

Programme Specifications

B.Sc. (Hons.)-Food Processing and Technology



**Programme: B.Sc. (Hons.)-Food Processing
and Technology**

Faculty of Life and Allied Health Sciences
Ramaiah University of Applied Sciences
University House, New BEL Road, MSR Nagar, Bengaluru – 560 054
www.msruas.ac.in

Programme Specifications: B.Sc. (Hons.)-Food Processing and Technology	
Faculty	Faculty of Life and Allied Health Sciences
Programme	B.Sc. (Hons.)- Food Processing and Technology
Dean of Faculty	Dr. Pushpanjali.K

1. Title of the Award

B.Sc. (Hons.)-Food Processing and Technology

2. Modes of study

Full-Time

3. Awarding Institution / Body

M.S. Ramaiah University of Applied Sciences – Bengaluru, India

4. Joint Award

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5. Teaching Institution

Faculty of Life and Allied Health Sciences

6. Date of Programme Specifications

February 2018

7. Date of Programme Approval by the Academic Council of MSRUAS

April 2018

8. Next Review Date

March 2021

9. Programme Approving Regulatory Body and Date of Approval

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10. Programme Accrediting Body and Date of Accreditation

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11. Grade Awarded by the Accreditation Body

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12. Programme Accreditation Validity

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13. Programme Benchmark

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14. Rationale for the Programme

Food Technology deals with creation and improvisation of food products. The programme on Food technology deals with food Science, food processing, food safety, food quality, food product storage, food product preservation, food product packaging and food product distribution.

B.Sc. Honours in Food Processing and Technology is an undergraduate degree programme designed to create motivated, energetic, thinking and creative graduates to fill the roles of research assistants/associates, food quality control/quality assurance officers, marketing executives, production engineers, maintenance engineers and administrators. With additional qualification and training they can seek employment as teachers, professors, scientists, professionals, independent practitioners and entrepreneurs.

Indian economy is experiencing an upward growth right from the beginning of 21st century. The average GDP growth rate is varying from 6.5 to 9%. There are 630 million people below 25 years of age or younger. Many of these youth would like to work as research assistants/associates, marketing executives, production engineers, maintenance engineers and even administrators, teachers, professors, scientists and professionals in the growing and promising areas of food technology and food processing. A large number of youth in the age group of 18 or below who aspire for university education are considering food technology and food processing programme for career prospects. RUAS, an young and progressive University with excellent teaching and learning resources and faculty base would like to offer B.Sc.(Hons.) in Food Processing and Technology as an undergraduate programme to these aspiring youngsters. The proposed B.Sc. (Hons.) programme designed will act as a foundation and first degree to prepare research assistants/associates, food quality control/quality assurance officers, marketing executives, production engineers, maintenance engineers and even administrators in Food Processing and Technology industries. With additional qualification and training the graduates can seek employment as teachers, professors, scientists, professionals and administrators to meet the challenges of growing economy as well as to meet the growing aspirations of the youth.

The B.Sc. (Hons.)- Food processing and technology programme at Faculty of Health and Life Sciences, RUAS has been developed by the members of the faculty based on interactions with various universities, research establishments and industries in India and abroad.

The curriculum is outcome based and it imbibes required theoretical concepts and practical skills in the domain. By undergoing this programme, students develop critical, analytical thinking and problem solving abilities for a smooth transition from academic to real-life work environment. Opportunities are provided for the students to do internship in organizations involved in research & development and also execute a well-defined project in a team to enhance practical skills and problem solving abilities. The students are required to submit a well written project report as partial fulfilment for the award of the degree, which will help develop skills of documenting scientific work.

In addition students are trained in communication skills and interdisciplinary topics to enhance their scope. The various new features like undergoing internship and executing a full-fledged academic project in the programme make the students more versatile generating wide range of opportunities including registering for Masters and Ph.D. programme in a chosen subject area, if one wishes to be considering teaching in a university or working for a research laboratory as a scientist. The programme embeds requisite knowledge and training for a graduate to become an entrepreneur if he/she wishes to.

