



8375

ADVANCED BREAD PRODUCTS
(12C)

40S/40E/40M

A Baking and Pastry Arts Course

8375: ADVANCED BREAD PRODUCTS (12C)

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Course Description

This course is intended for students who are intending to pursue a career in baking and pastry arts. The emphasis is on artisan bread, rolls, crackers, unleavened bread, and bannock.

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 12C.1.1.1: Demonstrate knowledge of proper handwashing practices.
 - SLO 12C.1.1.2: Demonstrate knowledge of correct dish and ware washing facilities and techniques, approved sanitizers, and proper utensil storage.
 - SLO 12C.1.1.3: Demonstrate the ability to adhere to the standards of dress, personal hygiene, and grooming for professional bakers.
 - SLO 12C.1.1.4: Demonstrate knowledge of proper personal hygiene practices.
 - SLO 12C.1.1.5: Demonstrate knowledge of types and uses of sanitizing agents such as chlorine-based and quaternary solutions.
 - SLO 12C.1.1.6: Demonstrate knowledge of sanitation specifications.
 - SLO 12C.1.1.7: Demonstrate knowledge of the importance of washing tools and equipment prior to sanitation.
 - SLO 12C.1.1.8: Demonstrate knowledge of the importance of following sanitizing product instructions.
 - SLO 12C.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 12C.1.2.1: Demonstrate safe food-handling practices.
 - SLO 12C.1.2.2: Demonstrate the ability to identify common food allergies and determine appropriate substitutions.
 - SLO 12C.1.2.3: Demonstrate knowledge of holding temperature for different products.
 - SLO 12C.1.2.4: Demonstrate knowledge of cooling procedures.
 - SLO 12C.1.2.5: Demonstrate knowledge of holding time.
 - SLO 12C.1.2.6: Demonstrate the ability to prepare product for holding.
 - SLO 12C.1.2.7: Demonstrate the steps to prevent cross-contamination, chemical contamination, physical contamination, and contamination by allergens.
 - SLO 12C.1.2.8: Demonstrate the ability to practise preventative measures to avoid food-borne illnesses.
 - SLO 12C.1.2.9: Demonstrate knowledge of basic food microbiology.
 - SLO 12C.1.2.10: Demonstrate the ability to discuss the health concerns related to starter dough/sourdough.
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GLO 1.3: Create and maintain a **safe work environment**.

- SLO 12C.1.3.1: Demonstrate the safe use and care of bakery utensils, machines, and equipment.
- SLO 12C.1.3.2: Demonstrate knowledge of the importance of emergency planning procedures.
- SLO 12C.1.3.3: Demonstrate knowledge of how the Workers Compensation Act relates to the profession of baker.
- SLO 12C.1.3.4: Demonstrate knowledge of proper fire extinguishing operations.
- SLO 12C.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 12C.1.3.6: Demonstrate knowledge of the Workplace Hazardous Materials Information System (WHMIS) and safety regulations.
- SLO 12C.1.3.7: Demonstrate the ability to access WHMIS information.
- SLO 12C.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 12C.1.3.9: Demonstrate the ability to inform customers of health risks.

- SLO 12C.1.3.10: Demonstrate the ability to identify and report potential hazards.
 - SLO 12C.1.3.11: Demonstrate the ability to identify and report problems related to rodents and other pests.
 - SLO 12C.1.3.12: Demonstrate knowledge of PPE such as goggles, rubber gloves, shoes, oven mitts, and pads.
 - SLO 12C.1.3.13: Demonstrate knowledge of safety equipment such as fire extinguishers, first aid kits, and eyewash stations.
 - SLO 12C.1.3.14: Demonstrate the ability to locate PPE and safety equipment.
 - SLO 12C.1.3.15: Demonstrate the ability to identify worn, defective, and expired PPE and safety equipment.
 - SLO 12C.1.3.16: Demonstrate the ability to adjust PPE for individual use.
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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 12C.2.1.1: Demonstrate the safe and appropriate operation and/or use of tools and equipment associated with the production of advanced bread products.
 - SLO 12C.2.1.2: Demonstrate an awareness of a variety of commercial bread ovens.
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GLO 2.2: Demonstrate the safe and appropriate **cleaning, maintenance, and storage of baking equipment and utensils.**

- SLO 12C.2.2.1: Demonstrate the safe and appropriate cleaning, maintenance, and storage of tools and equipment associated with the production of advanced bread 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 12C.3.1.1: Demonstrate an understanding of the ingredients used in advanced bread products, including bannock, flatbread, crackers, and artisan/specialty breads.
 - SLO 12C.3.1.2: Demonstrate the ability to compensate for the temperature of other ingredients.
 - SLO 12C.3.1.3: Demonstrate the ability to prepare and use starter dough and sourdough in bread products.
 - SLO 12C.3.1.4: Demonstrate the ability to select appropriate flour for use in advanced bread products, including bannock, flatbread, crackers, and artisan/specialty breads.
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GLO 3.2: Demonstrate an understanding of **recipes/formulations** used in baking.

