

JCCoE

Joint Culinary Center of Excellence

Home of the Food Service Professional



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The Evolution of Cuisine

Like any art, great cookery requires taste and creativity, an appreciation of beauty and mastery of technique. Like the sciences, successful cookery demands knowledge and an understanding of basic principles. Like any successful leader, chefs must exercise sound judgment and be committed to achieving excellence in their endeavors. This course will describe food, cooking equipment, explain culinary principles, cooking techniques, and provide recipes using these principles and techniques. We cannot provide taste, creativity, commitment, and judgment for these; chefs must rely on themselves.

History of Modern Food Service

Apicius / 4th Century First

Cookbook Boulanger / Restaurant

Beauvillers / Grand Taverne de Londres

Guilds / French Revolution

Marie-Antoine Carème / **Grande Cuisine**

Georges Auguste Escoffier / Refining Grande Cuisine to **Classic Cuisine**

Classic Kitchen Brigade

Fernand Point / **Nouvelle Cuisine**

Chez Panisse / **New American Cuisine**

Fusion Cuisine

Avant-Garde Cuisine or Modernist Cuisine

The Professional Chef

Chefs must be able to identify, purchase, utilize and prepare a wide variety of foods. They should be able to train and supervise a safe, skilled, and efficient staff. To do all this successfully, chefs must possess a body of knowledge, understand, and apply certain scientific and business principles. Culinary training should at a minimum, provide the student with a basic knowledge of sanitation, nutrition, variety of foods, styles, and the methods used to prepare foods. This course will emphasize culinary principles not recipes. Focus is on the general procedures, fundamental principles, and skills. Education does not stop at the end of the book, hopefully within the next few weeks the quest for knowledge will ignite.

The art and science of cookery formed from a noble profession with a rich history and long traditions. With knowledge, skill, taste, judgment, dedication and pride, the student chef can become a part of a wonderful profession.

- Knowledge –** Culinary training from schools, books, life and observing more than you speak.
- Skill –** Practical hand on experience will produce consistent, efficient, quality, organize, and motivate.
- Taste –** All senses are involved in eating, creating, preparing, and presenting food.
- Judgment –** Comes with experience, often accompanied by failure, do not be afraid to fail, learn from mistakes as well from successes, only then will true judgment develop.
- Dedication –** Becoming a chef is hard work. A chef should never falter and always serve food with safety, sanitation, and quality first and foremost.
- Pride –** It is important the job be completed, but one should have a sense of pride in their work. Pride should extend to personal appearance and behavior in and around the kitchen. Learn the whys behind the reason to prepare food and know that the chef attire has certain utilitarian aspects. The checkered pants were designed to disguise stains. The double-breasted white jacket can be re-buttoned to hide dirt and the double layering is to protect from scalds and burns. The neckerchief wore around the neck was to absorb perspiration. The apron protects the uniform and insulates the body. Shoes are polished and pants are pressed. The crowning element of our chef uniform is the hat, with a history dating back to the sixth century and story of earning of the height. The uniform should be worn with the same pride you place in food presentation.

Food Safety and Sanitation

The U.S. Public Health Service identifies more than 40 diseases that can be transmitted through food. Many can cause serious illness and even death. Therefore, providing consumers with safe food is the food handler's most important responsibility. Unfortunately, the food handler is the primary cause of food-related illness. Understanding what causes food-borne illness and what can be done to prevent them will help you to better protect the consumer.

Sanitation – Referred to the creation and maintenance of conditions that will prevent food-borne illness. Preparing and serving safe foods in a clean kitchen is important but it does not stop there, the food must have high quality as well through proper handling from the dock to the dining room table.

Contamination – The presence of harmful organisms or substances (biological, chemical, or physical). Contamination occurs either direct or by cross-contamination. It is imperative to use the correct colored cutting board specifically designed for the different categories and / or types of ingredients. – Figure one (1) below is a chart for reference.

Direct – The contamination of raw foods (plants or animal), in their natural settings or habitats.

Cross contamination – The movement of chemicals or microorganisms to food products, they cannot move on their own. Food handlers can cause this movement during processing, preparing, cooking, or even serving.

- Foodborne Illness
- Pathogens Bacteria
- FATTOM
- Flow of food
- HACCP

As Chefs we must....

- Practice good personal hygiene, which leads to forming clean work habits.
- Prevent cross contamination during storage, handling, preparation, and meal service.
- Control time and temperature; know more than just the danger zone 41°F to 135°F receive, store, and prepare food at the correct temperatures and time frames:
- Hot food hot / cold foods cold.
- Reheated foods 165°F or higher and then maintained at 135°F or higher Cold foods in refrigeration of 41°F or less; frozen at 0°F.

- Thaw food safely; preferred method is refrigeration of 41°F or less, or under running water of 70°F or cooler to cool food safely.
- Two-Stage cooling method:
 - First Stage: Cools to 70°F within two (2) hours.
 - Second Stage: 70°F to 41°F in an additional four (4) hours, for a total of six (6) hours.
- HACCP system:
 - Pest control.
 - Kitchen Safety (work safely, first aid, fire safety, dress for safety).

Equipment Identification

A sure mark of the true professional is the ability to select the right tool for the job. Knowing how to maintain, clean, and use as wide array of tools, large and small, is the foundation of work done by a chef. Having the proper tools and equipment for the specific task, may mean the difference between a job well done and one done carelessly, incorrectly, or even dangerously. A wide variety of specialized tools are available but before using any new equipment read the owner's manual or have someone experienced with the item instruct on the proper procedures for use and cleaning. Remember safety, sanitation and customer service are the foundation of our profession.

Standards for Tools and Equipment:

– NSF International (NSF), previously known as the National Sanitation Foundation, promulgates consensus standards for the design, construction and installation of kitchen tools, cookware, and equipment. Although NSF is voluntary, most manufacturers submit their designs for certification to show that they are suitable for use in professional food service operations.

Selecting Tools and Equipment:

- **Hand tools:** Designed to aid in cutting, shaping, moving, or combining items. They have few if any moving parts. Spoons, whisks, zester, peeler, spatula, tongs, and knives are among the common hand tools.
- **Measuring and portioning devices:** Recipe ingredients ***MUST BE*** measured precisely. Measurements may be based on weight (grams, ounces, and pounds) or volume (teaspoons, cups, gallons). Therefore, it is necessary to have available several measuring devices, including liquid and dry measuring cups and a variety of scales. Thermometers and timers are also measuring devices.

- **Scales:** Necessary to determine weight of an ingredient or a portion of food. They must be correctly, and effectively used, and maintained to provide an accurate reading. Never pick up a scale by its platform for this can damage the balancing mechanism.
- **Volume measuring:** Measuring spoons (1/4 tsp to 1 T units), dry measuring cups (1/4 to 1 cup units).
- **Liquid measuring:** Cup to Gallon units; has a lip / pour spout above top measurement to prevent spills.
- **Ladles:** Useful in portioning liquids (ounces to milliliters stamped on the handle).
- **Portion scoops:** Useful for portioning salads, vegetables, batters, sorbets, truffles. A number stamped on the scoop indicates the number level scoops per quart. The higher the number means the smaller the scoop's capacity.
- **Cookware:** Should be selected for its size, shape, ability to conduct heat evenly and overall quality of its construction. Cookware that fails to distribute heat evenly may cause hot spots that burn foods. Because different metals conduct heat at different rates, and thicker layers of metal conduct heat more evenly than thinner ones, the most important consideration when choosing cookware are the types and thickness, known as the gauge of the material used. Cookware includes sauté pans, stockpots, roasting pans, hotel pans and specialty molds.

Some Common Items in the Kitchen:

- Pots, Pans, Hotel Pans (2-inch, 4-inch, half, one-third, and perforated pans).
- Strainers and Sieves, chinois, cheesecloth, sifters.
- Molds usually made of tinned steel, smooth or patterned, round, oval or rectangular.
- **Processing Equipment:** Both electric and non-electrical mechanical devices used to chop, puree, slice, grind, or mix foods. **ALWAYS** follow safety rules for all equipment and report any malfunctions immediately. Slicers, mandolin, food chopper (buffalo chopper), food processor, blender, immersion blender, vita prep mixers and juicers are processing equipment.
- **Safety Equipment:** Fire extinguishers, first-aid kits, protective gear.
- **Cleaning supplies:** NEVER stored with or near foods.
- **Compartment Sink:** Garbage disposal, wash, rinse, and sanitize (based off chemicals).

The Cooking Process

The education of a chef involves continually tasting food in as many states as possible. A raw onion will taste different from a warm caramelized onion or even a hot onion ring. Cooking is defined as the transfer of energy from a heat source to a food. This energy alters the molecular structure, changing texture, flavor, aroma, and appearance of the food. Cooking destroys undesirable microorganisms and makes food easier to ingest and digest. To cook foods successfully, you first must understand heat is transferred by conduction, convection, and radiation.

- **Conduction:** Simply movement of heat from one item to another through direct contact.
- **Convection:** Transfer of heat through a fluid, may be a liquid or a gas.
- **Natural:** Occurs because warm liquids and gases to rise while cooler ones fall.
- **Mechanical:** Relies on fans or stirring heat more quickly and evenly.
- **Radiation:** Transferred by waves of heat or light striking the food, no contact of heat source and the food.
- **Infrared:** Electric or ceramic element of radiant heat waves that cooks the food. Toasters and broilers.
- **Microwave:** Relies on radiation generated by a special oven to penetrate of food.
- **Induction:** Uses electromagnetic current to heat magnetic cookware. It heats the food not the cook top.

Cooking techniques involve a thorough knowledge of cooking methods and how to develop flavors in food. The cooking method chosen depends on the type of food being cooked and the flavors the chef is developing in the dish. Flavorings are added to change the natural flavor of a food. Seasonings are added to intensify the flavor of the food. Successfully developing flavors is the key to creating successful dishes that guests will enjoy and want to order again and again.

Cooking Methods

Foods are composed of proteins, carbohydrates (starches and sugars), water and fats, plus small amounts of minerals and vitamins. Changes in the shape, texture, color, and flavor of foods may occur when heat is applied to each of these nutrients. Understanding these changes and learning to control them, you will be able to prepare foods with the characteristics desired. Foods can be cooked in air, fat, water, or steam; these are known as cooking media. The effects of heat on food are protein coagulates, starch gelatinizes, sugar caramelizes, water evaporates, and fat melt. There are two cooking methods dry-heat and moist-heat.

- **Dry-Heat Cooking Methods:** Any cooking method that uses hot air, hot metal, a flame, or hot fat to conduct heat and brown food. The foods cooked using these methods are usually rich in flavor caused from browning. They are broiling, grilling, roasting, baking, sautéing, pan-frying, and deep frying.
- **Moist-Heat Cooking Methods:** Any cooking method that uses liquid or steam as a cooking medium. Poaching, steaming, simmering, blanching, and boiling.
- **Combination Cooking Methods:** Braising, stewing, poêléing.

Changes in Color and Texture

It is important to understand how heat changes the color and texture of food.

- **Caramelization or caramelisation (see spelling differences):** The oxidation of sugar, a process used extensively in cooking for the resulting nutty flavor and brown color. Caramelization is a type of non-enzymatic browning reaction.
- **Coagulation:** The setting of protein when heat or acid is added. An example of this is raw egg to cooked egg. Coagulation is easily seen in cooking an egg. The process where the 'clearish' egg white turns white under heat is protein coagulation.
- **Gelatinization:** The thickening of starch causing a permanent suspension. Starch gelatinization is a process of breaking down the intermolecular bonds of starch molecules in the presence of water and heat, allowing the hydrogen bonding sites to engage more water.
- **Maillard Reaction:** (/maɪˈjɑːr/ my-YAR; French: [majɑʁ]) is a chemical reaction between amino acids and reducing sugars that gives browned food its distinctive flavor. Seared steaks, fried dumplings, cookies and other kinds of biscuits, breads, toasted marshmallows, and many other foods undergo this reaction.
- **Reduction:** The process of thickening and intensifying the flavor of a liquid mixture such as a soup, sauce, wine, or juice by simmering or boiling.
- **Color Changes:**
 - Different color on interior versus exterior – grilling.
 - Transparent / opaque -sautéing, poaching.
 - Bright to dull colors: blanching/boiling.

– **Flavor Changes:**

- Deepen or concentrate flavors by reducing.
- Intensify, adjust, or modify by adding seasoning.
- Diminish or even remove flavors by blanching.

– **Nutrient Changes:**

- Nutrient values can be altered by the way food is prepared, cooked, and stored.
- Heat can destroy vitamins but can also increase values- cooked tomatoes contain more.
- Lycopene than uncooked tomatoes, heated cinnamon has more antioxidant power than raw cinnamon.

