

# Baking & Pastry Diploma

## VOCATIONAL OBJECTIVE

The Baking & Pastry diploma program is designed to prepare graduates for an entry-level position in a variety of food service industry work settings. The program emphasizes safety, sanitation, the understanding of weights and measures, ingredients, baking methods, pastry arts, and the development of basic skills. Students learn through a combination of lecture, demonstration and extensive practice in kitchen labs, and also producing breads and desserts for the school's open-to-the-public restaurant which gives them valuable practical experience prior to their externship and graduation.

In the intensive, hands-on Baking & Pastry programs at Oregon Culinary Institute, we offer a methodical approach to classic principles and techniques. You'll have the opportunity to learn product identification, weights and measures, how leavening agents work; the function of ingredients and how they behave under different temperatures; the mechanics of kneading and the art of blending; mixing methods and how they're applied; the principles and idiosyncrasies of chocolate tempering and sugar work; the technique of cake formulas and assembly; and the delicate artistry of decorative showpiece work, such as wedding cakes. You will also have the opportunity to gain valuable practical experience, prior to your externship and graduation, by producing breads and plated desserts for OCI'S open-to-the-public restaurant.

## PROGRAM OUTLINE

Course Number	Course Title	Lecture Hours	Lab Hours	Extern Hours	Quarter Credits
<i>Major Requirements</i>					
BAK101	Baking & Pastry Fundamentals	30	40		5.0
BAK111	Introduction to Baking & Pastry	40	80		8.0
BAK121	Advanced Baking	40	80		8.0
BAK131	Intermediate Pastry Arts	40	80		8.0
BAK141	Advanced Pastry Arts	40	80		8.0
BAK198	Baking & Pastry Externship			240	8.0
HUM170	Food Ethics & Social Responsibility	40			4.0
<b>Program Total:</b>		230	360	240	49.0

## TOOL KIT

The Baking & Pastry Tool Kit includes a Cutlery Set by Mercer Tools made of fully-forged, German engineered knives. The complete set, provided with carrying case, includes:

Large Offset Spatula	Grater	Ring Cutters
Small Offset Spatula	Zester	Electronic Scale
10" French Knife	Peeler	Digital Thermometer
8" Serrated Knife	Parisienne Scoop	Silicone Mat
Paring Knife	Pastry Tips	
Scissors	Measuring Spoons	

## CLASS SCHEDULES

- Actual time at OCI is generally five to six hours a day. Core Baking & Pastry classes are two hours lecture, four hours lab (with the exception of BAK-101 which is one-and-a-half hours lecture, two hours lab) between 2-10pm (outside range).
- The Weekend program is 8:30am-3:30pm Saturday and Sunday.

## UNIFORMS AND SUPPLIES

Three OCI Chef Jackets  
Three Sets Chef Pants  
Two OCI Baseball Caps  
Four-way aprons  
Side Towels  
Pocket Calculator  
OCI Hot/Cold Travel Mug

## TUITION

*Optimal Completion Time 32 Weeks Weekdays, 4 Terms, 49 Credit Hours—or— 48 Weeks Weekends, 6 Terms, 49 Credit Hours*

Tuition	\$15,925
Application Fee	50
Registration Fee	400
Graduation Fee	50
Lab Fee	900
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	\$17,325

## COURSE DESCRIPTIONS AND LEARNING OBJECTIVES

### BAK101 - BAKING & PASTRY FUNDAMENTALS - 5.0

This course will introduce students to fundamental kitchen skills as they relate to baking & pastry arts. It will cover an introduction to the history, science and fundamental skills that are applicable to the baking & pastry kitchen. Students will be taught common kitchen terminology, etiquette, knife skills, basic product identification and ingredient function. These fundamental theory principles will be combined with practical skills exercises that will give the students skills to build upon in future classes.

#### Learning Objectives

- Show proficiency in basic knife skills and classic cuts
- Understand the functions of a recipe and product formula as they relate to commercial kitchens
- Attain a basic understanding of flavoring
- Identify basic mixing methods
- Demonstrate comprehension of basic kitchen vocabulary
- Demonstrate skill in scaling
- Understand unit and recipe conversions

### BAK111 - INTRODUCTION TO BAKING & PASTRY - 8.0

This course will introduce students to modern baking & pastry arts. It will provide the theoretical and technical foundation for the entire program, covering kitchen safety and sanitation, knives and equipment, culinary math conversions, and weights and measures. Students will be taught the proper use of basic ingredients and mixing methods while preparing simple yeast breads, quick breads, cookies, pies and tarts. Students will also begin the ServSafe sanitation training certified by the National Restaurant Association.

#### Learning Objectives

- Describe and demonstrate proper safety and sanitation procedures for a professional pastry kitchen.
- Identify essential baking & pastry equipment, and demonstrate their use
- Understand and demonstrate the proper use of scales
- Understand basic culinary math, baker's percentages, and metric conversions
- Identify and compare basic baking ingredients
- Properly prepare baguettes, bagels, braided breads, and rolls
- Understand and execute each step in the straight dough mixing method
- Demonstrate piping skills including shells and rosettes, roses, paper cornet, and chocolate filigree
- Properly prepare basic cookies, quick breads, and batters including biscuits, scones, and muffins
- Properly prepare pastry doughs including pie dough, mealy dough, short dough, and pate a choux
- Properly prepare pastry fillings including pastry and whipped cream, fruit pie filling, and custard

### BAK121 - ADVANCED BAKING - 8.0

Building on information and skills developed in BAK111, this course will provide students with a thorough understanding of advanced baking techniques and science. Artisan breads, including sour dough, focaccia, and ciabatta will be covered, as well as proper preparation of Danish, Croissant, puff dough, petit fours and strudel. Students will also complete the ServSafe sanitation training certified by the National Restaurant Association.

