

Diploma in Baking Arts & Science

Bakery Industry Foundations- (WSQ Maintain Food & Beverage Production Environment)

An introductory module that covers the essential basic elements that will enable participants to obtain a sound understanding of process and develop of a bakery discipline and mind-set for food safety and hygiene.

- Course overview
- The Baking Industry awareness
- Food Hygiene & Safety , aspects of government requirements for food handlers
- Bakery Maths, general maths on bakery applications, Baker's Percentage, formula calculations, costing of recipes, ratio and proportion
- Baking Ingredients – Identification of ingredients used in bakery formulas

Bread Making Technology 1 - (WSQ Make Basic Breads)

- Basic bread making module covers ingredients, Baker's Percentage, process and dough development requirements, fermentation, scaling & moulding shapes, final proofing and baking requirements.
- *Sandwich breads and rolls, Straight dough methods, Sponge & dough methods*



Bread Making Technology 2 – (WSQ Make Café Style breads)

- Ingredients, Formula construction and adjustments, Baker's Percentage, process and processing parameters for Sour dough breads, wholemeal & grain breads and rolls, crusty breads and rolls , Rich sweet dough, filled buns
- *Baguette, grains, wholemeal, sourdough, sweet buns and rolls*



Bread Making Technology 3 (WSQ Bake Artisan & Decorative Breads)

- Preparation of a variety of Artisan breads, processes and styles. Ingredient selection, functionality and formula construction using Baker's Percentage. Preparation of Levain (Natural fermentation), pre fermented dough's, sour doughs, mixed grain, rye and wholemeal style breads.
- Processing and handling requirements through the changes in in formula and processes for high hydration doughs and extended fermentation.
- *Production of a variety of grain/ wholemeal bread, rolls, pre fermented ciabatta, focaccia, baguette, sour dough breads*



Cake Making Technology 1 - (WSQ Make Basic Cakes)

- Ingredients & ingredient preparation, formula construction, Baker's Percentage mixing processes, processing parameters, specific gravity of batters, baking requirements oven temperature and conditions, finishing and storage requirements.
- *Production of batter cakes, chiffon cakes cheese cakes*



Chemically Aerated Goods – (WSQ Make Muffins & Scones)

- Ingredients, ingredient preparation, formula construction, Baker's Percentage, process and processing parameters, baking conditions, finishing and storage of product.
- *Production items: Cake Muffins sweet & savoury, Scone products, sweet & savoury*



Cake Making Technology 2

- Ingredients, ingredient preparation, formula construction, Baker's Percentage, process and processing parameters, baking conditions, finishing and storage of product.
- *Production items: Sponge cakes, fruitcakes, cupcakes, brownies, assorted sliced goods*



Short Pastry Technology - (WSQ Make Tarts and Short Crust Pastry)

- Formula using Baker's Percentage, ingredient selection and functionality, mixing process, hand and machine made, processing and handling parameters, sheeting, cutting, lining, resting, and fillings suitability, baking requirements, oven temperature and conditions. Finishing and storage procedures
- *Production items: Fruit tarts, fruit pies, chocolate flans, almond tarts, savoury flans.*



Cookie Making Technology - (WSQ Make Cookies)

- Ingredient selection and functionality, Baker's Percentage, ingredient pre conditioning requirements, mixing process, processing and handling parameters, shaping and moulding, resting, baking requirements, oven temperature and conditions, cooling, finishing procedures and storage.
- *Production items: Dropped, moulded and piped cookies, shortbread, almond crescents, macaroons, chocolate chip etc.*



Choux Pastry Technology (WSQ Make Choux Pastries)

- Ingredient, formula, mixing method, batter consistency to shape and form, baking requirements, oven conditions, finishing and storage. Use of icings and glazes.
- *Production items: éclairs, cream puffs, choux petite fours*



Puff Pastry Technology – (WSQ Make Puff Pastry Products)

- Ingredients, formula, methods, Baker's percentage, processing procedures, laminating fat pre conditioning, pastry folds, use of refrigeration during processing, sheeting, cutting and shaping, preparation of suitable fillings, proofing & baking requirements, oven temperature and conditions, cooling and finishing requirements.
- *Production items; meat puffs, fruit turnovers, apple strudel etc.*



Laminated Yeast Raised Pastry Technology– (WSQ Make Yeast Raised Pastries)

- Ingredients, formula, methods, Baker's Percentage, processing procedures, laminating fat pre conditioning, pastry folds, use of refrigeration during processing, sheeting, cutting and shaping, preparation of suitable fillings, proofing & baking requirements, oven temperature and conditions, cooling and finishing requirements.
- *Production items: assorted Danish, croissant*



Sweet and Savoury Fillings – (WSQ Prepare Sweet & Savoury Filings, Sauces & Cream)

- Ingredient selection for filling types, Baker's Percentage, preparation techniques, handling techniques. Making basic roux based fillings, fruit fillings using modified starches
- Preparation of Chicken pie filling, fruit pie fillings, basic boiled custards and creams to be used in Puff pastry items, choux pastry, Danish pastries and savoury entrée items



Speciality Gateaux & Tortens (WSQ Make Advanced Cake)

- Ingredient selection to produce suitable cake and pastry bases for a range of traditional gateaux and tortens.
- Making of selected fillings and garnishes for inclusion with traditional products
- *Production items: Black forest cake, opera, mocha tortens, various gateaux, mousse based slices etc.*



Chocolates & Confectionery- (New - To Be Developed)

Desserts – (WSQ Make Hot and Cold Desserts)

- Ingredients, formula, Baker's Percentage, methods used the production of hot and cold dessert item. Process and processing parameters, handling, storage and presentation as plated or buffet items
- *Production items: crème brulee, baked soufflé, mousse and Bavarian cream slices, ice creams etc.*



Certificate in Sugar Craft

- Variety of piping mediums suitable for use: Fudge icing, royal icing, and buttercream. Basic line piping and trim for inscription and decoration.
- The design and completion of a simple special occasion cake in a style of your choice that incorporates the elements of design, proportion, balance, colour and shape using royal icing and plastic icing as the decoration mediums.
- The cake is a project work assignment done as a major presentation item of the course.



Bakery Science (New – To Be Developed)

Certificate in Bakery Management

A module designed to equip the participants with the elements necessary to act as a supervisor or bakery manager in a range of bakery operations

- Supervision skills – people, management
- Regulatory requirements into food safety and handling for food operators
- Recipe costing and calculation of selling price of items based on food cost requirements
- Designing a production bakery with equipment to suit a specific production flow
- Marketing and promotion aspects of managing a bakery outlet.

Programs designed and delivered by CTSBT – Certification awarded by CerealTech School of Baking Technology Pte Ltd

