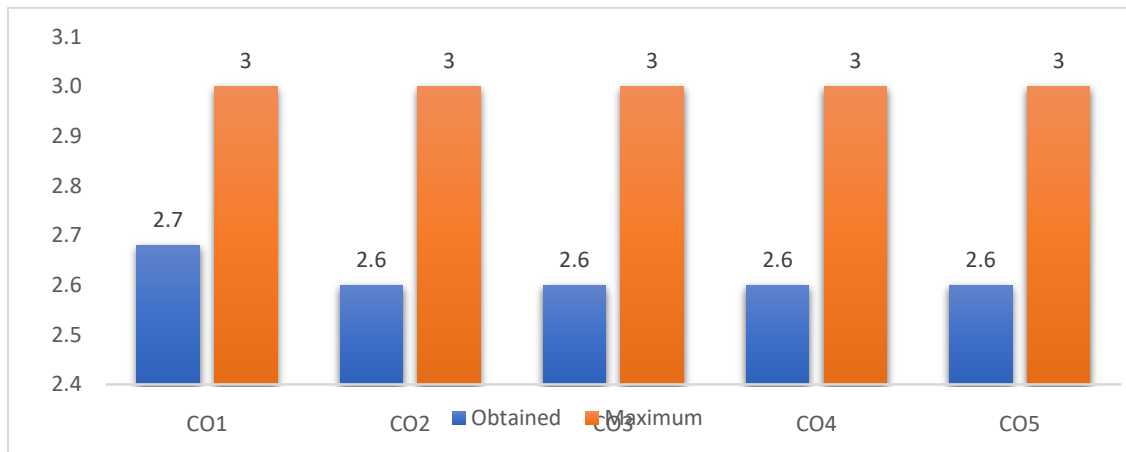
PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Conduct survey on the sources of meat and meat products in India	II (Understanding)
CO2	Differentiate the various changes in meat processing	IV(Analyzing)
CO3	Develop various preservation methods in meat	IV(Analyzing)
CO4	Understand various processing methods in meat	V(Evaluating)
CO5	Prepare fish products by different preservation methods	IV(Analyzing)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H		H	S			S	H		S		H
C02	H		H	H			H	S		H		H
C03	H		H	H	H		H	H		H		H
C04	H		H	H	S		H	H		H		S
C05	H		H	H	H		H	H		H		H

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		External Exam				
	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	co wise internal average	pass %	Attainment level	co wise external average	co wise total average
C01	82.6	2.0			95.7	3.0	100.0	3.0	100.0	3.0	58.7	0.0	2.2	89.1	3.0	3.0	2.7
C02	82.6	2.0			95.7	3.0			100.0	3.0	58.7	0.0	2.0	89.1	3.0	3.0	2.6
C03	82.6	2.0	76.1	2.0	95.7	3.0			100.0	3.0	58.7	0.0	2.0	89.1	3.0	3.0	2.6
C04			76.1	2.0	95.7	3.0			100.0	3.0	58.7	0.0	2.0	89.1	3.0	3.0	2.6
C05			76.1	2.0	95.7	3.0			100.0	3.0	58.7	0.0	2.0	89.1	3.0	3.0	2.6

AVERAGE	AVERAGE
3	2.616



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.44		H 2.44					H 2.44
CO2	H 2.3		H 2.3	H 2.3			H 2.3	
CO3	H 2.44		H 2.44	H 2.44	H 2.44		H 2.44	H 2.44
CO4	H 2.4		H 2.4	H 2.4			H 2.4	H 2.4
CO5	H 2.4		H 2.4	H 2.4	H 2.4		H 2.4	H 2.4
AVERAGE OF COS FOR POS	2.396		2.396	2.385	2.42		2.385	2.42
AVERAGE OF POS	2.3872		2.3872	2.385	2.42		2.385	2.415
AVERAGE	2.396566667							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF

PROGRAM OUTCOMES:

