

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

COURSE PLAN (November 2024 – April 2025)

Department : FOOD PROCESSING AND QUALITY CONTROL

Name/s of the Faculty : Dr. J. SONYA

Course Title : BAKING TECHNOLOGY

Course Code : 23VF/VM/BT26

Shift : II

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	Understand the science of baking ingredients in improving the quality of bakery products.	K1
CO2	Learn the manufacturing techniques of bread, cakes, biscuits, cookies and pastries.	K2
CO3	Gain innovative skills in cake decoration and presentation.	K3
CO4	Acquire the ability to prepare different types of baked products.	K4
CO5	Develop their own bakery unit.	K5, K6

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Nov 18 – 25, 2024 (Day Order 1-6)	1	1.1 Bakery terms, Scope of bakery and confectionary	K1-K2	2	CO 1-3	Lecture & PPT	Chart preparation
		1.2 Organization chart of Bakery. Art of Baking	K1-K2	1	CO 1-3	Lecture & PPT	Flow chart preparation
		Practical: Basics of baking-role of flour, gluten formation in baking.	K4-K6	3	CO1-5	Demonstration	Product evaluation
Nov 26- Dec 3, 2024 (Day Order 1 to 6)	1& 2	1.3 Equipments used in Baking – Ovens, Beater	K1-K2	2	CO 1-3	Lecture & Demonstration	Scrap book making
		2.1 Flour – Types of flour used in baking, role of flour in bakery. Gluten – Properties of gluten and its function in bakery.	K1-K4	1	CO 1-5	Lecture & Demonstration	Sample preparation
		Practical: Preparation of dough, method of using the Convection oven	K4-K6	3	CO 1-5	Demonstration	Product evaluation
Dec 4-11, 2024	2	2.2 Shortening / Fat – Types of shortenings / fat	K1- K4	2	CO 1-5	Lecture & Demonstration	Video making

(Day Order 1 to 6)		<p>used in bakery. Egg – Role of egg in bakery.</p> <p>2.3 Sugar – Types of sugar, role of sugar in bakery.</p> <p>2.4 Leavening agent, Gelling agent and Stabilizers – Types their role in bakery. Practical : Role of different leavening agent on dough</p>	<p>K1- K4</p> <p>K1-K6</p>	<p>2</p> <p>3</p>	<p>CO 1-5</p> <p>CO 1-5</p>	<p>Lecture & Demonstration</p> <p>Demonstration</p>	<p>PPT presentation</p> <p>Product evaluation</p>
<p>Dec 12-19, 2024 (Day Order 1 to 6)</p>	3	<p>3.1 Bread – Types of breads, method of bread making – straight dough method, delayed salt method, no time dough method, sponge and dough method. Characteristics of good bread – External characteristics – volume, symmetry of shape, Internal characteristics – colour, texture, aroma, clarity and elasticity.</p> <p>Practical: Preparation of Breads</p>	<p>K2-K5</p> <p>K4-K6</p>	<p>3</p> <p>3</p>	<p>CO 1-5</p> <p>CO 1-5</p>	<p>Lecture & Demonstration</p> <p>Demonstration</p>	<p>Quiz</p> <p>Product evaluation</p>

Dec 20, 2024 (Day Order 1)	3	3.2 Cakes – Ingredients used in cake making, cake making method – sugar butter process, flour butter process.	K2-K5	1	CO 1-5	Lecture & Demonstration	PPT presentation
Jan 3 – 7, 2025 (Day Order 3 to 6)	3	3.2 Cakes – Ingredients used in cake making, cake making method – genoise method, blending and rubbing method.	K2-K5	3	CO 1-5	Lecture	PPT Presentation
		Practical: Preparation of cakes: sugar butter method, flour butter method, genoise method and blending and rubbing method.	K4-K6	3	CO 1-5	Demonstration	Product evaluation
Jan 8 – 17, 2024 (Day Order 1 to 6)	3	3.3 Pastry – Short crust pastry, Jam tart, Lemon curd tart. Choux pastry, chocolate eclairs, profit role cream puff. Puff pastry and flaky pastry.	K2 –K5	3	CO 1-5	Lecture	Scrap book preparation
		Practical: Preparation of Pastry	K4 – K6	3	CO 1-5	Demonstration	Product evaluation
Jan 18 - 23, 2025	C.A. Test – I						

