

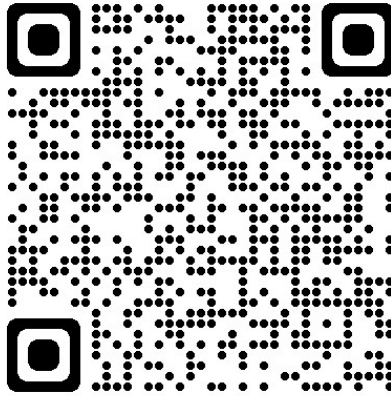


Culinary Institute of America

Research Chefs Association Culinary Fundamentals



The Culinary Institute of America, Hyde Park, NY



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COURSE INFORMATION

This program is developed to provide food scientists and technologists with an overview of fundamental cooking techniques and theories. Over the course of the week, students will participate in various learning activities including lectures, discussions, demonstrations, production exercises, and product evaluations. During production exercises, participants will work in teams to produce a variety of items that emphasize the topic's focus. This program is divided into four major topics:

- Dry-heat cooking with fats and oils
- Dry-heat cooking without fats and oils
- Combination cooking methods
- Moist-heat cooking methods

In addition, you will also study stocks, vegetable cookery, grain cookery, and emulsified sauces.

COURSE MATERIALS

The Professional Chef, 9th Edition

DAY ONE:

AROMATICS, STOCKS, AND THICKENING AGENTS

LEARNING OBJECTIVES

By the end of this day you should be able to...

- define stock.
- differentiate between white and brown stocks.
- outline the timing and sequences involved in the preparation of white and brown stocks.
- state the proper ratio of ingredients required to produce white and brown stocks.
- explain the function of the ingredients used to prepare white and brown stocks.
- prepare a white and brown stock with assistance from the chef instructor.
- evaluate the quality of white and brown stock.
- describe the uses of five thickening agents.
- demonstrate how roux and cornstarch are incorporated into a liquid.

LEARNING ACTIVITIES

Lecture / Discussion
Demonstrations
Hands-On Production
Product Evaluation

KEY TERMS

Aromatics	Bouquet garni	Sachet d'épices
Caramelization	Clarification	Stock
Coagulation	Consommé	Tempering
Court bouillon	Deglaze	Slurry
Fond	Fumet	Sweating
Gelatinization	Liaison	White mirepoix
Mirepoix	Mother sauce	
Mise en place	Onion brûlé	

Onion piqué
Reduction

Raft
Roux

INSTRUCTOR'S DEMONSTRATIONS

Roux

SUGGESTED READING ASSIGNMENTS

The Professional Chef, 9th Edition, pp. 239 – 266, 267 - 300

SUGGESTED AUDIOVISUAL ASSIGNMENT

Stocks: Brown, White, & Fish # 253

The Basics of Sauce Making Series

White Sauce # 2461

Brown Sauce # 2469

Tomato Sauce # 2470

Basic Kitchen Preparation Series

Aromatic and Flavoring Combinations # 1368

DAY ONE PRODUCTION ASSIGNMENTS

MENU ONE

Brown Veal Stock

Vegetable Stock I

Clarified Butter

Chicken Velouté

MENU TWO

Chicken Stock

Fish Stock

Clarified Butter

Béchamel

MENU THREE

White Beef Stock

Vegetable Stock II

Clarified Butter

Brown Sauce
Sauce Espagnole

BASIC ROUX

Yield: 2 Pounds

Ingredients	Amounts
Clarified butter or oil	1 lb.
All-purpose flour	1 lb. 8 oz.

Method

1. Heat the clarified butter or oil in a rondeau over moderate heat.
2. Add the flour all at once. Stirring constantly, cook over low heat until the roux is pale ivory, about 8 minutes.

Variations

White roux: Always use oil to maintain color. Cook as directed above.

Blond/pale roux: Cook roux for an additional 2 to 3 minutes, until roux becomes golden in color.

Brown roux: Continue to cook roux until browned and emits a pronounced nutty aroma.

BROWN VEAL STOCK

Yield: 1 Gallon

Ingredients	Amounts
Oil	4 fl. oz.
Veal bones, incl. knuckles and trim, rinsed and dried	8 lb.
Water, cold	6 qt.
Mirepoix	
Onions, large dice	8 wt. oz.
Carrots, large dice	4 wt. oz.
Celery, large dice	4 wt. oz.
Tomato paste	6 wt. oz.
Sachet d'épices	
Parsley stems	2-3 ea.
Bay leaf	1 ea.
Garlic clove	1 ea.
Dried or fresh thyme	½ tsp.
Cracked black peppercorns	½ tsp.
Salt (optional)	as needed

Method

1. To condition the roasting pan, place enough oil in the pan to form a light film, then heat the pan in a 425°F oven. Once hot, add the bones to the pan, then return to the oven. Roast the bones, turning occasionally, until they are a deep brown, about 30 to 45 minutes.
2. Transfer the bones to a stockpot and add cold water. Deglaze the roasting pan with a little additional cold water, then add the released drippings to the stockpot. Bring the stock to a simmer slowly over low heat. Adjust the heat if necessary to establish an even, gentle simmer and continue to cook, skimming the surface as necessary. Continue to simmer gently for about 5 hours.
3. While the stock is simmering, heat a rondeau over medium-high heat. Add enough oil to film the pan. Add the mirepoix and cook, stirring occasionally, until the onions are a deep golden brown, about 15 to 20 minutes.
4. Add the tomato paste to the rondeau and continue to cook, stirring frequently, until it takes on a rusty brown color and a sweet aroma, about 1 to 2 minutes. Add a few ladles of the stock to the rondeau and stir well to release the drippings; add this mixture to the stock after it has simmered for about 5 hours. Add the sachet.

5. Continue to simmer the stock, skimming as necessary and tasting occasionally, until it has developed a rich flavor and noticeable body, about 1 more hour.
6. Strain the stock and degrease, if necessary. Season with salt, if desired. It may be used now or can be rapidly cooled and stored for later use.

VEGETABLE STOCK I

Yield: 1 Gallon

Ingredients	Amounts
Vegetable oil	2 wt. oz.
Onions, sliced	1 lb.
Leeks, chopped	8 wt. oz.
Celery, chopped	8 wt. oz.
Green cabbage, chopped	4 wt. oz.
Bell pepper, trim	4 wt. oz.
Carrots, chopped	8 wt. oz.
Turnips, chopped	4 wt. oz.
Mushroom, trim	4 wt. oz.
Tomato, chopped	4 wt. oz.
Garlic cloves, crushed	6 ea.
Water, cold	6 qt.
<i>Sachet d'épices</i>	
Parsley stems	2-3 ea.
Bay leaf	1 ea.
Garlic clove	1 ea.
Dried or fresh thyme	1/2 tsp.
Cracked black peppercorns	1/2 tsp.

Method

1. Heat the oil in a large rondeau over medium-low heat and add the vegetables.
2. Sweat the vegetables until they have softened slightly and are aromatic, about 10 minutes.
3. Add the water and sachet d'épices and simmer for 30 to 40 minutes.
4. Strain the stock and degrease if necessary. It may be used now or can be rapidly cooled and stored for later use.

CLARIFIED BUTTER

Yield: 2¼ Pounds

Ingredients	Amounts
Unsalted butter	3 lb.

Method

1. Melt the butter in a heavy saucepan over moderate heat.
2. Continue to cook over low heat until the butterfat becomes very clear, and the milk solids drop to the bottom of the pot.
3. Skim the surface foam as the butter clarifies.
4. Pour or ladle off the butterfat into another container, being careful to leave all the liquid in the pan bottom. Discard the liquid.

CHICKEN VELOUTÉ

Yield: 2 Quarts

Ingredients	Amounts
Chicken stock	2 qt.
Pale roux	8 wt. oz.
Salt	½ tsp.
Ground white pepper	¼ tsp.

Method

1. Bring the stock to a boil.
2. Whisk the roux into the stock, working out any lumps.
3. Bring to a boil, whisking frequently, to prevent the sauce from scorching.
4. Reduce the heat to low and simmer for 30 to 60 minutes, stirring occasionally and skimming impurities as they rise to the surface of the sauce.
5. Season with salt and pepper to taste. Strain and cool.

Note: For additional flavor, a white mirepoix consisting of 1 oz. each of onions, leeks, celery, and parsnips may be sweated and incorporated into the roux, or 2½ oz. of mushroom trimmings may be added while simmering the sauce.

CHICKEN STOCK

Yield: 1 Gallon

Ingredients	Amounts
Chicken bones, meaty, cut into 3-inch lengths	8 lb.
Water, cold or remouillage	6 qt.
Salt (optional)	as needed
Mirepoix	
Onions, medium dice	8 wt. oz.
Carrots, medium dice	4 wt. oz.
Celery, medium dice	4 wt. oz.
Sachet d'épices	
Parsley stems	2-3 ea.
Bay leaf	1 ea.
Garlic clove	1 ea.
Dried or fresh thyme	½ tsp.
Cracked black peppercorns	½ tsp.

Method

1. Rinse the bones under cold running water and place them in a stockpot.
2. Add enough cold water or remouillage* to cover the bones by about 2 inches. Add salt to taste, if desired.
3. Slowly bring the stock to a simmer. Skim the surface as necessary.
4. Continue to simmer for 3 to 4 hours. Add the mirepoix and sachet and continue to simmer the stock for 1 more hour, skimming as necessary and tasting occasionally.
5. Strain the stock through a sieve or colander lined with rinsed cheesecloth. The stock can be used now, or it may be properly cooled, labeled, and stored.

Notes:

Replace 2 lb. of the chicken bones with turkey necks for an extra rich gelatinous stock.

Add or replace aromatic ingredients to achieve a particular flavor. Examples include:

- Ginger, lemongrass, and fresh or dried chiles
- Juniper berries for game stocks
- Strongly flavored herbs such as tarragon or rosemary
- Wild mushroom stems

*Remouillage is a stock made from bones that have already been used for stock.

FISH STOCK

Yield: 1 Gallon

Ingredients	Amounts
Fish bones, rinsed	8 - 12 lb.
Water, cold	6 qt.
Mirepoix	
Onion, large dice	8 wt. oz.
Carrot, large dice	4 wt. oz.
Celery, large dice	4 wt. oz.
Mushroom trimmings (optional)	10 wt. oz.
Salt (optional)	½ tsp.

Method

1. Combine all the ingredients in a stockpot.
2. Bring the mixture slowly to a simmer over low heat.
3. Simmer for 30 to 60 minutes, skimming the surface as necessary.
4. Strain the stock and degrease if necessary. It may be used now or can be rapidly cooled and stored for later use.

Note: A variation of this recipe replaces 1 qt. of cold water with 1 qt. white wine. If using this variation, use white mirepoix (leek and parsnips replace some of the onions and carrots).

BÉCHAMEL SAUCE

Yield: 2 Quarts

Ingredients	Amounts
Milk	½ gal.
Oignon piqué*	1 ea.
White roux	8 wt. oz.
Salt	½ tsp.
Ground white pepper	¼ tsp.

Method

1. Scald the milk in a saucepan. Remove from heat and add the onion piqué. Cover and steep for 15 to 20 minutes.
2. Remove the onion piqué from the milk. Add the roux to the milk, whisking constantly to work out any lumps. Bring the sauce to a full boil, then reduce the heat and simmer until the sauce is smooth and thickened, about 30 to 60 minutes.
3. Season with salt and white pepper to taste. Strain and use immediately, or cool and refrigerate until ready to use.

Note: *An oignon piqué is a whole, peeled onion to which a bay leaf is attached, using a clove as a tack.

WHITE BEEF STOCK

Yield: 1 Gallon

Ingredients	Amounts
Beef bones	8 lb.
Water, cold	6 qt.
Salt (optional)	to taste
 Mirepoix	
Onions, large dice	8 wt. oz.
Carrots, large dice	4 wt. oz.
Celery, large dice	4 wt. oz.
 Sachet d'épices	
Parsley stems	2-3 ea.
Bay leaf	1 ea.
Garlic clove	1 ea.
Dried or fresh thyme	1/2 tsp.
Cracked black peppercorns	1/2 tsp.

Method

1. Rinse the beef bones under cool running water and place them in a stockpot.
2. Add enough cold water or remouillage* to cover the bones by about 2 inches. Add salt to taste, if desired.
3. Slowly bring the mixture to a simmer, skimming the surface as necessary.
4. Continue to simmer for 7 to 8 hours, skimming as necessary and tasting occasionally. Add the mirepoix and sachet during the last hour of simmering.
5. Strain the stock through a sieve or colander lined with rinsed cheesecloth. The stock can be used now, or it may be properly cooled, labeled, and stored.

Note: *Remouillage is a stock made from bones that have already been used for stock.

VEGETABLE STOCK II

Yield: 1 Quart

Ingredients	Amounts
Water	1 qt.
Onions, sliced	2 wt. oz.
Leeks, diced	4 wt. oz.
Celery root, diced	2 wt. oz.
Carrots, diced	2 wt. oz.
Turnip, diced	2 wt. oz.
Parsnips, diced	2 wt. oz.
Tomatoes, chopped	4 wt. oz.
Garlic cloves, crushed	2 ea.
Napa cabbage, diced	2 wt. oz.
Mushroom trims	4 wt. oz.
Fennel seeds	1 tsp.
Dried thyme	1 tsp.
Dried oregano	1 tsp.
Bay leaf	1 ea.
Black peppercorns, crushed	1 tsp.
Salt	to taste

Method

1. Combine all ingredients in a stockpot and bring to a boil. Reduce heat to low and adjust seasonings.
2. Simmer slowly for 20 to 30 minutes.
3. Strain the stock through a sieve or colander lined with rinsed cheesecloth. The stock can be used now, or it may be properly cooled, labeled, and stored.

SAUCE ESPAGNOLE

Yield: 2 Quarts

Ingredients	Amounts
Butter	1½ fl. oz.
<i>Mirepoix</i>	
Onions, medium dice	4 wt. oz.
Carrots, medium dice	2 wt. oz.
Celery, medium dice	2 wt. oz.
Tomato paste	1 wt. oz.
Brown veal stock	3 qt.
Brown roux	6 wt. oz.
<i>Sachet d'épices</i>	
Parsley stems	2-3 ea.
Bay leaf	1 ea.
Garlic clove	1 ea.
Dried or fresh thyme	½ tsp.
Cracked black peppercorns	½ tsp.

