



## COURSE OUTLINE: KAP205 - BAKE THEORY

Prepared: Sarah Birkenhauer

Approved: Sherri Smith, Chair, Natural Environment, Business, Design and Culinary

<b>Course Code: Title</b>	KAP205: BAKE THEORY
<b>Program Number: Name</b>	
<b>Department:</b>	CULINARY/HOSPITALITY
<b>Academic Year:</b>	2022-2023
<b>Course Description:</b>	This course is designed to provide students with essential knowledge of baking principles. Students will explore ingredients, techniques and procedures used within the baking industry. Topics of study will include measurements and formulas, functions of baking ingredients, yeast doughs, quick breads, pastry dough and cake varieties.
<b>Total Credits:</b>	1
<b>Hours/Week:</b>	1
<b>Total Hours:</b>	15
<b>Prerequisites:</b>	There are no pre-requisites for this course.
<b>Corequisites:</b>	KAP207
<b>This course is a pre-requisite for:</b>	KAP406
<b>Essential Employability Skills (EES) addressed in this course:</b>	<p>EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.</p> <p>EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication.</p> <p>EES 3 Execute mathematical operations accurately.</p> <p>EES 4 Apply a systematic approach to solve problems.</p> <p>EES 5 Use a variety of thinking skills to anticipate and solve problems.</p> <p>EES 6 Locate, select, organize, and document information using appropriate technology and information systems.</p> <p>EES 7 Analyze, evaluate, and apply relevant information from a variety of sources.</p> <p>EES 8 Show respect for the diverse opinions, values, belief systems, and contributions of others.</p> <p>EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.</p> <p>EES 10 Manage the use of time and other resources to complete projects.</p> <p>EES 11 Take responsibility for ones own actions, decisions, and consequences.</p>
<b>Course Evaluation:</b>	<p>Passing Grade: 50%, D</p> <p>A minimum program GPA of 2.0 or higher where program specific standards exist is required</p>



for graduation.

**Books and Required Resources:**

Professional Baking by Gisslen  
 Publisher: Wiley Edition: 7th  
 ISBN: 9781119148449

Professional Baking Study Guide by Gisslen  
 Publisher: Wiley Edition: 7th  
 ISBN: 9781119148487

**Course Outcomes and Learning Objectives:**

<b>Course Outcome 1</b>	<b>Learning Objectives for Course Outcome 1</b>
1. Explain the product types and production methods used in baking.	1.1 Describe the role and function of the bakery. 1.2 Identify types of finished baked products. 1.3 Differentiate between baked products and pastry. 1.4 Identify ingredients used in baking. 1.5 Describe mixing methods and principles. 1.6 Describe general production methods used in baking. 1.7 Describe storage procedures for finished baked products.
<b>Course Outcome 2</b>	<b>Learning Objectives for Course Outcome 2</b>
2. Describe properties of flour, application and storage.	2.1 Identify parts of the wheat berry: bran, germ and endosperm. 2.2 Classify types of flour. 2.3 Describe the use of flour in the production of baked products. 2.4 Describe various components of flour, such as moisture, protein content, fat, minerals, enzyme, fiber and ash effect and their effect on the performance of flour. 2.5 Identify how to store flour.
<b>Course Outcome 3</b>	<b>Learning Objectives for Course Outcome 3</b>
3. Describe properties of fat, application and storage.	3.1 Identify types of fat, including shortening, margarine, lard, butter and oils. 3.2 Describe the properties of fat. 3.3 Discuss the applications of fat as an ingredient. 3.4 Describe the safe food handling and storage of fats.
<b>Course Outcome 4</b>	<b>Learning Objectives for Course Outcome 4</b>
4. Explain properties of sugar, application and storage.	4.1 Identify types of sugar including refined sugar, honey, syrups, molasses, glucose, corn syrup, natural and artificial sweeteners. 4.2 Identify the applications of natural and artificial sweeteners. 4.3 Differentiate between simple, complex and inverted sugars, including sucrose, fructose, lactulose, maltose and galactose. 4.4 Describe the storage procedures for sugar.
<b>Course Outcome 5</b>	<b>Learning Objectives for Course Outcome 5</b>
5. Explain the properties of egg application and storage, and describe how eggs are applied as an ingredient in	5.1 Identify types, grades and sizes of eggs. 5.2 Identify purchase forms of eggs including fresh, whole, dried and frozen. 5.3 Identify the safe food handling and storage of eggs.



	baking.	5.4 Identify the purpose of utilizing eggs in baking, such as leavening and moisture. 5.5 Identify techniques of egg preparation such as egg foaming and meringue.										
	<b>Course Outcome 6</b>	<b>Learning Objectives for Course Outcome 6</b>										
	6. Describe how dairy products are applied as a functional ingredient in baking.	6.1 Explain how milk is produced, graded, packaged and soured. 6.2 Identify the different kinds of milk: homogenized, fortified, skimmed and buttermilk. 6.3 Identify different forms of milk utilized in baking: homogenized, evaporated, condensed and dried in baking. 6.4 Identify the purpose of dairy products in baking, such as adding moisture, richness etc. 6.5 Identify types of dairy products including: yogurt, butter, sour cream, kefir, whey powder. 6.6 Identify the safe food handling and storage of dairy products.										
	<b>Course Outcome 7</b>	<b>Learning Objectives for Course Outcome 7</b>										
	7. Explain properties of salt, application and storage.	7.1 Identify the origins, types and forms of salt. 7.2 Identify the applications of salt as a functional ingredient in baking. 7.3 State the shelf life and storage of salt.										
	<b>Course Outcome 8</b>	<b>Learning Objectives for Course Outcome 8</b>										
	8. Explain the properties of leavening agents, application and storage.	8.1 Identify a variety of chemical and natural leaveners. 8.2 Describe the functional application of chemical and natural leaveners. 8.3 Define creaming/foaming preparation methods. 8.4 Identify types of yeast. 8.5 Identify the applications of yeast as an ingredient. 8.6 Define fermentation.										
	<b>Course Outcome 9</b>	<b>Learning Objectives for Course Outcome 9</b>										
	9. Discuss applications of chocolate as an ingredient in baking.	9.1 Identify the origins, types, percentage of cocoa, purchase forms of chocolate. 9.2 Describe the production of chocolate. 9.3 State the steps in tempering chocolate. 9.4 Describe the handling and storage procedure for chocolate.										
<b>Evaluation Process and Grading System:</b>	<table border="1"> <thead> <tr> <th>Evaluation Type</th> <th>Evaluation Weight</th> </tr> </thead> <tbody> <tr> <td>Assignments</td> <td>20%</td> </tr> <tr> <td>Final Assessment</td> <td>30%</td> </tr> <tr> <td>Test #1</td> <td>25%</td> </tr> <tr> <td>Test #2</td> <td>25%</td> </tr> </tbody> </table>	Evaluation Type	Evaluation Weight	Assignments	20%	Final Assessment	30%	Test #1	25%	Test #2	25%	
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<b>Date:</b>	June 30, 2022											
<b>Addendum:</b>	Please refer to the course outline addendum on the Learning Management System for further											

information.