Jan 24 -31, 2025 (Day Order 1 to 6)	4	4.1 Icings and Topping – Fondant, American frosting, butter cream iciny, royal icing, gum paste, marzipan.	K3-K5	3	CO 1-5	Lecture	PPT Presentation
		Practical: Icing and Topping. Fondant and American frosting.	K4 – K6	3	CO 1-5	Demonstration	Product evaluation
Feb 3-8, 2025 (Day Order 1 to 6)	4	4.1 Icings and Topping – marzipan, marsh mallow, lemon meringue, fudge, almond paste, glace icing.	K3-K5	3	CO 1-5	Lecture	PPT Presentation
		Practical: Icing and Topping. Marzipan, Fudge, glace icing.	K4-K6	3	CO 1-5	Demonstration	Product evaluation
Feb 10– 18, 2025 (Day Order 1 to 4)	4	4.2 Biscuits and Cookies – Plain biscuits, piping biscuits, cherry knobs, langue – de – chats, salted biscuits, nut biscuits, coconut biscuits, melting moment.	K3-K5	2	CO 1-5	Lecture	Quiz
		Practical: Preparation of Biscuits Plain biscuits, Piping biscuits, Salted biscuits.	K3-K5	3	CO 1-5	Demonstration	Product evaluation

Feb 19- 26, 2025 (Day Order 1-6)	4	4.2 Biscuits and Cookies – macaroons, chocolate biscuits, marble biscuits, nan – khatai, short bread biscuits, ginger biscuits, cheese biscuits, cream fingers.	K3-K5	4	CO 1-5	Lecture	Quiz
		Practical: Preparation of biscuits: Coconut biscuits, chocolate biscuits, marble biscuits.	K4-K6	3	CO 1-5	Demonstration	Product evaluation
Feb 27- Mar 6, 2025 (Day Order 1 to 6)	5	5.1 Bakery layout – Required liaison for setting up of a bakery – government procedure and bye – laws – selection of site, selection of equipment, layout design and electricity.	K5-K6	4	CO 1-5	Lecture	Test
		Field Visit: To bakery Unit to study layout and operating procedures	K6	6	CO 1-5	Hands on learning	Report preparation
		Practical: Preparation of cookies	K4-K6	3	CO 1-5	Demonstration	Product evaluation
Mar 7 – 11, 2025 (Day Order 1 to 3)	5	5.1 (Continued): Bakery layout – Required liaison for setting up of a bakery	K5 – K6	3	CO 1-5	Lecture & PPT	Test

		– government procedure and bye – laws – selection of site, selection of equipment, layout design and electricity. Practical: Cake decoration and fondant preparation (demo)	K4-K6	3	CO 1-5	Demonstration	Product evaluation
Mar 12 –17, 2025	C.A. Test - II						
Mar 18 – 20, 2025 (Day 4 to 6)	5	5.2 Quality control - Raw material and finished products.	K5-K6	1	CO 1-5	Lecture & PPT	
Mar 21 - 28, 2025 (Day Order 1 to 6)	5	5.2 (Continued) Quality control - Raw material and finished products. Practical: Preparation of Brownies	K5-K6 K4 – K6	3 3	CO 1-5 CO 1-5	Lecture Demonstration	
Mar 29- April 2, 2025 (Day Order 1 to 3)	REVISION						

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

COURSE PLAN (November 2024 – April 2025)

Department : B.VOC FOOD PROCESSING AND QUALITY CONTROL
Name/s of the Faculty : DR. SUBHASHREE. S
Course Title : PRINCIPLES OF FOOD PROCESSING AND PRESERVATION
Course Code : 23VF/VM/PP26
Shift : II