Method

1. Heat the butter and sauté the onions until golden brown. Add the remainder of the mirepoix and continue to sauté until all are caramelized.
2. Add the tomato paste and continue to cook for several minutes until it turns a rusty brown.
3. Add the stock and bring the sauce to a simmer.
4. Whisk the roux into the stock until well blended and smooth. Return the sauce to a simmer and add the sachet.
5. Simmer for about 2 hours, skimming the surface as necessary.
6. Strain through a double thickness of rinsed cheesecloth. The sauce is ready to use now or may be cooled and stored for later use.

DAY TWO:

SAUTÉ AND STIR-FRY; GREEN VEGETABLE AND PASTA COOKERY

LEARNING OBJECTIVES

By the end of this day you should be able to...

- define sauté and stir-fry in your own words.
- identify the correct equipment to sauté or stir-fry.
- identify various meat, poultry, fish, and vegetables that may be sautéed or stir-fried.
- identify the sizes of various meat, poultry, fish, and vegetables that may be sautéed or stir-fried.
- identify the types of fats that may be used to sauté or stir-fry selected items.
- organize an efficient mise en place for sautéing and stir-frying.
- explain the effects of various cooking methods on the texture, flavor, nutritional value, and color of green vegetables.
- list the steps to cook quality pasta.

LEARNING ACTIVITIES

Lecture / Discussion
Demonstrations
Hands-On Production
Product Evaluation

KEY TERMS

Al dente	Allumette	Wok
Batonnet	Bias cut	Suprême
Brunoise	Chiffonade	Small dice
Chlorophyll	Concassé	Sauteuse
Deglaze	Dredge	Tourner
Dry heat	Gaufrette	Spätzle
Gluten	Fond	Sautoir

Julienne
Large dice
Medium dice
Nappé

Jus lié
Lozenge
Mince
Oblique cut

Provençal
Rondelle
Parisienne
Paysanne

INSTRUCTOR'S DEMONSTRATIONS

Pasta dough
Sauté

SUGGESTED READING ASSIGNMENTS

The Professional Chef, 9th Edition, pp. 488 - 492, 617 - 646, 665 – 670, 147 – 177,
807 - 818

SUGGESTED AUDIOVISUAL ASSIGNMENT

Cooking Methods: Dry Heat Methods Vol. 2

Sautéing, Stir-Frying, Pan-Frying, Deep-Frying

3382

Knife Skills Series

Vegetable Cuts

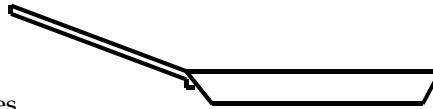
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EQUIPMENT

A shallow pan is used for sauté because it allows moisture to escape. If moisture is trapped in the pan it causes the food to steam, there will be no browning and meat will become tough.

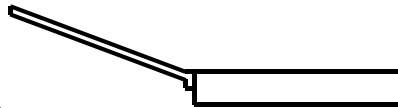
Sauteuse

Shallow pan with sloping sides



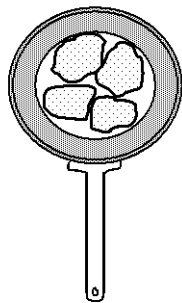
Sautoir

Shallow pan with straight sides



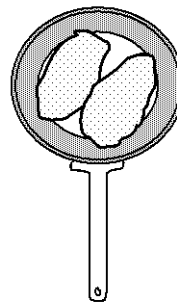
Selecting Proper Pan Size

Correct



The pan is full but there is sufficient space between the items to allow steam to escape and prevent toughening.

Incorrect



The pan is overcrowded and the pieces are too large, trapping steam which will prevent the items from browning and cause the meat fibers to toughen.

GREEN VEGETABLE COOKERY

Chlorophyll is the pigment found in green vegetables. When vegetables are heated, acid (present in all vegetables) is released into the cooking water. Generally, for green vegetables, the acidic water will not impact the color for 5 – 7 minutes. After that time, the vegetables will turn a drab, olive green. With larger, stalkier vegetables, which need a longer cooking time, the vegetables can be cut into smaller pieces, or the stalks pared down.

To dilute the acid released by the vegetables, it is necessary to cook green vegetables in a large amount of boiling, salted water. Leaving the vegetables uncovered also helps in allowing the acids to evaporate. Otherwise, the acids accumulate inside the lid and are released back into the water.

Steaming is an effective method for green vegetables as the acids are steadily cleansed away by the steam, going to the bottom of the pot. Stir-frying is also beneficial in that the vegetables are cut into small pieces, then cooked quickly with high heat. The vegetables are uncovered, and the acids can evaporate.

Additional effects on green vegetables include cooking in iron or tin. These will turn the vegetables a brownish green. Acidic dressings or sauces will also impact the color. Citrus zest can be substituted which imparts flavor without the use of acidic vinegars or citrus juices. The vegetables can also be dressed right before serving so there is less time for discoloration to occur.

To neutralize the acid in vegetables, it would seem logical to add a base or alkaline substance to the cooking water. Adding baking soda, for example, would brighten green vegetables but it also softens vegetables, destroys vitamins, and may leave a bitter taste.

GREEN VEGETABLE COOKING TECHNIQUES

Technique

Reason

- Cook in a large amount of water Dilutes acids
- Salt the water Cooks slightly faster and adds flavor
- Bring to a rolling boil Minimizes loss of Vitamin C
- Keep uncovered Acids evaporate
- Cook quickly Color lost after 5 – 7 minutes
- Replace the cooking water after using a few times Acids will build up
- Avoid aluminum, iron or tin Dulls color
- Minimize holding time Retains color and structure

BRAISING GREENS

These are the edible leaves of certain plants and are an exception to the general rules of green vegetable cookery. Because of their fibrous texture, some of the heavier greens need prolonged cooking to tenderize them and bring out flavor. Similar to spinach, greens may be cooked in a covered pot, either steamed, sautéed or braised. The varieties of greens include beet, collard, dandelion, turnip, mustard, kohlrabi, chard, amaranth, broccoli rabe/rabe and kale. The only salad greens, which are generally cooked, are endive and radicchio although braised romaine lettuce is a classic French side dish.

PASTA COOKERY

From the Italian word for paste, pasta is a paste or dough made from flour and water. Pasta is made in a wide range of shapes, which in turn can be made into many sizes, thicknesses, and textures. It may be dried or fresh.

COMPOSITION OF PASTA

Pasta dough is very stiff and is only about 25% water by weight (bread dough is closer to 40% water). Ordinary or hard wheat flours are the usual choice for

homemade pastas and commercial flat noodles (including fettuccine and lasagna). These flours are higher in protein and have more gluten, giving the dough structure and elasticity. Durum wheat semolina is preferred for commercial spaghetti, macaroni, and other shaped pastas. Semolina is the coarsest grade of milled wheat endosperm and contains very little free starch; it is almost entirely large chunks of endosperm protein with a few starch granules included. As a result, it has a higher gluten content. Less water is required to make pasta dough from semolina—there is no damaged starch to compete with the protein in absorbing it—and this is an advantage if the dough is to be dried after shaping rather than cooked immediately. Because the gluten matrix made from semolina is so strong, it stands up best to the machine extrusion of spaghetti rods and the molding of various shaped pastas. As makers of homemade pasta know, semolina-based noodles are much less brittle than those made from softer wheat flours.

EGG NOODLES

Most homemade pastas and some dried commercial noodles are made with whole eggs or egg yolks, with a corresponding reduction in added water. Commercial egg noodles must be at least 5.5% egg solids by weight, and even at this low concentration, the cost of the ingredients is doubled. The point of using eggs is mainly their effect on flavor and color, as well as binding together the flour and water. In Italy, pasta has long been made from Mediterranean durum wheats that have a carotenoid pigment content about double that of most other hard wheats (the pasta is traditionally yellow). To maintain the color, semolina is never bleached.

Source: Harold McGee, *On Food and Cooking*

COOKING PASTA

Pasta is cooked in boiling water until *al dente*, or firm to the tooth. Cooking times depend on whether the pasta is dried or fresh, as well as the size and shape of the

pasta. Fresh pasta cooks very quickly, often needing only 60 to 90 seconds to cook in boiling water. Dry pasta takes approximately 8 to 12 minutes to cook, depending on the size and shape of the pasta.

1. Cook pasta in a large amount of boiling salted water.
Use a minimum of 4 quarts of water and 1 – 2 tablespoons of salt for every pound of pasta. Stir occasionally to keep pieces separated.
2. Cook *al dente* or a little less if pasta is being held. To test for doneness, slice a piece of the pasta and check for a tiny, white chalky dot in the center. It should be slightly chewy and firm but with no taste of raw flour. This is the time to drain the pasta, as it continues to cook after removing from the pot.
3. Drain.
 - a. If pasta will **not** be used immediately, rinse with cold water to halt cooking. Lightly coat with oil to prevent sticking. Refrigerate covered and reheat in simmering water.
 - b. If pasta **will** be served immediately, do **not** rinse. By not rinsing pasta, starches that cling to the noodles are not washed away, helping the sauce to adhere to the pasta to maximize flavor.

FRESH VERSUS DRIED PASTA

In recent years fresh pasta has become very popular. It is wrong to assume, however, that because it is fresh it is better than dried pasta. If fresh pasta is made entirely from durum wheat, it is as good, nutritionally, as dried pasta. Durum wheat flour, however, is often mixed with soft wheat flour to make the fresh pasta dough easier to work with. This reduces the protein content and the absorbent qualities and increases the starchiness of the finished product. Fresh pasta also has a limited shelf life whereas dried pasta may be stored indefinitely. A variety of shapes may be formed with fresh pasta dough; whereas dried pasta shapes are limited by the dies with which they are made.

PASTA SHAPES AND SAUCES

The shape of a pasta lends itself to certain dishes:

- Elbow pastas retain their shape and are good for salads and soups.
- Tube pastas or those with hollow spaces (shells) hold the sauce in their spaces, working well with meat or vegetable sauces.
- Flat pastas will not overwhelm smooth, light sauces and the sauce can evenly coat the pasta.
- Fresh pasta, being softer and more absorbent than dried, is better suited for smooth, light sauces, usually made from butter or cream.
- More delicate pasta should be paired with delicate sauces and more robust pasta with hearty sauces. As the size of pasta increases, so can the depth and heaviness of the sauce.

DAY TWO PRODUCTION ASSIGNMENTS

MENU ONE

Chicken Breast Provençal
Spinach Spätzle with Sapsago Cheese
Sautéed Broccoli Rabe
Sautéed Zucchini

MENU TWO

Sautéed Beef with Jus Lié
Fresh Egg Pasta
Green Beans with Shallots
Spinach with Bacon and Pine Nuts

MENU THREE

Stir-Fried Beef with Green Beans and Carrots
Fresh Egg Pasta
Sugar Snap Peas
Broccoli Florets in Black Bean Sauce

CHICKEN BREAST PROVENÇAL

Yield: 6 Portions

Ingredients	Amounts
Chicken breast suprême	6 ea.
Salt	1 tsp.
Ground black pepper	1 tsp.
All-purpose flour	3 wt. oz.
Vegetable oil	2 fl. oz.
Garlic, minced	1½ tsp.
White wine	6 fl. oz.
Tomato concassé	18 wt. oz.
Chicken stock	12 fl. oz.
Black olives, sliced or julienne	3 wt. oz.
Anchovy fillet, mashed to a paste	1½ ea.
Butter, softened	3 wt. oz.
Basil, chiffonade	3 tsp.

Method

1. Season the chicken breast with salt and pepper. Dredge lightly with flour, shaking off excess.
2. Heat the vegetable oil in a sauté pan and sauté the chicken breast over medium-high heat until golden brown and cooked through. Remove the breasts from the pan and keep warm.
3. Pour off most of the excess fat from the sauté pan, then return pan to heat. Add the garlic and sauté briefly until aromatic.
4. Deglaze the pan with the wine, stirring well to release all the drippings (fond). Add the tomato concassé, stock, olives, and anchovy paste. Bring mixture to a simmer and cook for a few minutes to allow the flavors to develop. Finish sauce by swirling in the butter.
5. Return the chicken breast along with any released juices to the sauté pan and toss to coat the chicken with the sauce.
6. Serve the chicken with the sauce on a heated plate. Garnish with basil.

SPINACH SPÄTZLE WITH SAPSAGO CHEESE

Yield: 6 Portions

Ingredients	Amounts
Spinach, washed, picked	8 wt. oz.
Eggs	4 ea.
Salt	2 tsp.
Ground black pepper	1/4 tsp.
Ground nutmeg	1/4 tsp.
Sapsago cheese, grated	4 wt. oz.
All-purpose flour	1 lb.
Milk	as needed
Butter	4 wt. oz.
Parmesan cheese	2 wt. oz.

Method

1. Wash and stem spinach. Quickly blanch, shock, and drain spinach. Purée finely in a blender and reserve.
2. Combine eggs, salt, pepper, nutmeg, spinach, and Sapsago cheese in a stainless-steel bowl. Mix well until bubbly. The aeration will help keep the spätzle light.
3. Work in flour, adjusting consistency with milk, until a smooth batter is achieved.
4. Using a spätzle machine (or other shaping technique), drop dough into a large pot of boiling, salted water. Bring back to boil and cook for 30 seconds.
5. Remove spätzle with a spider. Shock in cold water and drain well.
6. Before serving, sauté the spätzle in whole butter until very hot. Season with salt and pepper and sprinkle with Parmesan cheese.

Note: Sapsago is a sage-flavored cheese from Switzerland.

SAUTEED BROCCOLI RABE

Yield: 6 Portions

Ingredients	Amounts
Broccoli rabe	1 lb.
Olive oil	2 Tbsp.
Shallots, minced	2 tsp.
Garlic, minced	2 tsp.
Salt	to taste
Ground black pepper	to taste

Method

1. Wash, but do not dry broccoli rabe. Remove stems that are very tough and any very large leaves. Some leaves and stalks should remain.
2. In salted, boiling water, blanch the broccoli rabe until just wilted. Shock in ice water; drain and set aside.
3. In a sauté pan, sweat the shallots and garlic in olive oil over medium heat until soft.
4. Increase the heat to medium high and add the blanched broccoli rabe to the sauté pan. Quickly sauté all ingredients until heated through. Adjust seasoning with salt and pepper and serve.

