

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
HRI 128 - PRINCIPLES OF BAKING (3 CR.)

Course Description

Instructs the student in the preparation of breads, pastries, and baked desserts. Discusses candies, frozen confections, and sugar work. Applies scientific principles and techniques of baking. Promotes the knowledge/skills required to prepare baked items, pastries and confections. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

General Course Purpose

HRI 128 is designed to provide the student with the fundamental principles of baking and pastry making, standard procedures, professional food service standards, and use and care of food service equipment.

Course Prerequisites/Co-requisites

None.

Course Objectives

Upon completion of this course, the student will be able to:

- Explain the importance of weighing baking ingredients
- Use a baker's balance scale
- Identify the factors that control the development of gluten in baked products
- Describe the changes that take place in a dough or batter as it bakes
- List the characteristics and functions of the major baking ingredients
- Identify the main types of wheat flours by sight and feel
- List and describe the twelve basic steps in the production of yeast goods
- Compare the three basic mixing methods used for yeast dough
- List and control the factors affecting dough fermentation
- Produce breads and dinner rolls
- Prepare baking powder biscuits and variations of them
- Prepare muffins and loaf breads
- Prepare crepes and crepe desserts
- Cook sugar syrups to various stages of hardness
- Prepare whipped cream, meringues, custard sauces, and pastry cream variations
- Prepare various types of icings
- Prepare pie dough
- Prepare baked goods made from puff pastry dough
- Prepare eclair paste and baked goods made from eclair paste
- Roll pie dough and line pie pans
- Fill, assemble, and bake single-crust pies and double-crust pies
- Prepare fruit fillings
- Prepare soft or custard-type pie fillings
- Explain basic cake mixing methods
- Produce high fat and foam-type cakes
- Scale and bake cakes correctly
- Explain the causes of crispness, moistness, chewiness, and spread in cookies
- Explain the three basic cookie-mixing methods

- Describe and prepare some of the seven basic types of cookies
- Bake and cool cookies properly
- Prepare starch-thickened or boiled puddings
- Prepare caked custards and baked puddings
- Prepare Bavarian creams and mousses
- Describe the process of how to temper chocolate couverture

Major topics to be Included

- Basic Principles
- Ingredients
- Understanding Yeast Dough
- Yeast Dough Techniques
- Quick Breads
- Crepes, Fritters
- Basic Syrups Creams, Icings, and Sauces
- Pastries
- Pies
- Cake Mixing and Baking
- Assembling and Decorating Cakes
- Cookies
- Custards, Puddings, Mousses
- Fruit Desserts and Dessert Presentations
- Decorative Work and Display Pieces