**COURSE TITLE: TECHNOLOGY OF OILS AND FATS (SEMESTER-4) 2020
batch**

COURSE CODE: FT18403

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

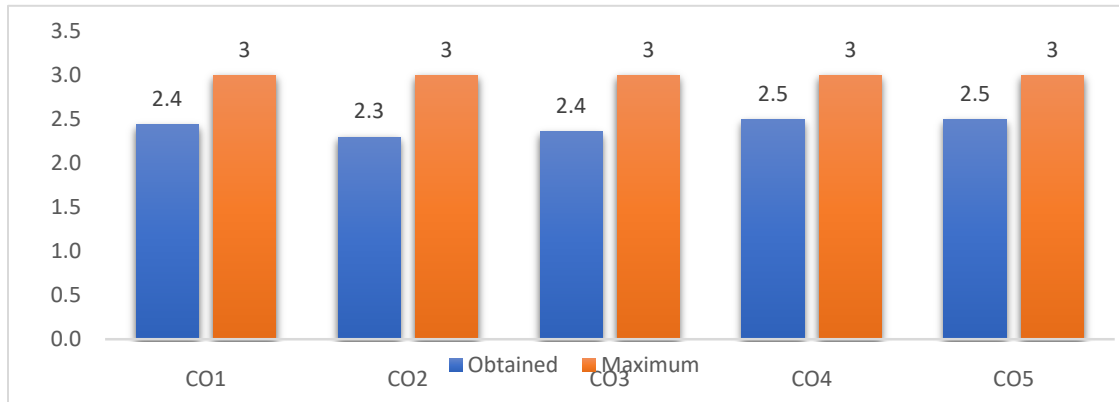
PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Explain composition and classification of fats and oils	II(Understand)
CO2	Create knowledge on various characteristics of fats	VI(Creating)
CO3	Explain the various steps involved in processing of fats	II(Understand)
CO4	Create value added products from fats	VI(Creating)
CO5	To show how to utilize the by-products from oil refining industries	II(Understand)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H	H	H					H		H	
C02	H	H	H						H		H	
C03	H	H	H						H	H	H	
C04	H	H	H						H		H	
C05	H	H							H		H	

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		External Exam				
	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	co wise internal average	pass %	Attainment level	co wise external average	co wise total average
C01	47.1	0.0			82.4	2.0	100.0	3.0	100.0	3.0	52.9	0.0	1.6	100.0	3.0	3.0	2.4
C02	47.1	0.0			82.4	2.0			100.0	3.0	52.9	0.0	1.3	100.0	3.0	3.0	2.3
C03	47.1	0.0	80.4	2.0	82.4	2.0			100.0	3.0	52.9	0.0	1.4	100.0	3.0	3.0	2.4
C04			80.4	2.0	82.4	2.0			100.0	3.0	52.9	0.0	1.8	100.0	3.0	3.0	2.5
C05			80.4	2.0	82.4	2.0			100.0	3.0	52.9	0.0	1.8	100.0	3.0	3.0	2.5

AVERAGE	AVERAGE
3	2.42



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.44	H 2.44	H 2.44	H 2.44				
CO2	H 2.3	H 2.3	H 2.3					
CO3	H 2.36	H 2.36	H 2.36					
CO4	H 2.5	H 2.5	H 2.5					
CO5	H 2.5	H 2.5						
AVERAGE OF COS FOR POS	2.42	2.42	2.4	2.44				
AVERAGE OF POS	2.416	2.416	2.39	2.44				
AVERAGE	2.4155							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF

PROGRAM OUTCOMES:

COURSE TITLE: BAKING SCIENCE AND TECHNOLOGY (SEMESTER-4)
2020
batch

COURSE CODE: FT20404

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND TECHNOLOGY

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
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- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

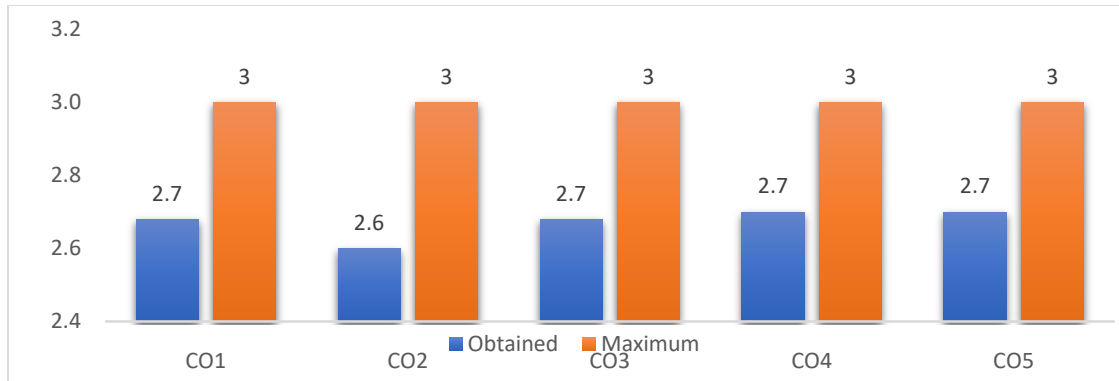
PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	To plan the ingredients used in bread making	VI (Create)
CO2	To develop bread making process	VI (Create)
CO3	To produce different types of biscuits	III(Apply)
CO4	To construct the recipe for cakes	VI (Create)
CO5	To prepare wafers, frozen dough products and flat breads	III(Apply)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01		H						H	H			
C02			H		H					H		
C03	H		H					H	H		H	
C04	H	H			H				H			
C05	H		H	H			H				H	

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		External Exam			co wise total average	
	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	co wise internal average	pass %	Attainment level		co wise external average
C01	83.0	2.0			92.5	3.0	96.2	3.0	96.2	3.0	64.2	0.0	2.2	100.0	3.0	3.0	2.7
C02	83.0	2.0			92.5	3.0			96.2	3.0	64.2	0.0	2.0	100.0	3.0	3.0	2.6
C03	83.0	2.0	90.6	3.0	92.5	3.0			96.2	3.0	64.2	0.0	2.2	100.0	3.0	3.0	2.7
C04			90.6	3.0	92.5	3.0			96.2	3.0	64.2	0.0	2.3	100.0	3.0	3.0	2.7
C05			90.6	3.0	92.5	3.0			96.2	3.0	64.2	0.0	2.3	100.0	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.672



