



8339

YEAST-DOUGH PRODUCTS
(11B)

30S/30E/30M

A Baking and Pastry Arts Course

8339: YEAST-DOUGH PRODUCTS (11B)

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Course Description

This course is intended for students who are considering a career in baking and pastry arts. The emphasis is on the preparation of yeast-dough products such as breads, rolls, cinnamon buns, and pretzels.

Goal 1: Describe and apply appropriate **sanitation, health, and safety** practices as they apply to the baking and pastry arts.

GLO 1.1: Demonstrate appropriate **personal sanitation and hygiene** practices.

- SLO 11B.1.1.1: Demonstrate knowledge of proper handwashing practices.
 - SLO 11B.1.1.2: Demonstrate knowledge of correct dish and ware washing facilities and techniques, approved sanitizers, and proper utensil storage.
 - SLO 11B.1.1.3: Demonstrate the ability to adhere to the standards of dress, personal hygiene, and grooming for professional bakers.
 - SLO 11B.1.1.4: Demonstrate knowledge of proper personal hygiene practices.
 - SLO 11B.1.1.5: Demonstrate knowledge of the types and uses of sanitizing agents such as chlorine-based and quaternary solutions.
 - SLO 11B.1.1.6: Demonstrate knowledge of sanitation specifications.
 - SLO 11B.1.1.7: Demonstrate knowledge of the importance of washing tools and equipment prior to sanitation.
 - SLO 11B.1.1.8: Demonstrate knowledge of the importance of following sanitizing product instructions.
 - SLO 11B.1.1.9: Demonstrate knowledge of the importance of storing sanitized tools, equipment, and sanitizing agent.
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GLO 1.2: Demonstrate safe **food-handling** practices.

- SLO 11B.1.2.1: Demonstrate the steps to prevent cross-contamination, chemical contamination, physical contamination, and contamination by allergens.
 - SLO 11B.1.2.2: Demonstrate the ability to practise preventative measures to avoid food-borne illnesses.
 - SLO 11B.1.2.3: Demonstrate knowledge of basic food microbiology.
 - SLO 11B.1.2.4: Demonstrate knowledge of holding temperature for different products.
 - SLO 11B.1.2.5: Demonstrate knowledge of cooling procedures.
 - SLO 11B.1.2.6: Demonstrate knowledge of holding time.
 - SLO 11B.1.2.7: Demonstrate the ability to prepare product for holding.
 - SLO 11B.1.2.8: Demonstrate safe food-handling practices for yeast-dough products.
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GLO 1.3: Create and maintain a **safe work environment**.

- SLO 11B.1.3.1: Demonstrate the safe use and care of bakery utensils and equipment.
- SLO 11B.1.3.2: Demonstrate knowledge of the importance of emergency planning procedures.
- SLO 11B.1.3.3: Demonstrate knowledge of how the Workers Compensation Act relates to the profession of baker.
- SLO 11B.1.3.4: Demonstrate knowledge of proper fire extinguishing operations.
- SLO 11B.1.3.5: Demonstrate knowledge of the role of Workplace Safety and Health and the procedures to follow in case of an incident (e.g., slips and falls, improper lifting, etc.).
- SLO 11B.1.3.6: Demonstrate knowledge of the Workplace Hazardous Materials Information System (WHMIS) and safety regulations.
- SLO 11B.1.3.7: Demonstrate the ability to access WHMIS information.
- SLO 11B.1.3.8: Demonstrate knowledge of regulations and safety programs such as Good Manufacturing Practices (GMP) and Hazard Analysis and Critical Control Points (HACCP), and the product recall process.
- SLO 11B.1.3.9: Demonstrate the ability to inform customers of health risks.
- SLO 11B.1.3.10: Demonstrate the ability to identify and report potential hazards.
- SLO 11B.1.3.11: Demonstrate the ability to identify and report problems related to rodents and other pests.

- SLO 11B.1.3.12: Demonstrate knowledge of PPE such as goggles, rubber gloves, shoes, oven mitts, and pads.
- SLO 11B.1.3.13: Demonstrate knowledge of safety equipment such as fire extinguishers, first aid kits, and eyewash stations.
- SLO 11B.1.3.14: Demonstrate the ability to locate PPE and safety equipment.
- SLO 11B.1.3.15: Demonstrate the ability to identify worn, defective, and expired PPE and safety equipment.
- SLO 11B.1.3.16: Demonstrate the ability to adjust PPE for individual use.