SAUTEED ZUCCHINI

Yield: 6 Portions

Ingredients	Amounts
Butter	3 wt. oz.
Onions, minced	2 wt. oz
Zucchini, batonnet	1½ lb.
Garlic clove, chopped	1 ea.
Salt	1 tsp.
Ground black pepper	¼ tsp.
Basil, chiffonade	1 tsp.

Method

1. In large sauté pan, heat the butter over medium heat. Sauté the onions in the butter until translucent.
2. Add the zucchini and sauté until three-quarters done.
3. Add the garlic, salt, and pepper and continue to sauté the zucchini until cooked through.
4. Stir in the basil and serve.

SAUTÉED BEEF WITH JUS LIÉ

Yield: 6 Portions

Ingredients	Amounts
Sirloin	18 wt. oz.
Salt	to season
Ground black pepper	to season
Clarified butter	6 fl. oz.
Brown stock	18 fl. oz.
Cornstarch slurry	as needed

Method

1. Season the beef with salt and pepper.
2. Sauté the beef in the clarified butter to the desired degree of doneness*. Remove from heat but keep the beef warm.
3. Deglaze the pan with the stock. Add the slurry and whisk until the sauce has thickened slightly. Continue to cook for another 2 or 3 minutes, whisking constantly.

Note:

Medium-rare = 130°F

Medium = 140°F

Medium well = 145°F

Well-done = 150°F

FRESH EGG PASTA

Yield: 1½ Pounds

Ingredients	Amounts
Durum flour	1 lb.
Salt	1 pinch
Eggs	4 ea.
Oil (optional)	1 fl. oz.

Method

1. Combine the flour and salt in a food processor. Add the eggs and oil, if using. Process mixture until it resembles coarse meal. When pressed, dough will form a cohesive mass.
2. Turn the dough out onto a work surface and knead until the dough is very firm, yet pliable. Cover and let the dough relax at room temperature for at least 1 hour.
3. Roll the pasta dough into thin sheets and cut into desired shape by hand or using a pasta machine. The pasta is ready to cook now or can be refrigerated for up to 2 days.
4. To cook, bring 1½ gallons of water to a rolling boil in a medium-sized saucepot. Generously salt the water using about ¾ ounce to 1 ounce of salt per gallon of water—the water should be noticeably salty, but not unpleasant. Add the pasta and stir to separate the strands or shapes. Cook the pasta until it is al dente, then drain in a colander.

Variations: *For each variation, the amount of flour may also need to be adjusted accordingly.*

Spinach Pasta: Purée 6 oz. spinach leaves, squeeze dry in cheesecloth, and add to the eggs.

Saffron Pasta: Steep 2 to 4 tsp. pulverized saffron threads in 1 fl. oz. hot water and add to the eggs.

Citrus Pasta: Add 4 tsp. finely grated lemon or orange zest to the eggs. Substitute 2 Tbsp. citrus for the water.

Curried Pasta: Add 2 to 4 tsp. curry powder to the flour.

Herbed Pasta: Add 2 to 3 oz. chopped fresh herbs to the eggs.

Black Pepper Pasta: Add 2 tsp. cracked black peppercorns to the flour.

Red Pepper Pasta: Sauté 6 oz puréed roasted red pepper until reduced and dry. Cool and add to the eggs.

Tomato Pasta: Sauté 3 oz. tomato purée until reduced and dry. Cool and add to the eggs.

Pumpkin, Carrot, or Beet Pasta: Sauté 6 oz. puréed cooked pumpkin, carrots, or beets until reduced and dry. Cool and add to the eggs.

GREEN BEANS WITH SHALLOTS

Yield: 6 Portions

Ingredients	Amounts
Green beans, trimmed	1½ lb.
Butter	2¼ wt. oz.
Shallots, minced	1½ wt. oz.
Salt	to taste
Ground black pepper	to taste

Method

1. Cut the green beans on the bias.
2. Blanch beans in salted, boiling water until crisp-tender.
3. Drain beans, shock in cold water, and drain again.
4. Heat the butter in a large sauté pan; add the shallots and sauté over medium-high heat until translucent. Add the blanched beans and sauté just until the beans are heated through.
5. Season to taste with salt and pepper.

SPINACH WITH BACON AND PINE NUTS

Yield: 6 Portions

Ingredients	Amounts
Pine nuts, toasted	2 wt. oz.
Bacon slice, finely diced	3 ea.
Olive oil	1 fl. oz.
Onion, fine dice	1 wt. oz.
Garlic cloves, minced	2 ea.
Spinach, washed, stems removed	2 lb.
Salt	to taste
Ground black pepper	to taste

Method

1. To toast the pine nuts, spread them in a shallow layer in a preheated dry sauté pan and toss, shake, or swirl the pan until they are lightly golden brown and aromatic. Transfer to a cool pan to prevent the nuts from scorching.
2. In a large skillet, cook the bacon over medium-low heat to render the fat.
3. Add the onions and garlic and continue to cook until the onions are soft and translucent.
4. Add the spinach and sauté until limp.
5. Season the spinach with salt and pepper. Add the toasted pine nuts and toss to combine.

STIR-FRIED BEEF WITH GREEN BEANS AND CARROTS

Yield: 6 Portions

Ingredients	Amounts
Flank steak	1 lb.
Green beans, cut to 1-inch lengths	1 lb.
Carrots, julienne	1 lb.
<i>Marinade for Beef</i>	
Soy sauce	2 Tbsp.
Brown sugar	1 tsp.
Cornstarch	1 Tbsp.
Peanut oil	1 Tbsp.
<i>Sauce</i>	
Rice wine	2 Tbsp.
Brown sugar	1 Tbsp.
Soy sauce	1 Tbsp.
Hoisin sauce	1 Tbsp.
Sesame oil	1 tsp.
Peanut oil	3 fl. oz.
<i>Aromatics</i>	
Ginger, minced	1 Tbsp.
Red chile flakes	1 Tbsp.
Cornstarch slurry, if necessary	as needed
Sesame oil (optional)	2 tsp.

Method

1. Slice the meat against the grain into long strips $\frac{1}{8}$ -inch thick, $\frac{1}{2}$ -inch wide, and $1\frac{1}{2}$ -inches long.
2. Mix the soy, sugar, cornstarch, and oil until smooth. Add the beef to the marinade and toss until the meat is well coated. Marinate for at least 1 hour.
3. Blanch and shock the carrots and beans in boiling, salted water; rinse, drain, and reserve.
4. In a mixing bowl, combine the sauce ingredients and mix until smooth. Reserve.
5. In a very hot wok or sauté pan, add the peanut oil and allow to heat until very faint wisps of smoke arise. Add the aromatics (ginger and red chile flakes) and stir-fry quickly. Add the beef and continue to stir-fry. When beef is cooked, push to the sides of the wok and

add the sauce ingredients. Thicken the sauce with a small amount of cornstarch slurry, if necessary.

6. Add the carrots and beans to the beef and sauce mixture and toss until evenly heated.
7. Finish with a small amount of sesame oil, if desired.

FRESH EGG PASTA

Yield: 1½ Pounds

Ingredients	Amounts
Durum flour	1 lb.
Salt	1 pinch
Eggs	4 ea.
Oil (optional)	1 fl. oz.

Method

1. Combine the flour and salt in a food processor. Add the eggs and oil, if using. Process mixture until it resembles coarse meal. When pressed, dough will form a cohesive mass.
2. Turn the dough out onto a work surface and knead until the dough is very firm, yet pliable. Cover and let the dough relax at room temperature for at least 1 hour.
3. Roll the pasta dough into thin sheets and cut it into desired shape by hand or using a pasta machine. The pasta is ready to cook now or can be refrigerated for up to 2 days.
4. To cook, bring 1 ½ gallons of water to a rolling boil in a medium-sized saucepot. Generously salt the water using about ¾ oz to 1 oz. of salt per gallon of water - the water should be noticeably salty, but not unpleasant. Add the pasta and stir to separate the strands or shapes. Cook the pasta until it is al dente, then drain in a colander.

Variations: *For each variation, the amount of flour may also need to be adjusted accordingly.*

Spinach Pasta: Purée 6 oz. spinach leaves, squeeze dry in cheesecloth, and add to the eggs.

Saffron Pasta: Steep 2 to 4 tsp. pulverized saffron threads in 1 fl. oz. hot water and add to the eggs.

Citrus Pasta: Add 4 tsp. finely grated lemon or orange zest to the eggs. Substitute 2 Tbsp. citrus for the water.

Curried Pasta: Add 2 to 4 tsp. curry powder to the flour.

Herbed Pasta: Add 2 to 3 oz. chopped fresh herbs to the eggs.

Black Pepper Pasta: Add 2 tsp. cracked black peppercorns to the flour.

Red Pepper Pasta: Sauté 6 oz puréed roasted red pepper until reduced and dry. Cool and add to the eggs.

Tomato Pasta: Sauté 3 oz. tomato purée until reduced and dry. Cool and add to the eggs.

Pumpkin, Carrot, or Beet Pasta: Sauté 6 oz. puréed cooked pumpkin, carrots, or beets until reduced and dry. Cool and add to the eggs.

SUGAR SNAP PEAS

Yield: 6 Portions

Ingredients	Amounts
Sugar snap peas	1 lb.
Olive oil	1 fl. oz.
Salt	½ tsp.
Ground black pepper	¼ tsp.

Method

1. Remove the strings from the peas by snapping off the stem end and pulling it away.
2. Blanch peas in boiling, salted water for 1 minute until bright green. Drain, shock in ice water, then drain again.
3. Sauté the blanched peas in olive oil until hot. Season with salt and pepper to taste and toss.

BROCCOLI FLORETS IN BLACK BEAN SAUCE

Yield: 6 Portions

Ingredients	Amounts
Broccoli	2 lb.
Fermented black beans	1 Tbsp.
Oil	3 Tbsp.
Garlic clove, coarsely chopped	1 – 2 ea.
Ginger, peeled, quarter-sized, coarsely chopped	2 ea.
Salt	1 tsp.
Sugar	1 tsp.
Vegetable stock or water	4 fl. oz.
Cornstarch, dissolved in 3 Tbsp. water	1 tsp.
Sesame oil	1 tsp.

Method

1. Trim the broccoli into florets.
2. Coarsely chop the fermented black beans.
3. Heat a wok or a large, heavy skillet over high heat until hot. Add the oil and heat for 30 seconds.
4. Add the black beans, garlic, and ginger and stir briskly for 15 seconds. Add the broccoli florets and stir for 5 seconds. Reduce heat to medium and continue to stir in fast turning motions until color deepens. Add the salt and sugar. Then add the stock or water. Cover and steam for 2½ minutes.
5. Uncover, then pour the dissolved cornstarch over the florets and toss until the sauce thickens. Add the sesame oil and toss to combine.
6. Transfer to a hot serving dish and serve immediately.

Source: The Key to Chinese Cooking © Irene Kuo

DAY THREE:

PAN-FRYING AND DEEP-FRYING; POTATO COOKERY

LEARNING OBJECTIVES

By the end of this day you should be able to...

- define pan-fry and deep-fry in your own words.
- identify the meat, poultry, fish, and vegetables that may be pan-fried or deep-fried.
- identify the proper equipment used to pan-fry and deep-fry.
- identify the correct fats that may be used to pan-fry and deep-fry.
- prepare and organize the mise en place for the standard breading and batter procedures.
- compare the differences in potato varieties and apply appropriate cooking methods.
- demonstrate correct preparation and storage of potatoes, minimizing quality and nutritional losses.

LEARNING ACTIVITIES

Lecture / Discussion
Demonstrations
Hands-On Production
Product Evaluation

KEY TERMS

Basket method	Batter	Tamis
Blanching	Breading	Vacuum
tumbling		
Capers	Celeriac	Static marination
China cap	Chinois	Swimming
method		
Convection	Conduction	Smoking point
Cornichons	Croquette	Spider
Double basket method	Egg wash	Rub
Heat transfer	High starch/Low starch	Salamander
Injection marination	Mandoline	Rémoulade
Marinade	Mealy/Waxy	Ricer
Pan-frying	Parboiling	
Radiation	Recovery time	

INSTRUCTOR'S DEMONSTRATIONS

Pan-frying

SUGGESTED READING ASSIGNMENTS

The Professional Chef, 9th Edition, pp. 493 - 499, 671 - 676, 713 - 734

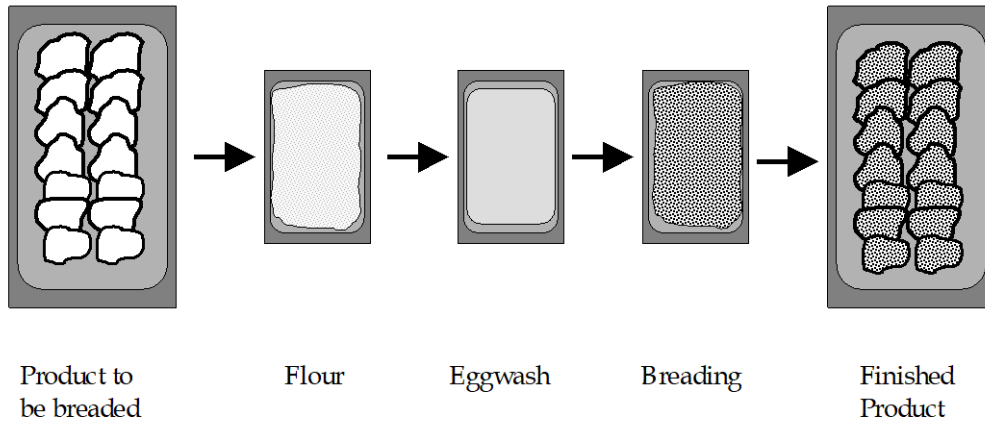
SUGGESTED AUDIOVISUAL ASSIGNMENT

Cooking Methods: Dry Heat Methods Vol. 2

Sautéing, Stir-Frying, Pan-Frying, Deep-Frying

3382

Mise En Place for Standard Breeding Procedure



Product to
be breaded

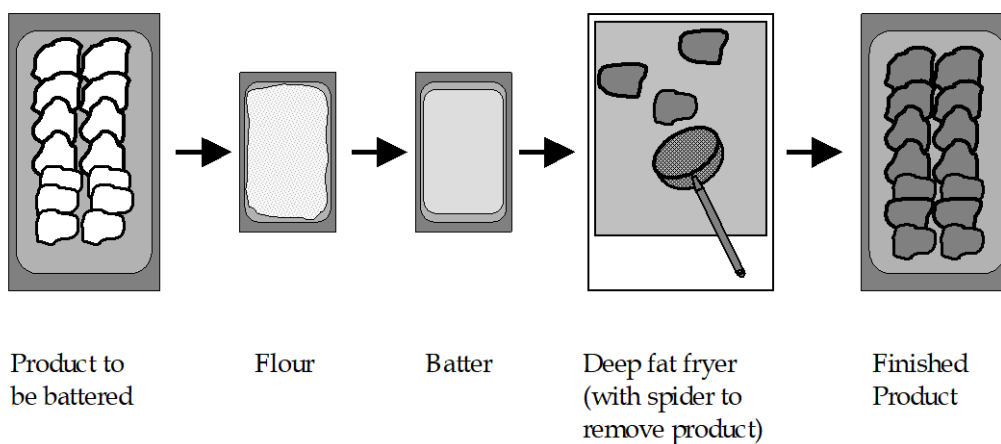
Flour

Eggwash

Breading

Finished
Product

Mise En Place for Batter Procedure



Product to
be battered

Flour

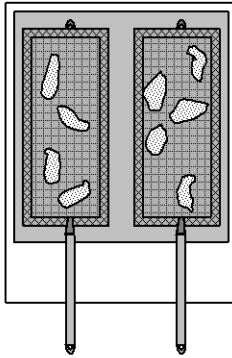
Batter

Deep fat fryer
(with spider to
remove product)

