

Pies and Tarts: Fillings and Crusts

Unit: Culinary Arts & Hospitality

Problem Area: Desserts

Lesson: Pies and Tarts: Fillings and Crusts

- **Student Learning Objectives.** Instruction in this lesson should result in students achieving the following objectives:

- 1 Summarize the principles of pie and tart crust preparation.**
- 2 Describe common fillings used in pies and tarts.**

- **Resources.** The following resources may be useful in teaching this lesson:

Labensky, Sarah R. and Alan M. Hause. *On Baking: A Textbook of Baking and Pastry Fundamentals*, 4th ed. Pearson, 2006.

Labensky, Sarah R. and Alan M. Hause. *On Cooking: A Textbook of Culinary Fundamentals*, 4th ed. Pearson, 2007.

“Pie vs. Tart: What’s the Difference?” *Thekitchn.com*. Accessed Dec. 21, 2019.
<https://www.thekitchn.com/pie-vs-tart-whats-the-differen-68710>.

“Pie and Tart Types,” *Crafty Baking*. Accessed Dec. 21, 2019.
<https://www.craftybaking.com/learn/baked-goods/pies-and-tarts/types>.

Suas, Michel. *Advanced Bread and Pastry A Professional Approach*. Delmar, Cengage Learning, 2009.



■ **Equipment, Tools, Supplies, and Facilities**

- ✓ Overhead or PowerPoint projector
- ✓ Visual(s) from accompanying master(s)
- ✓ Copies of sample test, lab sheet(s), and/or other items designed for duplication
- ✓ Materials listed on duplicated items
- ✓ Computers with printers and Internet access
- ✓ Classroom resource and reference materials

■ **Key Terms.** The following terms are presented in this lesson (shown in bold italics):

- ▶ baked blind
- ▶ chiffon filling
- ▶ custard pie
- ▶ flaky dough
- ▶ fruit filling
- ▶ mealy dough
- ▶ pastry cream
- ▶ pie
- ▶ sweet dough
- ▶ tart

■ **Interest Approach.** Use an interest approach that will prepare the students for the lesson. Teachers often develop approaches for their unique class and student situations. A possible approach is included here.

The culinary term “cut in” is commonly used in pie and tart recipes and formulas. Introduce the lesson in the following manner: “Cut in” is a culinary term. Describe what you think it means to cut in? Use VM–A as an illustration of the process of cutting fat into flour to prepare a pie crust or tart shell. Hold up a pastry blender and pass it around so that students familiarize themselves with this kitchen tool. Ask the students: Which ingredients are used when you “cut in”? Have you seen this tool before? Have you ever made a recipe that required you to “cut in”? Visit this website with the class to show them various ways of cutting fat into flour if you do not have a pastry blender at <https://www.goodlifeeats.com/kitchen-tip-trick-for-cutting-butter-into-flour/>.

CONTENT SUMMARY AND TEACHING STRATEGIES

Objective 1: Summarize the principles of pie and tart crust preparation.

Anticipated Problem: How do pies and tarts differ? What are the different type of crusts used for pies and tarts?

I. Pies and Tart Crusts

- A. A **pie** is composed of a sweet or savory filling in a baked crust. It can be open faced (without a top crust) or, more typically, topped with a full or lattice crust. A pie is generally made in a round, slope-sided pan and cut into wedges for service. A **tart** is similar to a pie except it is made in a shallow, straight-sided pan, often with fluted edges. A tart can be almost any shape; round, square, rectangular and petal shapes are the most common. It is usually open-faced and derives most of its beauty from an attractive arrangement of glazed fruit, piped cream, or chocolate decorations.
- B. Crusts — Pie crusts and tart shells can be made from several types of dough or crumbs. Flaky dough, mealy dough and crumbs are best for pie crusts; sweet dough is usually used for tart shells. A pie crust or tart shell can be shaped and completely baked before filling, known as **baked blind** or filled and baked simultaneously with the filling.
1. FLAKY AND MEALY DOUGHS: Flaky and mealy pie doughs are quick, easy and versatile.
 - a. **Flaky dough** takes its name from its final baked texture. It is best for pie top crusts and lattice coverings and may be used for prebaked shells that will be filled with a cooled filling shortly before service.
 - b. **Mealy dough** takes its name from its raw texture. It is used whenever soggy crust would be a problem because it is sturdier and resists sogginess better than flaky dough.
 - c. Both flaky and mealy doughs are too delicate for tarts that will be removed from the pan for service.
 - d. Flaky and mealy doughs contain little or no sugar and can be prepared from the same formula with only a slight variation in mixing method. For both types of dough, a cold fat, such as butter or shortening, is cut into the flour. The amount of flakiness in the baked crust depends on the size of the fat particles in the dough. The larger the pieces of fat, the flakier the crust will be.
 - e. The type of fat used affects both the dough's flavor and flakiness. Butter contributes a delicious flavor, but does not produce as flaky a crust as