Goal 2: Demonstrate the safe and appropriate **operation, cleaning, maintenance, and storage of baking equipment and utensils.**

GLO 2.1: Demonstrate the safe and appropriate **operation of baking equipment and utensils.**

- SLO 11B.2.1.1: Demonstrate knowledge of the types of pans and trays such as four-strap, sheet, Pullman, and basket.
- SLO 11B.2.1.2: Demonstrate the ability to select non-mechanized equipment for a specific task.
- SLO 11B.2.1.3: Demonstrate knowledge of the types of mechanized equipment.
- SLO 11B.2.1.4: Demonstrate the ability to select equipment for specific tasks such as mixing, baking, and packaging.
- SLO 11B.2.1.5: Demonstrate the ability to assemble and disassemble equipment such as mixers and depositors.
- SLO 11B.2.1.6: Demonstrate knowledge of the types of measuring devices such as scoops and measuring cups.
- SLO 11B.2.1.7: Demonstrate knowledge of temperature measuring devices such as thermometers and water meters.
- SLO 11B.2.1.8: Demonstrate the ability to select measuring devices for a task.
- SLO 11B.2.1.9: Demonstrate the ability to set measuring devices.
- SLO 11B.2.1.10: Demonstrate the ability to verify the accuracy of measuring devices.
- SLO 11B.2.1.11: Demonstrate the ability to use a balance scale.
- SLO 11B.2.1.12: Demonstrate knowledge of the composition of pans such as aluminum, steel, silicone, and plastic.
- SLO 11B.2.1.13: Demonstrate knowledge of pan shapes such as ring, spring form, and Bundt.
- SLO 11B.2.1.14: Demonstrate knowledge of linings such as silicone, paper, and muffin cups.

- SLO 11B.2.1.15: Demonstrate the ability to identify the pan and coating to be used.
- SLO 11B.2.1.16: Demonstrate the ability to monitor cooler and freezer temperatures.
- SLO 11B.2.1.17: Demonstrate knowledge of the purpose of types of pans.
- SLO 11B.2.1.18: Demonstrate knowledge of proofers/retarders.
- SLO 11B.2.1.19: Demonstrate the ability to set proofers for temperature and humidity.
- SLO 11B.2.1.20: Demonstrate the ability to pre-set oven temperature.
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GLO 2.2: Demonstrate the safe and appropriate **cleaning, maintenance, and storage of baking equipment and utensils.**

- SLO 11B.2.2.1: Demonstrate the safe and appropriate cleaning, maintenance, and storage of the equipment and utensils used in the production of yeast-dough products.
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Goal 3: Demonstrate an understanding of **bakery ingredients, components, recipes/formulations, and products, as well as their nutritional qualities.**

GLO 3.1: Demonstrate an understanding of **bakery ingredients**, and how their characteristics are used to design **formulations** and prepare bakery products.

- SLO 11B.3.1.1: Demonstrate knowledge of the temperature of flour.
- SLO 11B.3.1.2: Demonstrate knowledge of the effect of room temperature on dough temperature.
- SLO 11B.3.1.3: Demonstrate knowledge of ingredients and their effects.
- SLO 11B.3.1.4: Demonstrate knowledge of mixing time for proper gluten development.
- SLO 11B.3.1.5: Demonstrate knowledge of fermentation.
- SLO 11B.3.1.6: Demonstrate knowledge of gluten development.
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GLO 3.2: Demonstrate an understanding of **recipes/formulations** used in baking.

- SLO 11B.3.2.1: Demonstrate the ability to assemble ingredients according to formulation.
- SLO 11B.3.2.2: Demonstrate knowledge of desired portion of dough.
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GLO 3.3: Demonstrate an understanding of the characteristics of **bakery components and products.**

No applicable SLOs.

GLO 3.4: Demonstrate an understanding of **nutrition.**

SLO 11B.3.4.1: Demonstrate an awareness of health and nutritional information as it relates to yeast-dough products.

Goal 4: Demonstrate the appropriate **receiving, handling, quality assurance, packaging, storage, and inventory control** of baking ingredients and baked products.

GLO 4.1: Demonstrate the appropriate **receiving, handling, quality assurance, packaging, storage, and inventory control** of baking ingredients and baked products.

SLO 11B.4.1.1: Demonstrate the appropriate receiving, handling, quality assurance, packaging, storage, and inventory control of yeast-dough products.

Goal 5: Demonstrate the appropriate **preparation (mise en place), mixing, make-up, baking, finishing (or decorating), and presentation** of baking ingredients and products.

GLO 5.1: Demonstrate the appropriate **preparation (mise en place), mixing, and make-up** of baking ingredients and products.