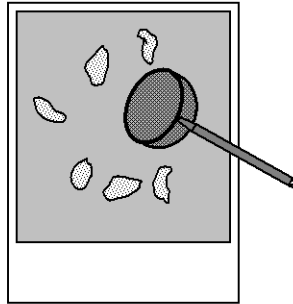
Finished
Product

- **Battered Items should be prepared just before cooking.**
- **Food products should be removed from the batter with tongs or fork.**

Basket Method vs. Swimming Method



Basket Method requires placing the food in fryer baskets then immersing the baskets in hot fat.



Swimming Method requires the product to be placed in the hot fat. The food will be agitated and removed with a spider.

DEEP FAT FRYING METHOD SELECTION

ITEM	BASKET METHOD	SWIMMING METHOD
Breaded or other dry coating	Yes	Optional (basket is preferred)
Many small pieces	Yes	No
Battered items	No	Yes
Large items	Yes (if they fit)	Yes

POTATOES

Worldwide, potatoes are the most important food crop, after wheat, corn, and rice.

In the United States, they can be served three times a day in a different form.

Potatoes are more adaptable than most vegetables to a range of cooking methods – pan-fried, deep-fried, baked, boiled, stewed, roasted, steamed, mashed, sautéed, and hashed. Selecting the correct type of potato for the cooking method is key to its success as a side dish.

Types	Moisture Content	Starch Content	Cooking Method
Idaho or russet	Low	High (mealy, low sugar)	Bake, purée, fry
Chef's, all-purpose, Yukon Gold	Moderate	Moderate	Boil, sauté, steam, roast, braise, stew
New potatoes	High	Low (waxy, high sugar)	Boil, steam, roast, stew,
Red bliss	Moderate	Low	Boil, steam
Sweet potatoes, "yams"	Moderate to high	High	Boil, bake, purée, roast

APPROXIMATE COMPOSITION OF A POTATO

80% Water

18% Starch

2% Protein

A medium sized potato contains 90 - 100 calories.

TESTING FOR STARCH CONTENT

Mix together 4 ounces of salt with 1 quart water, add potatoes, the starchy potatoes will sink (starch is heavier than water).

STORAGE

Store potatoes in a dark, cool, well-ventilated place. New potatoes, when purchased, should be used within 3 days. Too warm an environment will foster sprouting and shriveling. An environment too cold or refrigerated will encourage development of the potatoes' sugars and they will brown when cooked. Green discoloration indicates solanine, a poison found in potatoes. Most potatoes have only 5 milligrams per 100 grams (3.5 ounces) of potato, which is not harmful. If left in sunlight, potatoes will turn greener and the solanine will become dangerous, increasing by twenty times. The solanine can be removed by peeling about 1/16 inch under the green skin. Potato sprouts also have solanine and should be cut out.

POTATO VARIETIES

The variety of potato determines its starch content. Starch granules in the potato expand when heated, absorbing water. The Idaho or russet potato's granules expand more than those of a new potato. Because it absorbs more water, the Idaho has a characteristic mealy texture. Baking or mashing is more appropriate for this potato, as it breaks apart easily and absorbs butter or milk.

Frying is also more effective with Idaho potatoes. When fried, the surface starch granules swell, drawing moisture from the inside of the potato and sealing the outside. In this way, the interior stays dry, and the outside absorbs less grease. Pre-cooking or blanching deep-fried potatoes ensures this process and allows the interior to partially cook. Otherwise, the outside of the potatoes will brown before the inside is finished cooking. Fast food French fries are shipped and stored frozen. The cold converts much of the potato's starch into sugar. This higher sugar content encourages even more browning when fried. As a result, the potatoes are cut thinner to cook through completely.

Lower starch potatoes, such as new or red bliss, have a higher moisture content than Idahos or russets. They take in less moisture when cooked, expanding less, and so hold their shape. They do not break apart easily and have a waxy texture. This makes them more appropriate for boiling, roasting or stewing. Their flavor is also sweeter than Idahos.

The moderate starch and moisture content of all-purpose, chef's, or Yukon Gold potatoes make them adaptable to a variety of cooking methods. Used in casseroles, soups and salads, these potatoes have a mildly sweet flavor.

Other tubers include sweet potatoes and yams. Botanically, they are unrelated to potatoes and are unrelated to each other, as well. There are two types of sweet potatoes. The pale, yellow type is dry and crumbly. The darker, orange variety is moister and sweeter – erroneously called “yam” in the United States. The true yam is rarely grown in America and is not widely marketed. It is a tropical-vine tuber most often found in Central and South America, Asia, Africa, and the West Indies.

Culinary uses of the sweet potato and “yam” are similar to that of potatoes. Generally, they are sweeter than white potatoes. They also provide more minerals, Vitamin A and calories than white potatoes, but also less protein. These tubers can be boiled, baked, puréed, roasted, even fried, and are used in soups and casseroles.

POTATO COLORING

The main coloring concern with potatoes is the enzymatic browning that occurs when potatoes are cut. An enzyme in the potato, when exposed to air, reacts by turning the tissue brown or grey. This can be minimized by pre-cooking or soaking

the potato pieces in cold water. Adding a bit of lemon juice, vinegar or cream of tartar will encourage even less discoloration.

Cooking in hard water or softened water (which is base or alkaline) can also cause potatoes to change color. They may become more cream or even yellow-colored. Adding ½ teaspoon of lemon juice, vinegar, or cream of tartar to each gallon of cooking water will remedy this.

Stem end blackening can also be inhibited by the addition of an acid. When cooked, compounds in certain potatoes may react with iron. A grey or black discoloration may occur near the stem end.

DAY THREE PRODUCTION ASSIGNMENTS

MENU ONE

Buttermilk Fried Chicken with Country Gravy

Whipped Potatoes

Coleslaw

MENU TWO

Deep-Fried Beer Batter Fish with Rémoulade Sauce

New Potato Salad

Red Cabbage Slaw with Fennel

MENU THREE

Pan-Fried Pork Loin with Garlic-Tomato Sauce

French Fries

Cauliflower and Cheddar Fritters

BUTTERMILK FRIED CHICKEN

Yield: 6 Portions

Ingredients	Amounts
Chickens, butchered into 10 pieces ea.	2½ ea.
Buttermilk	9½ wt. oz.
Tarragon, minced	2½ Tbsp.
Dijon mustard	4½ Tbsp.
Bell's poultry spice	1 tsp.
All-purpose flour	2 lb.
Cayenne pepper	1 tsp.
Old Bay seasoning mix	2½ Tbsp.
Vegetable oil or shortening, to fry	1¼ qt.

Method

1. Combine the chicken pieces with the buttermilk, tarragon, mustard, and the poultry spice. Mix well and marinate for a minimum of ½ hour and up to 24 hours.
2. Combine the flour with the cayenne and Old Bay. Mix well.
3. Dredge the chicken in the seasoned flour and let sit several minutes. Dredge the chicken in the flour again, then pan-fry in vegetable shortening or vegetable oil until golden brown on both sides.
4. Transfer chicken to a roasting rack set on top of a sheet pan. Place in a 350°F oven and continue cooking until meat reaches the appropriate internal temperature (170°F for breast portions and 180°F for leg and thigh portions).

COUNTRY GRAVY

Yield: 1 Quart

Ingredients	Amounts
Bacon slab, small batons	1 wt. oz.
Onion, minced	1 ea.
Celery rib, minced	1 ea.
Garlic clove, minced	1 ea.
All-purpose flour	1½ wt. oz.
Chicken stock	1 qt.
Chicken wings, browned	½ lb.
Bay leaf	1 ea.
Milk	2 fl. oz.
Heavy cream	2 fl. oz.
Salt	to taste
Ground black pepper	to taste

Method

1. In a medium-sized saucepan, sweat the bacon, onions, celery, and garlic over low heat until the vegetables are soft.
2. Stir in the flour and cook to form a pale roux.
3. Add the stock, browned wings, and bay leaf. Simmer for 45 minutes, skimming as necessary.
4. Add the milk and cream and bring the mixture to a simmer.
5. Strain the sauce, then season with salt and pepper to taste.

WHIPPED POTATOES

Yield: 6 Portions

Ingredients	Amounts
Baking potatoes	2½ lb.
Butter, room temperature	2½ wt. oz.
Milk	3½ fl. oz.
Heavy cream	2½ - 3½ fl. oz.
Salt	to taste
Ground white pepper	to taste

Method

1. Scrub, peel, and cut the potatoes into large pieces. Boil or steam until tender enough to mash easily.
2. Drain and dry the potatoes over low heat or on a sheet pan in a 300°F oven until no more steam rises from them.
3. While the potatoes are still hot, purée them through a food mill or potato ricer into a heated bowl.
4. Combine the butter, milk, and cream in a saucepan and heat until the butter has melted, and the mixture is hot.
5. Mix the cream mixture into the potatoes by hand or with the paddle or whip attachment of an electric mixer until just incorporated. Season with salt and pepper to taste.

COLESLAW

Yield: 6 Portions

Ingredients	Amounts
Sour cream	3¾ wt. oz.
Mayonnaise	3½ wt. oz.
Cider vinegar	1¼ fl. oz.
Dry mustard	2 tsp.
Sugar	1 wt. oz.
Celery seed	1 tsp.
Salt	to taste
Ground black pepper	to taste
Green cabbage, shredded	1 lb.
Carrots, shredded	3½ wt. oz.

Method

1. Mix the sour cream, mayonnaise, vinegar, mustard, sugar, and celery seed together in a large bowl until smooth. Season with salt and pepper to taste.
2. Add the cabbage and carrots and toss until evenly coated.
3. Refrigerate until ready to serve.

DEEP-FRIED BEER BATTER FISH

Yield: 6 Portions

Ingredients	Amounts
Hake fillet, 5 oz.	6 ea.
Salt	to season
Ground black pepper	to season
Lemon	to season
Worcestershire sauce	to season
All-purpose flour	as needed
Beer Batter	
All-purpose flour	10 oz.
Baking powder	1 Tbsp.
Sugar	2 Tbsp.
Salt	2 Tbsp.
Ground white pepper	½ tsp.
Beer	1 pt.
Oil	as needed

Method

1. To prepare the Beer Batter, sift together all the dry ingredients. Add the beer and mix until smooth. Allow batter to rest for 30 minutes. The batter is now ready to use.
2. Portion and season the fish fillets with salt, pepper, lemon, and Worcestershire.
3. Dredge the seasoned fish in flour, shaking off the excess.
4. Dip in the beer batter.
5. Deep-fry in 350°F oil using the swimming method until lightly browned.
6. Drain on absorbent paper.

RÉMOULADE SAUCE

Yield: 6 Portions

Ingredients	Amounts
Mayonnaise	8 wt. oz.
Capers, chopped	½ wt. oz.
Cornichons, chopped	½ wt. oz.
Chives, chopped	1 Tbsp.
Chervil, chopped	1 ½ tsp.
Tarragon, chopped	1 ½ tsp.
Dijon mustard	1 tsp.
Anchovy paste	½ tsp.
Salt	to taste
Ground black pepper	to taste
Worcestershire sauce	to taste
Tabasco sauce	to taste

Method

1. Combine all ingredients in a mixing bowl. Mix well to blend.
2. Refrigerate until ready to serve. Adjust the seasoning just before serving, if necessary.

NEW POTATO SALAD

Yield: 6 Portions

Ingredients	Amounts
New potatoes, washed, quartered	3½ lb.
Olive oil	4 fl. oz.
Garlic head, cloves separated	1 ea.
Thyme sprigs	½ bu.
Bay leaves	2 ea.
Salt	1½ tsp.
Ground black pepper	1 tsp.
<i>Red Wine and Garlic Vinaigrette</i>	
Red wine vinegar	10 fl. oz.
Garlic paste	2 tsp.
Olive oil	20 fl. oz.
Extra-virgin olive oil	6 fl. oz.
Parsley, chopped	½ wt. oz.
Thyme, chopped	2½ Tbsp.

Method

1. Preheat the oven to 375°F.
2. Toss the potatoes in a large bowl with the olive oil, garlic, thyme sprigs, bay leaves, salt, and pepper. Place the potatoes in a single layer in a 2-inch hotel pan. Tightly cover with aluminum foil and roast until fork tender. Shake the pan occasionally throughout cooking to evenly roast the potatoes.
3. To prepare the Red Wine and Garlic Vinaigrette, combine the vinegar and the garlic paste. Slowly whisk in the olive oils. Reserve.
4. Toss potatoes with the vinaigrette, chopped parsley, and thyme. Taste and adjust seasonings, if necessary.