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1		H 2.68						H 2.68
CO2			H 2.6		H 2.6			
CO3	H 2.68		H 2.68					H 2.68
CO4	H 2.7	H 2.7			H 2.7			
CO5	H 2.7		H 2.7	H 2.7			H 2.7	
AVERAGE OF COS FOR POS	2.693333333	2.69	2.66	2.7	2.65		2.7	2.68
AVERAGE OF POS	2.693333	2.695	2.66	2.7	2.65		2.7	2.68
AVERAGE	2.682619048							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FOOD PACKAGING (SEMESTER-4) 2020
batch

COURSE CODE: FT20405

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
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- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
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- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
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PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

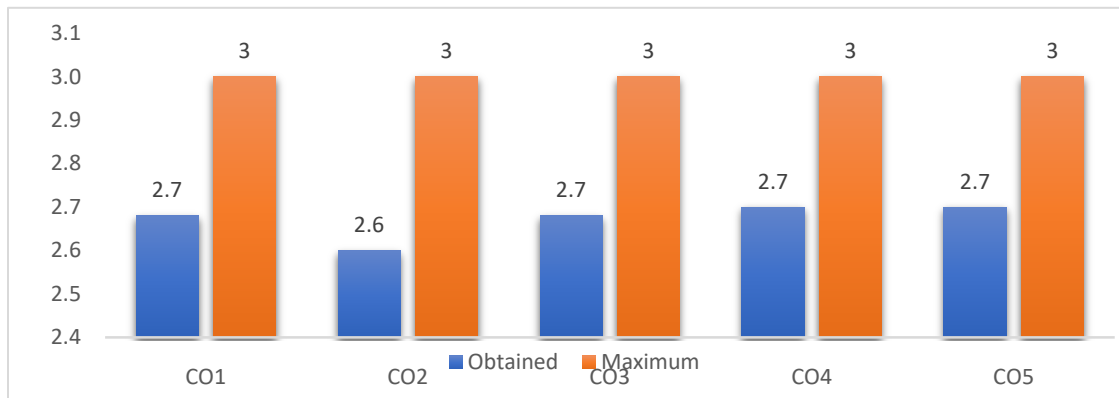
PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Identify the importance, functions and design of packaging	IV(Analyzing)
CO2	Classify the food packaging material(paper& metal)	IV(Analyzing)
CO3	Explain the packaging materials(plastic & glass) and their properties	III(Apply)
CO4	Evaluate the packaging material, package performance and packaging equipment	V(Evaluating)
CO5	Compare the recent trends in packaging	V(Evaluating)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01		H						H	H			
C02			H		H					H		
C03	H		H					H	H		H	
C04	H	H			H				H			
C05	H		H	H			H				H	

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		External Exam			co wise total average	
	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	co wise internal average	pass %	Attainment level		co wise external average
C01	78.4	2.0			92.2	3.0	96.1	3.0	96.1	3.0	37.3	0.0	2.2	100.0	3.0	3.0	2.7
C02	78.4	2.0			92.2	3.0			96.1	3.0	37.3	0.0	2.0	100.0	3.0	3.0	2.6
C03	78.4	2.0	88.2	3.0	92.2	3.0			96.1	3.0	37.3	0.0	2.2	100.0	3.0	3.0	2.7
C04			88.2	3.0	92.2	3.0			96.1	3.0	37.3	0.0	2.3	100.0	3.0	3.0	2.7
C05			88.2	3.0	92.2	3.0			96.1	3.0	37.3	0.0	2.3	100.0	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.672



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1		H 2.68						H 2.68
CO2			H 2.6		H 2.6			
CO3	H 2.68		H 2.68					H 2.68
CO4	H 2.7	H 2.7			H 2.7			
CO5	H 2.7		H 2.7	H 2.7			H 2.7	
AVERAGE OF COS FOR POS	2.693333333	2.69	2.66	2.7	2.65		2.7	2.68
AVERAGE OF POS	2.693333	2.695	2.66	2.7	2.65		2.7	2.68
AVERAGE	2.682619048							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE: FOOD PLANT SANITATION AND WASTE MANAGEMENT
(SEMESTER-4) 2020
batch**