SLO 11B.5.1.1: Demonstrate the ability to perform the window test.

SLO 11B.5.1.2: Demonstrate knowledge of the effect of rest time on the final product.

SLO 11B.5.1.3: Demonstrate knowledge of rest periods such as bench time and intermediate proof.

SLO 11B.5.1.4: Demonstrate the ability to monitor dough temperature.

SLO 11B.5.1.5: Demonstrate the ability to test dough by sight and feel.

SLO 11B.5.1.6: Demonstrate the ability to care for dough by using methods such as dusting and covering.

SLO 11B.5.1.7: Demonstrate the ability to expel gas using methods such as punching down the dough.

SLO 11B.5.1.8: Demonstrate the ability to round dough.

SLO 11B.5.1.9: Demonstrate knowledge of dough-laminating methods.

SLO 11B.5.1.10: Demonstrate the ability to sheet dough.

SLO 11B.5.1.11: Demonstrate knowledge of shapes for bread types such as free-form, baguette, and pan.

- SLO 11B.5.1.12: Demonstrate knowledge of the effects of time on dough.
 - SLO 11B.5.1.13: Demonstrate knowledge of the effects of handling on dough.
 - SLO 11B.5.1.14: Demonstrate knowledge of bun shapes such as dinner, hot dog, and panini.
 - SLO 11B.5.1.15: Demonstrate the ability to shape dough.
 - SLO 11B.5.1.16: Demonstrate the ability to cut dough for products such as doughnuts, danishes, and croissants.
 - SLO 11B.5.1.17: Demonstrate the ability to dust dough.
 - SLO 11B.5.1.18: Demonstrate the ability to place and space dough on pans.
 - SLO 11B.5.1.19: Demonstrate the ability to transfer pans to proofing racks.
 - SLO 11B.5.1.20: Demonstrate knowledge of proofing time required for various yeast-dough products.
 - SLO 11B.5.1.21: Demonstrate knowledge of the effects of temperature and humidity on proofing time.
 - SLO 11B.5.1.22: Demonstrate the ability to determine proofed-dough characteristics by sight and feel.
 - SLO 11B.5.1.23: Demonstrate knowledge of the types of finishes such as dusting and egg wash.
 - SLO 11B.5.1.24: Demonstrate knowledge of when to apply specific finishes.
 - SLO 11B.5.1.25: Demonstrate knowledge of the primary purpose of specific finishes such as docking.
 - SLO 11B.5.1.26: Demonstrate the ability to make finishes such as egg wash, water wash, and starch paste.
 - SLO 11B.5.1.27: Demonstrate the ability to use techniques for applying finishes such as brushing, rolling, and topping.
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GLO 5.2: Demonstrate the appropriate **baking** of various products.

- SLO 11B.5.2.1: Demonstrate knowledge of the effect of steam on baked goods.
- SLO 11B.5.2.2: Demonstrate knowledge of the amount of oven spring of various goods.
- SLO 11B.5.2.3: Demonstrate knowledge of the required time and temperature for different products.
- SLO 11B.5.2.4: Demonstrate knowledge of when to de-pan various products.
- SLO 11B.5.2.5: Demonstrate the ability to ensure proper placement of pans and racks in oven.
- SLO 11B.5.2.6: Demonstrate the ability to determine stages of doneness of product by various methods such as tapping and observing the crust colour.

- SLO 11B.5.2.7: Demonstrate knowledge of the effect of water and steam to control crust formation.
- SLO 11B.5.2.8: Demonstrate the ability to remove products from oven at appropriate time.
- SLO 11B.5.2.9: Demonstrate the ability to loosen product from pan.
- SLO 11B.5.2.10: Demonstrate the ability to transfer product from pans to cooling racks.
- SLO 11B.5.2.11: Demonstrate the ability to space product on cooling rack.
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GLO 5.3: Demonstrate the appropriate **assembly, finishing, and decorating** of baked products.

- SLO 11B.5.3.1: Demonstrate the appropriate finishing and decorating of yeast-dough products.
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GLO 5.4: Demonstrate the appropriate **presentation** of baked products.

- SLO 11B.5.4.1: Demonstrate the appropriate presentation of yeast-dough products.
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Goal 6: Understand **career opportunities** in baking.

GLO 6.1: Describe **apprenticeship, education, and career opportunities, as well as professional organizations** in the baking industry.

- SLO 11B.6.1.1: Demonstrate knowledge of career opportunities and working conditions for bread bakers.
- SLO 11B.6.1.2: Demonstrate knowledge of the physical attributes required to work as a bread baker.
- SLO 11B.6.1.3: Demonstrate knowledge of employment standards as they apply to bread bakers.
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Goal 7: Describe and demonstrate the transferable, **cross-curricular** knowledge and skills as they pertain to baking.

