

The Art Institute of Houston
School of Culinary Arts
Baking

Instructor:

Work:

Course Introduction to Culinary Skills and Safety and Sanitation

Prerequisites:

Course Description: Students are introduced to the fundamental concepts, skills and techniques of baking. Special significance is placed on the study of ingredient functions, product identification and weights and measures as applied to baking. Lectures and demonstrations teach yeast-raised dough mixing methods, roll-in doughs, pie doughs, basic cake mixing methods, preparation of pudding and pastry cream and finishing techniques.

Materials: Standard knife kit, uniform, notebook, three ring binder for journal

Supplies: Black marker, #18 piping bag, #8 star tip, #8 plain tip, pastry dough cutter, 1 long serrated knife, pastry brush

Technology: Calculator, accessibility to typewriter, computer, or word processor

Homework: 2 to 3 hours per week

Course Length: 11 Weeks

Office Hours: By appointment

Location: Kitchen #401

Total Hours: 55

Competencies: At the end of the course the student will be able to:

Weights and Measures: In order to achieve this competency the student will be able to explain:

How to use the balance beam scale.

How to identify by sight four (4) liquid measure containers and the amount of liquid each holds.

The relationship between density and weight of common bakery liquid.

Yeast Raised Dough's: In order to achieve this competency the student will be able to explain;

The function of ingredients used in the production of yeast raised doughs.

The thirteen (13) steps involved in the bread baking process,

1. Select raw ingredients
2. Weight ingredients
3. Mixing / kneading

4. Fermentation
5. Punching
6. Scaling
7. Dividing
8. Bench proofing
9. Molding
10. Panning
11. Pan proofing
12. Baking
13. Cooling

The seven (7) steps involved in the baking process as heat is applied to dough or batter:

1. Gasses are formed
2. Gluten and egg form new structures
3. Starches gelatinize
4. Percentage of water evaporated
5. Shortening melts
6. Flavors develop, brown color appears
7. Crust forms

How to mix and control yeast-raised dough's using straight dough, sponge and sour dough methods.

The importance of controlling dough temperature the relationship of time and temperature as it relates to:

1. Fermentation
2. Bench handling
3. Retardation
4. Proofing

The various molding, make-up and finishing techniques applied to yeast raised doughs.

The importance of correct oven temperature as it applies to yeast raised doughs.

The use of steam and its effects on yeast raised products.

How to prepare a yeast dough product with assistance from the Chef/Instructor.

Rolled-in Dough

In order to achieve this competency the student will be able to explain:

How to identify and the function of ingredients used in the preparation of rolled-in dough.

The procedure for incorporating fats into rolled-in dough using the:

1. Long method
2. Blitz method

Define the following terms as they relate to rolled-in dough:

Rolling-in Turn Make-up Long method
Blitz method Three fold Book fold Water dough

The various folds/turns and the purpose of resting/retarding rolled-in dough's.
How to prepare the following rolled-in dough's with limited assistance from the Chef/Instructor

1. Danish
2. Puff pastry dough
3. Croissant

Pie Dough / Dough Handling

In order to achieve this competency the student will be able to explain:

The essential ingredients used to prepare pie dough.

The function of ingredients in preparing mealy and flaky pie dough.

The correct procedures for mixing mealy and flaky pie dough.

The correct procedure for preparing;

1. Crimped pie shell
2. Pre-baked shell
3. Fruit pie shell

Which wash to use when finishing a pie:

1. Milk wash
2. Egg wash
3. Butter wash

How to prepare the following types of filling for pies:

1. Fruit
2. Baked custard
3. Cream

The importance of correct oven temperatures for baking pies.

Pastry Cream

In order to achieve this competency the student will be able to explain:

What ingredients to select when making pastry cream.

The functions of ingredients, amounts and method of preparation for pastry cream.

How to properly store pastry cream.

How to prepare pastry cream with limited assistance from the Chef / Instructor.

How to prepare the following pastry creams with limited assistance from the Chef / Instructor;

1. Custard
2. Pastry cream
3. Bavarian cream