– **Texture Changes:**

- Soft: often thought of as under cooked or too moist.
- Firm: often thought of as tough or dry.

The Perception of Food

Food is presented in many forms, colors, textures, and flavors. **Sensory perception** is the ability of the senses to gather information and evaluate the environment. Signals are sent to the brain regarding the presentation, aroma, taste, and texture of food.

– **Aromas:** The human nose can detect thousands of aromas. The flavor of food is sensed by the nose because the nose has more sensory cells than the tongue. The nose can differentiate between foods that are quite in taste. A description such as vanilla-flavored coffee describes the overall aroma of the item rather than its taste. The tongue can taste the sweetness and bitterness of the coffee, but it is the nose that senses the vanilla and the roasted aroma of the coffee beans.

– **Taste and Texture:** The taste and texture of food are determining factors in the appeal of a given dish. Even if the food looks and smells appealing, an unappetizing taste or texture can cause a guest to reject the item.

The types of flavors the tongue or *palette*:

– **Bitter:** Flavored ingredient unbalanced by something sour or salty and is generally disliked. Bitterness often balances sweetness and can cut in the richness of a dish.

- **Salty:** The notable exception of oysters and other shellfish and seaweed, the presence of salty taste in food is the result of the cook’s decision to add the mineral sodium chloride, known as salt, or to use a previously salted ingredient such as salt cured fish or soy sauce. Salt helps finish a dish, heightening or enhancing its other flavors. Dishes that lack salt often taste flat. Like sweet, the frequency of consumption determines the strength of salts detectability in foods.
- **Sour:** Considered the opposite of sweet, a sour taste is found in acidic foods and can vary greatly in intensity. Food that have dominate sour taste, like red currants or sour cream; will also contain a secondary or slight sweetness. Often sour taste can be improved by adding a little sweetness or negated by adding a large amount of a sweet ingredient.
- **Sweet:** The most pleasurable and often sought-after taste, although ironically, the fewer sweet-tasting foods we consume, the more enhanced our ability to recognize sweet-tasting foods we consume, the more enhanced our ability to recognize sweet. Sweetness comes from the naturally occurring sugars it contains (like sucrose and fructose) or sweeteners added to the food, the sweetness can sometimes be enhanced by adding a small amount of a sour, bitter or salty taste.
- **Umami:** Relatively newly added taste, kin to the savory taste long recognized in Japanese cuisine (meaning delicious) refers to a food’s savory characteristic of richness, fullness, meatiness, or meaty taste of a dish. Taste buds sense umami in the presence of several substances, including the naturally occurring amino acid glutamate and its commercially produced counterpart of monosodium glutamate (MSG). Cheese, meats, rich stocks, soy sauce, fatty fish, mushrooms, tomatoes, and wine are all high in glutamate and produce the taste sensation of umami.

Factors that Affect Flavor Development

- **Aroma:** Responsible for eighty percent of flavor. Anyone with a cold or allergies knows that it is difficult to taste food. Smell is often perceived as perfume, fragrance, pungent, or earthy that describes the sensations that tickle or trick our gustatory senses like carbonated beverages or false perception of heat from chili pepper.
- **Color:** Affects how the consumer will perceive the flavor before it is even tasted. When food is appropriately colored it will cause the perception of taste and flavor to increase. Common color association with foods are opaque (light), translucent (some light passes through), and transparent (clear).
- **Presence of Contrasting Tastes:** Sweet and sour are considered opposites, and often the addition of one to a food dominated by the other will enhance the overall flavor.

Adding sugar to vinaigrette reduces the sourness or adding a squeeze of lemon juice to a broiled lobster reduces the shellfish sweetness.

– **Presences of Fats:** Many of the chemical compounds that create tastes and aromas are dissolved in the fats naturally occurring in foods or fat is added to foods during cooking. As these compounds are slowly released by evaporation or saliva, they provide a sustained taste sensation. If there is too little fat, the flavor compounds may not be released efficiently, resulting in a dish with little sustained flavor. Too much fat can coat the tongue and interfere with the ability of taste receptors to perceive flavor compounds.

– **Sound:** Important to the experience of taste. Crispy food should have a crunch upon biting and hot food should sizzle. We often describe food sounds as having snap, sizzle, pop, crackle, or crunch.

– **Temperature:** Foods at warm temperatures offer the strongest tastes. Heating food releases flavor compounds, which intensifies one's perceptions of odors. Foods seem to lose their sour or sweet taste both the colder and hotter they become. Saltiness is perceived differently at colder temperatures. It is important to taste and season food at the temperatures it will be served.

– **Texture or Consistency:** Consistency or texture affects appearance and flavor of food. Two foods with the same amount of taste and smell compounds that differ in texture will differ in perceived intensity and onset time; the thicker item will take longer to reach its peak intensity and will have a less intense flavor. Sweetened heavy cream made in two exact batches, whipping one will take on volume and a milder flavor. Some descriptive words for texture include firm (dense or hard), soft (yielding), dry, crisp, light, airy (frothy or foamy), thick, watery, warming and cooling.

Note – It is said that the most sensitive temperature for taste is 72°F to 105°F, as flavors are more pronounced between those temperatures. Age, health, smoking and drinking can all compromise the perception of taste.

Flavor is to food; what hue is to color. Flavor is the adjective and food is the noun. Each ingredient has its own character, which is altered by every ingredient it encounters. A secret ingredient is one that mysteriously improves the flavor of a dish without overpowering the main ingredient. There are primary flavors (obvious) and secondary flavors (secret or an ingredient that does not act well alone, like herbs are usually added in combinations). Whether the function is primary or secondary flavors combine in three ways. They marry (combine to form one taste, vanilla with lobster), they oppose (opposite flavors can highlight), or they juxtapose (cut or balance each other, like sweet and sour). Knowing how to combine or not combine flavors and aromas, to achieve a simple and pure result, will make a more confident chef.

Describing Foods Using Flavor Profiles

A flavor profile describes its flavor from the moment the consumer gets the first whiff of its aroma until they swallow that last morsel. It is a convenient way to articulate and evaluate a dish's sensory characteristics as well as identify contrasting or complementing items that could be served with it. A profile consists of one or more of the following elements:

- **Top Notes:** The sharp, first flavor or aroma that comes from citrus, herbs, spices, and many condiments. They have instant impact and dissipate quickly.
- **Middle Notes:** The second wave of flavor and aroma. More subtle and linger longer than top notes. Usually come from dairy products, poultry, some vegetables, fish, and some meats.
- **Low Notes:** The most dominate, lingering flavors. These flavors consist of the basic tastes (especially sweatiness, sourness, saltiness, and umami) and come from foods such as anchovies, beans, chocolates, and garlic. They can be created by smoking or caramelizing the sugars in the food during grilling, broiling and other dry-heat cooking methods.
- **Aftertaste:** The final flavor that remains in the mouth after swallowing, the lingering bitterness of coffee or chocolate or the pungency of black pepper or strong mustard.
- **Roundness:** The unity of various flavors achieved through the judicious use of butter, cream, coconut milk, reduced stocks, salt, and sugar. These ingredients cause the other flavorings to linger without necessarily adding their own dominant taste or flavor.
- **Depth of flavor:** Whether the dish has a broad range of flavor notes, flavor profiles often refer to the seasoning widely used to season many dishes in each cuisine. The overall flavor profile can range from simple to complex, depending on how many individual flavors, aromas, and textures.

Choosing the appropriate ingredients to use in a dish is a way to develop flavor. The goal is to select, prepare, and present foods that appeal to all senses. Food should be as fresh as possible, best, and appropriate quality, fully flavored, attractive in shape and size, and have the best possible texture. Think about the essence of the moment (the season, weather, the weight of a meal desired) and the essence of the ingredient (seasonal, functions of its age, like a banana increases sweetness as it changes color and functions, and the volume or strength of the flavor of the ingredient).

Plate Design and Presentation

It is time to put down the kitchen equipment and get ready to present the food. It is important the creativity and skill that went into cooking is not lost in a sloppy presentation. Food preparation is a science, presentation is an art. Good presentation results from careful attention to the colors, shapes textures, and arrangement of the foods. Great presentation takes experience. Presentation is the art of telling guests about the food by the way it is arranged on the plate or platter. Good presentations will make the guest want to eat the food, even before the first bite is taken. A variety of words can describe the effect of each element in a presentation: simple, elegant, balanced, integrated, unified, organic, or even synergistic. Food should always be **properly cooked neatly plated and served at the appropriate temperature.**

– The Primary Objectives of Food Presentation:

- Serve foods at the best possible temperature, for safety and flavor.
- Give foods an attractive and appropriate appearance.
- Make it easy for the guest to identify and eat the food.
- Highlight all aspects of color, aroma, temperature, and shape.

– The Elements on the Plate:

- Main Item, side or accompaniments, sauce, garnish.

Presentation Development Checklist (S.C.H.I.F.T):

- 1. Shape** – Different shapes bring variety, interest, and appeal.
- 2. Color** – The components must be natural colors to that specific item, potatoes should not be green.
- 3. Height**– Brings eye appeal and dimension.
- 4. Items** – Components should balance and complement each other. Plates should have the following items or components, main, side, sauce, crunch, and garnish.
- 5. Focal point & Flow**– Focal point- Make sure the star of the show (Usually protein) is prominent and identifiable.
- 6. Texture** – The components on a dish should vary in texture. A contrast in texture helps develop better eye appeal, as well as mouth appeal. Achieving a balance of texture on a plate can be simple as adding a crisp garnish such as fried julienned vegetables.

Presentation Guidelines

- **Balance:** The concept of balance incorporates many factors in food presentation. The presentation must be balanced through the selection of food by choosing complementary flavors, colors, food items, etc. Also, food should be prepared using different but complementary cooking methods and arranging it on appropriate china in an appetizing presentation.
- **Selection of Food:** Complex and simple types of food should be balanced.
- **Colors:** Always important in food, but especially so in presentation. Color reinforces freshness, quality, and proper cooking methods.
- **Variety:** Use variety in color without giving a "circus" effect. Earth tones with vibrant color are often successful. Usually, foods that taste good together will naturally harmonize in color.
- **Cooking Methods:** Avoid repetition by using different and compatible methods.
- **Shapes:** Avoid combining the same shapes on one plate. Avoid too many whole or stuffed items or too many loose mixtures on the same plate.
- **Textures:** Utilize purées, custards, and fried, toasted items, to provide different textures; however, avoid combining too many similar textures on the same plate. The basic textures to work with are smooth, coarse, solid, and soft.
- **Flavorings or Seasonings:** Avoid using the same seasonings on everything. Do not put lemon or vanilla in everything if they will be served on the same plate. The flavors should be complementary like rich with lean, spicy with bland, smoky (salt) with sweet, sweet with sour (acid), sweet with spicy.
- **Using the Right Plate:** Show case the food on plain plate, a colorful plate takes away from the food. The garnishes and components should never be on the rim of the plate. Always place hot foods on a hot plate and cold foods on a cold plate.
- **Flow and Sequencing:**
 - **Flow** is the sense of movement on a plate.Sequencing: Sliced items should be arranged in the order in which they are cut from the large piece. Since majority of the people are right-handed, meat should always go on the

right side of the plate. Serviceability: The diner should not have to move around components to get to other items.

– **Lines; Strong and Weak:**

– **Strong lines** are natural in line and shape (figure A is the strongest line). Figure A strong line is slightly curved indicates a general direction of movement. (B, C, and D). **Weak lines** are represented by figures E and F.



– **Garnishes:** Should always be edible and be used in odd numbers. A garnish should always be functional. For example, capers, caviar, finely chopped parsley. Nonfunctional garnishes get in the way and increases food waste. Slice of lemon, a sprig of rosemary is not functional because the diner will not eat the item. Garnishes can add color, texture, taste, and interest to a dish, should not distract from the focus. Garnish should make sense flavor wise; it should flow with the other components.

– **Unity:** Layout should work as a cohesive unit. Everything should be close together to retain their temperature and unity. Components that are scattered on the plate cause the eye to be bounce from item to item. Avoid by bringing all the components close together and reduce the focus point.

– **Balance in Presentation:** If the balance, unity, and focal point are correct a sense of movement will be natural. The layout is symmetric if the sense of flow is stifled by "locking" the eye in the middle of the plate or platter; the layout is asymmetric when there is a stronger sense of movement.