COURSE CODE: FT18406

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

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- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
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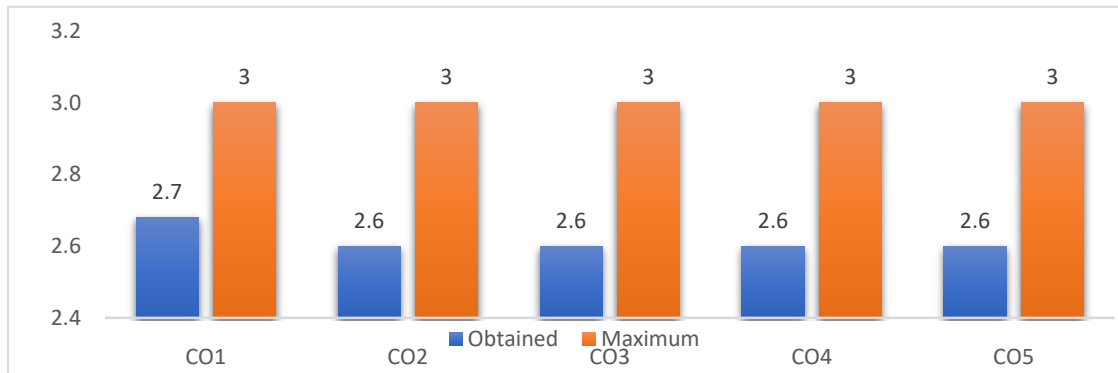
PSO4.Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Plan food plant layout and equipment design	VI(Creating)
CO2	Evaluate food plant hygiene and sanitation	V(Evaluating)
CO3	Classify the waste water treatment systems	IV (Analysing)
CO4	Differentiate the different biological treatment of waste water	IV (Analysing)
CO5	Explain the utilization of food industry wastes	III (Applying)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01		H		H			H	H	H	H		
C02		H					H		H	H		
C03		H	H				S	H	H			
C04	H	S					H		H		S	
C05							H	H	H			

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		External Exam			co wise total average	
	pass %	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass %	Attainment level	pass%	Attainment level	co wise internal average	pass %	Attainment level		co wise external average
CO1	80.4	2.0			100.0	3.0	100.0	3.0	100.0	3.0	60.8	0.0	2.2	100.0	3.0	3.0	2.7
CO2	80.4	2.0			100.0	3.0			100.0	3.0	60.8	0.0	2.0	100.0	3.0	3.0	2.6
CO3	80.4	2.0	84.3	2.0	100.0	3.0			100.0	3.0	60.8	0.0	2.0	100.0	3.0	3.0	2.6
CO4			84.3	2.0	100.0	3.0			100.0	3.0	60.8	0.0	2.0	100.0	3.0	3.0	2.6
CO5			84.3	2.0	100.0	3.0			100.0	3.0	60.8	0.0	2.0	100.0	3.0	3.0	2.6

AVERAGE	AVERAGE
3	2.616



OUTCOME	OUTCOME	OUTCOME	OUTCOME	OUTCOME	OUTCOME	OUTCOME	PO4	PO5	PO6	PO7	PO8
CO1			H 2.68				H 2.68			H 2.68	H 2.68
CO2			H 2.6							H 2.6	
CO3			H 2.6	H 2.6							H 2.6
CO4	H 2.6									H 2.6	
CO5										H 2.6	H 2.6
AVERAGE OF COS FOR POS	2.6		2.626666667	2.6			2.68			2.62	2.626666667
AVERAGE OF POS	2.6		2.608889	2.6			2.68			2.605	2.608889
AVERAGE	2.61712963										

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: EXTRUSION TECHNOLOGY (SEMESTER-6) 2019 batch

COURSE CODE: FT18601A

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

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PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

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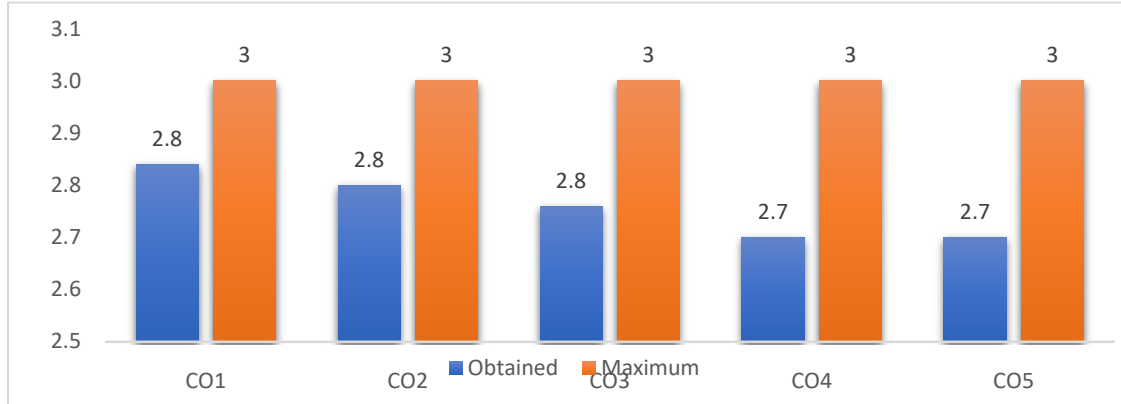
PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Compare the advantages and disadvantages of extrusion	IV(Analyzing)
CO2	Design single and double screw extruder	VI (Creating)
CO3	Differentiate the chemical and nutritional changes occur in food during extrusion	IV(Analyzing)
CO4	Make the different processing of snack foods and animal foods by using extrusion	IV(Analyzing)
CO5	Prepare the RTE cereals and texturized vegetable protein	III(Applying)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01		H		H			H	H	H	H		
C02		H					H		H	H		
C03		H	H				S	H	H			
C04	H	S					H		H		S	
C05							H	H	H			