RED CABBAGE SLAW WITH FENNEL

Yield: 6 Portions

Ingredients	Amounts
Small red cabbage head, thinly shredded on slicer	1/3 ea.
Fennel bulb, thinly shredded on slicer	1 1/2 lb.
Red onion, sliced, caramelized	1 ea.
Red bell pepper, fine julienne	1 ea.
Salad oil	3 1/2 fl. oz.
Cider vinegar	2 2/3 fl. oz.
Chicken stock	2 2/3 fl. oz.
Dijon mustard	1 1/4 wt. oz.
Sugar	1 tsp.
Fennel seed, ground coarsely	1 tsp.
Salt	to taste
Ground black pepper	to taste
Old Bay Seasoning	to taste

Method

1. In a stainless-steel pan, sweat the cabbage, fennel, red onion, and peppers in a little of the oil until wilted, but slightly crunchy.
2. Add the remaining ingredients. Mix well and bring to a simmer. Be sure to leave a **slight** crispness to the vegetables. Adjust seasonings to taste.
3. Chill well and adjust seasonings again prior to service.

PAN-FRIED PORK LOIN

Yield: 6 Portions

Ingredients	Amounts
Pork loin, trimmed, 3 oz. pieces	12 ea.
Salt	to season
Ground black pepper	to season
All-purpose flour	5 wt. oz.
Whole eggs	6 ea.
Fresh breadcrumbs	1 lb.
Vegetable oil, to pan-fry	as needed

Method

1. Pound the pork loin to an even thickness, if necessary. Season pork with salt and pepper.
2. Prepare a standard breading mise en place. Dredge pork in flour, dip in egg wash, and coat in breadcrumbs (bread pork just prior to pan-frying).
3. Pan-fry the breaded pork in the hot oil until golden brown on both sides and cooked thoroughly. Remove from pan and place on absorbent paper.

GARLIC-TOMATO SAUCE

Yield: 6 Portions

Ingredients	Amounts
Olive oil	2 Tbsp.
Canned crushed tomatoes	2 lb.
Garlic clove, minced	3 ea.
Salt	¼ tsp.
Ground black pepper	⅛ tsp.
Parsley, chopped	3 Tbsp.

Method

1. Heat a saucepan over medium-high heat. Add the oil, then add the tomatoes, and toss. Add the garlic and cook until most of the liquid has evaporated, about 3 to 5 minutes.
2. Season with salt and pepper to taste. Remove from heat and stir in the fresh parsley.

FRENCH FRIES

Yield: 6 Portions

Ingredients

Russet potatoes
Fat, for deep frying
Salt

Amounts

3 lb.
as needed
to taste

Method

1. Peel and cut potatoes into batonnet, squaring ends so they are same length. Rinse in cold water, then dry thoroughly.
2. Blanch the dried potatoes in a deep fryer set to 260°F until almost done and a very light skin has formed on the outside of potato, about 2 minutes.
3. Drain well and transfer the potatoes to pans lined with paper towels.
4. When all the potatoes have been blanched, increase the oil temperature to 350°F. Return potatoes to oil in batches and continue cooking until golden brown and crisp.
5. Remove from the oil and shake off excess fat. Season with salt away from the oil.

Note: The process of cooking first at a lower temperature causes the starch to gelatinize, creating a skin, as well as partially cooking the potato.

CAULIFLOWER AND CHEDDAR FRITTERS

Yield: 6 Portions

Ingredients	Amounts
All-purpose flour, sifted	7¼ wt. oz.
Eggs	3 ea.
Milk	7¼ fl. oz.
Baking powder	1 Tbsp.
Salt	¾ tsp.
Worcestershire sauce	to taste
Tabasco sauce	to taste
Cauliflower florets, blanched	10 wt. oz.
Sharp cheddar cheese, grated	5 wt. oz.

Method

1. Combine the flour, eggs, milk, baking powder, salt, Worcestershire sauce, and Tabasco. Mix to form a smooth batter.
2. Fold in the cauliflower and grated cheese.
3. Drop mixture by spoonfuls into 350°F oil. Deep-fry fritters until uniformly brown, turning as necessary during frying.
4. Remove fritters using a spider and drain briefly on paper towels. Serve immediately.

DAY FOUR:

GRILL, BROIL, ROAST;

EMULSION SAUCES AND GRAIN COOKERY

LEARNING OBJECTIVES

By the end of this day you should be able to...

- identify and use the correct tools and equipment required for grilling, broiling, and roasting.
- compare the differences between broiling and grilling.
- identify the different meat, poultry, fish, and vegetables that may be grilled, broiled, or roasted.
- identify pre-preparation techniques required for grilling, broiling, and roasting.
- list and apply the various methods of checking the doneness of meat, poultry, and fish.
- list and apply the methods and techniques involved in finishing broiled, grilled, and roasted items.
- explain the effects of cooking methods on the nutritional value of whole grains.
- identify the three main types of rice.
- apply the appropriate treatments and preparations for grains before cooking.
- name three common emulsifiers that cooks use to stabilize an emulsion.

LEARNING ACTIVITIES

Lecture / Discussion
Demonstrations
Hands-On Production
Product Evaluation

KEY TERMS

Amylopectin	Amylose	Trussing
Au jus	Bain marie	Stuffing
Barbecue	Barding	Tabbouleh
Béarnaise	Beurre blanc/Beurre rouge	Smoke-roasting
Boning	Bran	Spit-roasting
Broiling	Bulgur	Risotto
Carryover cooking	Cereal	Short grain rice
Continuous phase	Couscous	Pincé
Dispersed phase	Double boiler	Polenta
Emulsion	Endosperm	Parching
Germ	Grilling	Pilaf
Jus lié	Kasha	Paella
Larding	Long grain rice	Pan gravy
Maillard	Masa	Mirepoix
Medium grain rice	Milanese	Nappé

INSTRUCTOR'S DEMONSTRATIONS

Mayonnaise
Rice identification

SUGGESTED READING ASSIGNMENTS

The Professional Chef, 9th Edition, pp. 27 - 30, 283 - 287, 423 - 439, 658 - 664,
751 - 767,
880 - 887

SUGGESTED AUDIOVISUAL ASSIGNMENTS

Cooking Methods: Dry Heat Methods Vol. 1

Grilling and Broiling, Roasting # 3381
Rice Cookery # 1540

The Basics of Sauce Making Series

Emulsion Sauces # 2471

Equipment

Broiler - Heat source radiates heat from above. Limited conduction from the heat of the grids

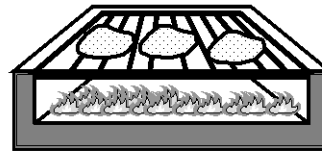


Types of broilers

- conventional gas
- electric



Grill - Heat source radiates from below. Conduction and radiation of heat.

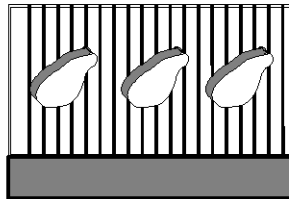


Types of grills

- gas
- charcoal
- hardwood

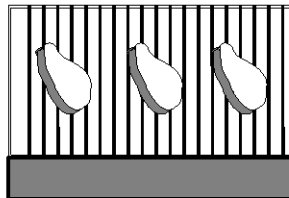
How to Mark a Steak

1. Place steaks on grids of preheated broiler or grill.



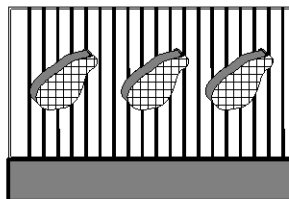
2. Cook until grill marks are well defined.

3. Turn steak at a 45 degree angle.



4. Cook until grill marks are well defined.

5. Turn steaks over.



6. Continue to cook to guest's specifications.

TEMPERATURES FOR ROASTING MEATS

TEMPERATURE	ITEMS COOKED BY THIS METHOD	COMMENTS
High Heat 375° - 475°F	Feathered game Domestic poultry Waterfowl Smaller cuts of red meat	May cause excessive caramelization, shrinkage and drying Renders fat and crisps skin in waterfowl Good for small cuts that cook quickly
Moderate Heat 325° - 350°F	Meats Poultry Game	Good caramelization Less shrinkage and crusting than high heat
Low Heat 275° - 300°F	Red meats Feathered game Domestic poultry Waterfowl	Better yields on larger cuts Good for conventional ovens
Controlled Heat 200° - 250°F	Larger cuts of red meat White meat Domestic poultry	Best method for high yields Jus or drippings not obtainable at this low temperature Very little caramelization

TESTING ROASTED ITEMS FOR DONENESS

ITEM	WHAT TO CHECK	PRO/CON
Fork (2-tined)	Color of juices in poultry	Punctures meat Loss of juices
Skewer	Resistance and temperature with other meats	Not accurate
Stem Thermometer	Temperature of desired doneness	Inexpensive Accurate The best and most consistent method
Time/Temperature to Weight Ratio	Follow chart to determine how long at what temperature	Inaccurate The shape of the meat will affect the cooking time. Good for an estimate on approximate cooking time
Touch	Resistance of fibers in the meat As the meat cooks the fibers tighten	Inaccurate, the shape of the meat will affect the cooking time. Good for an estimate on approximate cooking time
Experience	All of the above	Helps to control variables

DEGREES OF DONENESS FOR MEATS AND POULTRY

ITEM	DESIRED DEGREE OF DONENESS	TEMPERATURE TO REMOVE ITEM FROM OVEN
Red Meats	Rare	125°F
	Medium	135°F
	Well done	145°F
Pork	Well done	150°F
Veal	Medium well	140°F
Poultry	Well done	165°F (thigh)
Fish	Well done	144°F

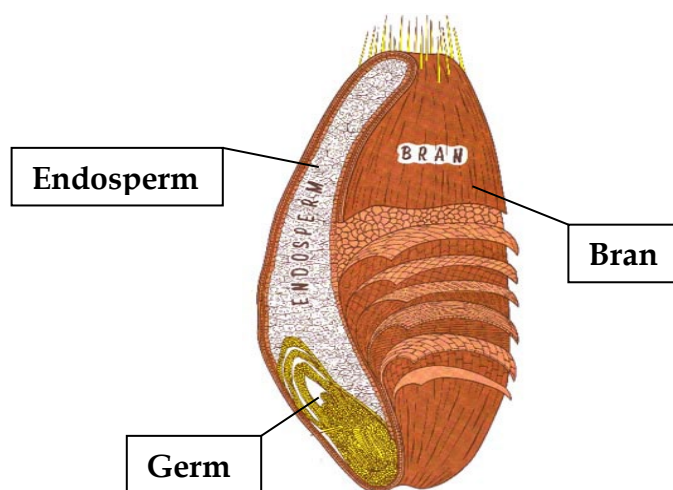
WHOLE GRAINS

Whole grains are the edible seeds or fruits of cereal grasses. The most popular of these are barley, corn, millet, oats, quinoa, rice, rye, sorghum, triticale, wheat, and wild rice. For thousands of years, grains have been prized for their nutritional value and ease of preparation. Ancient foraging people eventually settled the land, growing grain crops, feeding their societies, and evolving into civilizations. Later, animal foods and milled grains became symbols of affluence, often replacing whole grains in people's diets. This had quite an impact on nutritional health, however, as up to 22 nutrients are removed when refining or milling grains. Today, some of these are then artificially replaced and are known as "enriched" grains.

WHOLE GRAIN COMPOSITION

- **germ** – the seed or embryo that produces a new plant, provides carbohydrates, protein, fat, B vitamins and Vitamin E.
- **endosperm** – provides energy to the embryo, is made up of complex carbohydrates encased in protein, and has the most volume of the three grain components.
- **bran** – the hard protective coating, provides fiber, B vitamins and minerals.

WHEAT GRAIN



BASIC COOKING OF GRAINS

1. Sort through grains, removing dirt or debris.
2. Rinse in cold water until water runs clear.
3. Presoak whole, hard grains such as whole barley, oat groats, or wheat berries to soften and reduce cooking time.
4. For most grains, bring water or stock to boil, then add the grain.
5. After bringing it back up to a boil, reduce heat, cover, and simmer until done. Grain will have a slight chewiness.
6. **Note:** Only add salt to the following grains at the end of cooking, when soft: amaranth, kamut, spelt, triticale, and wheat berries.
7. Drain if needed.
8. Fluff with fork but do not stir, otherwise starches will create a pasty texture.

GRAIN STORAGE

Store grains away from insects, light, heat, or moisture in cool, dry, airtight containers. Properly stored, grains will remain nutritionally intact, keeping for several months. A musty or bitter smell indicates rancidity, and the grain should be discarded.

WHOLE GRAIN VS. PROCESSED GRAIN

Whole Grain	Processed Grain
Rich in fiber, vitamins, and minerals	Low in fiber, vitamins, and minerals
No "empty calories"	"Empty calories"
Shorter shelf life	Longer shelf life
Longer cooking time	Shorter cooking time
Nutrients may be difficult to access for the human system	Nutrients more easily accessible for the human system

RICE

This ancient grain has been grown since at least 5000 B.C. It is the main food source for almost half the world's population, predominantly Latin America, India, Indonesia, China, Japan and Southeastern Asia. There are more than 2,500 varieties grown.

RICE CLASSIFICATION

- **Long grain rice** is 3 – 5 times as long as it is wide. The grains, often used in pilafs, paella, and curries, cook up separate and fluffy. This rice is higher in amylose than other rice. Amylose is a long, straight-chained starch. When cooled, the starch sets and hardens, making it an inappropriate choice for rice salads.
- **Medium grain rice** is slightly shorter and rounder than long-grain. When cooked, the grains are moist, tender and cling together more than long grain rice. It has a fairly equal amount of amylose and amylopectin starches. Amylopectin starch forms into smaller branched shapes and does not harden when cooked and cooled. Medium grain rice can absorb up to 5 times its weight in liquid, compared to 3 times for the other rice types. It is more appropriate for creamy dishes such as risotto.
- **Short grain rice** is slightly longer than it is wide. It has the highest amylopectin starch content of the three rice types. When cooked, it is the most sticky and moist. Short grain rice is preferred in Asia as it is easy to eat with chopsticks and is also used worldwide for puddings, breakfast cereals and casseroles.