The above mentioned features of the programme, advanced teaching and learning resources, and experience of the faculty members with their strong connections with industry and research organizations makes this programme unique.

15. Programme Mission

The purpose of the programme is creation of knowledgeable human resources to work in Government, Semi-Government, Private and Public sector owned Food Technology and Food Processing organisations and also to assume administration positions. With further progression in education, graduates should be able to undertake teaching and research in colleges and universities as well as in scientific organisations.

16. Graduate Attributes

1. Ability to apply fundamental knowledge of Biology, Biochemistry, Food Chemistry, Food Microbiology for developing food products and preservation.
2. Ability to develop technologies for food processing and preservation
3. Ability to develop processes for food product development
4. Ability to test food for quality, safety and nutrition
5. Ability to develop packaging for preservation and distribution
6. Ability to perform administrative duties in government, semi-government, private and public sector organizations
7. Ability to teach in schools, colleges and universities with additional qualification and training
8. Ability to understand and solve scientific problems by conducting experimental investigations
9. Ability to apply appropriate tools, techniques and understand utilization of resources appropriately in various laboratories
10. Ability to understand the effect of scientific solutions on legal, cultural, social and public health and safety aspects
11. Ability to develop sustainable solutions and understand their effect on society and environment
12. Ability to apply ethical principles to scientific practices and professional responsibilities
13. Ability to work as a member of a team, to plan and to integrate knowledge of various disciplines and to lead teams in multidisciplinary settings
14. Ability to make effective oral presentations and communicate technical ideas to a broad audience using written and oral means
15. Ability to adapt to the changes and advancements in science and engage in independent and life-long learning

17. Programme Goal

The programme acts as a foundation degree and helps to develop critical, analytical and problem solving skills at first level. The foundation degree makes the graduates employable in food technology and food processing industries and also to assume administrative positions in various types of organisations. With additional qualifications and training help the graduates to pursue a career in academics or scientific organisations as a researcher.

18. Programme Objectives

The Bachelor of Science honours degree programme in Food Processing and Technology imparts knowledge and understanding of Biology, Biochemistry, Food Chemistry, Food Microbiology, Food Science, Food processing, Food safety, Food quality, Food product storage, Food product preservation, Food product packaging and Food product distribution.

The Programme also provides sufficient understanding and cognitive abilities to design and develop technologies for food processing, preservation and packaging as per the legal and safety requirements. In addition, the programme imparts knowledge and training to develop transferable skills and entrepreneurship abilities.

The objectives of the programme are to enable the students to:

1. To impart knowledge of Biology, Food -Biochemistry, Food Chemistry and Food Microbiology
2. To impart knowledge and understanding of technology of vegetables, fruits, plantation crops, meat, poultry, dairy and sea foods, bakery and confectionery.
3. To impart abilities to design technologies for food processing and food preservation
4. To impart abilities to design and develop food packaging and distribution
5. To train students on use of various instrumentation for the evaluation of food quality and safety
6. To train students to conduct scientific experiments and document scientific investigations
7. To educate on professional ethics, economics, social sciences, inter personal and communication skills relevant to professional practice
8. To provide a general perspective on lifelong learning and opportunities for a career in industry, scientific organization, education, business and commerce

19. Intended Learning Outcomes of the Programme

The Intended Learning Outcomes (ILOs) are listed under four headings:

1. Knowledge and Understanding, 2. Cognitive Skills 3. Practical Skills and 4. Capability / Transferable Skills.

1. Knowledge and Understanding

After undergoing this programme, a student will be able to:

- KU1:** Explain with illustrations chemical, biochemical and microbiological phenomenon as applied to food processing and preservation
- KU2:** Explain various food processing, preservation and packaging technologies
- KU3:** Recognise the importance of food quality, safety and nutrition
- KU4:** Describes technologies of vegetables, fruits, cereals, millets, plantation crops, meat, poultry, dairy products, sea foods, bakery and confectionery

2. Cognitive Skills

After undergoing this programme, a student will be able to:

- CS1:** Design technologies for food processing and food preservation
- CS2:** Design and develop food packaging and distribution
- CS3:** Apply various instrumentation for the evaluation of food quality and safety
- CS4:** Conduct scientific experiments and document scientific investigations

3. Practical Skills

After undergoing this programme, a student will be able to:

- PS1:** Choose appropriate instrumentation system for testing and evaluation of food products
- PS2:** Operate machines and systems that process and package food
- PS3:** Market and Distribute Food products
- PS4:** Assess demand for new food products and economics of food products

4. Capability / Transferable Skills

After undergoing this programme, a student will be able to:

- TS1:** Manage information, develop scientific reports and make presentations
- TS2:** Build, Manage and Lead a team to successfully complete a project and Communicate across teams and organizations to achieve professional objectives
- TS3:** Work under various constraints to meet project targets
- TS4:** Adopt to the chosen profession by continuously upgrading his/her knowledge and understanding through Life-long Learning philosophy

20. Programme Delivery

As per Time Table

21. Programme Structure

SEMESTER 1

S. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	18FTC101A	Principles of Food Science	3			3	100
2	18FTC102A	Biochemistry	3			3	100
3	18FTC103A	Introduction to Food Technology-I	4			4	100
4	18FTC104A	Food Nutrition and Dietetics	3			3	100
5	18FTL105A	Biochemistry Laboratory			2	1	50
6	18FTL106A	Food Technology Laboratory-I			2	1	50
7	18FTL107A	Food Nutrition and Dietetics Laboratory			2	1	50
8	18CSN106A	Computers and Programming with C	2		2	3	100
9	18HST103A	Communication Skills-I	3			3	100
Total			18		8	22	750
Total number of contact hours per week			26 hours				
Number of credits can be registered			Minimum	17	Maximum	22	

SEMESTER 2

S. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	18FTC108A	Food Hygiene and Sanitation	3			3	100
2	18FTC109A	Food Chemistry-I	3			3	100
3	18FTC110A	Fundamentals of Food Engineering	4			4	100
4	18FTC111A	Technology of Fruits, Vegetables and Plantation Crops	4			4	100
5	18FTC112A	Mathematics and Statistics	3	1		4	100
6	18FTL113A	Food Chemistry Laboratory-I			2	1	50
7	18FTL114A	Fundamentals Food Engineering Laboratory			2	1	50
8	18FTC115A	Computer Applications	1		1	2	100
9	18HST104A	Communication Skills -II	3			3	100
Total			22	1	6	25	800
Total number of contact hours per week			29 hours				
Number of credits can be registered			Minimum	21	Maximum	25	

SEMESTER 3

S. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	18FTC201A	Food Processing	3			3	100
2	18FTC202A	Food Chemistry-II	3			3	100
3	18FTC203A	Food Microbiology	3			3	100
4	18FTC204A	Food Process Engineering-I	4			4	100
5	18FTL205A	Food Process Engineering Laboratory-I			2	1	50
6	18FTL206A	Food Processing Laboratory			2	1	50
7	18FTL207A	Food Chemistry Laboratory-II			2	1	50
8	18FTL208A	Food Microbiology Laboratory			2	1	50
9	18HST101A	Elements of Social Science and Ethics	2			2	50
10	18BTN201A	Environmental Studies	2			2	50
Total			17		8	21	700
Total number of contact hours per week			25 hours				
Number of credits can be registered			Minimum	16	Maximum	21	

SEMESTER 4

S. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1 *	18FTDSE301A Or 18FTDSE302ADSE	Industrial Microbiology Or Beverage Technology	3			3	100
2	18FTC210A	Food Laws and Standards	3			3	100
3	18FTC211A	Food Quality Testing and Evaluation	3			3	100
4	18FTC212A	Food Process Engineering-II	4			4	100
5	18FTC213A	Technology of Cereals Pulses and Oil Seeds	4			4	100
6	18FTC214A	Millet and Bakery Technology	3		2	4	100
7	18FTL215A	Food Process Engineering Laboratory-II			2	1	50
8 *	18FTDEL305A	Food Preservation & Industrial Microbiology			2	1	50
9	18FTL217A	Food Quality Testing Laboratory			2	1	50
10	18HST201A	Constitution, Human Rights and Law	2			2	50
Total			23		8	27	800
Total number of contact hours per week			31 hours				
Number of credits can be registered			Minimum	22	Maximum	27	