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		External Exam				
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
C01	95.8	3.0			91.7	3.0	100.0	3.0	100.0	3.0	75.0	1.0	2.6	100.0	3.0	3.0	2.8
C02	95.8	3.0			91.7	3.0			100.0	3.0	75.0	1.0	2.5	100.0	3.0	3.0	2.8
C03	95.8	3.0	83.3	2.0	91.7	3.0			100.0	3.0	75.0	1.0	2.4	100.0	3.0	3.0	2.8
C04			83.3	2.0	91.7	3.0			100.0	3.0	75.0	1.0	2.3	100.0	3.0	3.0	2.7
C05			83.3	2.0	91.7	3.0			100.0	3.0	75.0	1.0	2.3	100.0	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.76



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1		H 2.84		H 2.84			H 2.84	H 2.84
CO2		H 2.8					H 2.8	
CO3		H 2.76	H 2.76					H 2.76
CO4	H 2.7						H 2.7	
CO5							H 2.7	H 2.7
AVERAGE OF COS FOR POS	2.7	2.8	2.76	2.84			2.76	2.76666667
AVERAGE OF POS	2.7	2.786667	2.76	2.84			2.74	2.742222
AVERAGE	2.761481481							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: TECHNOLOGY OF SPICES AND CONDIMENTS (SEMESTER-6) 2019 batch

COURSE CODE: FT2161B

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

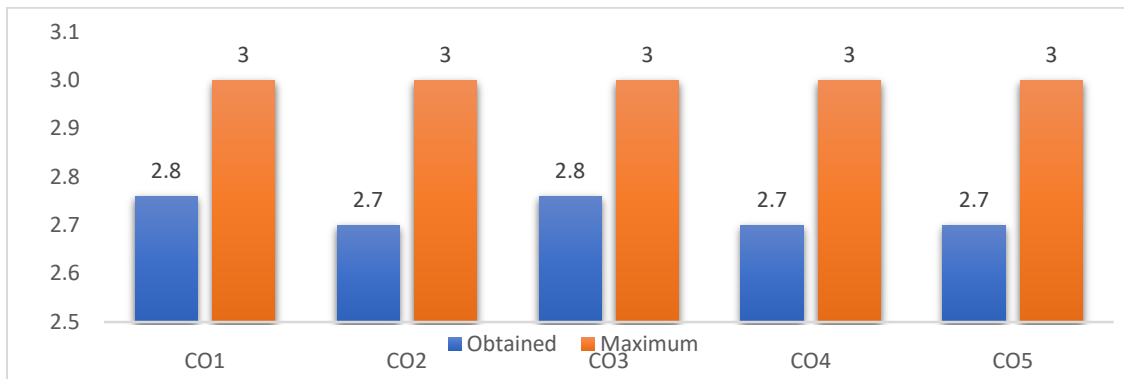
PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Differentiate spices and condiments and their importance	IV(Analyzing)
CO2	Identify various components present in spices and condiments	IV(Analyzing)
CO3	Processing of major Indian spices	VI(Creating)
CO4	Produce various spice oils	VI(Creating)
CO5	Analyse various spices and condiments and their shelf life	IV(Analyzing)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01		H		H			H	H	H	H		
C02		H					H		H	H		
C03		H	H				S	H	H			
C04	H	S					H		H		S	
C05							H	H	H			

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		co wise internal average	External Exam			co wise total average
	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level		pass %	Attainment level	co wise external average	
C01	95.5	3.0			100.0	3.0	95.5	3.0	100.0	3.0	45.5	0.0	2.4	100.0	3.0	3.0	2.8
C02	95.5	3.0			100.0	3.0			100.0	3.0	45.5	0.0	2.3	100.0	3.0	3.0	2.7
C03	95.5	3.0	86.4	3.0	100.0	3.0			100.0	3.0	45.5	0.0	2.4	100.0	3.0	3.0	2.8
C04			86.4	3.0	100.0	3.0			100.0	3.0	45.5	0.0	2.3	100.0	3.0	3.0	2.7
C05			86.4	3.0	100.0	3.0			100.0	3.0	45.5	0.0	2.3	100.0	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.724



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1		H 2.76		H 2.76			H 2.76	H 2.76
CO2		H 2.7					H 2.7	
CO3		H 2.76	H 2.76					H 2.76
CO4	H 2.7						H 2.7	
CO5							H 2.7	H 2.7
AVERAGE OF COS FOR POS	2.7	2.74	2.76	2.76			2.715	2.74
AVERAGE OF POS	2.7	2.7333333	2.76	2.76			2.70375	2.7333333
AVERAGE	2.73433							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF

PROGRAM OUTCOMES:

**COURSE TITLE: POST HARVEST TECHNOLOGY OF FEED CROPS
(SEMESTER-6) 2019
batch**

COURSE CODE: FT18604B

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

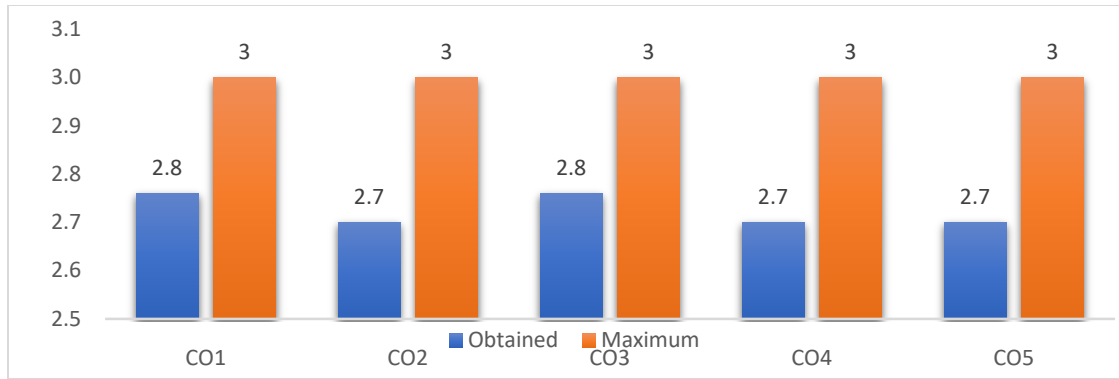
PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Apply different milling methods in cereal processing	III(Apply)
CO2	Apply different milling methods in pulses and oilseeds processing	III(Apply)
CO3	Differentiate various physical and chemical changes in fruits and vegetables	IV(Analysing)
CO4	Prepare various fruits and vegetables-based products	V(Evaluating)
CO5	Understand the by product utilization from fruit and vegetable industry	VI (Creating)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H		H		H		H			H	H	
C02		H	H		H					H	H	
C03			H		H					H	H	H
C04		H	H		H	H				H	H	
C05	H	H		H						H	H	

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		External Exam				
	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	pass%	Attainment level	pass%	Attainment level	pass %	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
C01	100.0	3.0			50.0	0.0	100.0	3.0	100.0	3.0	100.0	3.0	2.4	100.0	3.0	3.0	2.8
C02	100.0	3.0			50.0	0.0			100.0	3.0	100.0	3.0	2.3	100.0	3.0	3.0	2.7
C03	100.0	3.0	100.0	3.0	50.0	0.0			100.0	3.0	100.0	3.0	2.4	100.0	3.0	3.0	2.8
C04			100.0	3.0	50.0	0.0			100.0	3.0	100.0	3.0	2.3	100.0	3.0	3.0	2.7
C05			100.0	3.0	50.0	0.0			100.0	3.0	100.0	3.0	2.3	100.0	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.724



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 0.96		H 0.96		H 0.96		H 0.96	
CO2		H 0.9	H 0.9		H 0.9			
CO3			H 0.96		H 0.96			
CO4		H 0.9	H 0.9		H 0.9	H 0.9		
CO5	H 0.9	H 0.9		H 0.9				
AVERAGE OF COS FOR POS	0.93	0.9	0.93	0.9	0.93	0.9	0.96	
AVERAGE OF POS	0.915	0.9	0.9225	0.9	0.9225	0.9	0.96	
AVERAGE	0.917142857							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF

PROGRAM OUTCOMES:

COURSE TITLE: TECHNOLOGY OF NON FERMENTED BEVERAGES
2019 batch

(semester 6)

COURSE CODE: FT18503B

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.
- **PO6. Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: Understand the concept of food science, nutrition and dietetics

PSO2: Analyse the relationships between various nutrients and physiological disorders and

various diet therapies

PSO3: Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

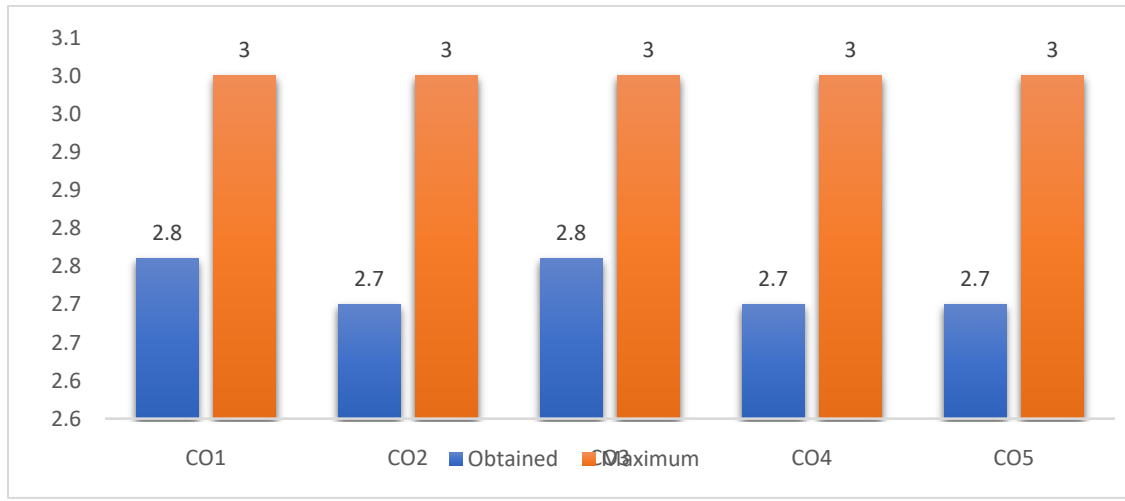
PSO4: Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	1. Explain introduction and classification of beverages	II(UNDERSTAND)
CO2	Preparation and preservation of fruit juices	V(EVALUATE)
CO3	Formulation and composition of beverages	IV(ANALYSE)
CO4	Processing of non-fermented beverages	VI(CREATE)
CO5	Explain the importance of non fermented beverages	II(UNDERSTAND)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H		H	S			S	H		S		H
C02	H		H	H			H	H		H		H
C03	H		H	H	H		H	H		H		H
C04	H		H	H	S		H	S		H		S
C05	H		H	H	H		S	H		H		H