other fat. Vegetable shortening produces a flaky crust but contributes nothing to its flavor. The flakiest pastry is made with lard.

- f. After the fat is cut into the flour, water or milk is added to form a soft dough. Less water is needed for mealy dough because more flour is already in contact with the fat, reducing its ability to absorb liquid. Cold water is normally used for both flaky and mealy doughs.
2. SWEET DOUGH: **Sweet dough** is a rich, non-flaky dough used for sweet tart shells. It is sturdier than flaky or mealy dough because it contains egg yolks and the fat is blended in thoroughly. Due to more fat coating the flour, less gluten is formed, making for a tender dough when baked. It is also more cookie like than a classic pie dough and has the rich flavor of butter. It creates a crisp but tender crust and is excellent for tartlets as well as for straight-sided tarts that will be removed from their pans before service. Follow this procedure for preparing sweet dough:
 - a. Cream softened butter. Add sugar and beat until the mixture is light and fluffy.
 - b. Slowly add eggs, blending well.
 - c. Slowly add flour, mixing only until incorporated. Overmixing toughens the dough.
 - d. Cover the dough with plastic wrap and chill thoroughly before using.
 - e. Scraps may be rerolled once or twice, provided the dough is still cool, non-greasy and pliable. If too much gluten develops, the crust will shrink and toughen.
3. CRUMB CRUSTS:
 - a. A quick and tasty bottom crust can be made from finely ground cookie crumbs moistened with melted butter. Crumb crusts can be used for unbaked pies such as those with cream or chiffon fillings, or they can be baked with their fillings as with cheesecakes.
 - b. Chocolate cookies, graham crackers, gingersnaps, vanilla wafers and macaroons are popular choices from crumb crusts. Some breakfast cereals such as corn flakes or bran flakes are also used. Ground nuts and spices can be added for flavor. Whatever cookies or other ingredients are used, be sure they are ground to a fine, even crumb. If packaged crumbs are unavailable, a food processor, blender or rolling pin can be used.
 - c. The typical ratio for a crumb crust is one part melted butter, two parts sugar and four parts crumbs. The amount of sugar may need to be adjusted depending on the type of crumbs used. If the mixture is too dry to stick together, gradually add more melted butter. Press the mixture into the bottom of the pan and chill or bake it before filling.

C. Shaping and Baking Crusts

1. SHAPING CRUSTS:

- a. Crusts are shaped by rolling out the dough to fit into a pie pan or tart shell or to sit on top of fillings. Mealy, flaky and sweet doughs are all easier to

roll out and work with it well chilled, as chilling keeps the fat firm and prevents stickiness.

- b. When rolling and shaping the dough, work on a clean, flat surface (wood or marble is the best). Lightly dust the work surface, rolling pin and dough with pastry flour before starting to roll the dough. Also, work only with a manageable amount at a time: usually one crust's worth for a pie or standard-sized tart.
 - c. Roll out the dough from the center, working toward the edges. Periodically, lift the dough gently rotate it. This keeps the dough from sticking and helps produce an even thickness. If the dough sticks to the rolling pin or work surface, sprinkle on a bit more flour. Too much flour, however, makes the crust dry and crumbly and causes gray streaks.
2. BAKING CRUSTS:
- a. Pie crusts can be filled and then baked, or baked and then filled. To retain their shape, pie crusts are baked blind.
 - b. Unfilled baked crusts can be stored at room temperature for 2 to 3 days or wrapped in plastic wrap and frozen for as long as 3 months.

