



## POST SECONDARY COURSE REVISION AY 2021-2022

**Post-Secondary Course Alpha and Number:**

BAK200

**Post-Secondary Course Title:**

FOUNDATIONS OF BAKING & PASTRY

**Formerly (If Applicable include Alpha Number Course Title):**

CUL200 FOUNDATIONS OF BAKING & PASTRY

**College:** TPS - Trades & Professional Services

**Division:** Culinary & Foodservice

**Author 1:** Marivic Schrage

**Author 2 (optional):** Bertrand Haurillon

**Date Submitted to CRC:** 10/04/2021



**Date Reviewed by CRC:** 10/20/2021

**APPROVED**

Effective Catalog AY2021-2022

Date Approved 11.17.2021

Effective Banner Term SPRING 2022 (202210)

APPROVED BY	NAME	SIGNATURE	DATE
DEAN	Pilar P. Williams		11.16.2021
VP for ACADEMIC AFFAIRS	Virginia C. Tudela, Ph.D.		11.17.21

## TYPE OF ACTION

Select the type of action that applies

**Revision Change (Check all that apply):**

Substantive - Change (addition, revision, etc.) in Student Learning Outcomes, Non-Substantive - Change in course Alpha, Number, or Title

**Revision Other:**

### I. Course Information

**Course Alpha:** CUL

**Course Number:** 200

**New Course Number (If applicable):** BAK200

**Course Title:** FOUNDATIONS OF BAKING & PASTRY

**New Course Title (if applicable):**

**Number of credits:** 2

**Delivery Format:** Lab 2: 45 Contact Hours = 1 Credit

**Contact Hours:** 90

**Online and Hybrid Modality Request (In addition to standard FTF):** None

**Prerequisite (limit one):** CUL160 Culinary Foundation II

**Corequisite (limit one):** None

**Articulation (UOG, DCAPS, etc.):**

**Implementation Schedule:** Spring 2022

### II. Course Description & Student Learning Outcomes

This course description will appear in the Post-Secondary and Secondary College Catalogs followed by the Student Learning Outcomes-Course Level.

*\*Refer to Student Learning Outcomes (SLO) Handbook in developing SLOs (available on the Worklife tab on MyGCC).*

#### **Course Description:**

This course introduces students to basic principles, skills, and techniques of baking and pastry. Special emphasis is placed on ingredient identification and function, weights and measures, safe use and care of baking tools and equipment and evaluation of quality characteristics. Students will apply basic baking principles and techniques in the production of yeast breads, cookies and pies, and pastry and laminated doughs, breakfast and individual pastries, custards, creams, mousses, and souffles, icing, glazes, sauces, and frozen dessert.

## **STUDENT LEARNING OUTCOMES – COURSE LEVEL (LIST 3-5)**

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

### **Student Learning Outcome 1:**

Describe properties and functions of major baking ingredients.

### **Student Learning Outcome 2:**

Utilize proper scaling and measuring techniques.

### **Student Learning Outcome 3:**

Choose the appropriate technique and equipment for baking each product.

### **Student Learning Outcome 4:**

Apply math skills to recipe conversion.

### **Student Learning Outcome 5:**

Evaluate characteristics of quality of baked goods.

### **Means of Student Assessment:**

Both direct and indirect measures will be used to assess course SLOs. Student knowledge and skill will be assessed by means of written and practical exams. Indirect measure includes course surveys.

**These SLOs can be measured and learning is demonstrated.:** Yes

**These SLOs align to States' Career Cluster Initiatives (SCCI) ([www.careertech.org/](http://www.careertech.org/))standards.:** Yes

## **III. Program Affiliation**

**This post-secondary course is connected to the following program(s):**

**Program 1:** Associate of Arts in Culinary Arts

**Program 2:**

**Program 3:**

**Program 4:**

## **IV. CTE Career Cluster & Pathway**

**If a CTE course, specify which Career Cluster it is aligned to:** Hospitality and Tourism

**If a CTE course, specify which Career Pathway it is aligned to:** Restaurant & Food and Beverage

(See <https://careertech.org/career-clusters> and <https://cte.careertech.org/sites/default/files/CareerClustersPathways.pdf> for more information)

## **V. Rationale for Proposal**

**An assessment of industry or community need (please include synopsis of advisory meeting minutes that support your request or equivalent):**

According to the Bureau of Labor Statistics (2021), the projected growth for the employment of bakers is 5 percent in the next 8 years. Population and income growth are expected to result in greater demand for specialty baked products (Bureau of Labor Statistics). There is a need for trained bakers on Guam that will define and uphold the highest professional standards. Hence, this course not only supports GCC's mission as the "leader in career and technical workforce development providing the highest quality, student-centered education and job training for Micronesia", but also GCC's Vision to be the premier educational institution for providing globally recognized educational and workforce development programs.