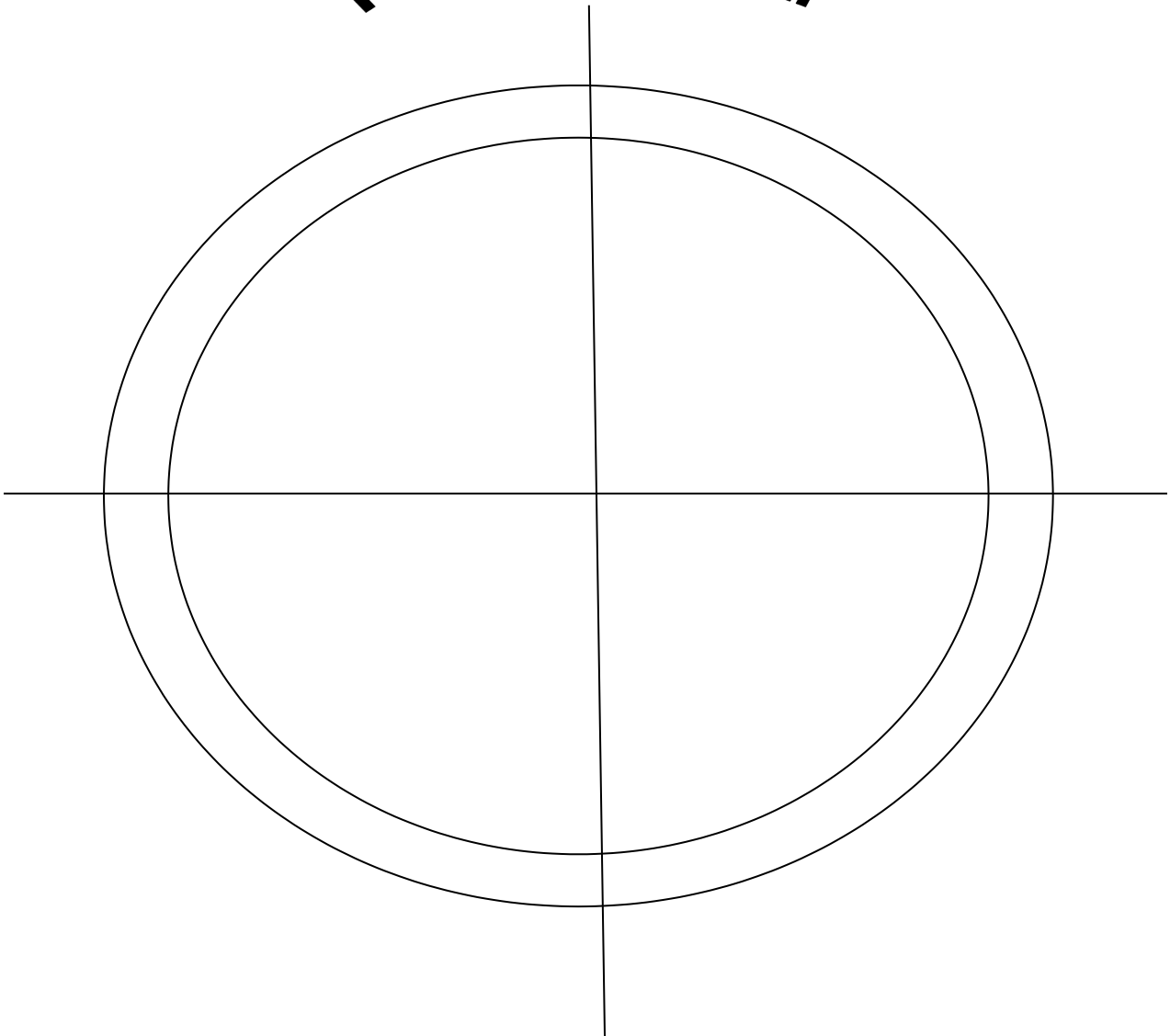
Modern Plating-Trends and Composition

When designing a plate, the chef must consider the composition, exploring the possibilities of contrasting and complementing flavor, texture, color, and style. It is important to consider, the customer base, specific event or menu need, and the environment for preparation and service. Look at classic plating with a contemporary eye and perhaps introduce ingredients that are not typical and give them new life. When planning an item for a menu, consider the final presentation of the item. Certain restrictions may immediately become apparent; the lack of equipment (not enough of a mold,) might force you to change the shape or look of a certain item. Timing can also be a restrictive element for preparation or service.

– **The Contrast Wheel:** This is a visual guide to understand the basic contrasting flavors, temperatures, and textures that can be utilized in the creation of a plated course. Think about incorporating contrasting characteristics into a menu by using different components, but never add components just to have another contrasting element, the number of components should make sense for the course.

The contrast wheel is divided between delicate and robust tastes and mouth feels. Combining contrasting elements on one plate will keep the palate interested and excited. Keep the idea of the contrast wheel in mind when adding new item to a current menu or designing a new menu. A balanced menu should contain warm and cold, sweet, and tart, and rich and lean items.

Plate Up Diagram



Menu Planning

The first step of planning a menu is to determine the theme of the event. A theme sets the tone of the event. It defines the menu, decorations, linens, and dinnerware. Once the theme is identified, the menu can start to be worked. Menu items should be consistent with the theme. It is important to consider visual appeal and avoid repetition. **Therefore:**

- **Offer dishes featuring different principal ingredients:**
 - If there are two starches make one a pasta and a potato.
- **Offer foods cooked by different methods:**
 - A hot braised protein and one roasted protein served cold.
- **Offer foods with different colors:**
 - Fettuccine Alfredo and poached fish served in béarnaise sauce are same color.
- **Offer foods with different textures:**
 - If two soups are served, make one clear and the other a cream.
- **Offer seasonally appropriate foods:**
 - A rich lamb stew may not go over well for a chafing dish at a summer luncheon.
- **Offer foods appropriate to the time of year:**
 - Tomato, basil, and mozzarella salad in summer when items are fresh, not readily available in the winter.
- **Truth-in-Menu Guidelines:** The federal government enacted the truth-in-menu guidelines, which require accuracy in statements made on menus. The guidelines are designed to protect the guests from fraudulent food and beverage claims. Failure to comply with truth-in-menu guidelines can result in legal claims being made against a foodservice operation for misleading or endangering guests.
- **Common misrepresentations:**
 - Portion size of an item: advertising a 12 oz. steak but serving a 10 oz.
 - Quality or grade of an item: USDA Prime and serving USDA select.
 - Preservation method: fresh fish and serving previously frozen.
 - Preparation method: house made, but it was a prepackaged item.
 - Type of product served: uses extra virgin olive oil; actually, using vegetable oil.
 - Certified foods: claiming organic and it is not.
 - Point of Origin: Florida oranges; that were bought in Virginia.
 - Nutrition Information: listing as low-fat when it does not meet the required criteria.
 - Product brand: serving a different brand than the one listed.

Introduction to Sous Vide

Heat is the most important ingredient in cooking, the one that can transform all the others into something delicious- or something dry and dull. It is also the ingredient that is the hardest to measure and control.

– Harold McGhee

History

The Sous Vide cooking method was developed in France in the early 1970's. Cooks in the United States were introduced to it approximately a decade later, but the U. S. Food and Drug Administration (FDA) raised safety concerns, and the unfamiliar equipment presented many unknowns and was expensive to own and operate. (*see note below.*)

Gerard Bertholon, a French Chef, demonstrated Sous Vide to American Chefs, and was discovered to be a remarkable and versatile cooking process. At its most fundamental level, sous vide cooking is the process of sealing food in an airtight container—usually a vacuum sealed bag—and then cooking that food in temperature-controlled water. In French, the term translates to "under vacuum," which makes sense.

Note: The FDA is responsible for protecting the public health by ensuring the safety, efficacy, and security of human and veterinary drugs, biological products, and medical devices; and by ensuring the safety of our nation's food supply, cosmetics, and products that emit radiation.

– There are three (3) main components needed to conduct Sous Vide cookery:

1. Vacuum Sealer
2. Immersion Circulator
3. Vessel / Container for submersing ingredients.

The vacuum sealer is key to the cooking process. The sealer in figure one (1) above, is a home-use vacuum sealer, and seals from the back of the bag. This type of sealer will prevent stagnant air from remaining in the bag and will prevent bacterial growth. The sealer in figure two (2) above, is a commercial version that allows for air to be forced into the bag, and automatically measures the volume that is in the bag. This allows for the liquid to be evenly distributed throughout the bag and will not be sucked out during the vacuum sealing process. The commercial type of vacuum sealers also allows you to adjust the amount of pressure you desire in the bag itself.

Operation

– Immersion Circulators have three (3) key features:

1. Heating element for heating water.
2. Temperature control that maintains precise temperatures.
3. Pump that circulates the water.

There are **commercial circulators** and circulators manufactured for **home-use**. It is important to use the machine that is designed most suitable for your needs, enabling you to reach the desired temperatures for liquid you're using in the vessel, as well as in your vacuum-sealed bag.

Evaporation

When dealing with Sous Vide evaporation, often in the industry, the circulator is left running overnight, and the water level may potentially not be maintained due to evaporation. When this occurs, it will typically cause the machine to turn off automatically. It is always a good idea to cover the open gapped areas of your circulator and vessel set-up with plastic wrap, when using equipment that does not have a vessel completely enclosed in the cooking liquid area of your system.

The type of bag used are also of fundamental importance. If the bag is too thin, and can puncture easily, going unnoticed, you may end up with product loss, causing you to lose production time by having to start the process from square one (1) again. The bags used must not contain any amounts of bisphenol A (BPA), (see note below). Hence, they must be BPA-free. BPA content in plastics is something regulated by the FDA. The bags also need to be able to withstand high temperatures. The industry standard for bags used, are 3-Mil bags (3 millimeter in thickness). There are multiple levels of thickness sold on the market, providing a multitude of options. Be sure to utilize the thickness appropriate for your desired needs.

Note: BPA stands for bisphenol A. BPA is an industrial chemical that has been used to make certain plastics and resins since the 1960s. BPA is found in polycarbonate plastics and epoxy resins. Polycarbonate plastics are often used in containers that store food and beverages, such as water bottles.

Why Sous Vide?

Why should you consider using the Sous Vide method? Why do we Sauté or why do we roast? Yet we do it without thinking because both methods have been used for centuries. Sous Vide allows us to achieve specific results that can only be achieved by this method. With traditional heating and cooking methods that have the product cooked at much higher heat, than the desired temperature throughout the item being cooked. The outer edges of products are almost always exceeding the desired temperature. With Sous Vide, the foods being prepared are consistently cooked to the correct temperatures, throughout the item, from center to outer edges.

Three Principles

- **Pressure:** Determined by the power of the vacuum sealer. The vacuum sealer extracts air from the Sous Vide bag, squeezing tightly against the food, as the air is expelled. The question is do you want the item to be compressed tightly or loosely? Commercial vacuum sealers can be adjusted to meet your desired compression.
- **Time:** In conventional cooking, timing can be thought of in terms of not how long to cook something, but more so, how long before you must stop the cooking process. If you are sautéing a beef medallion, and the heat is set at 400°F, and you desire the beefs temperature to be 130°F, you have a small window from being cooked to the correct temperature to being over cooked, and you must account for carryover cooking. In Sous Vide, once the food reaches the targeted desired temperature, it maintains that temperature. This does not mean you can keep the food submerged for an unlimited amount of time. Food can be held at the desired cooking temperature for much longer than with traditional cooking techniques. However, at some point food will become mushy and overcooked in its texture. To ensure perfect results we recommend the following rules of thumb: For the best results do not hold foods longer at cooking temperature for double of their minimum cooking time (see quick temperature reference guide for time and temperatures below).
Maximum cooking time is 72 hours.
- **Temperature:** The temperatures used in Sous Vide are always below simmering water temperature of 180° to 190°F. The highest cooking temperature recommended for Sous Vide cooking is 185°F.

– **Quick reference for cooking temperatures of common foods:**

- **Meat:** 120°F / 49°C (rare); 134°F / 56°C (medium-rare); 140°F / 60°C (medium); 150°F / 65°C (medium well).
- **Poultry:** *White meat* – 140°F / 60°C to 146°F / 63°C up to 160°F / 71°C as desired.
- **Poultry:** *Dark meat* – 176°F / 80°C.
- **Fish:** 116°F / 47°C (rare); 126°F / 52°C (medium-rare); 140°F / 60°C (medium).
- **Shellfish:** 135°F / 56°C to 140°F / 60°C.
- **Vegetables:** 185°F / 85°C.
- **Eggs:** 147°F / 64°C (soft boiled) to 167°F / 75°C (hard boiled).
- **Custard:** 170°F / 76.5°C.

