



Culinary Foundations I

Class 7: Baking & Roasting; Dairy & Cheeses

Roasting and Baking

▶ Dry Heat*

- ▶ True “Roasting” is a very dry heat by a radiant heat source... think open rotisserie.
- ▶ Roasting in an oven produces some steam.
 - ▶ From product
 - ▶ From combustion of fuel

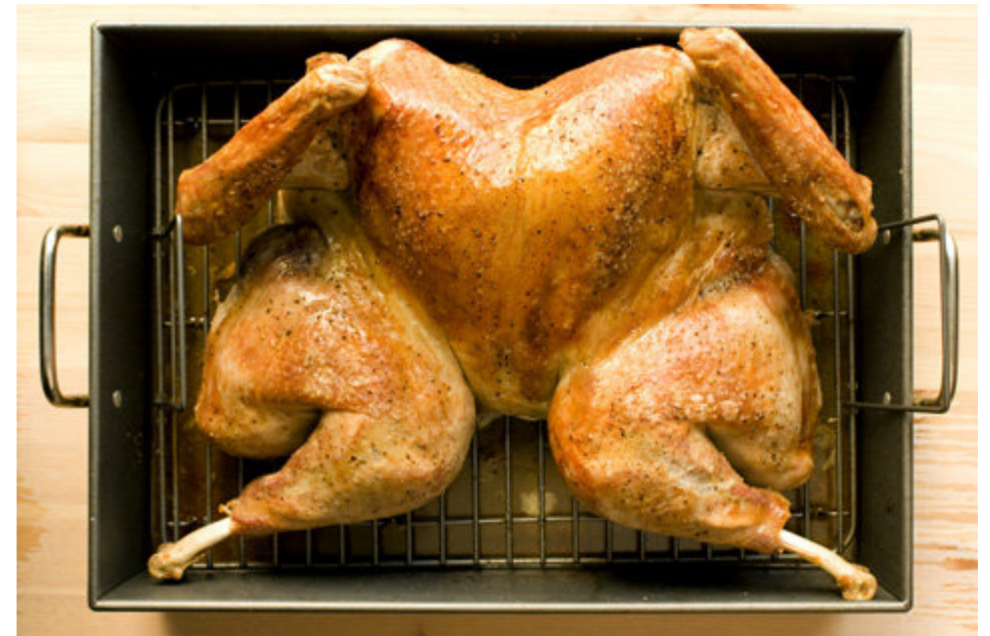
▶ Roasting

- ▶ In an oven, over open fire or coals or in a rotisserie
- ▶ Usually Refers to Meats, Vegetable
- ▶ Usually contains more than one portion
- ▶ BBQ (not Grilling) is really “Slow-Roasting”

▶ Baking includes plus breads and pastry

Roasting and Baking Procedure

- ▶ Preheat oven, and use an oven thermometer
- ▶ Use a probe-meat thermometer to check doneness
- ▶ Cooking times are just guidelines
 - ▶ Density of Food
 - ▶ Size of Food
 - ▶ Shape and Configuration of Food
 - ▶ Ex. Whole Turkey vs. a Butterflied Turkey
 - ▶ The Temperature of Heat Source



Roasting and Baking Procedure, Con' t.

- ▶ To caramelize the food, dry the surface.
- ▶ Season the roast raw, after drying.
- ▶ Use a lower temp for large roasts, a higher temp for small.
- ▶ Place food on a rack or roasting pan
 - ▶ Size and Shape Matters!
 - ▶ Too large and juices burn
 - ▶ Too high and part of the roast steams

Roasting and Baking Procedure, Con' t.

- ▶ Baste as necessary
- ▶ Allow for retained heat or “carry-over” cooking
- ▶ Rest the meat before carving
- ▶ Make a pan-sauce from drippings

Roasted...



Roasted...



Roasted...



