

SAN DIEGO COMMUNITY COLLEGE DISTRICT
CONTINUING EDUCATION
COURSE OUTLINE

SECTION I

SUBJECT AREA AND COURSE NUMBER

FDNT 664

COURSE TITLE

CHOCOLATE & SUGAR FUNDAMENTALS

TYPE COURSE

NON-FEE

VOCATIONAL

CATALOG COURSE DESCRIPTION

Students will learn how to produce a variety of baked goods, confections and decorations using chocolate and sugar as the main ingredient. Topics will include: working with multiple tools that are used in chocolate and sugar production, chocolate and sugar decorations, chocolate and sugar confections, tempering methods, ingredient identification, and beginner chocolate and sugar displays. (FT)

LECTURE/LABORTORY HOURS

112.5

ADVISORIES

FDNT 501 INTRO TO HOSPITALITY CAREERS

RECOMMENDED SKILL LEVEL

Eight grade reading level: ability to communicate effectively in the English language, knowledge of general math; basic computation skills and basic computer skills.

INSTITUTIONAL STUDENT LEARNING OUTCOMES

1. Social Responsibility
SDCE students demonstrate interpersonal skills by learning and working cooperatively in a diverse environment.
2. Effective Communication
SDCE students demonstrate effective communication skills.

INSTITUTIONAL STUDENT LEARNING OUTCOMES (CONTINUED)

3. Critical Thinking

SDCE students critically process information, make decisions, and solve problems independently or cooperatively.

4. Personal and Professional Development

SDCE students pursue short term and life-long learning goals, mastering necessary skills and using resource management and self advocacy skills to cope with changing situations in their lives.

COURSE GOALS

1. Students will be exposed to various chocolate and sugar ingredients and techniques with an emphasis on confections, decorating, and ingredient utilization in pastry production.
2. Student will learn the proper use of tools and equipment used in the production of sugar and chocolate desserts, confections and decorations.
3. Students will gain an understanding of how to temper chocolate and cook sugars to various stages in order to build beginner display pieces.

COURSE OBJECTIVES

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

1. Identify and explain various chocolate and sugar ingredients and their functions within recipes.
2. Identify and explain the various tools and equipment used in the production of sugar and chocolate desserts and decorations.
3. Demonstrate how to produce a variety of chocolate and sugar desserts, confections and decorations utilizing learned techniques.
4. Identify and demonstrate the proper use of chocolate tempering tools and equipment, as well as sugar caramelization tools and equipment.

SECTION II

COURSE CONTENT AND SCOPE

1. Baking Methods and Mixing Techniques
 - 1.1. Ingredient functions
 - 1.2. Tools assessment
 - 1.3. Scaling ingredients
 - 1.4. Formulas and conversions
 - 1.5. Baking times and temperatures
2. Sugar
 - 2.1. History of sugar
 - 2.1.1. Growth
 - 2.1.2. Manufacturing

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2.2. Ingredient information

2.2.1. Nutritional value

COURSE CONTENT AND SCOPE (CONTINUED)

2.2.2. Functions in baking

2.3. Sugar alternatives

2.3.1. In baking

2.3.2. Decorative uses

2.4. Use of liquid sugars

2.4.1. Nutritional value

2.4.2. Functions in baking

2.5. Caramelization

2.5.1. Maillard reaction

2.5.2. Dry and wet methods

2.5.3. Sugar stages and temperatures

2.5.3.1. Thread

2.5.3.2. Soft ball

2.5.3.3. Hard ball

2.5.3.4. Soft crack

2.5.3.5. Hard crack

2.5.3.6. Caramel

2.6. Garnishes

2.6.1. Sugar garnishes for use on cakes and desserts

2.6.2. Techniques and tools

2.7. Desserts

2.7.1. Using sugar in pastry making

2.7.2. Function of ingredients

2.7.3. Nutritional value

2.8. Meringues

2.8.1. Ingredient function

2.8.1.1. Science of eggs and sugar

2.8.1.2. Types of meringues and uses

2.8.1.2.1. French/common

2.8.1.2.2. Swiss

2.8.1.2.3. Italian

2.8.1.3. Baking procedures

2.8.1.4. Storage

2.9. Types of sugar confections

2.9.1. Crystallized

2.9.2. Non-crystallized

2.9.3. Aerated

2.10. Candy production

2.10.1. Caramels

2.10.2. Nougats

2.10.3. Brittle

2.10.4. Hard candies

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2.10.5. Gelees

2.10.6. Cast sugar

COURSE CONTENT AND SCOPE (CONTINUED)