Within these three size classifications, rice is also designated by the amount of processing received:

- **Brown rice** is the least processed and the most nutritious of rice types. Only the inedible outer hull is removed. With the germ and bran intact, brown rice provides fiber, protein, minerals, and vitamins. It can be stored for up to 6 months in a cool, dry place after which the germ may go rancid. Brown rice takes longer to cook than white rice.
- **White rice** has had the outer husk, bran and most of the germ removed. It is then polished with a wire brush, removing a layer of fat that would limit its shelf-life. The rice is then artificially fortified with vitamins. Rinsing white rice and cooking in too much water will remove these added vitamins.

- **Converted rice or parboiled rice** is partially steamed, dried, and then milled, removing the outer hull and bran. The process gelatinizes the starch, resulting in separate, fluffy grains and infuses some of the vitamins and minerals, creating a more nutritious white rice. Due to its appearance and texture, it is one of the more widely used rice types in food service operations.
- **Instant or pre-cooked rice** is milled, completely cooked and dried. Boiling water is simply added to rehydrate it.

SPECIALTY RICE

- **Arborio, carnaroli, and vialone nano** are varieties of Italian, medium grain rice used for risotto.
- **Basmati**, an aromatic, nutlike flavored rice, is long grain. While cooking, basmati doubles in length. To prevent splitting, the rice should be rinsed several times before cooking. It originates from India or Pakistan.
- **Carolina** is a white, long-grain rice, from South Carolina, which becomes slightly sticky when cooked.
- **Jasmine**, similar to basmati, is an aromatic, long grain rice with a gentle flavor and sticky texture. Originally, it was grown in Thailand.
- **Sticky, sweet, or glutinous rice** is neither sweet nor glutinous. It is high in amylopectin and can be used for sushi, sweets, desserts, as well as savory preparations. It needs to be rinsed well before using.
- **Texmati** is an aromatic, long grain rice developed by the USDA in 1971. It is a cross between long grain and basmati rice, grown mainly in Texas.
- **Wild rice** is actually an aquatic grass seed grain, not rice. It has a nutty flavor and chewy texture. Native to the northern Great Lakes, it is now also grown in California and the Midwest.
- **Wild pecan rice** is an aromatic Basmati-hybrid rice, unrelated to wild rice or pecans. Grown in Louisiana, it has a rich, nutty flavor and a popcorn aroma.

COOKING RICE: ABSORPTION METHOD

1. Select the appropriate variety of rice for the texture desired.

2. Generally, do not rinse rice before cooking. This causes the unwanted releasing of starches, and the rice will not thicken. Rinsing also removes the vitamins added to enriched white rice.
3. Measure the appropriate amount of liquid for the rice to absorb. Usually, 1½ to 2 times the volume of rice to liquid.
4. A small amount of salt, butter or oil may be added.
5. The grains and liquid are brought to a boil then the heat is reduced. The rice is covered and simmered until the liquid is absorbed. This can be done on top of the stove or in a moderate 375°F oven. Long grain or converted white rice generally takes 18 – 20 minutes, while brown rice takes 40 – 45 minutes.
6. When cooked, fluff with a fork or slotted spoon to allow steam to escape and to keep the grains separate. The appropriate doneness is determined by the type of rice used.
7. When not used immediately, rice should be cooled quickly in a shallow container. It can be stored in the refrigerator, covered, for up to 6 days or frozen for up to 6 months. To reheat, steam the rice which helps avoid clumping and breaking up the grains with excess stirring. Microwaving also works well for reheating cooked rice.

COOKING RICE: OTHER METHODS

1. With the “pasta method,” the rice is placed in a large amount of water and boiled. When tender, the excess water is drained.
2. Rice can be steamed in a commercial rice steamer, in shallow pans in a kitchen steamer or over boiling water, although this last method requires pre-soaking to lessen the cooking time.
3. Pilaf, also known as pilau in the Middle East, is a common rice cooking method. Before the grain is cooked in a hot liquid (stock, broth, or water), it is heated in a pan that is either dry or coated with fat. This technique is referred to as parching and imparts a nutty flavor to the grain, gives a firmer texture than boiling, and keeps the grains separate. Seasoning and flavoring options include salt, pepper, bay leaf, thyme, other herbs, onions, or other aromatic vegetables. Heated liquid is added to the rice, brought to a boil, covered, then simmered on the stove or in the oven (oven cooking allows for more even heating). When a pilaf is properly cooked, the individual grains should separate easily. The grains should be tender to the bite with a noticeable texture but **not** soft and mushy.

- For risotto, the rice grains are first sautéed, as in pilaf. Generally, medium to short grain rice is used such as arborio, carnaroli, or vialone nano. The liquid used is heated and stirred into the rice in 3 – 4 parts. This controls the amount of starch released, bringing out a creamy texture but retaining a firmness to each grain. Finishing ingredients include butter, cheeses, wine, or herbs. Ideally, risotto should be cooked prior to being served. However, it can be held by cooling the rice in a shallow container when two-thirds to three-fourths done. To finish, the remaining liquid is added, and the risotto heated until fully cooked.

RICE SEASONING

Rice Dish	Seasonings
Rice pilaf	Coriander, curry powder, red pepper, saffron
Risotto	Nutmeg, rosemary, bay leaf
White rice	Allspice, parsley, turmeric
Wild rice	Thyme

GRAIN COOKING TABLE

<i>Grain</i>	<i>Grain to Liquid Ratio (cups*)</i>	<i>Yield (cups)</i>	<i>Cooking Time</i>
Amaranth	1: 1½ - 2	2	20-30 minutes
Barley, pearled	1:2	4	35 - 45 minutes
Barley, groats	1:2½	4	50 minutes - 1 hour
Buckwheat groats (Kasha)	1:1½ -2	2	12 - 20 minutes
Couscous**	1:2	2	20-25 minutes
Hominy, whole ***	1:2½	3	2 ½ - 3 hours
Hominy grits	1:4	3	25 minutes
Millet	1:2	3	30-35 minutes
Oat groats****	1:2	2	45 minutes - 1 hour
Polenta/Cornmeal	1:3 to 3½	3	35 - 45 minutes
Quinoa	1:1	2	15 minutes
Teff	1:3	3	15 minutes
Triticale	1:2½	2 ½	1 hour
Wheat Berries****	1:3	2	1 hour
Bulgur Wheat, soft ^ ^	1:4	2	2 hours
Bulgur Wheat, pilaf^ ^	1:2½	2	15 - 20 minutes
Cracked Wheat	1:2	3	20 minutes
Kamut	1:3	2 ½	1 hour

Spelt	1:3	2 ½	1 hour
Arborio Rice (Risotto)	1:3	3	20 - 30 minutes
Basmati Rice	1:1½	3	25 minutes
Converted Rice	1:1¾	4	25 - 30 minutes
Long Grain, Brown Rice	1:3	4	40 minutes
Long Grain, White Rice	1:1½ to 1¾	3	18 - 20 minutes
Short Grain, Brown Rice	1:2½	4	35 - 40 minutes
Short Grain, White Rice	1:1 to 1½	3	20 - 30 minutes
Wild Rice	1:3	4	30 - 45 minutes
Wild Pecan Rice	1:1¾	4	20 minutes

* From one cup of uncooked grain

** Grain should be soaked briefly in tepid water and then drained before it is steamed

*** Grain should be soaked overnight in cold water and then drained before it is cooked

**** Grain benefits from presoaking

^^ Grain may be cooked by covering it with boiling water and soaking it for 2 hours or cooking it by the pilaf method

MARKET FORMS OF GRAINS

Whole Grains: These are the least processed form of grains. Included are unprocessed grains or those where only the tough, outer hull is removed. Whole grains are often referred to as groats. Examples include brown rice and wheat berries.

Pearled or Polished: The bran is partially or fully removed from the grain. Barley is referred to as pearled and rice is called polished.

Steal Cut, Cracked, or Grits: Whole or polished grains, such as oats, corn, or wheat, are cut into smaller pieces for faster cooking.

Flakes or Rolled: Grains are steamed, flaked, or flattened between rollers. The process of flattening the grain increases its surface area. The oils in the germ, as a result, could turn rancid. This is avoided by steaming the grain, which inactivates the fat digesting enzymes.

Meal: Grain is ground to a sandy consistency. Stone ground grains are ground between stones, creating a grittier consistency. Examples include cornmeal and semolina.

Bran: Bran is made from the outer husk of the grain and is a rich source of fiber.

Germ: The embryo of the grain is made into a coarse meal. Wheat germ is the most common.

Flour: This is the most prevalent market form of grain. The grain is ground into very fine powder, either from the whole grain or endosperm. Any grain may be processed into this form, as well as nuts.

OTHER GRAIN PREPARATIONS

Hominy: dried white, yellow, or blue corn kernels, with the hull and germ removed. The process of removal can be done by soaking the kernels in a weak lye solution or done mechanically. Historically, Native Americans soaked their corn in water that had been seeped through with wood ashes, which contain potassium hydroxide. This caused the kernel to puff up, breaking the outer shell. Water filtered through the ashes produced lye, a caustic brownish liquid, a derivation of which is still used today.

The hominy can then be broken or coarsely ground, referred to as samp. When ground, to either a fine, medium, or coarse consistency, it is known as hominy grits. Southern cooks usually boil whole or ground hominy until tender and serve it as a side dish for breakfast or dinner. It may also be chilled, cut, and fried. Mexican cooks may treat the hominy or posole in a lime (calcium oxide) and water solution, then grind it into masa, the Spanish word for "dough." Masa harina "dough flour" is used to make tortillas and tamales.

Polenta: in its most basic form, this is a cornmeal mush. Combined with other ingredients, however, polenta transcends this humble definition and becomes a savory side dish. The corn may be stone ground and it retains the nutritious germ.

Historically, polenta once contained no cornmeal at all. It is thought that centuries ago the Etruscans may have made a grain cake of wheat, barley, or flour. Later, the Venetians adapted the cake, using cornmeal. Today, in Italy, polenta is to the north what pasta is to the south—a mild partner for spicier or richer foods. Similar to Southern grits, it can be served plain, moistened with pan juices or gravy, served with butter, cheese or a tomato sauce. It may also be cooled, sliced, and fried.

Polenta making has the reputation for being a long and laborious process. This may be due to the traditional Italian technique of cooking the cornmeal over a wood fire. A curved bottom copper cauldron, called a paiolo, was used. The copper conducted the heat evenly, the round bottom exposed more cornmeal to the heat and a long-handled paddle allowed the cook to avoid the direct heat. Constant stirring was needed to prevent the polenta from burning. Today, a heavy-bottomed pot and wooden spoon will suffice. It can also be prepared over a double boiler. There is even a new gadget in Italy, called a polentiera that stirs polenta with an automated arm.

The most common technique is to bring salted water to a boil, then add the cornmeal in a stream, stirring constantly. The heat is reduced to a simmer, with frequent stirring, until done. The individual grains should be tender, have a distinct corn flavor and retain a bit of texture, generally taking about 45 minutes.

The meal used for polenta comes in different grinds from fine to coarse. The coarse grind is usually cooked until stiff. This type of polenta can be used as a base for a plate or cut into shapes and fried. To shape, it is cooked longer, allowing it to thicken, or laid out on greased sheet pans, cooled, then cut. The fine grind meal is usually cooked until creamy, having the consistency of thick soup. Italians often

refer to this creamy version as polentina. This may be layered on the plate, with a sauce, butter, seasonings, or sausages on top. There is some debate as to which liquid is the best for cooking polenta. Milk or stock may be preferred but they tend to mask the fresh, corn taste. Water best preserves this taste, with butter or cheese complementing the corn flavor.

Balkan countries adopted corn as a staple and Romania has an important dish resembling polenta. Derived from the word malai, a kind of cornmeal bread originally meaning millet, mamaliga is a cornmeal mush. Similar to polenta, it is traditionally cooked in an iron kettle over a fire with a wooden stirring stick. The stick was often decorated and carved with the family's name. In Romania, mamaliga is made fresh for each meal and served warm. It, too, may be cooled, sliced, and fried. Sheep cheese is often added to it to create this national dish.

Tabbouleh or tabouli: a Middle Eastern dish made from bulghur wheat. Typically, the bulghur is mixed with chopped tomatoes, onions or scallions, parsley, and mint, then dressed with lemon juice and olive oil. Lettuce leaves may be used to hold the tabbouleh, which is then eaten with the fingers.

Bulghur or bulgur wheat is a quick cooking form of whole wheat, which has been parboiled, dried, ground and sifted. Making wheat into bulghur originated in the Mediterranean and the Middle East approximately 4,000 years ago. For ancient people, bulghur was an excellent food source, resisting mold and insects and capable of being stored for long periods of time.

The traditional process involved boiling the wheat until cooked, spreading it out on flat rooftops, drying it in the sun, then cracking the hard kernels into coarse pieces

and sifting them into sizes for various uses. Fine grind may be used as a cereal, in tabbouleh, pilaf or as a substitute for rice. Medium-grind is used in salads, stews, meatless burgers, or chili. Coarse grind holds its shape for stuffings, casseroles, pilafs, and salads. Whole-grain may be used in similar preparations as coarse-grind bulghur. Bulghur wheat is often confused with cracked wheat. However, it differs in that bulghur is pre-cooked. As a result, it is ready to eat with minimal cooking, or after soaking in water or stock, may be added to other ingredients.

DAY FOUR PRODUCTION ASSIGNMENTS

MENU ONE

Roast Sirloin of Beef with Jus Lié

Barley Pilaf

Oven-Roasted Vegetables

MENU TWO

Grilled Pork Chops with Pommery Mustard Beurre Blanc

Risotto Milanese

Saffron Risotto with Peas

Grilled Yellow Squash

MENU THREE

Grilled Salmon with Béarnaise Sauce

Brown Rice Pilaf

Glazed Beets

ROAST SIRLOIN OF BEEF WITH JUS LIÉ

Yield: 6 Portions

Ingredients	Amounts
Beef sirloin, boneless, tied	3 lb.
Salt	2 tsp.
Ground black pepper	1 tsp.
Vegetable oil	as needed
Mirepoix	
Onions, large dice	1½ wt. oz.
Celery, large dice	1 wt. oz.
Carrots, large dice	1 wt. oz.
Tomato paste	2 Tbsp.
Brown stock	20 fl. oz.
Cornstarch	¾ wt. oz.
Salt	1 tsp.
Ground black pepper	¼ tsp.