Poultry



White Meat vs. Dark Meat



Chicken Leg



Breast



Main Breast Meat and Tender



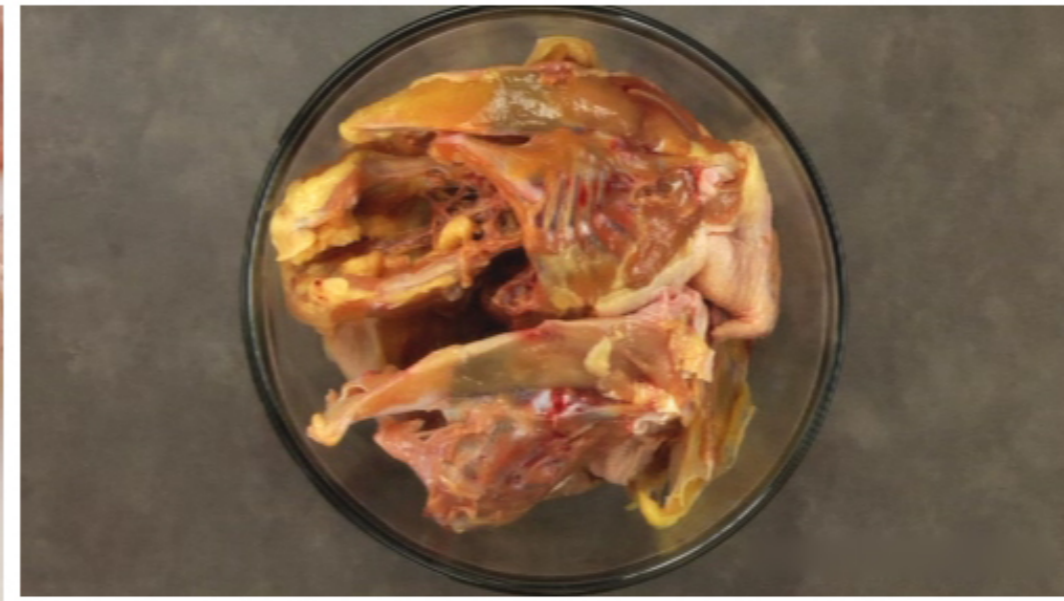
Chicken, Duck & Turkey Breasts



Duck Breast



Neck, Tongue, The Innards...or Giblets, Feet, & Bones



Dairy

- ▶ Any Milk-Based Product
- ▶ Milk is Produced by Mammals



Pasteurization

- ▶ Process of heating milk to a sufficiently high temperature for a sufficient length of time to destroy pathogenic bacteria
- ▶ Milk
 - ▶ 145°F/30 minutes or 165°F/15 seconds

Ultra-Pasteurization

- ▶ Process by which milk is heated to a very high temperature for a very short time
- ▶ Milk
 - ▶ 275° F/2-4 seconds
- ▶ Dramatically Extends Shelf Life
- ▶ Alters Flavor

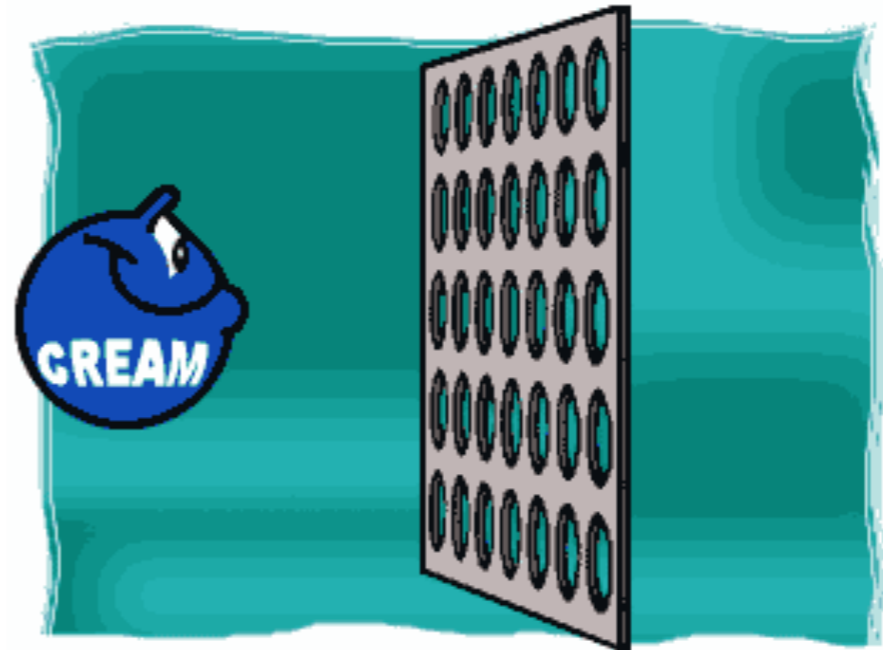
UHT (Ultra High Temperature) Processing

- ▶ Milk is briefly heated to a very high temp. and packaged under sterile conditions
- ▶ 3-Month Shelf-Life
- ▶ Has Cooked-Milk Taste



Homogenization

- ▶ Process in which the fat globules in whole milk are reduced in size and permanently dispersed throughout the liquid



“Certified” Raw Milk

- ▶ Milk that is Unpasteurized
- ▶ Banned in Most States
- ▶ Understand the Health Risks
- ▶ Better Taste and (?) Better Nutrition



Milk Fat

▶ Cows

- ▶ Whole Milk (3.6%)
- ▶ Reduced-Fat (2%)
- ▶ Low-Fat (1%)
- ▶ Non-Fat (Less than .5%)

▶ FYI

- ▶ Human Milk (4.2% Fat)
- ▶ Seal Milk (53.3%)

