CENTRAL CAROLINA COMMUNITY COLLEGE

Professional Services

Program Planning Guide

Baking and Pastry Certificate (C55150BP)

Program Length: 2 semesters
Program Sites: Lee Main Campus; Chatham Main Campus
Career Pathway Options: Associate in Applied Science Degree in Culinary Arts

Students in these courses will develop essential baking and pastry skills, preparing them for careers in the culinary and hospitality industries. They will learn the fundamentals of baking, including ingredient functions, precise measurements, dough preparation, and baking techniques for cakes, cookies, pies, tarts, and pastries. Advanced courses will introduce them to classical and frozen desserts, cake and torte decorating, and elegant dessert plating. Hands-on lab experiences will enhance their proficiency in pastry applications, enabling them to create high-quality baked goods for buffets, special events, and fine dining establishments. Additionally, students will explore the science behind cooking and baking, gaining an understanding of how heat, emulsification, and leavening agents affect food texture and flavor.

Graduates may work as pastry chefs in restaurants, hotels, bakeries, or catering businesses, specializing in the production of artisan breads, pastries, and desserts.

Suggested Course Schedule		**Class**	**Lab**	**Work**	**Credits**	**Notes:**
1st Semester (fall)						
CUL 110	Sanitation and Safety	2	0	0	2	
CUL 150	Food Science	1	2	0	2	
CUL 160	Baking I	1	4	0	3	
CUL 160A	Baking I Lab	0	3	0	1	
	Total Semester Hours	4	9	0	8	
2nd Semester (spring)						
BPA 120	Petit Fours & Pastries	1	4	0	3	
BPA 150	Artisan & Specialty Bread	1	6	0	4	
CUL 260	Baking II	1	4	0	3	
	Total Semester Hours	**3**	**14**	**0**	**10**	
Total Semester Hours Credit Required for Graduation: 18						

Effective Term: 2026FA

Professional Services

Course Descriptions

BPA 120 Petit Fours & Pastries
Prerequisite: CUL 110 and CUL 160
This course introduces the basic principles of the preparation and plating of a variety of petit fours and individual dessert pastries. Emphasis is placed on traditional and contemporary petit fours and pastries utilizing updated production methods. Upon completion, students should be able to produce individual pastries and petit fours for buffet and special event settings.

BPA 150 Artisan & Specialty Bread
Prerequisite: CUL 110 and CUL 160
This course provides an advanced study in the art and craft of bread making. Topics include pertinent formulas and techniques associated with naturally leavened loaves, hearth breads, focaccia, flat breads, and other breads utilizing a variety of grains. Upon completion, students should be able to prepare artisan and specialty breads that meet or exceed the expectations of restaurant and retail publics.

CUL 110 Sanitation & Safety
This course introduces the basic principles of sanitation and safety relative to the hospitality industry. Topics include personal hygiene, sanitation and safety regulations, use and care of equipment, the principles of food-borne illness, and other related topics. Upon completion, students should be able to demonstrate an understanding of the content necessary for successful completion of a nationally recognized food/safety/sanitation exam.

CUL 150 Food Science
This course covers the chemical and physical changes in foods that occur with cooking, handling, and processing. Emphasis is placed on practical application of heat transfer and its effect on color/flavor/texture, emulsification, protein coagulation, leavening agents, viscosity, and gel formation. Upon completion, students should be able to demonstrate an understanding of these principles as they apply to food preparation in an experimental setting.

CUL 160 Baking I
Corequisite: CUL 110
This course covers basic ingredients, techniques, weights and measures, baking terminology and formula calculations. Topics include yeast/chemically leavened products, laminated doughs, pastry dough batter, pies/tarts, meringue, custard, cakes and cookies, icings, glazes and basic sauces. Upon completion, students should be able to demonstrate proper scaling and measurement techniques, and prepare and evaluate a variety of bakery products.

CUL 160A Baking I Lab
Corequisite: CUL 110 and CUL 160
This course provides a laboratory experience for enhancing student skills in basic baking. Emphasis is placed on the practical experiences of yeast/chemically leavened products, laminated/pastry dough, batter, pies/tarts, meringue, custard, cakes and cookies, icings, glazes and basic sauces. Upon completion, students should be able to demonstrate a basic proficiency in bakeshop applications.

CUL 260 Baking II
Prerequisites: CUL 110 and CUL 160
This course is designed to further students' knowledge in ingredients, weights and measures, baking terminology and formula calculation. Topics include classical desserts, frozen desserts, cake and torte production, decorating and icings/glazes, dessert plating and presentation. Upon completion, students should be able to demonstrate pastry preparation, plating, and dessert buffet production skills.