

**Course Title:** Bake Shop  
**Board Approval Date:** 04/14/14  
**Credit / Hours:** .5 credit

**Course Description:**

This is an elective course that sharpens a student’s baking skills. This course opens the door to career opportunities, a lucrative part time job, or experiences to enhance a student’s own home baking. In this course students will learn how ingredients work with one another as they prepare (and sample) breads, biscuits, cakes, and pastries.

**Learning Activities / Modes of Assessment:**

Large group instruction	Quizzes
Food Labs	Checklists / Teacher Observation
Small group work	Projects with Rubrics

**Instructional Resources:**

*Professional Baking* 3<sup>rd</sup> Edition (John Wiley & Sons, 2001) Wayne Gisslen (Featuring recipes from Le Cordon Bleu)

Variety of classroom resources (cookbooks, videos, and websites) that are relevant and appropriate related to the units in the course.

Teacher made: ‘Gingerbread Booklets’ and power point aligned to units in the course.

Various Wilton resources for baking cakes and cake decorating.

## Course Pacing Guide

Course: **Bakeshop**

<b>Course Unit (Topic)</b>	<b>Length of Instruction (Days/Periods)</b>
1. Basic Principles	6 days
2. Ingredients	4 days
3. Equipment	1 days
4. Working with Yeast	20 days
5. Quick Bread	3 days
6. Cakes	5 days
7. Cookies (Gingerbread Houses	25 days
8. Holidays	15 days
9. Pies	<u>6 days</u>
Total Days	85 Days

Topic: Unit 1 ~ Basic Principles

Days: 6

Subject(s):

Grade(s):

Know:

Understand:

Do:

**11.3.6.B – Essential**

Describe safe food handling techniques (e.g., storage, temperature control, food preparation, conditions that create a safe working environment for food production).

Know the difference between weight and volume.

Know how to find percentage of a whole.

Tare

How to scale ingredients

Equivalent Measures

Professional Baker's use formulas to manipulate recipes

Know when it is not necessary to scale ingredients. (Dry ingredients have mass/weight & wet ingredients take up space/volume).

Know how to measure flour when the recipe says 1 c. flour, 1 c. sifted flour, and 1 c. flour sifted.

Understand the importance of accuracy, time management, sanitation and cleanliness, and the concept of mis en place.

Understand that baked goods usually have the same basic ingredients, (flour, water, egg, fat, leavener), yet the infinite number of end products has everything to do with proportion and sequence of mixing ingredients.

Why professional baker's scale ingredients

How to use baker's formula to find out quantity of ingredients used based on flour being 100% of the ingredients, and how to manipulate the proportions to change the yield.

Understand the importance of sifting or not sifting as instructed, especially when working with large quantities of flour.

**11.3.3.F – Unranked**

Identify components of a basic recipe (e.g., volume, weight, fractions, recipe ingredients, recipe directions, safety techniques).

**11.3.3.G – Unranked**

Classify foods according to senses (e.g., taste, touch, smell, mouth feel, sight, sound).

**11.3.6.B – Essential**

Describe safe food handling techniques (e.g., storage, temperature control, food preparation, conditions that create a safe working environment for food production).

11.3.3.F - Identify components of a basic recipe (e.g., volume, weight, fractions, recipe ingredients, recipe directions, safety techniques).  
11.3.3.G - Classify foods according to senses (e.g., taste, touch, smell, mouth feel, sight, sound).

Topic: Unit 2 ~ Ingredients

Days: 4

Subject(s):

Grade(s):

Know:

Understand:

Do:

**11.3.9.G – Important**

Analyze the application of physical and chemical changes that occur in food during preparation and preservation.

Functions of:

flour, water, eggs, shortening, salt, yeast or chemical leaveners in baked goods

The higher the protein content of flour, the more structure there is in the baked good.

Protein and starch provide structure of baked goods

The less protein, the more delicate and tender the product is.

Bread Flour = high protein

Pastry/Cake Flour = low protein

Glutenin + gliadin + moisture = gluten (a stretchy, elastic like protein)

In what forms yeast is sold, and the equivalencies of fresh and dry (3:1)

Types of sweeteners used in baked goods: molasses, b. sugar,

Understand the differences in flour products and what and which baked goods they're best used for.

Understand the importance of using the exact ingredients; little margin for error when baking. Baking is like kitchen chemistry.

Understand the pros & cons of the different types of fats used in baking and when they're best used.

Raw, unpasteurized eggs can be a source of salmonella.

**11.3.9.G – Important**

Analyze the application of physical and chemical changes that occur in food during preparation and preservation.