Concentrated Milk

- ▶ **Evaporated**
 - ▶ 60% of the water is removed
- ▶ **Sweetened condensed**
 - ▶ 60% of the water is removed and 40%-45% sugar has been added
- ▶ **Dry milk powder**
 - ▶ Virtually all of the water has been removed

Cream

- ▶ **Half and half**
 - ▶ A mixture of whole milk and cream, contains 10%-18% milkfat
- ▶ **Light cream, coffee cream, table cream**
 - ▶ More than 18% but less than 30% milkfat
- ▶ **Light whipping cream**
 - ▶ Contains between 30% and 36% milkfat
- ▶ **Heavy whipping cream**
 - ▶ Contains not less than 36% milkfat

Whipping Cream:

- ▶ Use Cold Cream and Cold Bowl
- ▶ Soft, Medium and Firm Peaks
- ▶ Too Much Whipping Produces Curd-like Consistency, then...
- ▶ Butter!

Lactose Intolerance

- ▶ Increases with Age
- ▶ Causes Intestinal “Distress”
- ▶ Northern Europeans the Most Tolerant
- ▶ Asians are the Most Susceptible



Milk Substitutes

- ▶ Sheep, Goat & Water Buffalo Milk
- ▶ Soy Milk
- ▶ Rice Milk
- ▶ Almond Milk



Cultured Milk Products

- ▶ Buttermilk
 - ▶ Originally a by-product of butter production
 - ▶ Tart milk with a thick texture; fresh milk whole or low-fat with a culture (*Streptococcus lactis*) added



Cultured Milk Products, con' t

- ▶ Sour cream
 - ▶ White, tangy gel used as a condiment; the same culture is added to pasteurized, homogenized light cream



Cultured Milk Products, con' t.

- ▶ Crème Fraîche
 - ▶ Thinner, less sour, and richer (More FAT!) than sour cream; the same culture is added to heavy cream



Crème Fraîche Recipe

- ▶ 1/2 cups heavy cream
- ▶ 1/2 cup cultured buttermilk
- ▶ 1/2 lemon, juice of
- ▶ Combine in a saucepan over low heat, cook to 85 degrees.
- ▶ Leave in a warm place (70-80 degrees) until it thickens and develops a slightly tart flavor, about 12-24 hours
- ▶ When the cream has thickened, store in a covered container in the refrigerator for up to 10 days.
- ▶ Creme fraiche will thicken more as it chills.

Cultured Milk Products, con' t.

- ▶ Yogurt
 - ▶ Thick, tart, custard-like product cultured with *Lactobacillus bulgaricus* and *Streptococcus thermophilus*; can be made with whole, low-fat or skim milk



Butter

- ▶ **Salted butter**
 - ▶ Butter with 2.5% salt added
 - ▶ Changes flavor and extends keeping qualities
- ▶ **European-style butter**
 - ▶ Contains more butterfat than regular butter, up to 82%-86%; contains very little salt
- ▶ **Whipped butter**
 - ▶ Made by incorporating air into butter
- ▶ **Clarified butter**
 - ▶ Butter that has had its water and milk solids removed

Margarine

- ▶ A nondairy product
- ▶ Manufactured from animal or vegetable fats
- ▶ Flavorings, colorings, emulsifiers, preservatives and vitamins are added
- ▶ Like butter, contains 80% fat and 16% water
- ▶ Frequently used as a substitute for butter in baking and cooking
- ▶ Does not equal butter's flavor

Natural Cheeses

- ▶ Cheese is one of the oldest and most widely used foods known to man
- ▶ Hundreds of natural cheeses are produced worldwide
- ▶ Cheeses are a product of their environment
- ▶ Cheese is made from a variety of animal milks

Types of Cheese

- ▶ Natural
- ▶ Fresh
- ▶ Soft
- ▶ Semi-Soft
- ▶ Firm
- ▶ Hard
- ▶ Processed



Fresh or Un-ripened Cheeses

- ▶ **Cream Cheese**
 - ▶ Soft cow's-milk cheese; smooth and mild flavor
- ▶ **Feta**
 - ▶ Semisoft Greek or Italian cheese made from sheep's or goat's milk; white flaky cheese that is stored in brine
- ▶ **Mascarpone**
 - ▶ Soft cow's-milk cheese originally from Italy; extremely smooth and creamy
- ▶ **Mozzarella**
 - ▶ Firm Italian cheese traditionally made with water buffalo's milk; very mild white cheese that is stringy when melted
- ▶ **Queso Oaxaca**
 - ▶ One of the most popular cheeses made in Mexico; good melting cheese with a smooth, semisoft texture
- ▶ **Ricotta**
 - ▶ A soft Italian cheese similar to American cottage cheese

