

**MRSPTU SKILL CERTIFICATE COURSE IN BAKERY AND CONFECTIONARY
SYLLABUS 2022 BATCH ONWARDS**

Total Contact Hours= 16

Total Marks= 500

Total Credits= 14

Semester I		Contact Hours			Max Marks		Total Marks	Credits
Subject Code	Subject Name	L	T	P	Int.	Ext.		
CBCFS1-101	Bakery	4	0	0	40	60	100	4
CBCFS1-102	Confectionery	4	0	0	40	60	100	4
CBCFS1-103	Bakery Lab	0	0	4	60	40	100	2
CBCFS1-104	Confectionery Lab	0	0	4	60	40	100	2
CBCFS1-105	Industrial Training (Training Project Report +Log Book & Certificate from Hotel + Viva & Presentation)	0	0	0	60	40	100	2
Total		8	0	8	260	240	500	14

The students have to complete Industrial Training (Training Project Report +Log Book & Certificate from Hotel) of **8 weeks** in a three star or above category and evaluation will be done by the institute on the basis of presentation as well as viva-voice.

Overall Marks / Credits

Semester	Marks	Credits
1 st	500	14
Total	500	14

**MRSPTU SKILL CERTIFICATE COURSE IN BAKERY AND CONFECTIONARY
SYLLABUS 2022 BATCH ONWARDS**

BAKERY				
Subject Code: CBCFS1-101	L	T	P C	Duration: 60 (Hrs.)
	4	0	0 4	
Course Objectives				
<ol style="list-style-type: none"> To impart basic knowledge of scope of bakery and confectionary, terminology used, and organization chart of bakery. To familiarize the students with different types of flours, their composition and functional properties. To analyse the role of various ingredients used in bread making and effect of processing conditions. To understand the working of various types of ovens, methods of bread making and characteristics of a good bread. 				
Course Outcomes				
<ol style="list-style-type: none"> Imparting knowledge of scope of bakery and confectionary, terminology used, and organization chart of bakery. Familiarizing students with different types of flours, their composition and functional properties. Analysing the role of various ingredients used in bread making and effect of processing conditions. Understanding the working of various types of ovens, methods of bread making and characteristics of a good bread. 				
UNIT-I (15 Hours)				
Introduction: Scope of Bakery & Confectionery, Bakery terms, Organisation chart of Bakery, Wheat and Different types of flours available, Constituents of flours, pH Value of flour, Water absorption power of flour, Gluten, diastatic capacity of flour, Grade of flour. Temperature/ Weight conversions I. unit; 171 QC /g / lb serving size				
UNIT-II (15 Hours)				
Raw material required for bread making: Role of flour, water, and yeast, salt - Sugar, milk and fats. Yeast an elementary knowledge of Baker's Yeast, the part it plays in the fermentation of dough and conditions influencing it's working. Effect of over and under fermentation and under proofing of dough and other fermented goods				
UNIT-III (15 Hours)				
Oven & Baking: Knowledge and working of various types of ovens. Baking temperatures for bread and confectionery goods. Methods of bread making: Straight dough method. delayed salt methods No time dough method. Sponge and dough methods. Characteristics of good bread: External characteristics; Volume, symmetry of shapes Internal characteristics - color, • texture, aroma, clarity and elasticity. Bread faults and their remedies.				
UNIT-IV (15 Hours)				
Bakery layout: The required approvals for setting up of a Bakery, Government procedure and Bye-laws. Selection of site, Selection of equipment, Layout design, Electricity, Quality control of raw material of finished products.				

**MRSPTU SKILL CERTIFICATE COURSE IN BAKERY AND CONFECTIONARY
SYLLABUS 2022 BATCH ONWARDS**

Recommended Text Books / Reference Books:

1. Hui, Y. H., Corke, H., De Leyn, I., Nip, W. K., & Cross, N. A. (Eds.). (2008). Bakery products: science and technology. John Wiley & Sons
2. Khetarpaul, N. (2005). Bakery science and cereal technology. Daya Books.
3. Rosentrater, K. A., & Evers, A. D. (2017). Kent's technology of cereals: An introduction for students of food science and agriculture. Woodhead Publishing.
4. Kulp, K., & Lorenz, K. (Eds.). (2003). Handbook of dough fermentations (Vol. 127). Crc Press.

CONFECTIONARY					
Subject Code: CBCFS1-102	L	T	P	C	Duration: 60 (Hrs.)
	4	0	0	4	
Course Objectives					
<ol style="list-style-type: none"> 1. To impart knowledge about different types and ingredients required for cake making. 2. To create the awareness about various methods required for cake making. 3. To understand the different types of yeast used in cake making and their role. 4. To create the awareness about working of various types of baking oven. 					
Course Outcomes					
<ol style="list-style-type: none"> 1. Imparting knowledge about different types and ingredients required for cake making. 2. Creating the awareness about various methods required for cake making. 3. Understanding the different types of yeast used in cake making and their role. 4. Creating the awareness about working of various types of baking oven. 					
UNIT-I (15 Hours)					
Ingredients used in cake making, types & varieties, flour, sugar, shortening-fats and oil, egg, moistening agent, leavening agents.					
UNIT-II (15 Hours)					
Cake making methods sugar butter process, flour butter process, genoise method, blending and rubbing method, basic pastries pastry making, principles & derivatives.					
UNIT-III (15 Hours)					
Characteristic of cakes, balancing cake formula, external characteristics internal characteristics, cake faults and remedies. chocolate identify different forms in which coco and chocolate are available. explain the process of chocolate tempering chocolate designs, garnishes and presentations.					
UNIT-IV (15 Hours)					
Preparation of cookies and biscuits. factors affecting the quality of biscuits / cookies various types ice creams and bombs, storage of confectionery product.					