At the recently concluded LinkedIn Job Fair, human resources managers expressed a dire need for culinary graduates who can hit the ground running with minimum training. The number of want ads for cooks that regularly appear in indeed.com and local newspapers confirms such a need.

**Conformity of this course to legal and other external requirements. Include articulation agreements, Guam, or State CTE requirements, accrediting agency standards, State Board regulations, professional certification or licensing requirements (only complete if applicable otherwise, N/A):**

This course conforms with the American Culinary Federation (ACF) curriculum standards – a requirement that will allow program completers to earn the ACF Certified Culinarian designation.

**Results of course evaluation that supports the request. Copy and paste evaluation data or test results:** This proposal is the result of the American Culinary Federation recommendation to tightly align learning outcomes with the American Culinary Federation RKSCs.

## **VI. Resources Requirements and Estimated Costs**

**Please list any new resources and costs associated if applicable. If no new resources are required, put N/A:**

N/A

**Please list any new facility requirements and costs associated if applicable. If no new facilities are required, put N/A:**

N/A

## **VII. Textbook Reference, Equipment, and Supplies**

**Book 1 Title:** Baking & Pastry: Mastering the Art and Craft

**Book 1 Edition (Starting edition):** 3rd edition or most recent.

**Book 1 Author 1:** Culinary Institute of America

**Book 1 Author 2:**

**Book 1 Publisher:** John Wiley & Sons

**Book 1 13-Digit ISBN:** 9780470928653

**Book 2 Title:**

**Book 2 Edition (Starting edition):**

**Book 2 Author 1:**  
**Book 2 Author 2:**  
**Book 2 Publisher:**  
**Book 2 13-Digit ISBN:**

**Reference(s) and Bibliography/Websites:**

Culinary Fundamentals. The American Culinary Federation, Prentice Hall Inc. Saddle River, New Jersey, 5th Edition or latest. ISBN: 978-0-470-42135-2

**Requested Learning Resource Center (LRC) resources (e-books, periodicals, etc.):**  
N/A

**VIII. DETAILED COURSE OUTLINE (OUTLINE MUST BE DETAILED AND INCLUDE SUBTOPICS)**

**Detailed SLOs:**

**1.0 CAREER OPPORTUNITIES FOR BAKING AND PASTRY PROFESSIONALS**

- 1.1 Discuss the wide variety of careers available for baking and pastry professionals.
- 1.2 Discuss the importance and available options of formal education and certification.
- 1.3 Explain networking and how it can help develop a baking and pastry career.
- 1.4 Discuss the elements of a successful baking and pastry business, such as physical assets, human resources, and time management.
- 1.5 Describe what it takes to become a baking and pastry professional and the kind of responsibilities that come with that role.

**2.0 SANITATION**

- 2.1 Demonstrate good personal hygiene and health habits during laboratory setting.
- 2.2 Demonstrate acceptable procedures when preparing potentially hazardous foods to include time/temperature principles.
- 2.3 Develop cleaning and sanitizing schedules and procedures for equipment and facilities.
- 2.5 Conduct a sanitation self-inspection and identify modifications necessary for compliance with standards.
- 2.6 Demonstrate appropriate emergency policies for kitchen and dining room injuries.

**3.0 PURCHASING, RECEIVING, STORING PROCEDURES**

- 3.1 Receive and store fresh, frozen, refrigerated and staple goods.
- 3.2 Describe the importance of receiving and inspecting products as it enters the facility.
- 3.3 Evaluate received goods to determine conformity with user specifications.
- 3.4 Conduct yield and quality tests on items such as canned, fresh, frozen, and prepared products.
- 3.5 Conduct a yield and cost comparison test on pre-fabricated products and on-premise prepared products.
- 3.6 Inventory food and non-food items using current technology.

**4.0 SUSTAINABILITY IN THE KITCHEN**

- 4.1 Apply the principles of sustainable food production: waste control, energy conservation, fabrication, recycling, energy use, purchasing "cents" and community-centered purchasing.