Topic: Unit 2 ~ Ingredients

Days: 4

Subject(s):

Grade(s):

Know:

Understand:

Do:

turbinado sugar, raw sugar, coarse, granulated, confectioners', superfine, corn syrup, maple syrup, honey.		
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Topic: Unit 3 ~ Equipment

Days: 1

Subject(s):

Grade(s):

Know:

Know which attachments to use on the stand mixer for different products (whip, paddle, hook).

How to use ovens (setting temp, time).

How to choose the size of the stove coils based on the size of the pots/pans.

Where equipment (small and large) is located.

Types of ovens: gas, electric, steam injection, convection, brick lined, reel.

Large Scale Bakeries:  
Reel Ovens, Sheeter,  
Proofing cabinets

Small Equipment: tart pans, sheet pans, springform pans, soufflé, ramekins, pastry bags, pastry brushes, pastry cutteers, bench scrapers, rolling pins

Understand:

By using equipment properly we reduce the chance of personal injury, we increase the lifespan of the equipment, and we are more likely to create a great end product for consumption.

Ramekins and soufflé cups are types of molds or rings in which to bake

The surface of the pan effects its ability to reflect or retain heat (light surface reflects heat, dark surface retains heat)

Do:

Use equipment safely (to avoid injury, damage to equipment, and to produce a great end product for consumption)

Topic: Unit 4 ~ Working with YEAST

Days: 20

Subject(s):

Grade(s):

Know:

Understand:

Do:

**11.3.9.G – Important**

Analyze the application of physical and chemical changes that occur in food during preparation and preservation.

**11.3.12.G – Important**

Analyze the relevance of scientific principles to food processing, preparation and packaging.

How to perform the steps in yeast bread production: scaling, kneading, rounding, fermentation, bench rest, shaping, panning, proofing, washing, slashing, docking baking, cooling, storing/packaging

Straight Dough Method: mixing all ingredients in a single step

Modified Straight-dough Method: Dissolving yeast in water first, combining other ingredients, mixing, adding eggs, adding flour and yeast last.

Sponge Method: allows yeast to develop separately for a lighter, airy texture and less time for fermentation or proofing.

Working with yeast dough is an ART, SCIENCE, and MATH all in one! The more practice with yeast, the better the results.

Yeast doughs are 'sensitive' to the climate around them (temperature and moisture)... therefore the 'feel' of the dough may alter exactly how the recipe is followed.

Yeast doughs should do their first rise and proofing in a warm, draft free location.

Under-proofing results in a denser, heavier product.

Understand what happens during the fermentation process

Understand the ingredient, flavor, and texture differences between hard lean doughs, soft medium doughs, soft rich doughs, and rolled in fat yeast doughs.

How to cool and store products to avoid moisture build-up (sogginess) or staling.

**11.3.9.G – Important**

Analyze the application of physical and chemical changes that occur in food during preparation and preservation.

**11.3.12.G – Important**

Analyze the relevance of scientific principles to food processing, preparation and packaging.

Topic: Unit 4 ~ Working with YEAST

Days: 20

Subject(s):

Grade(s):

Know:

Understand:

Do:

How to braid a 2, 3, 4, 5, and 6 strands into a loaf or ring.

Know what activates yeast (moisture, food, warmth)

Too much heat can kill yeast.

Salt can retard fermentation process and sugar can accelerate it.

Oven spring

How to check for doneness



Topic: Unit 5 ~ Quick Bread

Days: 3

Subject(s):

Grade(s):

Know:

Understand:

Do:

**11.3.9.G – Important**  
 Analyze the application of physical and chemical changes that occur in food during preparation and preservation.

How to perform the conventional and muffin methods

Quick breads use chemical leaveners (baking soda or baking powder), not yeast.

The difference between pour batters, drop batters, and doughs

Leaveners have an expiration, should not be bought in bulk.

Over or under mixing doughs and batters can have less than appealing results: dense, slick, odd shape, tunneling, tough texture

**11.3.9.G – Important**  
 Analyze the application of physical and chemical changes that occur in food during preparation and preservation.

Topic: Unit 6 ~ Cakes

Days: 5

Subject(s):

Grade(s):

Know:

**11.3.9.G – Important**

Analyze the application of physical and chemical changes that occur in food during preparation and preservation.

Mixing methods of cakes (Conventional and One-Bowl Method, creaming, blending, sponge or foam, angel food method, chiffon method)

Functions of ingredients  
 Classifications of cakes (shortened, foam, chiffon, high fat cakes, lower fat cakes)  
 Characteristics of a high quality cake.  
 How to use basic decorating tools/equipment  
 How to prepare pans  
 Know how to get best results from oven: centering pans for air circulation, ensuring that it is preheated, not to disturb the temperature  
 how to test for doneness

Understand:

Following cake recipes has little room for error or substitutions.... think of them as chemical equations!  
 How to test the consistency of icing (thin, medium, thick) with the spatula  
 Different icing consistencies serve different purposes (for example... thin:lettering, medium:scrolls, thick:roses)  
 Cake decorating techniques can be applied to the gingerbread house construction/decoration  
 Decorating/Frosting cakes can prevent staling and make it extra special for any occasion.

