



BAKG 1245: Aeration & Emulsification

EFFECTIVE DATE

DEPARTMENT

Baking & Pastry Arts
DESCRIPTION

Aeration and emulsification are two essential baking principles. This course allows the student to understand, apply and problem-solve these principles through the making of cakes, cookies, sponges, various pastry bases as well as icings, buttercreams, glazes and ganaches. This course is part of the full-time Baking and Pastry Arts – Artisan Baking & Baking and Pastry Arts - Pastry Program.

CREDITS

2.0

YEAR OF STUDY

1st Year Post-secondary

PREREQUISITES

BAKG 1142, BAKG 1143, BAKG 1144, BAKG 1145, and BAKG 1241 (if in Combined Skills with ESL support program)

COREQUISITES

None

COURSE LEARNING OUTCOMES

Upon successful completion of this course, students will be able to:

- Describe how air cells are properly developed and apply appropriate mixing methods to achieve desired aeration
- Describe different types of emulsions
- Produce a variety of smooth emulsions using proper and effective techniques
- Select ingredients and preparation methods to produce a variety of batters, fillings and icings
- Spread batters effectively and evenly
- Portion, make up, proof, bake and finish products according to specifications
- Prepare appropriate icing and practice basic piping techniques such as borders, rosettes, shells and roses
- Plan and execute daily production list to efficiently and confidently meet specific production criteria
- Evaluate product outcomes according to the theoretical principles and processes governing their production

- Apply mathematical principles to calculate formulas according to product specifications
- Adhere to industry health and safety standards in the preparation, handling and storage of products
- Comply with shop safety practices during production
- Practice professional etiquette and personal hygiene during production
- Work effectively as a team member during production
- Implement principles of bakery management and merchandising for inventory and cost control

PRIOR LEARNING ASSESSMENT & RECOGNITION (PLAR)

None

HOURS

Lecture: 10

Other: 40

INSTRUCTIONAL STRATEGIES

Using an experiential learning approach, this course will also provide students with the opportunity to work independently and in cooperative teams to apply theory to practice and to reflect on their own performance and product outcomes. Demonstrations will be held to show the proper ways to achieve desired aeration and smooth emulsions, proper mixing methods, batter spreading techniques and product make up methods. Group discussions are facilitated to reflect on processes, product outcomes and learning.

GRADING SYSTEM

Letter Grade (A-F)

PASSING GRADE

B-

EVALUATION PLAN

Type	Percentage	Assessment activity
Lab Work	60	Instructor observation of daily hands-on skill development, organization and adherence to safety and sanitation practices
Quizzes/Tests	20	Theory quizzes
Participation	10	Self and peer evaluation, instructor evaluation, punctuality, attendance
Assignments	10	Online reflective journal

COURSE TOPICS

- Aeration, air-cell development methods, emulsion, emulsification methods, ingredient characteristics and functions, specific gravity, batter spreading and panning, techniques to create different types of icings, fillings and glazes, baking of various types of batters, storage and handling; preparation of icing for practice piping; basic piping techniques; mathematical conversions, application of baker's percentage; interpretation of formulas; correct use of tools & equipment; supporting team members; writing and executing daily production lists; critical analysis of product outcomes; recording observations of performance and development; punctuality; health and safety rules and regulations; application of inventory and waste management

LEARNING RESOURCES

None

Notes:

- Course contents and descriptions, offerings and schedules are subject to change without notice.
- Students are required to follow all College policies including ones that govern their educational experience at VCC. Policies are available on the VCC website at:
<https://www.vcc.ca/about/governance--policies/policies/>.
- To find out how this course transfers, visit the BC Transfer Guide at <https://www.bctransferguide.ca>.

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