SEMESTER 5

S. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	18FTC209A	Introduction to Food Technology-II	4			4	100
2	18FTC302A	Food Packaging Technology	3			3	100
3	18MCC301A	Introduction to Finance, Accounting and Audit	3			3	100
4	18MCC303A	Introduction to Management and Entrepreneurship	3		2	4	100
5	18FTL303A	Entrepreneurship Development			8	4	50
6	18FTL304A	Food Packaging Technology laboratory			2	1	50
7	18FTL216A	Food Technology Laboratory -II			2	1	50
8	18MCL302A	Accounting and Auditing Laboratory			2	1	50
9	18OEE31XA	Open Elective -I	3			3	100
10	18FTL306A	Industrial Visit			8	4	50
Total			15		24	27	750
Total number of contact hours per week			39 hours				
Number of credits can be registered			Minimum		22	Maximum	27

SEMESTER 6

S. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	18FTC307A	Technology of Meat and Poultry	3			3	100
2*	18FTDSE308A or 18FTDSE309A (DSE)	Emerging Technologies in Food Processing or Introduction to Food Biotechnology	4			4	100
3	18FTC309A	Technology of Dairy and Fishery Products	4			4	100
4	18OEE32XA	Open Elective -II	3			3	100
5	18FTP310A	Project Work			24	12	100
Total			13		24	26	500
Total number of contact hours per week			37 hours				
Number of credits can be registered			Minimum	20	Maximum		26

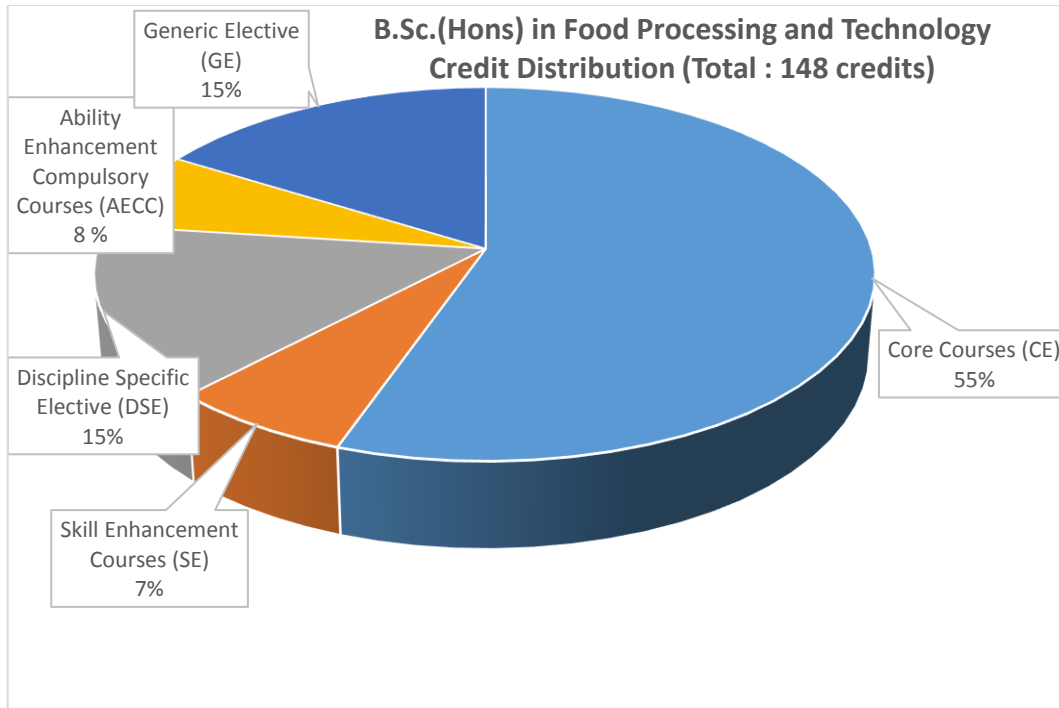
Open Elective Courses: A number of electives from faculty of Mathematical and Physical Sciences, Engineering, Management and Commerce, Art and Design, Hospitality Management and Catering Technology, Pharmacy, Dental Sciences will be announced one semester prior to the scheduled semester.