Teaching Strategy: Many techniques can be used to help students master this objective. Use VM–A through VM–E to facilitate a discussion of pies and tarts and the different crusts used in them.

Objective 2: Describe common fillings used in pies and tarts.

Anticipated Problem: What type of fillings are used in pies and tarts?

II. Pie and Tart Fillings

A. Fillings make pies and tarts distinctive and flavorful. Four types of fillings are common: cream, fruit, custard and chiffon. There is no one correct presentation or filling-and-crust combination. Only an understanding of the fundamental techniques for making filling, and some imagination, ensures success.

1. CREAM FILLINGS:

- a. A cream filling is really nothing more than a flavored pastry cream. **Pastry cream** is a type of starch-thickened egg custard. When used as a pie filling, pastry cream should be thickened with cornstarch so that it is firm enough to hold its shape when sliced. Popular flavors are chocolate, banana, coconut and lemon.
- b. A cream filling is fully cooked on the stove top, so a prebaked or crumb crust is needed. The crust can be filled while the filling is still warm, or the filling can be chilled and piped into the crust later. A cream pie is often topped with meringue, which is then browned quickly in an oven or under a broiler.

2. FRUIT FILLINGS:

- a. A **fruit filling** is a mixture of fruit, fruit juice, spices and sugar thickened with a starch. Apple, cherry, blueberry and peach are traditional favorites. The fruit can be fresh, frozen or canned. The starch can be flour, cornstarch, tapioca or a packaged commercial instant starch. The ingredients for a fruit filling are most often combined using one of three methods: cooked fruit, cooked juice or baked.
 - b. The cooked fruit filling method is used when the fruits need to be softened by cooking or are naturally rather dry. A cooked fruit filling should be combined with a prebaked or crumb crust.
 - c. The cooked juice filling method is used for juicy fruits such as berries, especially when they are canned or frozen. This method is also recommended for delicate fruits that cannot withstand cooking, such as strawberries, pineapple and blueberries. Since only the juice is cooked, the fruit retains its shape, color and flavor better. A cooked juice filling should be combined with a prebaked or crumb crust.
 - d. The baked fruit filling method is a traditional technique in which the fruit, sugar, flavorings and starch are combined in an unbaked shell. The dough and filling are then baked simultaneously.
3. CUSTARD FILLINGS: A **custard pie** has a soft filling that bakes along with the crust. Popular examples include pumpkin, egg custard and pecan pies.
- a. To make a custard pie, an uncooked liquid containing eggs is poured into a pie shell. When baked, the egg proteins coagulate, firming and setting the filling.
 - b. The procedure for making custard pies is simple: combine the ingredients and bake.
 - c. To determine the doneness of a custard pie, shake the pie gently. It is done if it is no longer liquid. The center should show only a slight movement. You could also insert a thin knife about 1 inch from the center. The filling is done if the knife comes out clean.
4. CHIFFON FILLINGS: A **chiffon filling** is created by adding gelatin to a stirred custard or fruit puree. Whipped egg whites are then folded into the mixture. The filling is placed in a prebaked crust and chilled until firm.
- B. Assembling Pies and Tarts — The various types of pie fillings can be used to fill almost any crust or shell, provided the crust is prebaked as necessary. The filling can then be topped with meringue or whipped cream as desired. Garnishes such as toasted coconut, cookie crumbs and chocolate curls are often added for appearance and flavor.

Teaching Strategy: *Many techniques can be used to help students master this objective. Use VM–F to facilitate a discussion of pie and tart fillings and assembly. Assign LS–A.*

- **Review/Summary.** Use the student learning objectives to summarize the lesson. Have students explain the content associated with each objective. Student responses can be used in determining which objectives need to be reviewed or taught from a different angle. If a textbook is being used, questions at the ends of chapters may also be included in the Review/Summary.
- **Application.** Use the included visual master(s) and lab sheet(s) to apply the information presented in the lesson.
- **Evaluation.** Evaluation should focus on student achievement of the objectives for the lesson. Various techniques can be used, such as student performance on the application activities. A sample written test is provided.