Four Techniques

Food vacuum sealed and packed for **storage** will last considerably longer in a refrigerated environment than food simply wrapped in plastic wrap. The main reason is a result of the removal of oxygen. This also aids in the discoloration of potatoes or artichokes.

Compression is the newest Sous Vide technique, discovered by Chef Mark Hopper, who at the time was the Chef de Cuisine (CCC®) at Bouchon in Las Vegas. Bouchon is Chef Thomas Keller's casual French bistro located in Beverly Hills, Yountville, California and Las Vegas, Nevada. Compression is used to change or modify the texture of food. It changes light and airy fruits into dense meaty ones. The other use is called **setting**. Shaping a protein or item to a specific shape and allowing the cooking process to **set** the item to the desired shape.

Using a vacuum sealed bag to **marinate** the food allows for a zero (0) chance of bacterial growth being introduced to the product. This also allows for a very neat and an economically-sound way of storing the product.

Common Mistakes

- Mishandling fat is a mistake, as fat and muscle tissue have different chemical compositions, and therefore they behave differently when you cook them.
- Poorly handling Sous Vide pouches can cause water from the bath getting into you Sous Vide pouch, and this can create something that looks more like a mess than a meal. When it comes to sous vide, tongs are not your friend. They can smash your delicate fish fillets. Also, picking up sous vide bags with sharp tools like tongs can puncture your bags.

– Forgetting eggs are fragile is often overlooked. To protect your eggs, just place them in a Sous Vide pouch; they will be just as delicious, and all of them will likely make it out intact.

– Letting water evaporate leads to your pouches are only partially submerged, and your dinner (and potentially your Sous Vide machine) is ruined. To avoid this, cover your container with plastic wrap so the water that evaporates goes right back down into the bath. Also, always make sure to follow your manufacturer’s instructions on leaving your machine unattended.

– Overcooking foods is not unheard of when it comes to Sous Vide. Read, read, read, practice, and then read some more. Reading all the instructions for your machine, researching other people’s experiences, and practicing different recipes will help you learn how to cook your meals to perfection.

– Over seasoning foods is a common practice as well. When you season foods and cook them on a stove top or on a grill, some of that seasoning falls off onto the pan or even into the air. When you season foods, you are putting in a Sous Vide pouch, however, that seasoning has nowhere to go but into your food. If you season your foods heavily, they may come out overly salty and, quite frankly, unpalatable. If you stick with fresh spices and aromatics beforehand, you can always add any extra seasonings afterwards.

– Expecting the same results as other cooking methods while using Sous Vide cooks has the potential to leave you dissatisfied with the texture and mouthfeel of your chicken breast or the taste of broccoli. It is best to think of Sous Vide as a totally new way of experiencing your food, and do not expect it to taste the same way it would if you cooked it using another method.

– Ignoring instructions from your manufacturer or treating all machines the same can have the potential to ruin the consistency famously produced by Sous Vide cooking. Sous Vide machines are all different. It is essential that you carefully read your machine’s instructions to determine the maximum water capacity, cleaning instructions, calibration, and other variables.

Basic Knife Skills

Every professional must become skilled in the use of certain tools. The professional chef is no exception. One of the most important tools the student chef must master is the knife. Good knife skills are critical to a chef because the knife is the most common tool used in the kitchen.

What are the different parts of a knife?

Knife Parts:

1. Tip
2. Cutting Edge
3. Spine
4. Blade
5. Heel
6. Handle
7. Bolster
8. Tang
9. Rivets
10. Butt

Knife Sharpening:

1. Steel
2. Stone / Oil
3. Cutting Board
4. Knife

Stone Method:

1. Place stone on a towel to prevent slipping.
2. Hold knife at a 20-degree angle.
3. Always move in the same direction.

Steel Method:

1. Hold the steel away from the body.
2. Hold steel in one hand, and the knife in the other.
3. Start with the knife nearly vertical.
4. Blade resting on the inner side of the steel (heel).
5. Move the knife down the steel (heel to tip).
6. Repeat on the outside of the steel.

Classical Cuts

A knife is used to shape an item and reduce its size. Uniformity of size and shape ensures even cooking and enhances the appearance of the finished product. Items are shaped by slicing, chopping, dicing, mincing, and other special cutting.

– **Slicing Cuts:** Involves passing the blade of the knife slowly through the item to make long, thin pieces.

- Rondelle: Disc-shaped slices.
- Oblique: Small pieces with two angle cut sides.
- Chiffonade: Fine slice of leafy vegetables or herbs.

– **Stick Cuts:** Used for a wide variety of food preparations for a uniform appearance and ensure even cooking.

- Brunoise: $1/8'' \times 1/8'' \times 1/8$ inch cubed.
- Fine Brunoise: $1/16'' \times 1/16'' \times 1/16$ inch cubed.
- Batonnet: $1/4'' \times 1/4'' \times 2$ inches stick-shaped cut (french-fry).
- Fine Julienne: $1/16'' \times 1/16'' \times 2$ inches, stick-shaped cut (toothpick).
- Julienne: $1/8'' \times 1/8'' \times 2$ inches, stick-shaped cut (matchstick).
- Large Dice: $3/4'' \times 3/4'' \times 3/4$ inch cubed.
- Medium Dice: $1/2'' \times 1/2'' \times 1/2$ inch cubed.
- Small Dice: $1/4'' \times 1/4'' \times 1/4$ inch cubed.

– **Using stick cuts to make dice cuts:**

- **Batonnet** to make **Small Dice** – $1/4'' \times 1/4'' \times 1/4$ inch cubed.
- **Julienne** to make **Brunoise** – $1/8'' \times 1/8'' \times 1/8$ inch cubed.
- **Fine Julienne** to make **Fine Brunoise** – $1/16'' \times 1/16'' \times 1/16$ inch cubed.

– Chop: To cut into pieces where uniformity of size and shape is not important.

– Mince: Tiny cut with no specific dimensions except quite small, to promote quick flavor infusion.

– Paysanne: $3/4'' \times 1/8$ inch; a thin flat square.

– Tourné: Cutting technique that result in a seven equal sided football / barrel shape.

Classical Cuts Practical

– **Prepare the following:**

- (5) Batonnet
 - $1/4$ in. x $1/4$ in. x 2 in.
- (10) Small Dice
 - $1/4$ in. x $1/4$ in. x $1/4$ in.
- (5) Julienne
 - $1/8$ in. x $1/8$ in. x 2 in.
- (10) Brunoise
 - $1/8$ in. x $1/8$ in. x $1/8$ in.
- (8) Oblique
 - Small pieces with 2 sides cut at a 45° angle.

- (1 Tbsp.) Chiffonade
 - o Fine slices of a leafy herb.
- (1) Orange Segment (supreme)
 - o 1 whole orange segmented and juiced
- (2) Tomatoes Concasse (brunoise)
 - o 2 whole tomatoes with skin & seeds removed/brunoise
- (2) Tourne Carrots
 - o 7 sides, 2 in. long, ¾ center
- (1) Artichoke Heart
 - o Cleaned and cut into quarters
- ½ Onion- Small Dice
 - o ¼ in. x ¼ in. x ¼ in.
- ½ Onion- Emincer
 - o Finely sliced

Meat Identification & Fabrication

“Cooking is one of the simplest and most gratifying of the arts, but to cook well one must love and respect food.”

– Craig Claiborne, American Food Critic
1920-2000

Butchering is a term commonly used for the process of slaughtering and preparing meat for retail or wholesale use. Meat cutting, or **fabrication**, is the process of cutting, boning, and portioning large cuts of meat to menu specifications.

Beef Identification & Fabrication

– **Inspection:** Government inspection of all meats is mandatory. Inspections are required at various times, on the farm, at the slaughterhouse (ante mortem), and again after butchering (postmortem). Inspectors ensure that animals are free of disease, farms are operated in accordance with standards, and meat is wholesome and fit for human consumption.

– **Grading:** Quality grading, unlike inspection is voluntary. The USDA has developed standards used to assign grades to meats and train graders. Since it is a voluntary practice, the meat packer absorbs the costs, instead of the taxpayers. **Prime** is usually reserved for commercial foodservice and butcher shops. **Choice** and **Select** are most often available, and grades lower than select are generally used for processed meat.

- The USDA Grades of Beef: Prime, Choice, Select.
- The other grades are Standard, Commercial, Utility, Cutter, and Canner.

– **Receiving/Storage:** Meats are perishable; they should be received at 41°F, sealed packing, and with no presence of any discoloration. Check the temperature of the delivery truck, store in refrigeration at or below 41°F. Keep different types of meat separate and store on trays to avoid cross contamination.

– **Parts / Common Cooking Methods:**

- Loin: sirloin, tenderloin, flank steak, strip loin, short loin.
- Common cooking methods are grilling, roasting, broiling, and sautéing.
- Sections of the tenderloin: chateaubriand, filet mignon, tournedos.
- Economical cuts of beef (steakship, shank, ground beef and rounds).

– **Fabricating Beef Tenderloin:**

1. With a rigid boning knife, carefully remove the chain muscle from the side of the tenderloin and reserve.
2. Trim and pull the thick fat covering away from the tenderloin.
3. Insert the tip of the boning knife just beneath the silver skin at the tail end of the tenderloin. Draw the blade slightly upward along the length of the tenderloin, just beneath the silver skin, toward the head of the tenderloin.
4. Starting at the largest end, cut off the uneven tip of the tenderloin. Cut the tip across the grain into tenderloin tips.
5. Make a cut across the grain just after the large portion ends to remove the Chateaubriand.
6. Cut the center of the tenderloin across the grain to desired thickness to produce filet mignons.
7. Cut the smallest third of the tenderloin across the grain to produce tournedos 1/2" to 3/4" thick and approximately 2 1/2" in diameter.

Determining Degrees of Doneness:

RARE
120°F to 130°F

MEDIUM RARE
130°F to 135°F

MEDIUM
135°F to 140°F

MEDIUM WELL
145°F to 155°F

WELL DONE
155°F and Higher

Poultry Identification & Fabrication

Poultry is the collective term for domesticated birds bred for eating. It is generally the least expensive and most versatile of all main dish foods. It can be cooked by almost any method, and its mild flavor goes well with a wide variety of sauces.

– **The six (6) major categories / kinds of poultry: Chicken, Turkey, Duck, Goose, Guinea, and Pigeon:**

– **Classes of Chicken:**

Game Hen	5 to 7 Weeks Old	2 lbs. or less
Broiler	4-6 Weeks Old	1 to 3 lbs.
Fryer	6- 10 Weeks Old	3½ to 4 ½ lbs.
Roaster	3 to 5 Months	7 to 9 lbs.
Capon	Under 8 Months	7 to 9 lbs.
Hen	Over 10 Months	6 to 8 lbs.

– **Grades – USDA grades available (*A, B, and C):**

* For sale in commercial foodservice establishments and retail outlets.

– **Choosing Quality Products:**

- Poultry should have plump breasts and meaty thighs.
- The skin should be intact with no tears or punctures.
- Poultry should be purchased from reputable purveyors and kept chilled to below 32° F.
- Hold chicken in drip pans when it stored in the refrigerator.

– **Chicken Fabrication:**

1. With the breast side down, use a stiff boning knife to split the bird along both sides of the backbone from the neck to the tail.
2. Open the bird to reveal the keel bone. Cut through the keel bone and wishbone lengthwise from the neck to the tail. If necessary, hit the spine of the blade with the heel of the hand.
3. Cut through the flesh and skin behind the keel bone to separate the bird into halves.
4. Cut through the skin between the breast and thigh. Pull the thigh away from the breast to expose the joint.
5. Cut the joint to separate the breast from the thigh.
6. Cut along one side of the breastbone, following the curve of the ribs, to separate the flesh from the bone.
7. Separate the wing from the rib cage by cutting the joint. Keep the wing attached to the breast.
8. Cut the breast meat free from the carcass.
9. Make a cut on the back of the joint between the drumette and the paddle bones.
10. Break the joint and pull back the flesh and skin to expose the drumette bone. Trim the end of the drumette to the cartilage.

– Preparing Chicken Supreme with Frenched Bone:

Remove the breast meat and wing from the rib cage carefully. Using the tip of the boning knife, slice down between the breast meat and rib cage. Guide the knife carefully down the natural curvature of the rib cage until the breast and wing are completely separated from the rib cage. Be careful not to damage the tenderloin. Cut through the joint separating the wing and breast from the main body.

Separate the tenderloin from the breast. Clean the tenderloin by carefully cutting out the tendon.

Trim excess skin away from the breast, making sure to keep enough skin intact to cover the chicken breast.

Use the tip of the boning knife to make a cut that circles around the second joint of the wing bone. Make sure to cut through the web skin as well. Bend the wing bone at the second joint to snap it. Continue to cut through the joint until the wing tip and wing flap are removed, leaving the drumette attached to the breast.