#### Learning Objectives

- Understand baking science and process
- Understand flavors, gluten, sugars, starch, and proteins in baking
- Understand and demonstrate long fermentation techniques including sponge method, sour dough, and retarding
- Understand and demonstrate laminated yeast doughs
- Compose bread shapes including ciabatta, sourdough, focaccia, brioche, croissant, and danish
- Demonstrate proper proofing, preparation, and baking of yeasted dough
- Understand frying techniques for yeasted dough
- Prepare and present puff dough items including bouches, cream horns, and palmiers
- Prepare and present apple strudel
- Prepare and present petit fours including madeleines, lady fingers, florentines, and petit four glaze

### BAK131 - INTERMEDIATE PASTRY ARTS - 8.0

Entering the second term, students will begin to explore the world of pastry arts including sponge cakes, flourless cakes, icings, meringues, and mousses. The course will also cover assembly and decoration of both classic and modern cakes, including wedding cakes. Students will also work with tempered chocolate and make basic candies.

#### Learning Objectives

- Understand the history of baking & pastry, including breads, chocolate, cakes, pastries, and influential pastry chefs
- Prepare and compare sponge cakes including Genoise, chiffon, butter cake, flourless cake, and cheesecake

- Demonstrate the proper use of ganache glaze and pulled stripe decoration
- Properly prepare Swiss meringue buttercream
- Demonstrate proper icing, portioning, and cutting techniques for finished cakes
- Describe classic European cakes including Sacher, Dobos, Opera, and Kirsch Torte
- Prepare and present special occasion cakes with piped flowers, inscriptions, and side decorations
- Properly prepare Italian meringue
- Properly prepare ganache base for truffles
- Prepare and present basic candies including toffee, brittle, nougat, and jellies
- Properly temper chocolate and demonstrate its use in candy making

### BAK141 - ADVANCED PASTRY ARTS - 8.0

This course is designed to integrate knowledge and skills developed throughout the program to produce advanced desserts and decorations. New topics covered will include Crème Brûlée, soufflés, ice creams, sorbets, dessert sauces, and garnishing techniques. Students will also be introduced to sugar artistry and pastry show work.

#### Learning Objectives

- Calculate yields and food cost, and set menu pricing
- Properly prepare mousse including Bavarian and chocolate Marquis
- Properly prepare stove-top custard (crème Anglaise)
- Prepare and present a soufflé
- Prepare and present three baked custards: bread pudding, flan, and Crème Brûlée
- Demonstrate caramel decorations including piped, cage, angel hair, and brûlée
- Prepare and present frozen desserts including custard ice cream, sorbet, and frozen mousse
- Prepare basic dessert sauces including chocolate, caramel, and coulis
- Properly prepare pastillage and chocolate showpieces
- Properly prepare sugar for casting and pulling
- Understand sugar-free and gluten-free baking techniques
- Understand basic nutrition related to pastry products

### BAK198 - BAKING & PASTRY EXTERNSHIP - 8.0

Upon successful completion of substantially all major requirements in baking & pastry arts, students work under the supervision of an extern site manager and an OCI externship coordinator to develop practical experience in a food service industry setting. Specific training goals and objectives are prepared prior to the start of the externship and tailored to the needs of the site chosen. Whether or not a student has successfully completed substantially all on-campus required course work will be determined at the discretion of the program director or director of education. Successful completion of the externship is required for graduation.

#### Learning Objectives

- Student will demonstrate professional attitude, performance, and attendance.
- Student will apply safe and sanitary practices.
- Upon a successful training and orientation period, the student will be able to smoothly and efficiently, under the direct supervision of the site supervisor, assist with the preparation and production of food in an industry setting. The procedures may include the following:
- Student will quickly and accurately receive and stock shipments.
- Student will quickly and efficiently prepare baked goods and desserts for production.
- Student will quickly and efficiently assist with baking & pastry production in various capacities.

### HUM170 - FOOD ETHICS AND SOCIAL RESPONSIBILITY - 4.0

This dynamic course addresses issues in society regarding the commercialization of the modern farm. Students will have the opportunity to study marketing terms, their legal meaning and consumer perception, consumer protection laws and ethical responsibility, methods of raising/growing food and its social ramifications, and social health issues facing our society as a result of the modern industrialized food chain. Concepts such as sustainability, local, free range, and organic will be explored.

#### Learning Objectives

- Define ethics and its role in the food industry
- Understand the legal definition of sustainable, organic, pasture raised, grass fed, free range and GMOs
- Discuss the advantages and disadvantages of the use of the above terms, and the consumer perception of these terms in marketing
- Express personal opinions on an issue and defend those opinions based on fact and established ethical theory and research
- Describe the governing bodies and their role in the inspection process
- Discuss the role of the media in developing consumer policy and perception
- Discuss world and national policy on labeling
- Formulate a personal morality platform on ethics relating to food production