Method

1. Season meat generously with salt and pepper.
2. Heat a film of oil over medium-high heat in a large sauté pan and sear the beef until browned on all sides.
3. Set the seared roast on a rack and place in a roasting pan. Cook at 350°F until medium-rare (internal temperature of 135°F).
4. Add the mirepoix one hour before desired internal temperature is reached.
5. When done, remove roast, cover loosely with foil to keep warm, and set aside to rest.
6. Pour off any excess fat, then add the tomato paste to the pan. On the stovetop, brown the tomato paste (pincé) and finish caramelizing the mirepoix.
7. Add the stock to the pan and deglaze.
8. Make a slurry using the cornstarch and add it to the stock. Bring mixture to a boil, stirring constantly.
9. Strain the sauce and season with salt and pepper.
10. Slice the meat and serve with the jus.

BARLEY PILAF

Yield: 6 Portions

Ingredients	Amounts
Vegetable oil or clarified butter	1 fl. oz.
Onion, diced	5 wt. oz.
Garlic, chopped	¼ wt. oz.
Barley	2 cups
Chicken stock, hot	1½ qt.
Salt	to taste
Ground black pepper	to taste

Method

1. Sweat the onion in vegetable oil or clarified butter over medium-low heat until the onions are translucent.
2. Add the garlic and cook briefly without browning. Add the barley and toss until all grains are coated with oil or butter and are heated through.
3. Add the hot stock to the barley mixture. Bring the liquid to a boil and cover the pot tightly.
4. Cook in a 350°F oven until the barley is tender and has absorbed all the liquid, about 45 minutes.
5. Season with salt and pepper to taste.

OVEN-ROASTED VEGETABLES

Yield: 6 Portions

Ingredients	Amounts
Red onions, quartered	12 wt. oz.
Carrots, oblique cut	8 wt. oz.
Cauliflower, florets	8 wt. oz.
Red bell pepper, 1-inch pieces	8 wt. oz.
Green bell pepper, 1-inch pieces	8 wt. oz.
Garlic cloves	6 ea.
Shallots, whole, peeled	4 wt. oz.
Thyme, chopped	1 Tbsp.
Salt	1 Tbsp.
Ground black pepper	1 tsp.
Butter	2 wt. oz.

Method

1. Combine the onions, carrots, cauliflower, peppers, garlic, and shallots in a large stainless-steel bowl. Season with thyme, salt, and pepper and mix thoroughly.
2. Transfer the vegetables to a buttered roasting pan and dot vegetables with butter. Place in a 375°F oven. Gently stir the vegetables periodically to ensure even roasting.
3. Remove from the oven when vegetables are lightly caramelized and tender.
4. Dot with additional butter and adjust seasonings to taste before serving.

GRILLED PORK CHOPS WITH POMMERY MUSTARD BEURRE BLANC

Yield: 6 Portions

Ingredients	Amounts
<i>Marinade</i>	
Vegetable oil	1 Tbsp.
Worcestershire sauce	1 Tbsp.
Garlic, chopped	1 tsp.
Pork chops	6 ea.
Salt	1 Tbsp.
Ground black pepper	1 tsp.
Pommery Mustard Beurre Blanc (recipe follows)	

Method

1. To prepare the marinade, combine the oil, Worcestershire sauce, and garlic.
2. Season the pork chops with the salt and pepper and cover with the marinade. Allow to marinate for 30 minutes.
3. Grill over medium heat to mark pork chops. If desired, rotate chops at a 45-degree angle before turning to achieve crosshatch grill marks.
4. Place into a 350°F oven and cook until pork chops reach an internal temperature of 155°F.
5. Serve with the Pommery Mustard Beurre Blanc.

POMMERY MUSTARD BEURRE BLANC

Yield: 1 Pint

Ingredients	Amounts
Dry white wine	6 fl. oz.
Cider vinegar	2 fl. oz.
Peppercorns, crushed	6 ea.
Shallots, minced	1 wt. oz.
Thyme stems	6 ea.
Bay leaf	1 ea.
Heavy cream	2 fl. oz.
Butter, diced	12 wt. oz.
Pommery mustard	2 Tbsp.
Salt	½ tsp.
Ground black pepper	¼ tsp.

Method

1. Combine the wine, vinegar, peppercorns, shallots, thyme, and bay leaf in a saucepan. Place sauce over medium heat and bring to a boil. Cook until the liquid has reduced, and pan is almost dry.
2. Add the heavy cream and reduce until sauce is thick enough to coat the back of a spoon (nappé).
3. Add the butter, one piece at a time, using a whisking motion, until emulsified.
4. Finish by stirring in the Pommery mustard.
5. Strain sauce, then season with salt and pepper to taste. Serve immediately or keep warm in a double boiler (bain marie).

RISOTTO MILANESE

SAFFRON RISOTTO WITH PEAS

Yield: 6 Portions

Ingredients	Amounts
Garlic cloves, minced	2 ea.
Onions, minced	4 wt. oz.
Butter	5 wt. oz.
Arborio rice	2 cups
Chicken stock, hot	1½ qt. (or as needed)
Bay leaves	2 ea.
Saffron threads, crushed	1 pinch
Parsley, chopped	2 Tbsp.
Parmesan cheese, grated	2 wt. oz.
Peas, blanched	10 wt. oz.
Salt	to taste
Ground white pepper	to taste

Method

1. Heat 3 ounces of butter in a large skillet. Add the garlic and onions and cook over medium heat until soft.
2. Add the rice and stir until the grains are evenly coated with butter.
3. Add ⅓ of the stock and stir until the rice absorbs the liquid.
4. Add the bay leaves, saffron, and another ⅓ of the stock. Continue to stir and cook until the rice absorbs the liquid.
5. Add the remaining stock, and cook, stirring constantly, until rice is al dente.
6. When all the liquid has been absorbed, add the parsley, grated cheese, remaining butter, and peas. Adjust consistency by adding additional stock if necessary—the risotto should be creamy (not stiff) and should spread out on the plate.
7. Stir rice only long enough to mix ingredients. Season with salt and pepper to taste.

GRILLED YELLOW SQUASH

Yield: 6 Portions

Ingredients	Amounts
Yellow squash, cut on the bias	1½ lb.
Olive oil	1 fl. oz.
Garlic clove, minced	1 ea.
Salt	1 tsp.
Ground black pepper	¼ tsp.

Method

1. Coat squash with oil, garlic, salt, and pepper. Marinate for 10 minutes.
2. Place the squash on a hot grill and grill on both sides (the time will vary depending upon the thickness of the cut). If desired, turn once during cooking to create crosshatch marks.

GRILLED SALMON

Yield: 6 Portions

Ingredients	Amounts
Salmon fillet	6 ea.
Salt	to season
Ground black pepper	to season
Lemon juice	to season
Olive oil	as needed

Method

1. Season salmon with salt, pepper, and lemon juice.
2. Brush with olive oil and grill over very high heat, turning at 45° angles to form grill marks.
3. Turn over and continue cooking until salmon reaches an internal temperature of 140°F.

BÉARNAISE SAUCE

Yield: 20 Fluid Ounces

Ingredients	Amounts
Shallots, chopped	1 Tbsp.
Black peppercorns, cracked	½ tsp.
Dried tarragon	1 Tbsp.
Tarragon stems, chopped	2 ea.
Tarragon vinegar	2 fl. oz.
Dry white wine	1 fl. oz.
Water	2 fl. oz.
Egg yolks	6 ea.
Clarified butter, warmed to 145°F	1 pt.
Tarragon, chopped	2 Tbsp.
Chervil, chopped	1 Tbsp.
Salt	as needed

Method

1. Combine the shallots, peppercorns, dried tarragon, tarragon stems, and vinegar. Reduce until nearly all the liquid has evaporated (au sec).
2. Add the wine and water to the reduction and strain into a stainless-steel bowl.
3. Whip egg yolks together with the reduction and place over simmering water. Cook, whisking constantly, until eggs are thickened and form ribbons when they fall from the whisk (165°F).
4. Add the clarified butter in a thin stream, whisking constantly, until all the butter is added, and the sauce has thickened.
5. Add the chopped tarragon and chervil and adjust the seasoning with salt to taste. The sauce is ready to serve now or may be held warm (145°F) for up to 2 hours.

BROWN RICE PILAF

Yield: 6 Portions

Ingredients	Amounts
Onion, chopped	1 wt. oz.
Butter or oil	1 wt. oz.
Brown long grain rice	1¼ cups
Chicken or vegetable stock, hot	2½ cups
Bay leaf	1 ea.
Salt	to taste
Ground white pepper	to taste

Method

1. In a medium-sized saucepan, sweat the onions in the butter or oil over medium heat until translucent, about 3 to 5 minutes.
2. Add the rice and stir to coat with the fat.
3. Add the stock, bay leaf, salt, and pepper.
4. Bring the liquid to a boil, stirring frequently. Stop stirring once liquid comes to a boil. Cover pot, transfer to a 325°F oven, and cook until the liquid is absorbed, and the rice is tender, about 40 to 45 minutes.
5. Use a kitchen fork to fluff the grains of rice and release the steam.
6. Replace the cover and allow it to rest for 10 minutes in a warm place. Adjust seasonings if necessary.

GLAZED BEETS

Yield: 6 Portions

Ingredients	Amounts
Beets, fresh, trimmed	1¼ lb.
Butter	1¼ wt. oz.
Vinegar or lemon juice	2 tsp.
Sugar, honey, or maple syrup	1¼ wt. oz.
Salt	to taste
Ground black pepper	to taste

Method

1. Boil beets in skins until tender. Drain and cool.
2. Once cool enough to handle, peel the beets, and cut them into allumettes (matchsticks).
3. Melt the butter in a saucepan set over medium heat. Add the vinegar or lemon juice, sweetener, and beets.
4. Cook the beets over high heat, tossing occasionally, until glazed.
5. Adjust seasoning with salt and pepper to taste.

Note: Beets can also be baked in an oven for 1 hour, rather than boiling them. Pierce them first, before baking, as with potatoes.

DAY FIVE:

MOIST-HEAT AND COMBINATION COOKING METHODS

LEARNING OBJECTIVES

By the end of this day, you should be able to...

- identify various meats, poultry, fish, and vegetables that may be cooked using a combination cooking or moist-heat cooking method.
- identify the types and sizes of pans to use for combination and moist-heat cooking methods.
- compare shallow vs. deep poaching.
- compare stewing and braising.
- identify the types of liquids that may be used to poach.

LEARNING ACTIVITIES

Lecture / Discussion
Demonstrations
Hands-On Production
Product Evaluation

KEY TERMS

Blanquette	Bouillabaisse
Braising	Brazier
Cartouche	Cuisson
Fricassée	Goulash
Gremolata	Matelote
Navarin	Ossobuco
Parboil	Paupiettes
Poaching	Ragoût
Sear	Stewing
Zest	

INSTRUCTOR'S DEMONSTRATIONS

Beurre Blanc
Court Bouillon
Searing

SUGGESTED READING ASSIGNMENTS

The Professional Chef, 9th Edition, pp. 532 – 552, 572 – 580, 648 – 657, 677 - 681

SUGGESTED AUDIOVISUAL ASSIGNMENTS

Cooking Methods: Moist Heat Methods

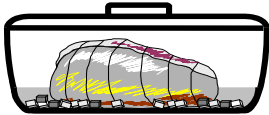
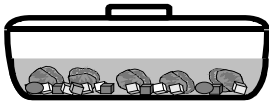
Submersion Cooking, Steaming, Braising

3383

STANDARD RATIO OF INGREDIENTS FOR BRAISING

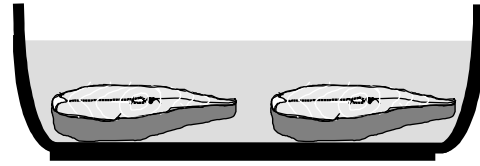
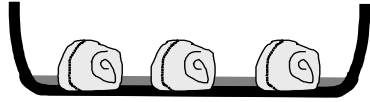
Main Item 1 lb.
Mirepoix 1 oz.
Liquid 1 pt.

BRAISING AND STEWING COMPARISON

Comparison of Braising and Stewing		
		
	Braising	Stewing
Size of Meat	Large, multi-portion	Small pieces
Amount of Liquid	Covers one-half to one-third of meat	Covers meat
Garnish	Cooked separately	Cooked with meat or separately
Sauce	Strained	Not strained
Cooking	In oven	In oven or on top of the range

POACHING METHODS

Shallow Poaching vs Poaching or Simmering



Less liquid is used.

Smaller cuts of meat, poultry, or fish.

A sauce is made from the poaching liquid.

Poaching is done in the oven.

The garnish may be included in the cooking process.

The pan is covered with some type of lid.

Product is covered with liquid.

Larger cuts of meat, poultry, or fish.

The poaching liquid is not used for the sauce; a separately derived sauce is used.

Cooking is done on top of the range.

The garnish is cooked separately and added just before serving.

The pan is not covered.

DAY FIVE PRODUCTION ASSIGNMENTS

MENU ONE

Poached Salmon with Court Bouillon

Mashed Turnips and Potatoes

Steamed Broccoli

Zucchini and Carrot Tournier

MENU TWO

Ossobuco alla Milanese

Polenta

Fennel with Parmesan Cheese

Grilled Vegetables

MENU THREE

Chicken Fricassée

Basmati Rice Pilaf

Braised Greens

Root Vegetables Tempura with Dipping Sauce

POACHED SALMON

Yield: 6 Portions

Ingredients	Amounts
Court Bouillon (recipe follows)	1 gal.
Salmon steaks, 5 oz. ea.	6 ea.

Method

1. Poach the salmon in court bouillon at 155°F (check temperature regularly) until cooked through.
2. Remove and serve.

COURT BOUILLON

Yield: 1 Gallon

Ingredients	Amounts
Water, cold	5 qt.
White wine vinegar	8 fl. oz.
Salt	as needed
Carrots, sliced	12 wt. oz.
Onions, sliced	1 lb.
Dried thyme	1 pinch
Bay leaves	3 ea.
Parsley stems	10-12 ea.
Black peppercorns	½ tsp.

Method

1. Combine all ingredients, except the peppercorns, and simmer for 50 minutes.
2. Add the peppercorns and simmer for another 10 minutes.
3. The court bouillon may be used now as a cooking medium, or it may be cooled and stored for later use.