NOTE: Fabrication must be checked by your instructor prior to wrapping and labeling.

– Cooking Poultry:

Regardless of the cooking method used, poultry should be cooked to an internal temperature of 165°F instantaneous, except in the case of duck. Duck is commonly served medium-rare.

– Determining Doneness:

Chicken is always cooked well-done and should still be moist and juicy. The four methods that chefs use to determine the doneness are ***temperature, touch, joints, and juices (TTJJ)***. Temperature of 165°F instantaneous, Touch is firm and sold, Joints are soft and tender, and Juices are clear with no signs of blood.

Fish Identification and Fabrication

The quality of the seafood you source is a critical determining factor of how good the finished product will be.

– **Market forms:** Whole, drawn, beheaded and gutted (H&G), dressed, steak and filet.

– **What to look for when purchasing:**

- Clear eyes.
- Fresh smell.
- Skin and flesh should spring back when gently pushed.
- Gills should be bright red to maroon color.

– **Proper Storage:**

- Drawn and H&G are stored **on** ice.
- Fillets and steaks on ice but not directly touching.

– **Activity Types of Fish:** The flavor, color and texture of fish are determined by the water they live. It is also influenced by how active it is. The higher the activity level, the darker the flesh and the more pronounced its flavor.

– **Low-Activity Fish:** Lean flesh that is delicate in flavor and texture. They are typically prepared by gentle moist-heat cooking methods. Some have enough texture to up to baking or frying.

– **Medium-Activity Fish:** Moderately fatty or oily flesh. The flesh is not pure white and tends not to be as flaky as low activity fish. These fish are suitable for all cooking techniques.

– **High-Activity Fish:** Described as fatty or oily. They have dark flesh, pronounced flavors, and textures that tend toward meatiness. Dry heating techniques are particularly suitable.

– **Types of Fish:**

- **Flat** (lean or low activity): Any thin, wide fish with both eyes located on one side of the head and the backbone that runs from head to tail through the lateral line of the body. They swim along bottom of ocean and have top darker (pigmented) side and bottom lighter (non-pigmented) side:
 - Sole, Flounder, Halibut.
 - Culinary uses are commonly baked, poached, sautéed, steamed.

– **Round:** Any fish with a cylindrical body, an eye located on each side of the head, and a backbone that runs from head to tail in the center of the body. Most found in freshwater lakes and streams as well as in saltwater.

– **Lean (low activity)** –Cod, Pollock:

– Culinary uses are commonly shallow poached, baked, and smoked.

– **Moderately fatty (medium-activity)** – Grouper, Bass, Snapper:

– Culinary uses are commonly poached, grilled, sautéed, baked, and steamed.

– **Fatty (high activity)** – Salmon, Trout, Tuna, Amberjack:

– Culinary uses are commonly smoked, baked, broil.

– **Cartilaginous (Non-bony fish):** Any fish that has a skeleton composed of cartilage instead of bones. Cartilaginous fish often have a smooth, tough outer skin without scales. Swordfish, Shark, Skate, Eel culinary common uses are baked, poached, broiled.

– **Considerations for Purchasing:**

– **Smell**

– **Appearance**

– **Touch**

– **Determining Doneness:** It takes practice because it involves sight and touch more than temperature. Fish that is done will have a caramelized skin, firm and dense interior edges, and a moist, opaque center. It should register 145°F on the instant read thermometer when inserted into the thickest part of the fish. Undercooked fish will be translucent, and the juices will be clear and watery. Overcooked fish is dry and falls apart easily.

Fish Fabrication Techniques

– **Round Fish – (Snapper):**

1. Use a boning knife to make a cut about 1/2 inches behind the gills and down to, but not through, the backbone.
2. Make a second cut along the backbone from just behind the head all the way to the tail. Do not cut through the backbone.
3. Starting at the tail, carefully slice toward the head to cut the flesh away from the backbone.
4. Carefully lift the fillet and cut away any rib bones that are still attached to the fillet.

- Trim any belly fat from the fillet.
5. Run fingers gently along the surface of the fillet to raise the ends of any pin bones that may remain. Use needle-nose pliers to remove the pin bones.
 6. Turn the fish over and repeat the entire process on the other side.

– Flat Fish: Dover Sole

Mise en place; plastic wrap, boning knife, cutting board, waste pan, usable product pan, ice pan, sanitation bucket, towels, gloves, needle nose pliers.

Lay the fish flat on the cutting board head facing away from you tail towards you. Make and even slice down the length of the backbone from head to tail. Make a small slit near the tail as to expose the meat, using pliers gently grab a small amount of skin a pull towards head exposing the whole fillet, using extreme caution with the knife parallel to the left fillet, from head to tail, slicing gently following the natural contour away from backbone. You will then repeat on the right side of fish, turn the fish over, and repeat steps. You will end with four (4) fillets you will then scrape any remaining meat with a spoon set aside for later use.

Lobster Identification & Fabrication

– Crustaceans:

Crustaceans form a large group of *arthropods*, usually treated as a subphylum, which includes such familiar animals as crabs, lobsters, crayfish, shrimp, krill, and barnacles.

How to store Crustaceans?

- They should be packed in seaweed or damp paper upon delivery.
- They can be stored directly in their shipping containers or perforated pans at temperatures of 39°F to 45°F.
- They should *never* come in contact with fresh water.

Lobster Sizes

– What are the lobster sizes?:

Mollusk and Shellfish Identification

– There are two (2) *types* of molluscan shellfish:

What are bivalves and univalves, and what are the differences between the two? They are both mollusks. A mollusk is a type of shellfish, and each of these two types describes what the outer shell is. Univalves have one shell, and bivalves have two shells.

Both are best purchased fresh and live, and if caught – kept properly. To test if a bivalve is alive, the shells will close shut if it is tapped or touched. Toss out any that are still open and do not close after purchasing. Univalves will retract if touched at the operculum, which is a thin piece of shell that is attached to its foot that can seal up the shell if needed for protection.

– **What are the Differences Between the Two (2) Types?:**

Univalves are as the name suggests – ‘one’ shell or a shell having one piece. Univalves are also known as gastropods. A mollusk with a univalve shell typically has a foot and head that live inside the shell and can extend or retract outside or inside the shell. Univalves can live in the water or outside the water.

Examples of univalves include periwinkles, snails, abalone, and conchs. Bivalves consist of two shells. Unlike the univalve type of mollusk, the bivalves generally do not have a head, just the body that resides in between the two shells that open and close at will, usually to feed. Some have an exceedingly long foot that either digs or attaches itself onto things. Bivalve mollusks can be found in both freshwater and saltwater.

Examples of bivalves include scallops, clams, oysters, and mussels.

–

Mollusk and Shellfish Storage:

Mollusk and Shellfish should be stored in the container they were shipped in or in a perforated pan. They should not be iced but, kept in 35°F to 40°F.

They also come with a ship stock receipt or tag (see figure nine (9) below). This will provide the date harvested, the company, address, and date shipped. You must hold on to this for 90 days.

Preparing Stocks

“Stocks are the foundation of cooking, without it, nothing can be done. If one’s stock is good, what remains of work is easy...”

– Auguste Escoffier,
Le Guide Culinaire

Preparing Stocks

– **Stock:** Flavorful liquid; a good stock is the key to a great soup, sauce, or braised dish. The French appropriately call a stock fond (“foundation”), as stocks are the foundation for many classic and modern dishes.

– **Types of Stocks:**

- Classic/Simple
- Brown
- White
- Fish/Fumet
- Vegetable

– **Standard Ratios for 1 gallon:**

- 8 lbs. of bones.
- 5 to 6 quarts of cold water 1 lb. of mirepoix.
- 1 Aromatic (Sachet d’Epices or Bouquet Garni).

– **Cooking Times:**

- Vegetable: 45 minutes to 1 hour.
- Fish/shellfish: 35 to 45minutes.
- Poultry: 3 to 4 hours.
- Veal: 6 to 8 hours.
- Beef: 8 to 10 hours.

- **The Stock Making Techniques:**
 - Select and prepare ingredients for stock.
 - Combine the main ingredients to liquid.
 - Continue to simmer till good flavor and color.
 - Add flavoring at appropriate point.
 - Strain stock carefully.

How to Evaluate the Stock's Quality:

- **Color; Includes its color and its clarity:**
 - White stocks are nearly colorless when they are heated.
 - Simple stocks have the color of the main ingredients you chose.
 - Brown stocks are a deep brown color because of browning the main ingredients.
 - The addition of tomato gives the stock a reddish cast.
- **Clarity** – Stocks are relatively clear; some are nearly translucent or may have a slightly cloudy appearance
 - Stocks made from meat, poultry, game bones, or shells should be extremely clear.
 - Stocks made from fish bones or vegetables are typically semi translucent, especially if the bones or vegetables are smothered before adding the liquid.
- **Flavor and Aroma:**
 - Stocks should smell fresh, appealing, and flavorful, both when it is cold and when it is brought to a boil. The flavor of stock should be savory and satisfying. This flavor is often known by the Japanese term umami. Flavor should reflect the main ingredient.
- **Body:** Well-made stocks will have a rich texture because of its base ingredients. Vegetable stocks have a thin body. Hot stock has noticeable texture when you put it in your mouth that clings very slightly to the palate. When the stock is cold, it becomes gelatinous.

Culinary Terms Associated with Stocks

- **Aromatics:** Ingredients such as herbs or spices added to food to enhance its natural flavors.
- **Browning:** Roasting or searing the bones for a stock gives them a darker color.
- **Blanching:** Blanching bones inhibits from browning and results in finished stock with neutral color and flavor.
- **Smothering:** Quick-cooking stocks that benefit from ingredients cooked in fat before liquid is added.
- **Depouillage:** French culinary term for skimming.
- **Remouillage:** Rewetting, a stock made from using bones that have already been used once.
- **Glace:** Made by simmering stock to cook away majority of moisture rich, flavorful jelly-like.
- **Court Bouillon:** Quick broth, simmering mirepoix, aromatics, an acid (vinegar wine) water for 20 minutes.
- **Fond:** Bones and vegetables, drippings that accumulate in the pan.
- **De glazing:** Using a liquid, to dissolve food particles left in a pan after roasting or sautéing.
- **Onion Brule:** Made by peeling an onion, halving it crosswise, and charring cut edges.
- **Onion Pique:** “Pricked onion” whole, peeled onion, bay leaf attached using whole clove as a tack.
- **Mirepoix:** Combination of two parts onion, one-part carrot, and one-part celery.
- **White Mirepoix:** Mirepoix that include parsnips instead of carrots.
- **Matignon:** Onions, carrots, celery, leek, ham, mushrooms (optional), edible mirepoix for it is uniformly cut and left in dish.
- **Sachet d’ epic:** (Bag of spices); comprised of parsley stems, cracked peppercorn, thyme, bay leaf.
- **Bouquet Garni:** (Small bundle of herbs) thyme, parsley stems, bay leaf, leek leaves and celery stalk.
- **Herbs:** Leaf or stems of non-woody plants, dry herbs are stronger than fresh herbs.
- **Spices:** Aromatics produced primarily from the bark and seeds of plants.
- **Pincé (pincage):** Refers to an item, usually a tomato product, caramelized by sautéing. (Example, sautéing of mirepoix for brown stock).

PREPARING CLASSICAL SAUCES

Sauces are considered one of the greatest tests of a chef's skill. The successful pairing of a sauce with food demonstrates technical expertise, an understanding of food, and the ability to evaluate flavor, texture, and color.

– Culinary Fundamentals

The Classical Sauces

Classical Sauces are the foundation for the entire classic repertoire of sauces based upon French culinary standards. The classical sauces are defined as a sauce that can be prepared in advance in a significant amount, then finished or flavored so that it is custom fit to a specific dish. Sauce should complement food; it should never disguise it.

– **Purpose of Sauces:**

– Completes or enhances the flavor, moistness, or texture of a dish.

– **The Classical Sauces:**

- Béchamel
- Velouté
- Espagnole
- Tomato
- Hollandaise

– **Brown Sauces: Espagnole, demi-glace, jus lies, pan sauces Evaluate sauces:**

- Espagnole has a full, rich flavor. Has a deep brown color without any dark specks or Debris.
- Demi-glace is translucent and highly glossy with a noticeable body.
- Jus lie has a greater degree of clarity, lighter texture, and color.

- **Finishing a sauce:**
 - Reductions
 - Garnishes
 - Wines
 - Finishing with butter

- **White Sauces – Velouté, Béchamel:**
 - Velouté translates from French as “velvety, soft, and smooth to the palate.”
 - Béchamel.