***Discipline Specific Elective (DSE):** Student shall choose any of the course and associated Laboratory as elective

Proposed Choice Based Credit System Structure for B.Sc. (Hons.)-Food Processing and Technology

B.Sc.(Hons) in Food Technology and Processing				Total Credits : 148				Programme Duration: 3 years				Credits
Core Courses (CE)	18FTC101A Principles of Food Science Credits =3	18FTC103A Introduction to Food Technology-I Credits =4	18FTC104A Food Nutrition and Dietetics Credits =3	18FTC102A Biochemistry Credits =3	18FTL105A Biochemistry Laboratory Credits =1	18FTL106A Food Technology Laboratory-I Credits =1	18FTL107A Food Nutrition and Dietetics Laboratory Credits =1	18FTC109A Food Chemistry-I Credits =3	18FTL110A Fundamentals of Food Engineering Credits =4	18FTL114A Fundamentals of Food Engineering Laboratory Credits = 1	83	
	18FTC111A Technology of Fruits, Vegetables and Plantation Crops Credits =4	18FTL113A Food Chemistry Laboratory-I Credits =1	18FTC201A Food Processing Credits =3	18FTL206A Food Processing Laboratory Credits =1	18FTC202A Food Chemistry-II Credits =3	18FTL207A Food Chemistry-Laboratory II Credits =1	18FTC203A Food Microbiology Credits =3	18FTL208A Food Microbiology Laboratory Credits =1	18FTC204A Food Process Engineering-I Credits =4	18FTL205A Food Process Engineering Laboratory-I Credits =1		
	18FTC209A Introduction to Food Technology-II Credits =4	18FTC212A Food Process Engineering-II Credits =4	18FTC213A Technology of Cereals Pulses and Oil Seeds Credits =4	18FTL215A Food Process Engineering Laboratory-II Credits =1	18FTL216A Food Technology Laboratory –II Credits =1	18FTC307A Technology of Meat and Poultry Credits =3	18FTC309A Technology of Dairy and Fishery Products Credits =4	18FTC302A Food Packaging Technology Credits =3	18FTL304A Food Packaging Technology laboratory Credits =1	18FTC214A Millets and Bakery Technology Credits =4		
	18FTC301A Industrial Microbiology/ Beverage technology Credits =3	18FTL305A Food Preservation & Industrial Microbiology Laboratory/ Beverage Technology laboratory Credits =1	18FTC211A Food Quality Testing and Evaluation Credits =3	18FTL217A Food Quality Testing Laboratory Credits =1								
Skill Enhancement Courses (SE)	18CSN106A Computers and Programming with C Credits =3	18FTC115A Computer Application Credits =2	18MCC301A Introduction to Finance, Accounting and Audit Credits =3	18MCL302A Accounting and Auditing Laboratory Credits =1							9	
Discipline Specific Courses (DSE)	18FTC108A Food Hygiene and Sanitation Credits =3	18FTC210A Food Laws and Standards Credits =3	18FTC308A Emerging Technologies in Food Processing/Introduction to Food Biotechnology Credits =4	18FTP310A Project Work Credits =12							22	

Ability Enhancement Compulsory Course (AECC)	18HST103A Communication Skills-I Credits =3	18HST104A Communication Skills –II Credits =3	18HST101A Elements of Social Science and Ethics Credits=2	18HST201A Constitution, Human Rights and Law Credits =2	18BTN201A Environmental Studies Credits =2						12
Generic Elective (GE)	18FTC112A Mathematics and Statistics Credits =4	18FTL306A Industrial Tour Credits = 4	18OEE31XA Open Elective –I Credits =3	18OEE32XA Open Elective –II Credits =3	18FTL303A Entrepreneurship Development Credits =4	18MCC303A Introduction to Management and Entrepreneurship Credits =4					22
CE: 65 credits , SE: 20 credits , DSE: 37 credits, AECC: 12 credits, GE: 14 credits (65 + 20 + 37 + 12 + 14 = 148 credits)										Total Programme Credits	148