## 5.0 INGREDIENT IDENTIFICATION

- 5.1 Explain the key differences between flours, grains, and meals.
- 5.2 Define the different types of flour commonly used in bakeshops.
- 5.3 Define the different types of sugars, syrups, and other sweeteners commonly found in bakeshops.
- 5.4 Define the different types of thickeners commonly used in bakeshops.
- 5.5 Define a variety of dairy products and how their properties are applied in bakeshops.
- 5.6 Identify the different size categories of eggs and the various forms in which they are used in bakeshops.
- 5.7 Explain the properties of different oils, shortenings, and other fats used in bakeshops.
- 5.8 Describe the process of making chocolate and identify the different types of chocolate.
- 5.9 Identify common leaveners and the different kinds of salts used in bakeshops.
- 5.10 Identify the most common herbs and spices used in bakeshops.
- 5.11 Identify a variety of nuts and seeds commonly used in bakeshops.
- 5.12 Explain the proper handling and storage of fresh produce.
- 5.13 Identify a variety of apples, berries, citrus fruits, melons, pears, stone fruits, and exotic or tropical fruits used in bakeshops.
- 5.14 Describe briefly how extracts, wines, cordials, liqueurs, coffee, and tea are used in bakeshops.

## 6.0 EQUIPMENT IDENTIFICATION

- 6.1 Describe types of scaling and measuring tools.
- 6.2 Describe types of cutting tools.
- 6.3 Describe other tools used in the kitchen, such as graters, peelers, tongs and spatulas.
- 6.4 Describe hand tools for sifting, straining, and pureeing.
- 6.5 Describe tools for bread baking and their uses.
- 6.6 Describe tools for pastries and cookies.
- 6.7 Identify tools for confectionery and décor work and explain their uses.
- 6.8 Identify and describe types of bakeware, rings, and molds.
- 6.9 Identify and describe stovetop pots and pans.
- 6.10 Describe large kitchen equipment and their uses.
- 6.11 Discuss the relationship between a chef and his tools.

## 7.0 ADVANCED BAKING PRINCIPLES

- 7.1 Discuss basic baking ingredients and how these ingredients interact with each other.
- 7.2 Explain the different categories of ingredients, such as stabilizers and liquefiers.
- 7.3 Discuss the role of gluten in flour in baked goods.
- 7.4 Describe different types of shortening agent and fats, as well as their role in baking.
- 7.5 Explain types of leavening – like mechanical and chemical – and how leavening ingredients differ.
- 7.6 Discuss the role of sweeteners in baking as well as types of sweeteners and their properties.
- 7.7 Define emulsion and explain how it relates to baking and pastry.
- 7.8 Discuss tempering chocolate and how it is used.
- 7.9 Discuss healthy concepts in baking and the different types of special diets for whom products might be designed.

## 8.0 BAKING FORMULAS AND BAKER'S PERCENTAGES

- 8.1 Discuss scaling baking formulas and the different units and tools bake shops might employ.
- 8.2 Scale products with precision.
- 8.3 Convert volume measures to weight measures.

- 8.4 Apply basic math skills to recipe conversion
- 8.5 Explain baker's percentage and calculate percentage values and weight measures of ingredients.
- 8.6 Discuss desired dough temperature and calculate the required water temperature.

#### 9.0 YEAST-RAISED BREADS AND ROLLS

- 9.1 Describe direct fermentation.
- 9.2 Explain the straight mixing method.
- 9.3 Discuss and identify the stages of gluten development.
- 9.4 Explain the stages of mixing bread dough.
- 9.5 Identify different types of yeasts and how to substitute one for the other.
- 9.6 Discuss desired dough temperature and how it relates to total temperature factor.
- 9.7 Explain the steps in bread-making, including bulk fermentation, retarding, and folding.
- 9.8 Describe scaling and the different pre-shaping and final shaping techniques.
- 9.9 Discuss final fermentation.
- 9.10 Describe finishing techniques, including scoring and washes.
- 9.11 Explain the considerations in baking bread.
- 9.12 Identify enriched doughs and explain how they are unique.

#### 10.0 ADVANCED YEAST BREADS AND ROLLS

- 10.1 Discuss the different pre-ferments and how they are used.
- 10.2 Explain how to start and replenish a sourdough starter.

#### 11.0 PASTRY DOUGHS AND BATTERS

- 11.1 Describe the characteristics, ingredients, and method for making a rubbed dough.
- 11.2 Describe the characteristics, ingredients, and method for making a short dough.
- 11.3 Describe the characteristics, ingredients, and method for making a crumb crust.
- 11.4 Describe the characteristics, ingredients, and method for making pate a choux.
- 11.5 Describe the characteristics, ingredients, and method for making and storing laminated dough.