- **Finishing a sauce:**
 - Flavored with a reduction or essence Garnishes
 - Often finished with cream

- **Tomato Sauces – Tomato**

- **Hollandaise Sauce – Emulsion of Egg yolk and Clarified Butter.**

- **Butter sauces – Contemporary Sauces:**
 - Salsas, relishes, pesto
 - Chutney and Coulis
 - Nages: Flavored oils and Foams

- **Derivatives for Velouté:**
 - Bercy; adding shallots, white wine, and fish stock to fish velouté.
 - Aurora; adding tomato paste& finishing with butter to chicken velouté.
 - Supreme; adding cream and mushrooms to velouté.
 - Allemande; adding lemon juice and a liaison (egg yolks and cream).

- **Derivatives for Béchamel:**
 - Cream Sauce; adding cream and lemon juice.
 - Cheese Sauce; adding cheese (American / Cheddar).
 - Mornay; adding gruyere and parmesan.

- **Derivatives for Espagnole:**
 - Chasseur (hunter sauce); adding mushrooms, shallots, and white wine.
 - Bourguignonne; French sauce with a base of red wine with onions or shallots, a bouquet garnis.

- **Derivatives for Tomato:**
 - Creole; adding green peppers, bay leaf and hot sauce.
 - Milanese; adding mushrooms, butter, and ham.

- **Derivatives for Hollandaise:**
 - Maltaise; adding blood orange juice.
 - Béarnaise; adding shallots, tarragon, and chervil.

Culinary Terms Associated with Sauces

- **Appareil:** A prepared mixture of ingredients used alone or in another preparation.
- **Aromatics:** Ingredients such as herbs, spices, vegetables, citrus fruits, wines, and vinegars used to enhance the flavor and fragrance of food.
- **Beurre Blanc:** A classic emulsified sauce made with a reduction of white wine and shallots, thickened with whole butter, and possibly finished with fresh herbs or other seasonings.
- **Beurre Manié** – ('Kneaded butter'): A mixture of equal parts by weight of whole butter and flour, used to thicken gravies and sauces.
- **Clarified butter:** Butter from which the milk solids and water have been removed, leaving pure butterfat. Has a higher smoke point than that of whole butter but has less butter flavor.
- **Coagulation:** The curdling or clumping of proteins, usually due to the application of heat or acid.
- **Derivatives:** Variations of the classical sauces.
- **Emulsification:** A mixture of two or more liquids, one of which is a fat or oil and the other of which is water based, so that tiny globules of one are suspended in the other. This may involve the use of stabilizers such as egg or mustard. Emulsions may be temporary, permanent, or semi-permanent.
- **Liaison:** A mixture of egg yolks and cream used to thicken an enrich sauces. Also, loosely applied to any appareil used as a thickener.
- **Nappe:** To coat with sauce. Also, thickened. Also, the consistency of a sauce that will coat the back of a spoon.
- **Reduction:** The product that results when a liquid is reduced.

- **Roux:** A thickening agent containing equal parts of flour and fat (usually butter), used to thicken liquids. Roux is cooked to varying degrees (white, blond, brown, or dark), depending on its intended use. ***The darker the roux, the less thickening power it has but the fuller the taste.***
- **Slurry:** A starch, such as arrowroot, cornstarch, or potato starch, dispersed in cold liquid to prevent it from forming lumps when added to hot liquid as a thickener.
- **Temper:** To heat gently and gradually. May refer to the process of incorporating that liquid into a liaison to gradually raise its temperature. May also refer to the proper method of melting chocolate.

Preparing Soups

In his 1903 culinary treatise *Le Guide Culinaire*, Auguste Escoffier recognized many more categories of soups than we do today, he defined clear soups as which are always clear consommés with a slight garnish in keeping with the nature of the consommé. Purees are made from starchy vegetables and are thickened with rice, potatoes, or soft breadcrumbs. Cullises use poultry, game or fish for a base and are thickened with rice, lentils, Espagnole sauce or bread soaked in boiling salted water. Bisques which are shellfish cooked with a mirepoix as a base and are thickened with rice. Cream soups which use béchamel as a base and finish with heavy cream. Vegetable soups are usually paysanne or peasant type and do not demand very great precision in the apportionment of the vegetables of which they are composed, but they need great care and attention. Foreign soups have a foreign origin whose use although it may not be general is yet sufficiently common.

– Culinary Fundamentals

Preparing Soups

The variety of ingredients, seasonings and garnishes that can be used for soups is virtually endless, provided one understands the basic procedures for making different kinds of soup. Great soups can be made from the finest and most expensive ingredients or from leftovers from the previous evening's dinner.

– Categories of Soups:

– Clear Soups – Stock based with a thin watery consistency:

- Broth; produced from well-made stocks.
- Consommé; made from high quality broths that have been further clarified to remove impurities and surface fat.

- **Thick Soups; Having a thick texture or consistency:**
- Puree; Thickest soup; main ingredient is primary thickening agent; hearty and rustic.
- Cream- thickened by added starch as the flour in a roux.

- **Specialty;** Many soups do not fall into traditional categories of thick or clear. They are considered specialty soups and usually fall into three categories: bisques, chowders, or cold soups.

- **Garnishes for Soups:**
- Appropriate flavor / texture / color.
- Large enough to dip or small enough to fit on spoon.
- Show case knife skills.

- **Portion size / Temperature / Serving Vessels:**
- Hot, hot, hot! (Unless a cold soup), hot serving vessel.
- Under-liner plate and doily.
- Edible vessels are nice, bread bowls, cucumber cups, etc.

Terminology

- **Clearmeat:** A mixture of ground meat, egg whites, mirepoix, tomato puree, herbs and spices used to clarify broth or consommé.

- **Raft:** is a mixture of ingredients used to clarify consommé. **Refers to the fact that the ingredients rise to the surface and form a floating mass.**

- **Clarify:** The process of removing solid impurities from a liquid such as butter or stock.

Starch Cookery

Today chefs are rediscovering traditional and ethnic dishes that rely on grains seldom used in typical American food service. Pasta, made from a variety of grains in numerous shapes and flavors and accompanied by countless sauces and garnishes, now regularly appears on menus alongside the ubiquitous potato prepared for many classical and modern dishes.

– Culinary Fundamental

Starch Cookery

Potatoes, Grains and Pasta are known as starches, some are vegetables others are grasses. Starches are for the most part a staple food, which defines a cuisine and gives it substance. All are high in starchy carbohydrates, low in fat and commonly used as a part of a well-balanced diet. The types of starches: Potatoes, Grains, Pasta.

– **Potatoes:** Are succulent, non-woody annual plants; the tuber is the consumed part of the plant. They are hardy and easily grown, making them inexpensive and widely available. Each Americans eat about fifty pounds of potatoes annually. One of the most important considerations when selecting a potato is how it will be prepared and the type of potato best suited to produce that product. Potatoes are organized into three categories based on starch and moisture.

– **Three Categories of Potatoes:**

– **Low moisture / high starch – Idaho or Russet, Purple Potatoes, and some fingerling varieties.**

– **Medium (moderate) moisture / medium starch (All Purpose)– Yukon Gold, Yellow Finn, and certain fingerling varieties.**

– **High moisture / low starch (Waxy) – “New Potatoes” and some fingerling varieties.**

– **Grains** – Grasses that bear edible seeds. Both the fruit (seed or kernel) and the plant are called a grain.

- **Grains** are excellent sources of vitamins, minerals, proteins, and fiber.
 - Examples: Corn Rice, Wheat, Barley, Oats, and Quinoa.

- **Risotto:** Traditionally made with special Italian varieties of medium-grained round rice, such as Arborio Rice. Just about anything can be added to a risotto, like vegetables, meats, herbs, and cheese.
 - Cooking risotto: Ratio of 1 Cup of Arborio Rice to 5 1/2 cups liquid.

- **Pasta:** Made from unleavened dough of wheat flour mixed with a liquid. It is one of the most versatile and popular foods in most cuisines. There are different types of pastas such as Italian is usually made with semolina flour into ribbons, tubes, shapes and Asian is usually wheat, rice, bean starch, buckwheat flours.
- **Couscous:** A staple of North African cuisine, coarsely ground semolina pasta.
 - Cooking couscous: Ratio: 2/3 Cup of couscous to 1 Cup liquid.

Preparing Salads

According to the Spanish proverb, four persons are needed to make a good salad: A spendthrift for oil, a miser for vinegar, a counselor for salt, and a madman to stir it all up.

– Abraham Hayward

Preparing Salads

Salads use greens as the base and built artistically arranging components on the plate. A salad is determined by the greens selected. A salad can be made up of one type of lettuce or a combination of lettuces from different groups. Greens are grouped according to their flavor and/or texture. It is important to thoroughly clean the lettuce before use. To clean lettuce plunge in cold water, repeat as necessary with clean cold water. A salad spinner can be used to remove water, by removing water from the lettuce the dressing will cling evenly and the lettuce natural flavor will be exposed.

Types of Salads:

- **Tossed:** Usually made with greens and at least one other ingredient and tossed in a dressing.
- **Composed:** Salad that is attractively arranged consists of a base, body garnish and dressing.
- **Tossed-** Usually made with greens and at least one other ingredient and tossed in a dressing.
- **Pasta and Grain:** Should be fully cooked. Grains and pasta will continue to absorb after cooking. Taste before service, flavor is lost the longer it sits.
- **Legume:** Beans should be cooked till tender. If being chilled after cooking, beans should be overcooked to ensure a creamy texture. Acid in a salad will make the beans become tough.
- **Fruit:** Salad that is primarily made of fruits.
- **Warm:** Known as a *salade tiède*; is made by tossing the salad ingredients in a warm dressing, working over medium-to-low heat.

Components of a Salad – Base, Body, Garnish, and Dressing.

- **Base:** Layer of ingredients or edible vessel on which the salad will be served, can cupped or shaped.
- **Body:** Main ingredient; it can be greens or added items like chicken or fruits and vegetables.
- **Dressing:** Should complement rather than mask the flavors in the salad, the type should be based on the delicacy of the greens, light dressings for the delicate greens and more robust dressings for the stronger flavored greens.
- **Garnish:** Added for color, texture, and flavor. It should complement and balance the flavor.

Types of Dressings

– Vinaigrette – Standard ratio is 3-parts oil to 1-part vinegar:

Vinaigrettes are mainly used for salads, but also used as marinades for grilled or broiled foods; as a dressing for grains, vegetables, beans and pasta salads; as dips; as sauces served hot or cold entrees and appetizers; or brushed on sandwiches. The quality and flavor of the oil and vinegar selected add to the finished vinaigrette flavor. Oils that are strong in flavor are paired with milder vinegars (Vic versa). This creates a balance, making the milder flavor complimentary to the stronger one. Additional ingredients that are added to vinaigrettes therefore improving the flavors are seasonings (salt, pepper, herbs and spices) and emulsifiers (egg yolks, mustard, roasted garlic, fruit or vegetable purees or glaze de viande “a thick meat glaze made by reducing meat juices”).

– Mayonnaise based dressings – Standard ratio is 7-8 fluid ounces of oil to 1 egg yolk.

Mayonnaise Based Dressings are very versatile. Mayonnaise is a cold sauce made from combining egg yolks with oil to form a stable emulsion. Emulsion is a mixture of two liquids that will not blend. Mayonnaise and sauces made with mayonnaise can be used as a spread, dip, or salad dressing. The egg yolk provides the liquid, which holds the oil droplets in suspension; air, as well as lecithin from the yolk, acts as an emulsifier. The oil selected should not have a strong flavor since mayonnaise can be used as a base for many sauces. Acids such as lemon juice, wine or cider vinegar can be used to prepare mayonnaise. The acid along with water provides additional moisture for the emulsification.

– Plating and Presentation – Arrange the components carefully, striving for a natural look.

Colors and flavors add depth to your salad. Prepare each component perfectly to stand alone as well as enhances the complete salad. Arrange where natural textures and colors of the components are enhanced. Remember to show your skill set with the production of the salad by adding classical cuts and different cooking methods to showcase the components. Your salad will be critiqued on the following: appearance, portion size, texture, and flavor.

Hors D' oeuvres

It is said that a good hors d' oeuvres artist is a man to be prized in any kitchen for, although his duties do not by any means rank first in importance, they nevertheless demand of the chef the possession of such qualities as are rarely found united in one person: reliable and experienced taste, originality, keen artistic sense, and professional knowledge.