Type of Course	Credits	%
Core Courses (CE)	83	55
Skill Enhancement Courses (SE)	9	7
Discipline Specific Elective (DSE)	22	15
Ability Enhancement Compulsory Courses (AECC)	12	8
Generic Elective (GE)	22	15
Total Credits	148	100

22. Teaching and Learning Methods

The module delivery comprises of a combination of few or all of the following:

1. Face to face lectures using audio-visuals
2. Workshops-group discussions, debates, presentations
3. Demonstrations
4. Guest lectures
5. Laboratory-work/Field work/Workshop
6. Industry visit
7. Seminars
8. Group Exercises
9. Project Work
10. Project Exhibitions
11. Technical Events

23. Assessment and Grading

1. Every course will be assessed for a weight of 100
2. There are two components- Component-1 and Component-2
3. Component-1 carries a weightage of 50% and Component -2 carries a weightage of 50%
4. Component-1(CE) is subdivided in to a Test and an Assignment, test carries 25% weight and assignment carries 25% weightage.
5. Component-2 is a written examination(SEE) carrying 50% weightage
6. Laboratory Examination will have two components:
 - Component-1(CE):Conduction of Laboratory Exercises and Submission of Report: 50% weightage
 - Component-2: SEE (Semester End Laboratory Examination): 50% weightage
7. A minimum of overall 40% is required for a pass with 40% in each of the Components
8. The marks distribution for each course is given in the programme structure- section 20
9. Other flexibilities (exceptions) are as per the Academic Regulations of B.Sc. (Hons.)-FPT programme.

24. Attendance

A minimum of 80% attendance is compulsory to appear for semester end examinations. Condoning of attendance shortage is as per the Academic Regulations of B.Sc. (Hons.)-FPT programme.

25. Award of Class

As per the Academic Regulations for B.Sc. (Hons.)-Food Processing and Technology Programme

26. Student Support for Learning

Students are given the following support:

1. Course notes
2. Reference books in the library
3. Magazines and Journals
4. Internet facility
5. Computing facility
6. Laboratory facility
7. Workshop facility
8. Staff support
9. Lounges for discussions
10. Any other support that enhances their learning

27. Quality Control Measures

Following are the Quality Control Measures:

1. Review of course notes
2. Review of question papers and assignment questions
3. Student Feedback
4. Moderation of assessed work
5. Opportunities for the students to see their assessed work
6. Review by external examiners and external examiners reports
7. Staff Student Consultative Committee meetings
8. Student exit feedback
9. Subject Assessment Board (SAB)
10. Programme Assessment Board (PAB)

28. Curriculum Map

Course Code	Intended Learning Outcomes											
	Knowledge and Understanding				Cognitive (Thinking) Skills (Critical, Analytical, Problem Solving)				Practical skills			
	KU1	KU2	KU3	KU4	CS1	CS2	CS3	CS4	PS1	PS2	PS3	PS4
18FTC101A	X	X	X									
18FTC102A	X							X				
18FTC103A			X		X							
18FTC104A			X									
18FTL105A	X		X				X	X	X			
18FTL106A	X		X				X	X	X			
18FTL107A			X					X				
18CSN106A												
18HST103A												
18FTC108A	X		X									
18FTC109A	X	X	X									
18FTC110A		X		X	X							
18FTC111A		X		X	X							
18FTC112A												
18FTL113A	X		X				X	X	X			
18FTL114A		X			X	X		X		X		
18FTC115A												
18HST104A												
18FTC201A	X		X	X								
18FTC202A	X			X								
18FTC203A	X	X	X		X							
18FTC204A		X		X	X							
18FTL205A		X		X	X			X		X		
18FTL206A		X	X	X		X	X	X		X		X
18FTL207A	X		X				X	X	X			
18FTL208A	X		X				X	X	X			
18HST101A												
18BTN201A												
18FTC209A	X	X	X	X	X							
18FTC210A			X								X	
18FTC211A	X		X				X					
18FTC212A		X		X	X							
18FTC213A		X		X	X							
18FTC214A		X	X	X	X	X						
18FTL215A		X		X	X			X		X		
18FTL216A	X	X		X	X	X		X	X	X		
18FTL217A			X				X	X	X			
18HST201A												
18FTC301A	X	X			X							
18FTC302A		X				X						
18MCC303A		X	X	X		X					X	X
18FTL303A		X	X		X	X				X	X	
18FTL304A		X				X				X		
18FTL305A	X	X		X	X			X		X		
18MCC301A												X
18MCL302A												X
18OEE31XA												
18FTL306A		X	X	X	X				X			
18FTC307A	X	X		X	X							
18FTC308A		X		X	X	X						
18FTC309A		X		X	X	X						
18OEE32XA												
18FTP310A	X	X	X	X	X	X	X	X	X	X	X	X