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		co wise internal average	External Exam			co wise total average
	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level		pass %	Attainment level	co wise external average	
CO1	90.9	3.0			100.0	3.0	100.0	3.0	100.0	3.0	40.9	0.0	2.4	100.0	3.0	3.0	2.8
CO2	90.9	3.0			100.0	3.0			100.0	3.0	40.9	0.0	2.3	100.0	3.0	3.0	2.7
CO3	90.9	3.0	95.5	3.0	100.0	3.0			100.0	3.0	40.9	0.0	2.4	100.0	3.0	3.0	2.8
CO4			95.5	3.0	100.0	3.0			100.0	3.0	40.9	0.0	2.3	100.0	3.0	3.0	2.7
CO5			95.5	3.0	100.0	3.0			100.0	3.0	40.9	0.0	2.3	100.0	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.724



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.76		H 2.76					H 2.76
CO2	H 2.7		H 2.7	H 2.7			H 2.7	H 2.7
CO3	H 2.76		H 2.76	H 2.76	H 2.76		H 2.76	H 2.76
CO4	H 2.7		H 2.7	H 2.7			H 2.7	
CO5	H 2.7		H 2.7	H 2.7	H 2.7			H 2.7
AVERAGE OF COS FOR POS	2.724		2.724	2.715	2.73		2.72	2.73
AVERAGE OF POS	2.7168		2.7168	2.715	2.73		2.72	2.7225
AVERAGE	2.720183333							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FOOD BIOTECHNOLOGY (SEMESTER-6) 2019 batch

COURSE CODE: FT21504A

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

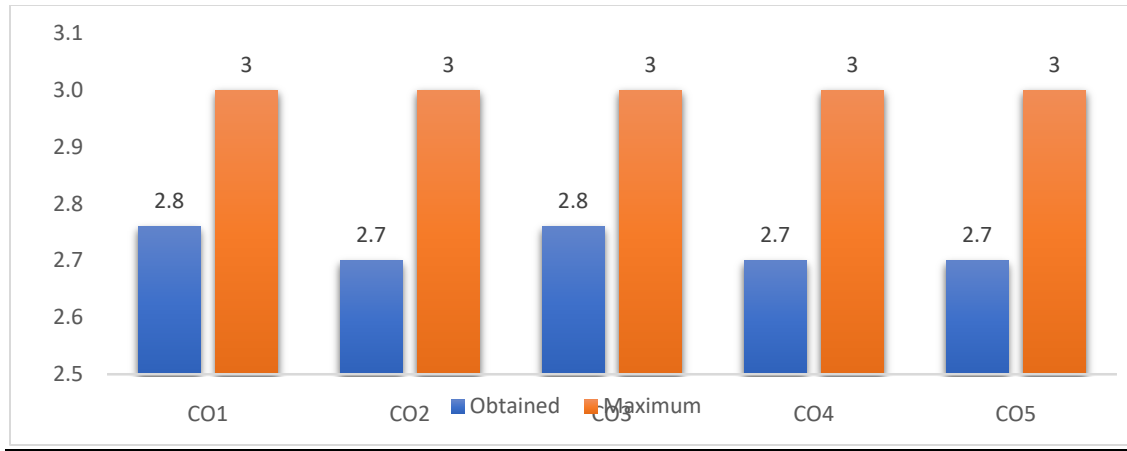
PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Apply various biotechnology methods in food industry	III(APPLY)
CO2	Analyse and evaluate various fermented food products	IV(ANALYSE)
CO3	Understand various cell culture methods	VI(UNDERTAND)
CO4	Apply different bacterial starter culture for the production of fermented foods	III(APPLY)
CO5	Understand regulatory aspects and social appraisal of biotechnology in foods	V(EVALUATE)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H		H	S			S	H		S		H
C02	H		H	H			H	H		H		H
C03	H		H	H	H		H	H		H		H
C04	H		H	H	S		H	S		H		S
C05	H		H	H	H		S	H		H		H