2.11. Sugar molds

2.11.1. Silicone

2.11.2. Copper

2.12. Confection storage

2.13. Display sugar

2.13.1. Cast sugar

2.13.2. Pulled sugar

2.13.3. Blown sugar

3. Chocolate

3.1. Fundamentals overview

3.1.1. History of cacao

3.1.2. Growth

3.1.3. Production

3.1.4. Manufacturing

3.1.5. Types of chocolate

3.1.5.1. White chocolate

3.1.5.2. Milk chocolate

3.1.5.3. Dark chocolate

3.2. Tasting

3.2.1. Aroma wheel

3.2.2. Comparisons

3.2.3. Flavor profile analyzation

3.3. Tools

3.3.1. Tempering techniques

3.3.1.1. Temper machines

3.3.1.2. Tabling

3.3.1.3. Seeding

3.3.2. Chocolate coating techniques

3.3.2.1. Hand dipping

3.3.2.2. Molding

3.4. Garnish production

3.4.1. Modern tools in garnish production

3.4.2. Transfer sheets

3.4.3. Piping

3.4.4. Décor for cakes and desserts

3.4.5. Garnish storage

3.5. Dessert production

3.5.1. Production of cakes and pastries using chocolate

3.5.2. Product selection

3.5.3. Cacao percentages

3.5.4. Product storage

3.6. Types of chocolate molds

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3.6.1. Polcarbonate

3.6.2. Silicone

COURSE CONTENT AND SCOPE (CONTINUED)

3.7. Chocolate design work

3.7.1. Use in pastry and confections

3.7.2. Using cocoa butter colors

3.7.3. Airbrush techniques

3.8. Types of confections

3.8.1. Truffles

3.8.2. Soft centers

3.8.3. Bon Bons

3.8.4. Ganache

3.8.5. Other flavored fillings

3.8.6. Bars and medants

3.9. Display chocolate

3.9.1. Techniques

3.9.1.1. Sculpted chocolate

3.9.1.2. Molded chocolate

3.9.1.3. Mixed-medium with sugar

3.9.2. Tempering and freeze spray

APPROPRIATE READINGS

Reading assignments may include, but are not limited to, various articles, videos, and peer reviewed journals provided by instructor and information obtained on the Internet.

Recommended readings:

On Baking: A Textbook of Baking and Pastry Fundamentals, Sarah R. Labensky, Priscilla

A. Martel, and Eddy Van Damme, Pearson, New Jersey, current edition

The Advanced Professional Pastry Chef, Bo Friberg, Wiley, New Jersey, current edition

Chocolates and Confections: Formula, Theory, and Technique for the Artisan

Confectioner, Peter P. Greweling, The Culinary Institute of America, Wiley, New Jersey, current edition

Baking and Pastry: Mastering the Art and Craft, The Culinary Institute of America, Wiley, New Jersey, current edition

WRITING ASSIGNMENTS

Writing assignments may include, but are not limited to, the following:

1. Students will define a list of chocolate and sugar making terminology, including techniques, ingredients and equipment.

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2. Design and create a recipe card for 2 menu items, incorporating the standards of menu development and the use of sugar and chocolate as a main ingredient, including a garnish.

OUTSIDE ASSIGNMENTS

Outside assignments may include, but are not limited to, the following:

1. Students will define a list of chocolate and sugar making terminology, including techniques, ingredients and equipment.
2. Employment portfolio; collection of sources reflecting the student's preparation for employment.
3. Research and create a digital portfolio of presentation ideas to be current with industry trends and technology.

APPROPRIATE ASSIGNMENTS THAT DEMONSTRATE CRITICAL THINKING

Critical thinking assignments may include but are not limited to the following:

1. Students, as a team, will design a chocolate and sugar focused mini pastry and confection menu of their own. The menu will be created on paper and displayed with details and techniques including a photo, sketch, or description of one of the layout. The students will produce the selected desserts and confections in class utilizing the techniques learned throughout the course.

EVALUATION

Evaluation methods may include but are not limited to:

1. Attendance
2. Class participation
3. Daily Lab projects and demonstrations
4. Quizzes and exams
5. Term projects

Upon successful completion of each individual course a Certificate of Course Completion will be issued. Upon successful completion of all courses included in the program a Certificate of Program Completion will be issued.

METHOD OF INSTRUCTION

Instruction may include but is not limited to lecture, laboratory, demonstrations, and student-centered approach that utilizes a variety of strategies that may include research projects, group discussions, peer instructions, audiovisual presentations, computer assisted instruction, textbooks, speakers, and field trips.

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TEXTS AND SUPPLIES

On Baking: A Textbook of Baking and Pastry Fundamentals, Pearson, Prentice Hall, current edition or teacher's choice

TEXTS AND SUPPLIES (CONTINUED)

The instructor will provide a copy of recipes used in class and all relevant handouts, which may be accessed by each student through a learning management system (LMS) portal

The student will provide pen/pencil, notebook, and be required to pay a materials fee to be used to purchase all necessary food supplies used in the production of each class/session.

PREPARED BY Sara Polczynski and Lee Blackmore

DATE March 4, 2020

REVISED BY _____

DATE _____

Instructor must meet all requirements stated in Policy 3100 (Student Rights, Responsibilities and Administrative Due Process), and the Attendance Policy set forth in the Continuing Education Catalog.

REFERENCES:

San Diego Community College District Policy 3100
California Community Colleges, Title 5, Section 55002
Continuing Education Catalog