- SLO 12C.3.2.1: Demonstrate an understanding of the recipes/formulations used in advanced bread products, including bannock, flatbread, crackers, and artisan/specialty breads.
 - SLO 12C.3.2.2: Demonstrate the ability to apply the water temperature formula for desired dough temperature.
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GLO 3.3: Demonstrate an understanding of the characteristics of **bakery components and products.**

- SLO 12C.3.3.1: Demonstrate knowledge of desired dough temperature.
 - SLO 12C.3.3.2: Demonstrate an understanding of the components used in the production of advanced bread products, including bannock, flatbread, crackers, and artisan/specialty breads.
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GLO 3.4: Demonstrate an understanding of **nutrition.**

- SLO 12C.3.4.1: Demonstrate the ability to identify the nutritional components of advanced bread products, including bannock, flatbread, crackers, and artisan/specialty breads.
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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 12C.4.1.1: Demonstrate the appropriate receiving, handling, quality assurance, packaging, storage, and inventory control of advanced bread products, including bannock, flatbread, crackers, and artisan/specialty breads.

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 12C.5.1.1: Demonstrate the ability to prepare, mix, and make-up advanced bread products, including bannock, flatbread, crackers, artisan/specialty breads.

GLO 5.2: Demonstrate the appropriate **baking** of various products.

SLO 12C.5.2.1: Demonstrate the ability to bake advanced bread products, including bannock, flatbread, crackers, and artisan/specialty breads.

SLO 12C.5.2.2: Demonstrate the ability to apply water and steam to control crust formation.

GLO 5.3: Demonstrate the appropriate **assembly, finishing, and decorating** of baked products.

SLO 12C.5.3.1: Demonstrate the ability to finish and decorate advanced bread products.

SLO 12C.5.3.2: Demonstrate the ability to select finishes for specific yeast-dough products.

GLO 5.4: Demonstrate the appropriate **presentation** of baked products.

SLO 12C.5.4.1: Demonstrate the appropriate presentation of advanced bread products, including bannock, flatbread, crackers, and artisan/specialty breads.

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 12C.6.1.1: Demonstrate knowledge of career opportunities related to advanced bread products, including bannock, flatbread, crackers, and artisan/specialty breads.

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 12C.7.1.1: Demonstrate knowledge of the types of documents.

SLO 12C.7.1.2: Demonstrate the ability to read, understand, and follow recipes, formulations, and directions.

GLO 7.2: Apply **mathematics** knowledge and skills relevant to baking.

SLO 12C.7.2.1: Demonstrate the ability to use bakers' percentage.

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

SLO 12C.7.3.1: Demonstrate knowledge of the production of biological leavening agents such as starters and sourdough.

SLO 12C.7.3.2: Demonstrate knowledge of chemical and biological leavening agents as they relate to advanced bread products, including bannock, flatbread, crackers, and artisan/specialty breads.

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

SLO 12C.7.4.1: Demonstrate knowledge of the significance of bannock to the history of Manitoba.

SLO 12C.7.4.2: Demonstrate knowledge of the variety of bread products found within different cultures.

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 12C.8.1.1: Demonstrate knowledge of gluten intolerance as it relates to advanced bread products, including bannock, flatbread, crackers, and artisan/specialty breads.

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

SLO 12C.8.2.1: Demonstrate awareness of organic, non-organic, and genetically modified flours.

SLO 12C.8.2.2: Demonstrate knowledge of ancient grains used in breads such as kamut, spelt, and amaranth.

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

SLO 12C.8.3.1: Demonstrate knowledge of the importance of western Canadian wheat on the local and world economy.

SLO 12C.8.3.2: Demonstrate knowledge of the contribution of artisan bakeries to local economies.

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 12C.9.1.1: Demonstrate knowledge of basic regulations regarding substitution of ingredients.

SLO 12C.9.1.2: Demonstrate knowledge of regulations related to weights and measures.

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

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

- SLO 12C.10.1.1: Demonstrate employability skills (e.g., being prepared for work on time, setting up workstations, staying on task, accepting responsibility for one's actions, etc.).
 - SLO 12C.10.1.2: Demonstrate professional dress code.
 - SLO 12C.10.1.3: Demonstrate the skills required to work as a member of a team.
 - SLO 12C.10.1.4: Demonstrate initiative in performing and completing tasks.
 - SLO 12C.10.1.5: Demonstrate the ability to communicate with professionals such as co-workers, suppliers, and service professionals.
 - SLO 12C.10.1.6: Demonstrate the ability to communicate with supervisors/teachers, co-workers, and customers in an effective manner.
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GLO 10.2: Demonstrate an understanding of the **business operation** of a bakeshop.

- SLO 12C.10.2.1: Demonstrate knowledge of the business operation of a bread bakery.
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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 12C.11.1.1: Demonstrate knowledge of the evolution of bread baking around the world.
 - SLO 12C.11.1.2: Demonstrate knowledge of the technological progression of bread baking.
 - SLO 12C.11.1.3: Demonstrate knowledge of the emerging trends in artisan/specialty products.
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