Do:

**11.3.9.G – Important**

Analyze the application of physical and chemical changes that occur in food during preparation and preservation.

Topic: Unit 7~ Cookies (GINGERBREAD HOUSES)

Days: 25

Subject(s):

Grade(s):

Know:

Understand:

Do:

**11.3.9.G – Important**

Analyze the application of physical and chemical changes that occur in food during preparation and preservation.

The different cookie classifications (drop, bar, refrigerator, molded, filled, pressed, rolled)

Measurement (volume, fractions, weight, equivalencies, abbreviations)

Historic roots of gingerbread houses

The importance of careful planning and time management

The importance of creating cookies that are uniform in size for even baking.

How to conserve materials (especially ingredients)

Have an appreciation for edible art.

Understand how design elements effect how aesthetically pleasing their gingerbread houses are (color, shape, line, texture, contrast, proportion/scale, etc.)

**11.3.9.G – Important**

Analyze the application of physical and chemical changes that occur in food during preparation and preservation.

**9.1.12.A – Essential**

Know and use the elements and principles of each art form to create works in the arts and humanities.

- Elements

Dance: energy/force, space, time

Music: duration, intensity, pitch, timbre

Theatre: scenario, script/text, set design

Visual Arts: color, form/shape, line, space, texture, value

- Principles

Dance: choreography, form, genre, improvisation, style, technique

Music: composition, form, genre, harmony, rhythm, texture

Theatre: balance, collaboration, discipline, emphasis, focus, intention, movement, rhythm, style, voice

Visual Arts: balance, contrast, emphasis/focal point, movement/rhythm, proportion/scale, repetition, unity/harmony

Design and Create a 3-D gingerbread houses in small groups

Make and pipe royal icing for gingerbread houses

Decorate house and landscaping with edible confections

Display gingerbread house during TreeFest in the Caldwell consistory

Manage time and resources efficiently

Work cooperatively with group members

Problem solve throughout the ongoing project

Topic: Unit 8 ~ Holidays

Days: 15

Subject(s):

Grade(s):

Know:

Understand:

Do:

<p><b>11.3.9.F – Essential</b>                  Hypothesize the effectiveness of the use of meal management principles (e.g., time management, budgetary considerations, sensory appeal, balanced nutrition, safety, sanitation).</p> <p>How to read recipes                  How to manage time                  How to manage resources                  How to minimize the risks of food borne illness</p>	<p>The importance of careful planning, efficiency, food safety.</p> <p>How to apply meal planning and menu planning concepts</p>	<p><b>11.3.12.F – Essential</b>                  Evaluate the application of nutrition and meal planning principles in the selection, planning, preparation and serving of meals that meet the specific nutritional needs of individuals across their lifespan.</p> <p><b>11.3.9.F – Essential</b>                  Hypothesize the effectiveness of the use of meal management principles (e.g., time management, budgetary considerations, sensory appeal, balanced nutrition, safety, sanitation).</p>
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Topic: Unit 9 ~ Pies

Days: 6

Subject(s):

Grade(s):

Know:

**11.3.12.C – Essential**

Evaluate sources of food and nutrition information.

**11.3.9.G – Important**

Analyze the application of physical and chemical changes that occur in food during preparation and preservation.

How to mix pie dough that is tender and flaky

How to roll out pie dough

Basic tricks in handling pie dough

Various techniques in finishing off the crust: crimping edges, fork press, pierce crust for vent holes, lattice, etc.

It is important to touch meringue to the crust so it doesn't slide across the filling and shrink as it bakes.

How to test a baked custard for doneness.

Pastry flour has lower protein content and makes a more tender crust.

There are different ways to shape a crust: flute single crust, seal and

Understand:

Why some pie crusts become tough instead of tender and flaky (too much water, too much mixing and handling, re-rolling scraps)  
How butter, margarine, and shortening contribute to the crust (flavor, color, texture, malleability)

Making pie crust is an art that takes lots of practice to master.... the more you do, the better you become. How butter, margarine, and shortening change the texture, taste, and shelf life of a pie crust.

Do:

**11.3.12.C – Essential**

Evaluate sources of food and nutrition information.

**11.3.9.G – Important**

Analyze the application of physical and chemical changes that occur in food during preparation and preservation.

Topic: Unit 9 ~ Pies

Days: 6

Subject(s):

Grade(s):

Know:

Understand:

Do:

flute double crust,  
lattice.

Know techniques for  
rolling out pie crust  
properly and lift it to pie  
pan to avoid tearing.