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		External Exam			co wise total average	
	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	co wise internal average	pass %	Attainment level		co wise external average
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0
CO2	100.0	3.0			100.0	3.0			100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0
CO3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0
CO4			100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0
CO5			100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0

AVERAGE	AVERAGE
3	3



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 3		H 3					H 3
CO2	H 3		H 3	H 3			H 3	H 3
CO3	H 3		H 3	H 3	H 3		H 3	H 3
CO4	H 3		H 3	H 3			H 3	
CO5	H 3		H 3	H 3	H 3			H 3
AVERAGE OF COS FOR POS	3		3	3	3		3	3
AVERAGE OF POS	3		3	3	3		3	3
AVERAGE	3							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FOOD PRODUCT DEVELOPEMENT (SEMESTER-6)
2019
batch

COURSE CODE: FT21602A

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
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- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in

independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

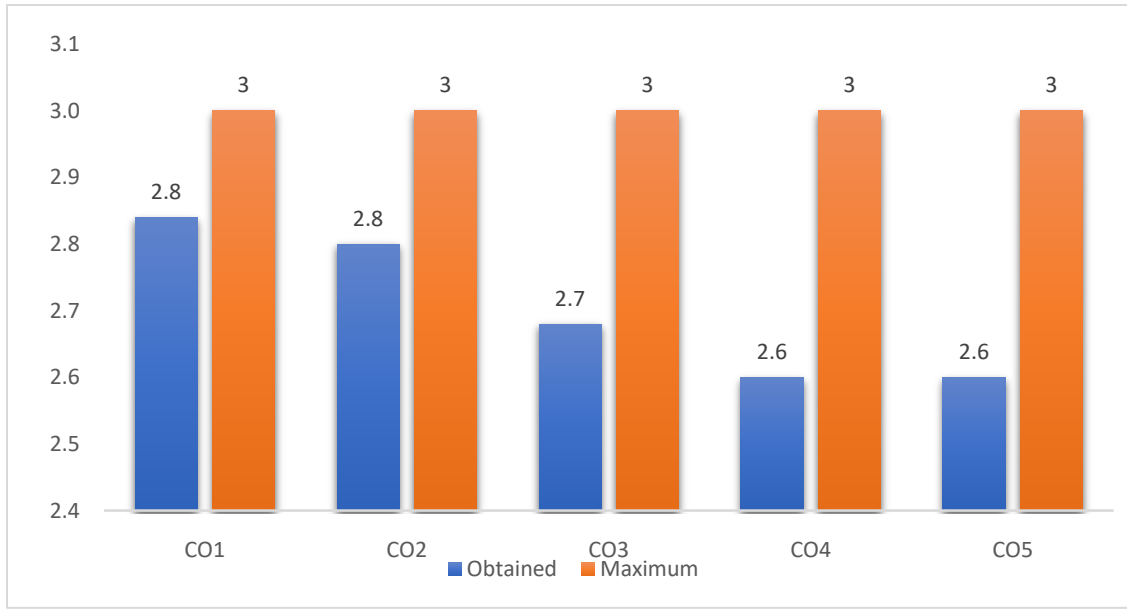
PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Explain the concept involved in food product development	II(UNDERSTAND)
CO2	Demonstrate various stages of food product development	II(UNDERSTAND)
CO3	Identify role and behaviour of consumers in food product development	IV(ANALYSE)
CO4	Explain the design and management of product development process	II(UNDERSTAND)
CO5	Create awareness on improving product success	VI(CREATE)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01		H		H			H	H	H	H		
C02		H					H		H	H		
C03		H	H				S	H	H			
C04	H	S					H		H		S	
C05							H	H	H			

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		External Exam				
	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	co wise internal average	pass %	Attainment level	co wise external average	co wise total average
C01	95.7	3.0			91.3	3.0	100.0	3.0	100.0	3.0	73.9	1.0	2.6	100.0	3.0	3.0	2.8
C02	95.7	3.0			91.3	3.0			100.0	3.0	73.9	1.0	2.5	100.0	3.0	3.0	2.8
C03	95.7	3.0	73.9	1.0	91.3	3.0			100.0	3.0	73.9	1.0	2.2	100.0	3.0	3.0	2.7
C04			73.9	1.0	91.3	3.0			100.0	3.0	73.9	1.0	2.0	100.0	3.0	3.0	2.6
C05			73.9	1.0	91.3	3.0			100.0	3.0	73.9	1.0	2.0	100.0	3.0	3.0	2.6

AVERAGE	AVERAGE
3	2.704



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.84		H 2.84					
CO2	H 2.8		H 2.8	H 2.8			H 2.8	
CO3	H 2.68		H 2.68	H 2.68	H 2.68		H 2.68	
CO4	H 2.6		H 2.6	H 2.6			H 2.6	
CO5	H 2.6		H 2.6	H 2.6				H 2.6
AVERAGE OF COS FOR POS	2.704		2.704	2.67	2.68		2.693333333	2.6
AVERAGE OF POS	2.6768		2.6768	2.67	2.68		2.693333	2.6
AVERAGE	2.666155556							