Soft Cheeses

- ▶ **Bel Paese**
 - ▶ Mild and creamy with a fruity flavor
- ▶ **Brie**
 - ▶ Rind-ripened French cheese, creamy and rich; contains 60% fat
- ▶ **Boursin**
 - ▶ Triple-cream cow's-milk cheese flavored with peppers, herbs and garlic
- ▶ **Camembert**
 - ▶ Rind-ripened French cheese, creamy and rich; contains 45% fat; milder than brie
- ▶ **Taleggio**
 - ▶ Orange-colored washed rind cheese made from cow's milk; contains 48% fat

Semisoft Cheeses

- ▶ **Cabrales**
 - ▶ Blue-veined cheese, made from a blend of raw cow's, ewe's and goat's milks
- ▶ **Doux de Montagne**
 - ▶ Pale yellow with irregular holes and a mellow, sweet, nutty flavor
- ▶ **Fontina**
 - ▶ Has a dark gold, crusty rind; the pale gold, dense interior has few small holes; nutty and rich
- ▶ **Gouda**
 - ▶ This Dutch cheese is yellow with few small holes and a mild buttery flavor

Semisoft Cheeses (cont.)

- ▶ **Gorgonzola**
 - ▶ Italian blue-veined cow's-milk cheese; creamier than other blues
- ▶ **Havarti**
 - ▶ Cow's-milk monastery-style cheese from Denmark; mild flavor and creamy texture
- ▶ **Port du Salut**
 - ▶ French monastery-style cow's-milk cheese; smooth, rich and savory
- ▶ **Roquefort**
 - ▶ Blue-veined sheep's-milk cheese from France; intensely pungent with a rich, salty flavor and strong aroma
- ▶ **Stilton**
 - ▶ Blue-veined cheese of Great Britain; pungent, rich and tangy; combines the best of blues and cheddars

Firm Cheeses

▶ Cheddars

- ▶ Product of North America and Great Britain; flavors range from mild to very sharp

▶ Emmenthaler

- ▶ The original Swiss cheese; mellow, rich and nutty

▶ Gruyère

- ▶ Cow's-milk cheese made in the Swiss Alps; moist and highly flavorful

▶ Jarlsberg

- ▶ Swiss-type cheese from Norway; mild with a delicate sweet flavor

Firm Cheeses (cont.)

▶ **Manchego**

- ▶ Spanish sheep's-milk cheese; it has a buttery and slightly piquant flavor

▶ **Monterey Jack**

- ▶ A cheddar-like cow's-milk cheese from California; often flavored with peppers and herbs

▶ **Provolone**

- ▶ A cow's-milk cheese of southern Italy; commonly used for melting and in pizza and pasta dishes
 - ▶ Provolone dolce aged 2 months
 - ▶ Provolone piccante aged up to six months

Hard Cheeses

- ▶ **Asiago**

- ▶ Sharp and nutty with a cheddar like flavor; aged 1 year

- ▶ **Parmigiano-Reggiano**

- ▶ Made exclusively in the Parma region of Italy; primarily used for grating, it has a rich, spicy and sharp flavor

- ▶ **Pecorino Romano**

- ▶ A goat's-milk cheese; brittle and sharper than other grating cheeses, with a "sheepy" tang



Goat's-Milk Cheese

- ▶ **Chèvre**
 - ▶ French for goat, refers to small, soft, creamy cheeses produced in a variety of shapes
 - ▶ Often coated with ash, herbs and seasonings



Processed Cheeses

- ▶ **Pasteurized processed cheese**
 - ▶ Made from a combination of aged and green cheeses mixed with emulsifiers and flavorings, pasteurized and poured into molds
- ▶ **Processed cheese food**
 - ▶ Contains less natural cheese; often has vegetable oils and milk solids added
- ▶ **Imitation cheese**
 - ▶ Manufactured with dairy by-products and soy products mixed with emulsifiers, coloring and flavoring agents and enzymes

Serving Cheese

- ▶ Cheese can be served any time of the day
- ▶ Best if served at room temperature
- ▶ Use a variety of shapes and colors for visual appeal
- ▶ Use a variety of flavors and textures
- ▶ Provide enough serving knives for each cheese
- ▶ Serve with plain bread or crackers
- ▶ Non-citrus fruits are a nice accompaniment

Casu Marzu

- ▶ Fermented Pecorino Cheese
- ▶ Sardinia, Italy
- ▶ Illegal (and Toxic were the worms have died.
- ▶ So...Only eat the cheese with live worms!



EVIL



Class 7 Lab

Mise en Place

Knife Skills

Baking/Roasting Procedure

Trussing a Chicken

Herb Roasted Chicken

Roasted Root Vegetables

Rice Pilaf with Mushrooms & Sausage

Tarte au Citron Meringuée