#### 12.0 QUICK BREADS AND CAKES

- 12.1 Explain the basic principles of quick bread and cake preparation.
- 12.2 Describe the proper pan preparation, cooling, and storing technique for various mixing methods.
- 12.3 Explain the blending method of mixing.
- 12.4 Explain the creaming method of mixing.
- 12.5 Explain the two-stage method of mixing.
- 12.6 Explain the angel food method of mixing.
- 12.7 Describe the warm and cold foaming methods.
- 12.8 Explain the separated foam method of mixing.
- 12.9 Explain the combination mixing method.
- 12.10 Explain the chiffon mixing method.
- 12.11 Describe the basic principles of cheesecake preparation.

#### 13.0 COOKIES

- 13.1 Discuss the general pan preparation for cookies.
- 13.2 Discuss the general cooking instructions for cookies.
- 13.3 Explain the method for producing drop cookies.
- 13.4 Explain the method for producing bard cookies.

- 13.5 Explain the method for producing rolled and cut-out cookies.
- 13.6 Explain the method for producing stenciled cookies.
- 13.7 Explain the method for producing molded cookies.
- 13.8 Explain the method for producing twice-baked cookies.
- 13.9 Explain the method for producing piped cookies.

#### 14.0 CUSTARDS, CREAMS, MOUSSES, AND SOUFFLES

- 14.1 Describe the characteristics and techniques for preparing and unmolding baked custards.
- 14.2 Explain the proper technique for cooling and unmolding a cheesecake.
- 14.3 Discuss the characteristics and techniques for preparing boiled custards.
- 14.4 Discuss the properties of and techniques for working with gelatin.
- 14.5 Explain the technique for preparing steamed puddings.
- 14.6 Explain the technique for preparing mousse.
- 14.6 Explain the techniques for preparing Bavarian cream.
- 14.7 Explain the technique for preparing hot soufflé.
- 14.8 Make a savory and sweet soufflé that rises properly and has a light texture.

#### 15.0 FROZEN DESSERTS

- 15.1 Describe the types of churned-frozen ice cream.
- 15.2 Explain how ingredients affect the outcome of an ice cream.
- 15.3 Describe frozen desserts such as gelato, sorbet, sherbet, and granita.
- 15.4 Explain the process for producing molded frozen desserts.
- 15.5 Explain the type of still-frozen desserts.

#### 16.0 PIES, TARTS, AND FRUIT DESSERT

- 16.1 Explain how to roll out dough and line a pie or tart pan.
- 16.2 Explain different ways to top pie and tarts.
- 16.3 Describe how to blind bake pie and tart shells.
- 16.4 Explain how to work with puff pastry.
- 16.5 Explain the techniques for cutting and peeling certain fruits, such as citrus supremes.
- 16.6 Explain how to prepare a strudel.

#### 17.0 BREAKFAST PASTRIES

- 17.1 Explain the difference between croissant and Danish dough and how to work with both.
- 17.2 Explain the types of coffee cakes.
- 17.3 Discuss types of muffins and their preparation methods.
- 17.4 Discuss doughnuts and their production.

#### 18.0 INDIVIDUAL PASTRIES

- 18.1 Explain the principles of making tartlets.
- 18.2 Describe how to poach fruit.
- 18.3 Discuss layered pastries and roulades.
- 18.4 Discuss pastries formed in molds.
- 18.5 Describe containers used for individual pastries, including those made from phyllo dough and piped pastries.



## **IX. ADVISORY COMMITTEE MINUTES (COPY AND PASTE MEETING MINUTES)**

### **Advisory Committee Meeting Minutes:**

Culinary FoodService Department

Advisory Committee Meeting

September 30, 2021, 7:00 PM-8:25 PM, Google Meet

#### **Attendees:**

John Jones	- Senior Sales & Marketing Executive Quality Distributors Guam
Chef Leland Feng	- Executive Chef, Pacific Star Hotel
Chef Mark Ledesma	- Executive Sous Chef, Crowne Hotel
Chef Mirko Agostini	- Executive Chef, Hyatt Regency Hotel
Chef Ray Barnes	- Kitchen Manager, Triple J Wholesale
Chef Mina Aflague	- Pastry Chef, Hyatt Regency Guam Hotel
Chef Karen Quitugua	- Prostart Instructor, SHS
Chef Regine Olarte	- Prostart Instructor, JFK
Chef Philip Callos	- Prostart Instructor, SSHS
Chef Natsumi Kuranami	- Prostart Instructor, THS
Chef Paul Kerner	- Instructor, Culinary Food Service, Guam Community College
Chef Bertrand Harullion	- Instructor, Culinary Food Service, Guam Community College

Facilitator: Kennylyn Miranda, Culinary Food Service Department Chair

1.0 Chef Kenny welcomed and thanked everyone for participating in tonight's advisory meeting. She reiterated the critical role of the advisory in guiding, updating, and developing the curriculum offerings in the Culinary Food Service Department. This is a follow up meeting to the September 10, 2021 5PM Virtual Meeting.