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	Understand the scope of food processing and preservation in reducing food spoilage.	K1
CO2	Understand and apply the different principles of food processing.	K2,K3
CO3	Select and examine appropriate methods of preprocessing and processing to improve nutritional quality of the food products	K3,K4
CO4	Apply modern techniques and develop food products with extended shelf life	K3,K6
CO5	Choose or suggest use of environmentally friendly techniques required for processing and preservation of fresh and processed foods	K5.K6

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Nov 18 – 25, 2024 (Day Order 1-6)	1	Introduction					
		1.1 Scope and Importance of Food Processing, Historical Development in Food Processing. Merits and Demerits.	K1-K2	3	CO1-C02	Lecture	Class debate
		Practicals Effect of moist heat on starches	K2-K6	3	CO1-C05	Demonstration	Practical
Nov 26- Dec 3, 2024 (Day Order 1 to 6)	1	1.2 Basic equipment used for food processing bucket elevators, pulverizes, rotary peelers, conveyers, mixers and types and applications.	K1-K3	3	CO1-CO2	Presentation	Oral revision
		Practicals Effect of dry heat on starches	K2-K6	3	CO1-C05	Learning by doing	Product evaluation
Dec 4-11, 2024 (Day Order 1 to 6)	2	Principles of Food Preservation – High and Low temperature 2.1 Effect on heat on food components – Gelatinization, Denaturation and coagulation, enzyme inactivation, water removal.	K1-K4	3	CO1-CO5	Demonstration and Lecture	Observation

		Practicals Effect of moist heat and dry heat on sugars.	K2-K6	3	CO1-C05	Demonstration	Observation
Dec 12-19, 2024 (Day Order 1 to 6)	2	2.2 Thermal methods- Sterilization, Pasteurization, Drying-Advantages, Effect of heat on Microorganisms	K1-K4	3	CO1-C05	Lecture class	Test
		Practicals Denaturation and coagulation of egg protein.	K2-K6	3	CO1-C05	Learning by doing	Practicals
Dec 20, 2024 (Day Order 1)	2	2.2 Thermal death time -concept.	K1-K4	1	CO1-C05	Lecture with PPT	Discussion
Jan 3 – 7, 2025 (Day Order 3 to 6)	2	2.3 Preservation and processing by low temperature- concept of chilling, air circulation and humidity -importance, Modified and controlled Atmosphere.	K1-K4	2	CO1-C05	Presentation	Presentation & Demonstration
		Practicals Role of eggs – Foaming, emulsifying	K2-K6	3	CO1-C05	Self-learning and student demonstration	Observation
Jan 8 – 17, 2025 (Day Order	3	Processing Techniques for different foods					
		3.1 Cereal and Millets: Milling of	K1-K6	3	CO3-C05	Lecture & Game	Presentation/

1 to 6)		cereals and millet- wheat products, Structure of gluten, effect of different methods of dough making on gluten, methods to improve nutrient availability in millets. Practicals Structure of gluten – effect of dough making methods.	K2-K6	3	CO1-C05	Practicals	Game play Observation and discussion
Jan 18 - 23, 2025	C.A. Test – I						
Jan 24 -31, 2025 (Day Order 1 to 6)	3	3.2 Pulses – Decortication and effect of fermentation on pulses, Fermented products of Soya bean – Soya sauce Practicals To study the gluten content in flours	K1-K4 K2-K6	3 3	CO2-CO4 CO1-C05	Lecture & Game Experiment	Game Play/Presentation Observation and discussion
Feb 3-8, 2025 (Day Order 1 to 6)	3	3.3 Nuts –Effect of roasting of nuts and oil seeds, processing of edible oils. 3.4 Eggs– Structure and composition, egg quality, egg processing, Application of eggs in food processing. Practicals Effect of fermentation on cereal	K1-K6 K2-K6	3 3	CO2-CO4 CO1-C05	Lecture & Game Experiment	Game Play/Presentation Observation and