■ **Answers to Sample Test:**

Part One: Matching

1. d
2. b
3. f
4. c
5. e
6. a

Part Two: Completion

1. crumb crusts
2. fruit filling
3. garnishes
4. baked fruit filling method
5. Flour
6. cream filling

Part Three: Short Answer

1. Answers may vary and would be similar to the following. Baking blind, sometimes called pre-baking is the process of baking a pie crust or other pastry without the filling. Blind baking a pie crust is necessary when it will be filled with an unbaked filling, such as, cream filling, in which case the crust must be fully baked.
2. Answers may vary and would be similar to the following. Cold water or milk helps to keep the fat cold so that it does not melt when you are working with the dough. This will help to keep the crust flaky as well.

Pies and Tarts: Fillings and Crusts

► Part One: Matching

Instructions: Match the term with the correct definition.

- | | |
|--------------------|----------------|
| a. chiffon filling | d. custard pie |
| b. pastry cream | e. flaky dough |
| c. sweet dough | f. mealy dough |

- ____ 1. A pie that has a soft filling that bakes along with the crust. Popular examples include pumpkin, egg custard and pecan pies
- ____ 2. This pie filling is a type of starch-thickened egg custard
- ____ 3. This type of dough is used whenever soggy crust would be a problem because it is sturdier and resists sogginess better than flaky dough
- ____ 4. This dough is a rich, non-flaky dough used for sweet tart shells
- ____ 5. This dough is best for pie top crusts and lattice coverings and may be used for prebaked shells that will be filled with a cooled filling shortly before service
- ____ 6. A filling created by adding gelatin to a stirred custard or fruit puree

► Part Two: Completion

Instructions: Provide the word or words to complete the following statements.

1. Chocolate cookies, graham crackers, gingersnaps, vanilla wafers and macaroons are popular choices for _____.
2. A mixture of fruit, fruit juice, spices and sugar thickened with a starch is a _____.



WHAT IS THE CULINARY TERM “CUT IN”?

The culinary term “cut in” means to distribute solid fat in flour using a cutting motion, with a pastry blender.



WHAT IS A PIE?

A *pie* is composed of a sweet or savory filling in a baked crust. It can be open faced (without a top crust) or, more typically, topped with a full or lattice crust. A pie is generally made in a round, slope-sided pan and cut into wedges for service.



WHAT IS A TART?

A *tart* is similar to a pie except it is made in a shallow, straight-sided pan, often with fluted edges. A tart can be almost any shape; round, square, rectangular and petal shapes are the most common. It is usually open-faced and derives most of its beauty from an attractive arrangement of glazed fruit, piped cream, or chocolate decorations.



WHAT IS BAKING BLIND?

Baking blind, sometimes called pre-baking is the process of baking a pie crust or other pastry without the filling. Blind baking a pie crust is necessary when it will be filled with an unbaked filling, in which case the crust must be fully baked. Pie crusts are lined with parchment paper and filled with beans or pastry weights to prevent the crust from puffing up during the baking process.



PIE CRUSTS

Pie crusts and tart shells can be made from several types of dough or crumbs. Flaky dough, mealy dough and crumbs are best for pie crusts; sweet dough is usually used for tart shells.



PIE AND TART FILLINGS

Fillings make pies and tarts distinctive and flavorful. Four types of fillings are common: cream, fruit, custard and chiffon. There is no one correct presentation or filling-and-crust combination. Only an understanding of the fundamental techniques for making filling, and some imagination, ensures success.



Pies and Tarts

Purpose

The purpose of this activity is to prepare a pie using a flaky pie dough or a mealy pie dough.

Objective

Research, plan, and prepare both a mealy and flaky crust pie.

Materials

- ◆ lab sheet
- ◆ device with Internet access
- ◆ recipe for pie crusts from textbook
- ◆ ingredients as needed to prepare the pies

Procedure

1. Work with a partner or small group to complete this lab activity. Review your class notes about pie crusts.
2. Using classroom standard practices, plan for the preparation of the pies. Have your lab plans approved by your instructor.
3. Conduct mis en place. As directed, prepare and bake the pies. Follow standard safety and sanitation rules. Use proper techniques to ensure the crust matches the characteristics learned in class and that you do not add too much flour to the crusts.
4. Remove pies from oven and follow recipe directions for cooling.
5. Finally, present your pies to your instructor and turn in your completed lab sheet and reflection.