**MRSPTU SKILL CERTIFICATE COURSE IN BAKERY AND CONFECTIONARY
SYLLABUS 2022 BATCH ONWARDS**

Recommended Text Books / Reference Books:

1. Junit, N. A., Nik Omar, N. N. A., Zakaria, M., & Mohamed, N. N. (2003). Suria Bakery & Confectionary.
2. Ashokkumar Y. (2019). Textbook of bakery and confectionary (Second Edition)
3. Hartel, R. W., Joachim, H., & Hofberger, R. (2018). Confectionery science and technology (Vol. 536). Berlin/Heidelberg, Germany: Springer.
4. Khetarpaul, N. (2005). Bakery science and cereal technology. Daya Books

BAKERY LAB					
Subject Code: CBCFS1-103	L	T	P	C	Duration: 60 (Hrs.)
	0	0	4	2	
Course Objectives					
<ol style="list-style-type: none">1. To familiarize the students with different equipment used in bakery industry2. To aware the students with different categories of bakery products and their possible uses.3. To aware students about functions of various ingredients used in bakery products4. To Provide knowledge about the development of various bakery products					
Course Outcomes					
<ol style="list-style-type: none">1. Familiarizing the students with different equipment used in bakery2. Aware the students with different categories of bakery products and their possible uses.3. Students will understand about functions of various ingredients used in bakery products4. Providing knowledge about the development of various bakery products					
PRACTICALS					
<ol style="list-style-type: none">1. Introduction to ingredients / equipment identification and uses of equipment —large, small and utilities.2. Ingredients: Types of flour, sugar, nuts and dry fruits, shortenings, leavening etc,3. Mixing methods: Basic steps involved in mixing ingredients, kneading, stirring, whipping, creaming etc.4. Simple yeast fermented products: Bread Sticks, bread rolls, hand and soft rolls, sour dough etc5. Flavoured breads: Basic buns, fruit buns, hot cross buns, rich yeast fermented breads brioche, Fermented doughnuts, baba au rhum, savarin6. Bread loafs: Milk bread, bread loaf, currant oaf, whole meal bread, masala bread, raisin bread7. Laminated yeast breads danish pastry croissants burger buns, pizza base.					

**MRSPTU SKILL CERTIFICATE COURSE IN BAKERY AND CONFECTIONARY
SYLLABUS 2022 BATCH ONWARDS**

CONFECTIONARY LAB			
Subject Code: CBCFS1-104	L T P C	Duration: 60 (Hrs.)	
	0 0 4 2		
Course Objectives <ol style="list-style-type: none">1. To aware Students about manufacturing of confectionary products.2. To evaluate various quality parameters of confectionary products.3. To understand the mode of working in industrial setup as an individual and as a team.4. To impart knowledge of various types of packaging materials used for confectionary.			
Course Outcomes <ol style="list-style-type: none">1. Students become aware about manufacturing of confectionary products.2. Evaluation of various quality parameters of confectionary products.3. Understanding the mode of working in industrial setup as an individual and as a team.4. Understanding of various types of packaging materials used for confectionary.			
PRACTICALS			
<ol style="list-style-type: none">1. Basic Cake Making: Plain Sponge Madeira cake, Rock cake, Fruit cake, Fatless sponge, Swiss rolls, Genoise sponge2. Preparation of Biscuits & Cookies: Plain biscuits, piping biscuits, cherry knobs, langue chats salted biscuits, nut biscuits, coconut biscuits, melting moment, macaroons, tricolour, chocolate biscuits, marble biscuits, nan-khatai, short bread biscuits, Ginger biscuits, cheese biscuits, cream fingers.3. Preparation of Basic Pastry & derivatives: short crust pastry jam tart, Lemon curd tart Apple pie, Banana flan, Fruit tartlets, Choux pastry, Chocolate eclairs, Profit role Cream puff, Puff pastry & flaky pastry, Khara Biscuits, veg patties, chicken patties Mutton patties, Cheese straws, patty case Bouchee, vol-au-vents, Mille Feuillet, Jalousie, Creams Horns Apple Strudel Filo or phyllo pastries such as baklava.4. Icings and Toppings: Fondant, american frosting, butter cream icing, royal icing, gum paste, marzipan, marshmallow, lemon meringue, fudge, almond paste, glace icing.5. Pastry & Special Cakes: Queen cakes, Easter egg, Chocolate dippings, Cheese cake, Babacum Rhum Savarin Chantilly, meringues chantilly. Madeline cake Pineapple pastry, chocolate pastry.6. Chocolate Work: Fundamentals of the science of chocolate. Established industry standards in - Tempering, moulding, modelling, enrobing, fillings. show pieces, stencils, chocolate couverture. Chocolate candies, ganache fillings, hand-dipped. candies, molded bonbons, Danish pastry and truffles, use of an enrobing machine, Clean and store chocolate candy moulds and other, Equipments used in chocolate candy making.7. Sugar Work: Chemical properties and changes in sugars at various stages of the cooking and cooling processes. Pulled, blown, Spun, Poured, caramelized sugar, Casting of sugar, Pastillage and Saltillage fondant, gum paste and royal icing Produce sugar confectioners.			