		and Pulses					discussion
Feb 10– 18, 2025 (Day Order 1 to 4)	3	3.5 Meat, fish and poultry processing- Structure and Composition, poultry products, fermented meat products, fish quality and processing.	K1-K5	3	CO2-CO4	Lecture	Presentation and discussion
Feb 19- 26, 2025 (Day Order 1-6)	4	Modern Techniques for processing and preservation 4.1 Extruded food – Principle and Process- hot extrusion and cold extrusion, Advantages Practicals Effect of Roasting on nuts	K1-K3 K2-K6	3 3	CO4-CO5 CO1-C05	Lecture Experiment	Market survey and report Observation
Feb 27- Mar 6, 2025 (Day Order 1 to 6)	4	4.2 Application of extrusion for pasta products manufacture. Practicals Impact of heat in inactivation of enzymes	K1-K4 K2-K6	3 3	CO4-CO5 	Lecture Experiment	Market survey and report Observation
Mar 7 – 11, 2025 (Day Order 1 to 3)	4	4.3 Texturized Vegetable Protein, Extracted Soya bean Protein	K1-K3	1	CO4-CO5	Lecture with Videos	Class discussion

Mar 12 –17, 2025	C.A. Test - II						
Mar 18 – 20, 2025 (Day 4 to 6)	5	Methods of Preservation using radiation, antimicrobial agents 5.1 Kinds of radiation- Microwave, U.V, Solar, Ionizing- principle and their application in food processing, Safety aspects.	K1-K2	3	CO1-C05	Lecture with PPT	Test
		Practicals Effect of drying techniques.	K2-K6	3	CO1-C05	Experiment	Observation
Mar 21 - 28, 2025 (Day Order 1 to 6)	5	5.2 Use of anti-microbial agents in enhancing preservation- natural and synthetic.	K1-K5	2	CO1-C05	Lecture	Oral revision
		Revision Practicals Method to reduce antinutritional factors in millets.	K2-K6	1 3	CO1-C05	Experiment	Observation
Mar 29- April 2, 2025 (Day Order 1 to 3)	REVISION						

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

COURSE PLAN (November 2024 – April 2025)

Department : **FOOD PROCESSING AND QUALITY CONTROL**
Name/s of the Faculty : **Dr. J. SONYA & Ms. SHANTHA ASHWIN KUMAR**
Course Title : **BASIC NUTRITION**
Course Code : **23VF/VA/BN25**
Shift : **II**

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	Explain with clarity the basic concepts of Nutrition, Nutrients, Food Groups and their relationship to health and disease.	K1
CO2	Describe the role and importance of nutrients in human health.	K2
CO3	Apply the knowledge on nutrients and energy for management of nutritional deficiencies.	K3
CO4	Examine and identify the food sources of nutrients and calculate nutritional composition for food products to include in pre packed food labels.	K4
CO5	Critically evaluate a meal/product for its wholesomeness in nutrition and suggest ways to balance nutrients while formulating healthy food products.	K5

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Nov 18 – 25, 2024 (Day Order 1-6)	1	1.1 Introduction to Nutrition – Definition of Nutrition and Nutrients, interrelationship between Nutrition and Health	K1-K3	3	CO 1-5	Lecture & PPT	Game & Quiz Group discussion
		1.2 Basic food groups (4,5 &7) and use.	K1-K5	2	CO 1-5	Lecture	
Nov 26- Dec 3, 2024 (Day Order 1 to 6)	1	1.2Continued..Classification/functions of foods – Energy Yielding, Body building, Protection and Regulation, and Maintenance foods	K1-K5	2	CO 1-5	Lecture	Group discussion Quiz
		1.3 Indian food composition table (IFCT)- Use calculation of macronutrient content for meal/menu planning.	K1-K4	3	CO 1-5	Demonstration	
Dec 4-11, 2024 (Day Order 1 to 6)	1 & 2	1.4 Role of Water in Nutrition, water balance, effect of deficiency	K1- K4	2	CO 1-5	Lecture & PPT	Quiz PPT presentation
		2.1 Uptake of food in body – Digestion,				Lecture &	