Notes: A court bouillon, or short broth, is often prepared as the cooking liquid for fish by simmering aromatic vegetables in water with an acid such as wine or vinegar. When fish bones or shells are simmered in the court bouillon, it is called a nage. The court bouillon should be relatively salty; it is only used as a cooking medium and not served.

MASHED TURNIPS AND POTATOES

Yield: 6 Portions

Ingredients	Amounts
Potatoes, peeled and quartered	1 lb.
Turnips, peeled and quartered	1 lb.
Milk, heated	2 fl. oz.
Butter, melted	1 wt. oz.
Parsley, chopped	2 Tbsp.
Salt	1 tsp.
Ground black pepper	¼ tsp.

Method

1. Boil the potatoes and turnips in separate containers until they are very tender. Drain and return to the heat to dry.
2. Purée the potatoes and turnips together through a food mill while they are still very hot.
3. Add the heated milk and butter and fold until smooth. Add the chopped parsley and season with salt and pepper to taste.

STEAMED BROCCOLI

Yield: 6 Portions

Ingredients	Amounts
Broccoli (approximately 2½ bunches)	2 lb.
Salt	as needed
Ground black pepper	as needed

Method

1. Trim broccoli, peel stems, and cut into spears. Arrange broccoli on a steamer rack or insert and season with salt and pepper.
2. Bring water to a full boil in the bottom of a tightly covered steamer. Add the broccoli, replace cover, and steam until tender, about 5 to 7 minutes.
3. Remove broccoli from steamer, adjust seasoning, and serve immediately.

ZUCCHINI AND CARROT TURNER

Yield: 6 Portions

Ingredients	Amounts
Carrots, peel, tourner	18 ea.
Zucchini, tourner	18 ea.
Butter, melted	as needed
Salt	1 tsp.
Ground black pepper	¼ tsp.

Method

1. Blanch the carrots in boiling, salted water until tender. Drain well and set aside.
2. Heat the butter in a sauté pan over medium heat. Add the zucchini and sauté until tender.
3. Add the blanched carrots and continue to sauté until hot.
4. Season with salt and pepper to taste.

OSSOBUCO ALLA MILANESE

Yield: 6 Portions

Ingredients	Amounts
Veal shanks (with bone), 1½-inch thick	6 ea.
Salt	1 tsp.
Ground black pepper	¼ tsp.
All-purpose flour, for dredging	as needed
Vegetable oil	5 fl. oz.
Onions, small dice	4 wt. oz.
Carrots, small dice	2 wt. oz.
Celery, small dice	2 wt. oz.
Tomato paste	2 wt. oz.
Dry white wine	4 fl. oz.
All-purpose flour	3 wt. oz.
Tomato concassé	3 wt. oz.
Brown veal stock	2 qt.

Gremolata

Anchovy fillet, chopped	2 ea.
Garlic clove, minced	1 ea.
Parsley, chopped	2 Tbsp.
Lemon zest	2 tsp.

Method

1. Season the meat with salt and pepper. Dredge the veal shanks in flour, shaking off the excess.
2. Heat a large, wide pan and brown the veal on all sides in hot oil. Remove and keep warm.
3. Add the onions, carrots, and celery and cook until caramelized. Add the tomato paste and pincé. Deglaze with white wine and reduce.
4. Stir in the flour and cook for another 5 minutes.
5. Add the tomato concassé and stock and cook until reduced by half.
6. Return the seared veal to the pan and bring the mixture to a simmer over medium to low heat. Cover the pot and transfer to a 350°F oven. Braise the veal shanks for 2 to 2½ hours, or until fork-tender, turning occasionally to keep the veal evenly moistened.
7. While the veal cooks, combine the ingredients for the gremolata and set aside until service.
8. Transfer the finished veal to a serving platter and keep warm. Degrease sauce and adjust consistency and seasoning as needed.
9. Serve the veal with 2 ounces of sauce ladled over top. Sprinkle with the gremolata.

Note: As an alternative, the gremolata mixture may also be mixed into the sauce just before service.

POLENTA

Yield: 6 Portions

Ingredients	Amounts
Olive oil	1 fl. oz.
Onion, finely chopped	2 wt. oz.
Garlic cloves, minced	1 ea.
Water	12 fl. oz.
Milk	12 fl. oz.
Salt	¼ wt. oz.
Coarsely-ground Italian cornmeal	5 wt. oz.
Parmesan cheese, grated	2 wt. oz.

Method

1. Heat olive oil in a saucepot over medium heat. Add the onions and garlic and cook until soft and translucent.
2. Add the water and milk and bring the mixture to a boil. Season with salt.
3. Gradually add the cornmeal and boil rapidly for 5 minutes, stirring constantly.
4. Cover pot, place in 350°F, and bake for 30 minutes. Do not stir; a light crust on the bottom of the pan is desirable.
5. Before serving, sprinkle with grated Parmesan cheese, or serve cheese separately.

FENNEL WITH PARMESAN CHEESE

Yield: 6 Portions

Ingredients	Amounts
Fennel	3 ea.
Onions, sliced	3 wt. oz.
Celery, diced	2 wt. oz.
Garlic clove, chopped	1 ea.
Lemon, juice of	1 ea.
Chicken stock	8 fl. oz.
Salt	1 tsp.
Ground black pepper	¼ tsp.
Parmesan cheese	1 wt. oz.
Butter	2 Tbsp.

Method

1. Cut the fennel in half. Remove the core, leaving a small layer intact to keep the fennel from falling apart.
2. Combine the fennel, onions, celery, garlic, lemon juice, and chicken stock in a casserole or Dutch oven. Braise in a 325°F oven until fennel is tender, but still maintains its shape, about 45 minutes.
3. Remove the core from the fennel, then cut the bulbs in half lengthwise.
4. Place the fennel in a hotel pan with a little of the braising liquid. Sprinkle with the parmesan cheese and dot with butter. Cover the pan.
5. Bake in a 425°F oven until the cheese begins to melt, about 15 minutes. Remove the cover and continue to bake until the top is golden brown, about 5 to 10 minutes.

GRILLED VEGETABLES

Yield: 6 Portions

Ingredients	Amounts
Assorted seasonal vegetables	1½ lb.
<i>Marinade</i>	
Vegetable oil	5 fl. oz.
Soy sauce	1¼ fl. oz.
Lemon juice	½ fl. oz.
Garlic, minced	1 Tbsp.
Whole fennel seeds	¼ tsp.
Salt	as needed
Ground black pepper	as needed

Method

1. Slice vegetables thick enough to withstand the heat of the grill. If necessary, par-cook or blanch vegetables prior to grilling them.
2. Combine ingredients for the marinade. Add the sliced vegetables and toss well to coat.
3. Remove vegetables from the marinade and drain completely.
4. Place vegetables onto a hot grill and grill on both sides until tender. Turn at 45-degree angles to create grill marks.
5. Season with salt and pepper and serve.

CHICKEN FRICASSÉE

Yield: 6 Portions

Ingredients	Amounts
Whole chicken	1 ea.
Salt	to season
Ground black pepper	to season
Vegetable oil	2½ fl. oz.
Onions, diced	10 wt. oz.
Garlic cloves, minced	1 ea.
All-purpose flour	1 wt. oz.
Dry white wine	5 fl. oz.
Chicken stock	10 fl. oz.
Bay leaf	1 ea.
Dried thyme	¾ tsp.
Heavy cream	5 fl. oz.
Carrots, diced, blanched	10 wt. oz.
Leeks, diced, blanched	10 wt. oz.

Method

1. Cut chicken into eighths, cut the breasts in half, leaving the thighs and drumsticks whole. Rinse and blot dry. Season well with salt and pepper.
2. Heat the oil and sauté the chicken until it stiffens slightly but does not brown. Remove and reserve.
3. Add the onions and garlic to the pan; cover and sweat until the onions are soft.
4. Add the flour to the pan and cook, stirring frequently, for about 5 minutes.
5. Add the wine, chicken stock, bay leaf, and thyme. Bring to a simmer and return the chicken along with its released juices to the pan.
6. Cover the pan and braise the chicken until it is fork-tender, about 35 to 45 minutes.
7. To finish the sauce, remove the chicken and keep warm. Strain the sauce and degrease. Add the heavy cream and simmer until the sauce has thickened slightly. Add the carrots and leeks. Adjust the seasoning to taste.
8. Return the chicken to the sauce. Simmer for about 2 minutes and serve.

BASMATI RICE PILAF

Yield: 6 Portions

Ingredients	Amounts
Onion, chopped	1 wt. oz.
Vegetable oil	as needed
Basmati rice	2 cups
Chicken or vegetable stock, hot	1½ pt.
Garlic cloves, minced	2 - 3 ea.
Salt	½ tsp.
Ground black pepper	¼ tsp.
Bay leaf	1 ea.
Thyme sprigs	1 ea.

Method

1. In a medium-sized saucepan, sweat the onions in the butter or oil over medium heat until translucent, about 3 to 5 minutes.
2. Add the rice and stir to coat with the fat.
3. Add the hot stock and remaining ingredients to the rice.
4. Bring the liquid to a boil, stirring frequently. Stop stirring once liquid comes to a boil. Cover pot, transfer to a 350°F oven, and cook until the liquid has been absorbed and the rice is tender, about 18 to 20 minutes.
5. Use a kitchen fork to separate the grain and to release steam. The grains should separate easily and have a slight bite.
6. Replace the cover and allow it to rest for 10 minutes in a warm place. Adjust the seasonings if necessary.

BRAISED GREENS

Yield: 6 Portions

Ingredients	Amounts
Greens (mustard, beet, collard or chard) washed, stems removed	2 lb.
Bacon, diced	5 wt. oz.
Onions, diced	4 wt. oz.
Garlic cloves, minced	3 ea.
Chicken or vegetable stock	8 fl. oz.
Salt	to taste
Ground black pepper	to taste

Method

1. Blanch the greens in boiling, salted water for 2 minutes. Shock and squeeze out the excess water.
2. In a sauté pan, cook the bacon over medium heat until fat has been rendered and the bacon is golden and crisp. Remove crisped pieces and set aside.
3. Add the onions and garlic to the pan and sauté until lightly browned.
4. Add the blanched greens, stock, salt, and pepper.
5. Cook, covered, for 30 minutes in a 350°F oven until the greens are tender.
6. Adjust seasonings to taste. Serve, sprinkled with the crisped bacon pieces.

ROOT VEGETABLES TEMPURA WITH DIPPING SAUCE

Yield: 6 Portions

Ingredients	Amounts
Parsnips, batonnet	8 wt. oz.
Yams, batonnet	8 wt. oz.
Carrots, batonnet	8 wt. oz.
Tempura Batter	
All-purpose flour	14½ wt. oz.
Baking powder	1 wt. oz.
Water, cold	28 fl. oz.
Sesame oil	2½ fl. oz.
Tempura Dipping Sauce	
Water	10 fl. oz.
Soy sauce	5 fl. oz.
Ginger, minced	2 tsp.
Mirin (sweet rice wine)	1 fl. oz.
Katsuo dashi	½ fl. oz.
Oil, for frying	as needed
Cornstarch	as needed

Method




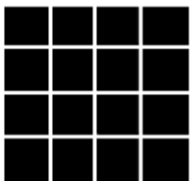
1. To prepare the Tempura Batter, whisk together the flour and baking powder. Add the water and sesame oil all at once and whisk until very smooth. The consistency should be similar to that of pancake batter. Keep chilled until ready to prepare the tempura.
2. To prepare the Tempura Dipping Sauce, combine all the ingredients in a mixing bowl. Let the flavors blend for at least 1 hour before serving.
3. Steam or parboil the parsnips. Rinse with cold water to stop the cooking process. Chill.
4. Heat the oil to 350°F. Blot vegetables dry, season, with salt and pepper, and dip in cornstarch and then in the batter. Deep-fry in the oil until golden brown, about 4 to 5 minutes. Drain on absorbent paper.
5. Serve immediately accompanied with the dipping sauce.





Note: Other root vegetables may be substituted, when necessary.

APPENDICES

WEIGHTS & MEASURES

Weights and Measures

	=		=		=	
1 gallon		4 quarts		8 pints		16 cups

			
1 gal. = 128 oz.	1 qt. = 32 oz.	1 pt. = 16 oz.	1 cup = 8 oz.

WEIGHTS AND MEASURES EQUIVALENCIES

dash	=	less than 1/8 teaspoon
3 teaspoons (tsp.)	=	1 Tablespoon (1/2 fl. oz.)
2 Tablespoons (Tbsp.)	=	1/8 cup (1 fl. oz.)
4 Tablespoons	=	1/4 cup (2 fl. oz.)
8 Tablespoons	=	1/2 cup (4 fl. oz.)
16 Tablespoons	=	1 cup (8 fl. oz.)
2 cups	=	1 pint
2 pints	=	1 quart (approximately 1 liter)
4 quarts	=	1 gal.

METRIC WEIGHTS AND MEASURES EQUIVALENCIES

1 gram (g)	=	1/28 oz. (or 0.035 oz.)
1/2 ounce (oz.)	=	14 g
1 ounce	=	28.35 g (approx. 30 g)
2 ounces	=	56 g (approx. 60 g)
4 ounces	=	110 g
6 ounces	=	170 g
8 ounces	=	225 g
12 ounces	=	340 g
1 pound (16 oz.)	=	450 g
1 kilogram (kg)	=	2.21 lb.
1 liter (L)	=	33.92 fl. oz.

TEMPERATURE EQUIVALENCIES

250 °F	very cool	130 °C
300 °F	low	150 °C
350 °F	moderate	180 °C
400 °F	hot	200 °C
450 °F	very hot	230 °C

METRIC CONVERSION TABLE

To Change	To	Multiply by
Ounces (oz.)	Grams (g)	28.35
Pounds (lb.)	Kilograms (kg)	.45
Teaspoons (tsp.)	Milliliters (mL)	5
Tablespoons (Tbsp.)	Milliliters (mL)	15
Fluid Ounces (fl. oz.)	Milliliters (mL)	30
Cups	Liters (L)	.24
Pints (pt.)	Liters (L)	.47
Quarts (qt.)	Liters (L)	.95
Gallons (gal.)	Liters (L)	3.8
Temperature (°F)	Temperature (°C)	5/9 after subtracting 32°

Example: 9°F above boiling equals 5°C above boiling

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