– Auguste Escoffier

Hors D'oeuvres

Hors d'oeuvres are small portions of food served outside the meal to whet the appetite. They are passed elegantly by waiters or displayed as artwork. Preparing hors d'oeuvres uses skills from almost every workstation in the kitchen. Knowledge of food and how to pair different foods is a vital part of mastering hors d'oeuvres. **Hors d'oeuvre means “outside the meal”**. They are served separately from meal; they can be hot or cold. It can be suitable to eat with fingers or may require use of plates or forks. Hors d'oeuvres are meant to pique the taste buds and perk up appetite. It should be small enough to eat in one or two bites. It should be attractive should have pleasing; natural colors should have precise cuts and follow the menu theme.

– **Types of hors d' oeuvres:**

– **Antipasto:** Italian style of hors d' oeuvres that means before the pasta.

– **Antojitos:** Latin cuisines to include tamales, empanadas, and salsa.

– **Crudités:** Raw veggies or fruits served with dip.

– **Canapés:** Defined as small open-faced sandwiches. Traditional canapés include base often cut into shapes a spread, a filling, and a garnish.

– **Finger foods:** Typical for outdoor occasions; neat self-contained.

- **Raviers:** French tradition that is usually served during luncheons with a selection of hot or cold items.
- **Tapas:** Spanish bars offer a selection of small dishes.
- **Zakuski:** Boards of smoked fish, blini, caviar, and vodkas are from the Russians Mezzos-are a wide array of foods from the Mediterranean.

There are only two limitations on the type of food and the manner of preparation that can be used for hors d' oeuvres: the chef's imagination and the foods at their disposal.

Guidelines for preparing hors d' oeuvres:

- Small, one to two bites.
- Components- base, main, spread and garnish Flavorful and well-seasoned, not overpowering. – Visually attractive.
- Complement foods that follow, not duplicate their flavors.

Introduction to Wine

“A meal without wine is a boring event”

– Julia Childs

Introduction to Wine

- **Red Wines:** Classified by “body-type of light, medium and full bodied.
- **Light-bodied:** Wine will have fewer tannins present and less presence on the palate. These wines tend to be less demanding partners with flavor-filled foods. An example of a light-bodied red wine would be one derived from the Gamay grape varietal, such as France’s famed young red wine: Beaujolais Nouveau.
- **Medium-bodied:** Red wine will contain more tannins than the above Beaujolais Nouveau but will not have near the pucker power of a high-powered California Cabernet Sauvignon or an Italian Super Tuscan. Typical examples of medium-bodied red wines include: Merlot or Shiraz.
- **Full-bodied:** Red wines boast the highest tannin (and often alcohol) content. Prime examples of full-bodied reds are France’s esteemed Bordeaux wines, California’s key Cabs and Italy’s sizzling Super Tuscan. In general, light-bodied wines tend to “feel” more like water in the mouth. In contrast, “full-bodied” wines feel heavier, more like milk, this effect is due in large part to the higher tannin (and again, alcohol) content.
- **Common Red Wine Flavor Descriptions:** Plum, Cherry, Strawberry Blackberry, Raspberry, Currant, Gooseberry, Boysenberry, Raisin, Fig, Pepper (white/black), Clove, Cinnamon, Coffee, Cocoa, Mocha Tobacco, Leather Licorice, Toast, Smoke Violet.
- **White Wines:** Are not always white at all, but yellow, golden, or straw-like in color. Its color can be derived from an assortment of grape varietals. White wines are made from the grape juice and grape skin of green, gold, or yellowish colored grapes or from just the juice (not the skin) of select red grapes (*as in some Champagnes*). White Wines are often consumed with lighter meals, think lunch, smaller dinners, and appetizers or as an aperitif themselves. They are more refreshing, lighter in both style and taste than the majority of their red wine counterparts, making them ideal for spring and summer occasions. The old guideline of “white wine with white meat” still holds true in many instances, but there are plenty of exceptions and palate preferences that dictate which. White wines have a different glass style altogether from red wines. They are best presented in narrower glasses, as the sharper taper at the top of the glass allows for better aroma concentration of

more delicate white wines. Optimum white wine serving temperatures are between 45°F to 50°F. White Wine varietals - “The Big Eight” when it comes to white wine varietals are: Chardonnay, Sauvignon Blanc (also called Fumé Blanc), Riesling, Gewurztraminer, Pinot Gris / Pinot Grigio, Semillon, Viognier, and Chenin Blanc.

– **Common White Wine Flavor Descriptions:** Citrus, Apple, Pear, Grapefruit, Lemon, Lime, Pineapple, Melon, Butter, Honey, Floral, Herb, Earthy.

– **How to Taste Wine:** Learning how to taste wines is a straightforward adventure that will deepen your appreciation for both wines and winemakers. Look, smell, taste - starting with your basic senses but keep in mind that you can smell thousands of unique scents. Although your taste perception is limited to salty, sweet, sour, and bitter. It is the combination of smell and taste that allows you to discern flavor.

Wine Tasting Steps:

– **Look:** Check out color and clarity. Then take a good look at the wine. Tilt glass away and check out color of wine from rim edges to middle of glass (it is helpful to have a white background). What color is it? Look beyond red, white or blush. Red wine is the color maroon, purple, ruby, garnet, red, brick or even brownish. A white wine is it clear, pale yellow, straw-like, light green, golden, amber, or brown in appearance. Move on to the wine's opacity. Is the wine watery or dark, translucent, or opaque, dull, or brilliant, cloudy, or clear? Can you see sediment? Tilt the glass a bit, give it a little swirl – look again, is there sediment, bits of cork or any other floaters? An older red wine will be more translucent than younger red wines.

– **Smell:** Our sense of smell is critical in properly analyzing a glass of wine. To get a good impression of the wine's aroma, gently swirl the glass (this helps vaporize some of the wine's alcohol and release more of its natural aromas) and then take a quick whiff to gain a first impression. Still Smelling - now stick your nose down into the glass and take a deep inhale through your nose. What are your second impressions? Can oak, berry, flowers, vanilla, or citrus be smelled? A wine's aroma is an excellent indicator of its quality and unique characteristics. Gently swirl the wine and let the aromas mix and mingle, and sniff again.

– **Taste:** Finally, take a taste. Start with a small sip and let it roll around your tongue. There are three stages of taste- the attack phase, the evolution phase, and the finish.

– **The Attack Phase:** The initial impression that the wine makes on the palate. The Attack is comprised of four pieces of the wine puzzle: alcohol content, tannin levels, acidity, and residual sugar. These four puzzle pieces display initial sensations on the palate. Ideally

these components will be well - balanced one piece will not be more prominent than the others. These four pieces do not display a specific flavor. They come together to offer impressions in intensity and complexity, soft or firm, light or heavy, crisp, or creamy, sweet, or dry, but not necessarily true flavors like fruit or spice.

– **The Evolution Phase** is next, also called the mid-palate or middle range phase; this is the wine's actual taste on the palate. Analyze the flavor profile of the wine. If it is a red wine you may start noting fruit – berry, plum, prune or fig; perhaps some spice – pepper, clove, cinnamon, or maybe a woody flavor like oak, cedar, or a detectable smokiness. In the Evolution Phase of a white wine, you may taste apple, pear, tropical or citrus fruits, or the taste may be more floral in nature or consist of honey, butter, herbs, or a bit of earthiness.

– **The Finish** is appropriately labeled as the final phase. The wine's finish is how long the flavor impression lasts after it is swallowed. This is where the wine culminates, where the aftertaste comes into play. Did it last several seconds? Was it light-bodied (like water) or full-bodied (like the consistency of milk)? Can you taste the remnant of the wine on the back of your mouth and throat? Do you want another sip or was the wine too bitter at the end? What was your last flavor impression – fruit, butter, oak? Does the taste persist or is it short-lived?

– **Serving Wine:**

In general, red wines are served at cooler room temperatures and white wines are best served chilled. When wines are served too warm, they tend to taste unbalanced with an alcohol edge. When wines are served too cold the innate flavors and aromas are significantly suppressed.

Optimal Wine Serving Temperatures:

- White Wines: 45°F to 50°F or 7°C to 10°C
- Red Wines: 60°F to 65°F or 10°C to 18°C
- Rosé Wines: 45°F to 55°F or 7°C to 13°C
- Sparkling Wines: 42°F to 52°F or 6°C to 11°C
- Fortified Wines: 55°F to 68°F or 13°C to 20°C

Midterm Review Notes

- **Foundation of Culinary:**
 - History / Chefs
- **Professional Chef:**
 - Knowledge, skill, taste, judgment, dedication, pride.... what should you know as a professional?
- **Safety / Sanitation:**
 - Foundation; KNOW THE RULES!!!! Danger zone, cooling / heating, storage, hygiene
- **Cooking Methods:**
 - Dry Heat Techniques
 - Moist Heat Techniques
 - Terminology and temperatures
- **Perception of Food:**
 - Taste, texture, effects of foods, flavor profiles
 - Plating and Design
 - Focal point
 - Sequencing
 - S.C.H.I.F.T.
- **Classical Cuts:**
 - Measurements / Terminology
- **Knife Sharpening:**
 - Parts / Types of a knife
 - Techniques for sharpening knives
- **Meat Fabrication:**
 - Terminology / Categories
 - Parts of the poultry, beef, fish
 - Cooking methods and temperatures
- **Stocks and Sauces:**
 - Types of Basic Roux, sauces, and stocks
 - Ratios
 - Terminology / Techniques
 - Cooking times for stocks
- **Starches:**
 - Techniques
 - Categories of Starches
- **Soup and Salads:**
 - Types of soups
 - Types of salads
 - Techniques Ratio
- **Dinner for Two:**
 - Terminology / Techniques / Methods
- **Hors d' oeuvres:**
 - Terminology / Components / Guidelines for preparing
- **Dessert:**
 - Ratio Techniques Terminology

Desserts

The pastry contrast table that follows is a visual guide to understanding the basic characteristics that the chef can use in the creation of a plated dessert. When conceptualizing desserts, think about incorporating several contrasting characteristics by using different components, but never add components just to have another contrast. The number of components should make sense for the dessert.

Contrast Table:

<u>Seasonality</u>	<u>Flavor / Aroma</u>	<u>Taste</u>	<u>Texture</u>	<u>Temperature</u>	<u>Presentation</u>
FALL	CHOCOLATE	SWEET	CRUNCHY	FROZEN	SHAPE
SPRING	VANILLA	SALTY	CRISP	CHILLED	VOLUME
SUMMER	FRUIT	BITTER	BRITTLE	COOL	COLOR
WINTER	SPICE	ACIDIC	CHEWY	ROOM TEMP.	VISUAL TEXTURE
	NUT	UMAMI	CREAMY	WARM	
			LIQUID		
			ICY		
			TENDER		
			CAKEY		

The Functions of Baking Ingredients:

- **Stabilizers** – Are any ingredients that helps to develop the solid structure, or “framework”, of a finished product:
- **Arrowroot and Cornstarch** – These are generally preferable for thickening sauces puddings and fillings where a translucent effect is desired. To dilute these thickeners before incorporating them with other ingredients, mix them with a small amount of cool water.
- **Gelatin** – Used to produce light, delicate foams that are firmly set, such as Bavarian cream, mousse, and stabilized whipped cream.
- **Pectin** – Carbohydrate derived from the cell wall of certain fruits. It requires the correct balance of sugar and acid to gel.
- **Liquefiers** – Helps to loosen or tenderize a dough or batter. Water, milk, and other liquids, fats, and sugar act as liquefiers.

– **Leavening Agents (Biological, Chemical, Mechanical – to raise or to make lighter:**

– **Biological Leaveners (fresh / compressed yeast, active dry yeast)** – Organic leaveners are based on yeast; are based on a living organism that feeds on sugars and produces alcohol and carbon dioxide, the gas that lightens a dough to give it the proper texture.

– **Chemical Leaveners** – With baking soda and baking powder, an alkaline ingredient (usually sodium bicarbonate) interacts with an acid already present in baking powder, or in an ingredient such as buttermilk, sour cream, yogurt, or chocolate, to leaven the product. This process of expansion happens rapidly; hence, many items prepared with chemical leaveners are called “quick breads”.

– **Mechanical Leaveners** – Steam, which is produced when liquids in a batter or dough are heated. When air is incorporated into batter through either whipping or creaming an ingredient before it is incorporated into the final batter, heat causes the air pockets in the batter or dough to expand.

Cooking Sugar:

– **Sugar** – May be cooked by one of two methods: *Dry or wet.*

1. The dry method is used exclusively for caramelization.
2. The wet method is generally used when sugar must be cooked to a specific stage or temperature.