		Absorption, Transport, Utilization, of Macronutrients nutrients in the body, Storage	K1- K3	3	CO 1-5	Demonstration	
Dec 12-19, 2024 (Day Order 1 to 6)	2	2.2 Energy – Unit, Sources, Energy value of food, RDA, Calculation of energy input, output and Balance, BMR and factors affecting BMR	K3-K5	3	CO 1-5	Lecture & Demonstration	Quiz
		2.3 Carbohydrates – Classification (Simple/complex, Mono/Di/Oligo/Polysaccharide).	K1-K2	2	CO 1-5	Lecture & PPT	Chart Preparation
Dec 20, 2024 (Day Order 1)	2	2.3 Carbohydrates- Sources, Functions, RDA, Storage.	K1-K2	1		Lecture & PPT	Scrap book
Jan 3 – 7, 2025 (Day Order 3 to 6)	2 & 3	2.3 Fibre, Types & Importance of Fibre	K1-K2	3	CO 1-5	Lecture	PPT Presentation
		Macronutrients – 2 3.1 Proteins – Classification (plant/animal, simple, compound /derived).	K1-K4	1	CO 1-5	Lecture	Chart Preparation

Jan 8 – 17, 2024 (Day Order 1 to 6)	3	3.1 Sources (including uncommon sources), Nutritional Importance,	K1 –K4	5	CO 1-5	Lecture	Scrap book preparation
Jan 18 - 23, 2025	C.A. Test – I						
Jan 24 -31, 2025 (Day Order 1 to 6)	3	3.1 Continued... Protein Quality, RDA cream	K1-K4	3	CO 1-5	Lecture	PPT Presentation
Feb 3-8, 2025 (Day Order 1 to 6)	3	3.2 Fats – Classification (saturated/unsaturated, trans fats, cholesterol)	K1-K3	3	CO 1-5	Lecture	PPT Presentation
		3.2 Fats- Sources, Daily Requirement.	K1-K3	2	CO 1-5	Demonstration	Quiz
Feb 10– 18, 2025 (Day Order 1 to 4)	3 & 4	3.2 Fats- Functions, RDA, digestion.	K1-K3	1	CO 1-5	Lecture	Quiz
		Micronutrients – Minerals 4.1 Sources, Functions, bio-availability of Calcium, Iron	K1-K3	3	CO 1-5	Lecture & Videos	Group Activity
Feb 19- 26, 2025 (Day Order 1-6)	4	4.1 Sources, Functions, of Iodine, Fluorine, Sodium, Potassium (elementary treatment).	K1-K3	3	CO 1-5	Lecture & PPT	Group Activity
		4.2 Effect of Deficiencies of the above minerals	K1-K4	2	CO 1-5	Lecture & Video	Case study presentation

Feb 27- Mar 6, 2025 (Day Order 1 to 6)	4 & 5	4.2 Micronutrients – Minerals Deficiency symptoms and remedial measures Vitamins 5.1 Vitamins – Classification, Sources	K1-K4 K1-K3	4 1	CO 1-5 CO 1-5	Lecture & Video Lecture	Case study presentation Quiz
Mar 7 – 11, 2025 (Day Order 1 to 3)	5	5.1 Functions of fat soluble and water soluble vitamins	K1 – K3	2	CO 1-5	Lecture & PPT	Test
Mar 12 –17, 2025	C.A. Test – II						
Mar 18 – 20, 2025 (Day 4 to 6)	5	5.1 Continued.. Functions of fat soluble and water soluble vitamins	K1-K3	3	CO 1-5	Lecture & PPT	Quiz
Mar 21 - 28, 2025 (Day Order 1 to 6)	5	5.2 Effect of deficiencies of the above vitamins and their symptoms, vitaminosis. 5.3 Effect of cooking on vitamins	K3-K5 K3 – K5	3 2	CO 1-5 CO 1-5	Lecture & PPT Lecture & video	Quiz Test
Mar 29- April 2, 2025 (Day Order 1 to 3)	REVISION						