2.0 She announced that today's meeting objectives would be to discuss the baking and pastry new baking course proposals and substantive/non-substantive proposals.

#### **New Course Proposals**

BAK240 Boulangerie Advanced Bread Techniques

BAK250 Cakes and Desserts

BAK293A Restaurant Desserts & Pastries (Practicum A)

BAK293B Breads & Cakes (Practicum B)

BAK299 Baking & Pastry Capstone

FSM105 Foodservice Sustainability

#### **Substantive/Non-substantive change proposal**

CUL200 to BAK200

CUL220 to BAK220

3.0 The baking proposal is a result of the Department of Interior Grant - Baking & Pastry that started in the Summer of 2021 with thirty-one students enrolled in the pilot program. The new course proposals align with the GCC Institutional Strategic Master Plan - Goal #1 Advancing Workforce Development.

4.0 Course documents were presented and reviewed. Discussions ensued, and in conclusion, all agreed that there is a need for the students to learn these aspects of baking and pastry as well as sustainability

in the industry. More locals are interested in purchasing artisan bread and pastries. Industry partners agreed that Guam needs more bakers and pastry chefs. Student culinarians need to be aware of sustainable practices to help our island needs. Insights worth noting include the following anecdotes:

Ms. Patsy Borja - Great Program to have. The Food Industry is ever-changing. People's food preferences are changing. People are looking for something new and trendy. Students are able to craft their skills. In terms of the sustainability course, we all must do our part to make a difference. It is important that we create responsible food service operations to ensure that no food goes to waste and that we preserve the environment for our future generations to come. As good global citizens, we need to embrace this mission.

Chef Mark Ledesma - Having this kind of program will set GCC apart from other schools. Many details and provide more value to our students to learn.

Chef Mina Aflague - There are a few Pastry Chefs, and this is an excellent opportunity for our future students to learn and look into what pastry is. There are a lot of different fields in pastry. It is a big field for a person to know and so forth. Great Program to put together and to move forward. Hyatt will be here to support any way they can.

Chef Mirko Agostini - The new baking courses are a great addition to the current Culinary Arts Program at GCC. Having students choose the path to become versatile in both areas of culinary and pastry is a learning path to students developing their skills. This new baking track exposes students to more experiential learning. Hyatt will be here to support student needs.

5.0 In addition, Chef Kenny informed the committee that CUL200 Foundations of Baking and Pastry and CUL220 Intermediate Baking and Pastry course alpha will be changed to BAK200 Foundations of Baking and Pastry and BAK220 Intermediate Baking and Pastry respectively. The rationale behind the non-substantive change is to delineate culinary (CUL) courses from baking (BAK).

6.0 Chef Kenny informed the committee of the CFS Department's objective to meet the required knowledge and skills provided by ACFEF, which will include a course in entrepreneurship (BAK299) and sustainability (FSM105) to tie with the operation of GCC Café in hopes to get this program running by (AY 2022-2023), this will reflect the new Baking track. She also noted that the department would work towards acquiring the program accreditation, which will result upon successfully completing the AA in Culinary Arts Program with a Concentration in Baking & Pastry; students will earn the American Culinary Federation - Certified Culinarian (CC) and Certified Pastry Culinarian (CPC) Valid for five years. This will present the need for a baking and pastry center to replace the existing MPA.

7.0 Chef Kenny requested the committee to complete the employer satisfaction survey to identify how satisfied they are with our students and help identify new skills, knowledge, and attributes they would like to see in our students graduating from the AA in Culinary Arts Program and future programs.

8.0 During the open discussion, committee members highlighted a definite need for trained and skilled bakers/pastry chefs and have concurred that this is an excellent opportunity for students to explore another avenue of the industry. Members expressed the challenges of recruiting people for the pastry department. The development of the new baking and pastry courses and hopefully the new program will produce an excellent outcome for our baking and pastry workforce.

9.0 The meeting was adjourned at 8:25 PM