29. Capability / Transferable Skills Map

Course Code	Skills								
	GK	SL	WC	OC	P	B	IM	PM	L
18FTC101A		X	X		X	X			
18FTC102A		X	X		X	X			
18FTC103A		X	X		X	X			
18FTC104A		X	X		X	X			
18FTL105A		X	X	X		X			
18FTL106A		X	X	X		X			
18FTL107A		X	X	X		X			
18CSN106A		X	X			X	X		
18HST103A	X	X	X	X	X	X	X	X	
18FTC108A		X	X		X	X			
18FTC109A		X	X		X	X			
18FTC110A		X	X		X	X			
18FTC111A		X	X		X	X			
18FTC112A		X	X		X	X			
18FTL113A		X	X	X		X			
18FTL114A		X	X	X		X			
18FTC115A		X	X		X	X			
18HST104A	X	X	X	X	X	X	X	X	
18FTC201A		X	X		X	X			
18FTC202A		X	X		X	X			
18FTC203A		X	X		X	X			
18FTC204A		X	X		X	X			
18FTL205A		X	X	X		X			
18FTL206A		X	X	X		X			
18FTL207A		X	X	X		X			
18FTL208A		X	X	X		X			
18HST101A	X	X	X	X	X	X	X	X	
18BTN201A		X	X			X	X		
18FTC209A		X	X		X	X			
18FTC210A		X	X		X	X			
18FTC211A		X	X		X	X			
18FTC212A		X	X		X	X			
18FTC213A		X	X		X	X			
18FTC214A		X	X		X	X			
18FTL215A		X	X	X		X			
18FTL216A		X	X	X		X			
18FTL217A		X	X	X		X			
18HST201A	X	X	X	X	X	X	X	X	
18FTC301A		X	X		X	X			
18FTC302A		X	X		X	X			
18MCC301A	X	X	X	X		X	X		
18MCC303A	X	X	X	X		X	X		
18FTL303A	X	X	X	X	X	X	X	X	X
18FTL304A		X	X	X		X			
18FTL305A		X	X	X		X			
18MCL302A	X	X	X	X		X	X	X	
18OEE31XA		X	X			X			
18FTL306A		X	X	X		X			
18FTC307A		X	X		X	X			
18FTC308A		X	X		X	X			
18FTC309A		X	X		X	X			
18OEE32XA		X	X			X			
18FTP310A	X	X	X	X	X	X	X	X	X

GK: Group Work; SL: Self Learning; WC: Written Communication; OC: Oral Communication P: Presentation; B: Behavioural; IM: Information Management; PM: Personal Management L: Leadership

30. Co-curricular Activities

Students are encouraged to take part in co-curricular activities like seminars, conferences, symposium, paper writing, attending industry exhibitions, project competitions and related activities to enhance their knowledge and network.

31. Cultural and Literary Activities

To remind and ignite the creative endeavours annual cultural festivals held and the students are made to plan and organize the activities.

32. Sports and Athletics

Students are encouraged to develop a habit of taking part in outdoor and indoor games on regular basis.