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

COURSE PLAN (November 2024 – April 2025)

Department : FOOD PROCESSING AND QUALITY CONTROL

Name/s of the Faculty : DR. ANBU MALAR. M

Course Title : SOFT SKILLS

Course Code : 23VF/US/SS22

Shift : II

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	Understand the significance and essence of a wide range of soft skills.	K1
CO2	Learn how to apply soft skills in a wide range of routine social and professional settings	K2
CO3	Learn how to employ soft skills to improve interpersonal relationships	K3

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Nov 18 – 25, 2024 (Day Order 1-6)	1	1.1. Knowing One's Strengths and Weaknesses	K1 – K3	2	CO1 – CO3	Lecture and film	Game & Quiz
Nov 26- Dec 3, 2024 (Day Order 1 to 6)	1	1.2. Self-esteem and Self-worth	K1 – K3	2	CO1 – CO3	Lecture and film	Group discussion
Dec 4-11, 2024 (Day Order 1 to 6)	1 & 2	1.2. Self-esteem and Self-worth	K1 – K3	1	CO1 – CO3	Lecture	Games
		2.1 Listening Skills	K1 – K3	1	CO1 – CO3	Audio Playing	Listening and Quiz
Dec 12-19, 2024 (Day Order 1 to 6)	2	2.2 Interpersonal Skills	K1 – K3	1	CO1 – CO3	Lecture	Quiz
		2.3 Team Work and Group dynamics	K1 – K3	1	CO1 – CO3	Lecture	Games
Dec 20, 2024 (Day Order 1)			Nil				
Jan 3 – 7, 2025 (Day Order 3 to 6)	2	2.4 Personal Effectiveness	K1 – K3	1	CO1 – CO3	Through a film	Write up
		2.5 Creative Thinking	K1 – K3	1	CO1 – CO3	Lecture	Chart Preparation

Jan 8 – 17, 2024 (Day Order 1 to 6)	2 & 3	2.5 Creative Thinking	K1 – K3	1	CO1 – CO3	Film	Scrap book preparation
		3.1 Time Management	K1 – K3	1	CO1 – CO3	Lecture	
Jan 18 - 23, 2025	C.A. Test – I						
Jan 24 -31, 2025 (Day Order 1 to 6)	3	3.1 Time Management	K1 – K3	2	CO1 – CO3	Lecture	Group Activity
Feb 3-8, 2025 (Day Order 1 to 6)	3	3.2 Goal Setting	K1 – K3	2	CO1 – CO3	Lecture	PPT Presentation
Feb 10– 18, 2025 (Day Order 1 to 4)	4	4.1 Concept of Career	K1 – K3	2	CO1 – CO3	Lecture	Group Activity
Feb 19- 26, 2025 (Day Order 1-6)	4	4.2 Career Options	K1 – K3	2	CO1 – CO3	Guest Lecture	Group Activity
Feb 27- Mar 6, 2025 (Day Order 1 to 6)	4	4.3 Choice of Right Career	K1 – K3	1	CO1 – CO3	Lecture	Case study presentation
		5.1 Working independently	K1 – K3	1	CO1 – CO3	Guest Lecture	Group Activity
Mar 7 – 11, 2025 (Day Order 1 to 3)			Nil				
Mar 12 –17, 2025	C.A. Test - II						
Mar 18 – 20, 2025 (Day 4 to 6)	5	5.2 Working as a team	K1 – K3	1	CO1 – CO3	Lecture	Group Activity
		5.3 Multi-tasking	K1 – K3	1	CO1 – CO3	Lecture	

Mar 21 - 28, 2025 (Day Order 1 to 6)	5	5.4 Innovation	K1 – K3	1	CO1 – CO3	Lecture	Group Activity
		5.5.Adapting to Change and Criticism	K1 – K3	1	CO1 – CO3	Lecture	
Mar 29- April 2, 2025 (Day Order 1 to 3)	REVISION						