GLO 7.1: **Read, interpret, and communicate** information relevant to baking.

- SLO 11B.7.1.1: Demonstrate knowledge of types of documents.
- SLO 11B.7.1.2: Demonstrate the ability to read, understand, and follow recipes, formulations, and directions.
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GLO 7.2: Apply **mathematics** knowledge and skills relevant to baking.

SLO 11B.7.2.1: Demonstrate the ability to portion according to yield and specifications.

SLO 11B.7.2.2: Demonstrate the ability to use bakers' percentage.

GLO 7.3: Apply **science** knowledge and skills relevant to baking.

SLO 11B.7.3.1: Demonstrate an understanding of biological leavening agents.

GLO 7.4: Apply **other subject areas** (French, physical education/health education, information communication, and technology) knowledge and skills relevant to baking.

SLO 11B.7.4.1: Demonstrate familiarity with French terms used in relation to yeast-dough products.

Goal 8: Demonstrate awareness of **sustainability** as it pertains to the baking industry.

GLO 8.1: Describe the impact of **human sustainability** on the health and well-being of bakers and consumers of baked products.

SLO 11B.8.1.1: Demonstrate knowledge of the sustainability of the bread bakers' working conditions, including working hours.

GLO 8.2: Describe the baking industry's sustainability practices and impact on the **environment**.

SLO 11B.8.2.1: Demonstrate knowledge of the importance of, when appropriate, reusing materials used in baking.

SLO 11B.8.2.2: Demonstrate knowledge of sustainable packaging options and trends in the baking industry.

SLO 11B.8.2.3: Demonstrate knowledge of the use of locally-grown ingredients in the production of yeast-dough products such as canola, flax, cavena nuda, wild rice, hemp, etc.

GLO 8.3: Describe **sustainable economic practices** within the baking industry.

SLO 11B.8.3.1: Demonstrate knowledge of the diversification of yeast-dough product lines in order to adapt to a changing economy or demographic.

Goal 9: Demonstrate awareness of the **ethical and legal standards** as they pertain to baking.

GLO 9.1: Apply the **ethical and legal standards** as they pertain to baking.

SLO 11B.9.1.1: Demonstrate knowledge of basic regulations regarding substitution of ingredients.

SLO 11B.1.1.2: Demonstrate knowledge of regulations related to weights and measures.

SLO 11B.9.1.3: Demonstrate knowledge of packaging and labelling requirements of bakery products.

SLO 11B.9.1.4: Demonstrate knowledge of ethics as they relate to health and sanitation.

SLO 11B.9.1.5: Demonstrate knowledge of employee theft.

Goal 10: Demonstrate the **employability skills** related to the baking industry.

GLO 10.1: Demonstrate **fundamental employability skills**.

SLO 11B.10.1.1: Demonstrate employability skills (e.g., being prepared for work on time, setting up workstations, staying on task, accepting responsibility for their actions, etc.).

SLO 11B.10.1.2: Demonstrate professional dress code.

SLO 11B.10.1.3: Demonstrate the skills required to work as a member of a team.

SLO 11B.10.1.4: Demonstrate initiative in performing tasks.

SLO 11B.10.1.5: Demonstrate the ability to communicate with professionals such as co-workers, suppliers, and service professionals.

SLO 11B.10.1.6: Demonstrate the ability to communicate with supervisors/teachers, co-workers, and customers in an effective manner.

SLO 11B.10.1.7: Demonstrate knowledge of the attributes required to work as a bread baker (e.g., the ability to work alone).

GLO 10.2: Demonstrate an understanding of the **business operation** of a bakeshop.

SLO 11B.10.2.1: Demonstrate knowledge of the importance of managing overhead costs that are within one's control.

SLO 11B.10.2.2: Demonstrate knowledge of the importance of advertising and marketing to the baking industry.

SLO 11B.10.2.3: Demonstrate knowledge of the importance of controlling labour and ingredient costs to a bakeshop.

Goal 11: Understand the **evolution and technological progression of, and the emerging trends in** baking.

GLO 11.1: Describe the **evolution and technological progression of, and the emerging trends in** baking.

SLO 11B.11.1.1: Demonstrate knowledge of the evolution of yeast-dough products.

SLO 11B.11.1.2: Demonstrate knowledge of the technological progression of, and the emerging trends in yeast-dough products (e.g., artisan breads).