– **Basic rules:**

- Use a heavy-gauge pot and candy thermometer.
- Add acid or invert sugar (corn syrup) to prevent sugar crystals from forming Brush down sides with moist pastry brush.
- Heat liquids before adding to caramel.
- Add liquids carefully, hot caramel will foam and splatter.

Cooking Sugar to Stages:

234° F / 112° C	Thread
238° F / 114° C	Soft ball
248° F / 120° C	Firm Ball
260° F / 127° C	Hard Ball
275° F / 135° C	Soft Crack
310° F / 154° C	Hard Crack

Pastry Doughs and Batters (At a Glance):

– Rubbed-Dough Method (Cutting-In):

1. Sift the dry ingredients.
2. Cut the fat into the dry ingredients until the mixture resembles a coarse meal.
3. Add the cold liquid ingredients and mix just until a shaggy mass is formed.
4. Knead the dough very briefly, if necessary.
5. Shape and scale the dough as desired and bake as indicated for that item.

– The Blending Mixing Method:

1. Sift together the dry ingredients.
2. Combine the liquid ingredients.
3. Add the liquid ingredients to the dry ingredients.
4. Mix until the batter is evenly moistened.
5. Add any additional garnish.
6. Fill properly prepared pans and bake the item.
7. Remove the item from the pans, cool, and serve or properly store it.

– The Creaming Method:

1. Bring Shortening or butter to room temperature.
2. Sift the flour, leaveners, and other dry ingredients, as necessary.
3. Cream the butter and sugar until the mixture is light and smooth and fully combined.
4. Add the eggs gradually and mix them in until the batter is smooth. Scrape the bowl in between each addition.
5. Add the sifted dry ingredients and liquid ingredients alternately, in portions. If not using liquid ingredients add the dry ingredients all at once.
6. Scale out the batter into prepared pans and bake the item.
7. Remove the item from the pans, cool, and serve or properly store it.

– The Foaming Method:

1. Sift the flour and other dry ingredients, as necessary.
2. Heat the eggs and sugar over a hot water bath to approximately 110°F, stirring make sure that all the sugar is dissolved.
3. After removing the egg-sugar mixture from the heat, beat it until it reaches maximum volume. Turn the mixer to medium and beat the eggs for 15 minutes to stabilize the foam.
4. Fold in the sifted dry ingredients by hand.
5. Temper the flavorings, melted butter, and other optional ingredients.
6. Scale out the batter into prepared pans and bake it.
7. Remove the cake from the oven and let it cool briefly in the pan.

– **Pate a Choux:**

1. Bring the liquid and fat to a boil (212°F), making sure that the fat is melted.
2. Add the flour all at once and cook the mixture.
3. Mix it until cool.
4. Add the eggs gradually and mix them in.
5. Pipe out the batter.
6. Bake the items.

– **Stirred Custards, Creams, and Pudding:**

1. Carefully scale or measure all ingredients.
2. Heat the milk or milk/cream combination with half of the sugar to just below a boil.
3. Whisk together the eggs with the remainder of the sugar.
4. Temper the eggs with the hot milk, stirring constantly and return the tempered eggs to the pan.
5. Stirring constantly, cook the sauce over low heat just until it has reached the point of nappe.

– **Mousse:**

1. Carefully scale or measure all ingredients.
2. Heat the egg yolks with some of the sugar, whisking until the mixture is thick and reaches the proper temperature.
3. Whip or whisk the egg whites with the remainder of the sugar.
4. Gently lighten the yolk mixture with some of the egg whites.
5. Carefully fold the remaining egg whites into the yolk mixture.

– **Making a Pie or Tart:**

1. Carefully line the pie or tart pan with prepared dough, keeping the dough chilled before and after lining.
2. If necessary, par-bake crust.
3. Fill the pie with desired filling and finish, as necessary.
4. Bake the finished item, as necessary.

– **Basic Sauces:**

- All sauces should pair in flavor and texture with the different component of the dish.
- Some sauces will have to be served at room temperature or hot if butter has been used (A result of a deglazing, cold would taste fatty).

- **Vanilla Sauce:** A stirred custard made with cream and/or milk, sugar, eggs, and vanilla. May be served as a sauce or used in pastry preparations such as Bavarian cream and ice cream. *Also known as Crème Anglaise.*

- **Pastry Cream: “Crème Patissiere”**, a stirred custard made with eggs, flour or other starches, milk, sugar, and flavorings, used to fill and garnish pastries or as the base for soufflés, creams, and mousses.

- **Sabayon:** A custard of sweetened egg yolks flavored with Marsala or other wine or liqueur, beaten in a double boiler until frothy.

- **Ganache:** A preparation of chocolate and heavy cream, and sometimes butter, sugar, and other flavorings. It is used as a sauce, glaze, and filling or to make confections. Can range from soft to hard, depending on the ratio of chocolate to cream.
- **Coulis:** A thick puree of vegetables or fruit; served hot or cold. Traditionally refers to the thickened juices of cooked meat, fish or shellfish puree or certain thick soups.

- **Liaison:** A mixture of egg yolks and cream used to thicken and enrich sauces.

- **Reduction:** Slow simmering of a liquid to concentrate solids and flavor by evaporating moisture, to get proper viscosity. (Also concentrates sweetening). *Example: Sweet wine or port reduction.*

- **Monte au beurre (“Mount with butter”):** Emulsion of a hot reduced liquid and butter; need to be served hot. (Makes it fluffier, same time richer, 20% to 25% butter). Whisking or swirling whole butter into the sauce until melted. *Example: Raspberry Monte au beurre.*

Tempering Chocolate – (Seed and Block method):

1. **Seed method;** Use chopped tempered chocolate, approx. 25% of the weight of the melted chocolate to be tempered should be added to the warm (110°F) melted chocolate and gently stirred to melt and incorporate it. The whole mass is then brought to the appropriate working temperature.

2. **Block method;** Add a single block of tempered chocolate to warm melted chocolate and stir gently until the desired temperature is reached. After the chocolate is brought into temper, the seed, or block of chocolate is removed.

Table Service **(Service Etiquette)**

As with any great change in social customs, there are fads that come and go, but proper etiquette will never go out of style.

– Oretha Swartz

Table Service

– Basic Rules:

- There should be at least twenty-four inches of table space for each guest, this is called cover.
- The table should be balanced to include center pieces and candles.

– Napkin Size:

- 14” to 16” square napkins are for informal events.
- 18” to 22” square napkins are used for formal luncheons.
- 24” square for a formal dinner and banquets.

– Napkin Placement:

- For formal settings napkins are placed on the left of the forks, one inch from the edge of the table, online with the plate and silverware. Open edges may be placed towards the plate and table edge, or towards the left.

– Table China:

- Plates to include charger should be placed 1” from the edge of the table.
- Main course or Dinner plate is a 10” plate in diameter.
- Luncheon plate is a 9” plate in diameter.
- Flat dessert or salad plate is 8” in diameter.
- Soup plate is 9”to 10” in diameter.

– Silverware Placement:

In the order in which it is going to be used, starting from outside and working in towards the plate. Silverware must be placed 1” from the edge of the table. Forks are placed to the left of the plate and no more than three (If more are needed, they should be brought in with the course). Knives and spoons are to the right of the plate, with the blade facing in. Spoons for tea and coffee are placed on the saucers, at the right of the handles, before service. Dessert silverware usually on the dessert plate

– **Table Decoration:**

The size of the centerpiece depends on the size and shape of the table, but it should not be so tall or large that guest cannot see over it.

– **Rules of Service:**

Serve food from left and remove from the right, beverage will be served from the right side. The charger is removed with the main course.

– **Coffee Service:**

Two servers work as a team, the first holding a small tray with a coffeepot, sugar, and cream, and one cup. The second server follows with a large tray filled with cups and saucers. The first server asks each guest his preference for cream and sugar, then offers the cup on his tray.

Food Presentation for Buffets

The excitement and beauty of a well-designed buffet table depends on the arrangement of food on platters and serving dishes. One can sell any theme with creative menus, decorations, and artistic food presentations.

Food Presentation for Buffets

Personnel; Front of the House (FOH) Staff / Back of the House (BOH) Staff:

– **FOH Staff:**

1. Lead/ manager – Supervise the wait staff, and dining room area, knowledgeable on allergens.
2. Servers/ bussers – Service; monitor; clear.

– **BOH Staff:**

1. Executive Chef – progressive cooking, check food temps.
2. Sous chef – maintain integrity of first through to the last plate.
3. Line cooks – replenish buffet items.

– **Action Station / Live Station:**

1. Where food is prepared or carved to order in dining room.
2. Great eyes on buffet needs.

3. Allows diners to ask questions about the buffet.

– **Need to think about:**

1. Easy access to both the staff and guests.
2. Variety of cooking techniques.
3. Variety of ingredients.
4. Seasonal food, color, texture, flavor.
5. Choose items that hold well (chafing dishes v splattered items).
6. Progressive cooking.

– **Safety concerns for buffets:**

1. Proper temperatures; **No new food to old food.**
2. Chafing dishes are not to heat food; just maintain heat.
3. Careful when changing chafing dishes.
4. Clean utensils / replace often.
5. Ample number of plates for guests.

Constructing a Written “MISE EN PLACE PLAN” for the Three (3) Course Meal

RESEARCH TERMS / TECHNIQUES YOU ARE UNFAMILIAR WITH PRIOR TO CLASS:

- Review what you must prepare – including ALL group work.
- List all the ingredients.
- Check if you need to order any additional ingredients.
- Determine cooking times and preparation procedures.
- Determine equipment and utensils you will need.
- Write the “mise en place plan” in sequential order.
- Reprioritize your mise en place plan every so often during the day.

IMPORTANT POINTS FOR ORGANIZING YOUR GAME PLAN IN THE KITCHEN:

– Pots and Pans, other equipment, communication:

- Select the proper pan and size for the job intended.
- Have serving items for the finished product.
- Utensils, spoons, ladles, spatulas, etc. and sanitizing bucket on the station.
- Preheat ovens, deep-fryer, broiler, etc.

– Food:

- Gather the produce and dry goods, weigh, and measure correctly to produce the recipe. Use up any product that is the oldest – First In, First Out (FIFO).
- Keep perishable items refrigerated.
- Prevent cross contamination with proper sanitation practice.

– Cooking:

- Pre-preparation Washing / Peeling, Slicing, and Dicing.
- Trussing and seasoning.

– Preparation:

- Start items with longest cooking times first.
- Clean as you go.

– Finishing

- Finish items as close to service time as possible.
- Set up line for service.
- Hot Food Hot Plates, Cold Food Cold Plates.

– Actual service (Plates or other serving dishes neat and clean, food hot).

Example Timeline

0945- Wash hands, prep station, boil blanch water, oven 400, stocks on

0950- Prep potatoes/beets

0955- Potatoes/beets into oven

1000- Fabricate chicken

1005

1010- Fortify chicken stock, poach chicken, clean station, wash hands

1015- Fabricate lobster & fish

1020-

1025- Chop lobster

1030- Fortify seafood stock, clean station, change soap & sani, wash hands, milk on heat

1035- Cut bacon, melt butter for roux, mix roux/add to milk, render bacon same pan

1040- Cutting board, render bacon, make bechamel, beets out

1045- Boil blanch water, chicken out

1050- Blanch carrots/parsnip & ice bath, glaze ingredients into same pot

1055-

1100- Soak radicchio

1105- Peel beets, chop chicken

1110- Potatoes out, oven 350, make croutons

1115- Make jam & remoulade

1120- **Don't burn your croutons!**

1125- Make vinaigrette
 1130- Put together potato
 1135- Salt eggplant
 1140- Make croquette filling & freeze, reduce stock for sauce later
 1145-
 1150- Make vinaigrette
 1155- Make croquettes & freeze
 1200-
 1205- Sauté seafood, grill eggplant, make stuffing
 1210- Put together appetizer
 1215- App into oven, potato into oven, plates to warm, clean station, wash hands
 1220
 1225- Wash hands, gloves, plate salad
 1230- Sauté chicken, set aside, sauté onions for sauce, wilt spinach
 1235- Deglaze pan, add reduced stock & cream, continue to reduce
 1240- Eggplant out, wash hands, plate app, re-whisk vin & fill cups
 1245- Serve app, immediately followed by salad, potato out, glaze carrots
 1250- Fry croquette **jam on potato** finish sauce, add chicken, heat
 1255- Croquette out, Strain sauce, plate entrée, **garnish with herbs**, & serve
 1300- Hug everybody

Example Cutting Board List

Chicken

- Yellow board, paper towels
- Cake pan, small bowl, med bowl
- Boning knife & scrape spoon

Lobster/fish

- Blue board, paper towels
- Lobster- Tail bowl, app scraps, waste
- Fish- Fillet bowl, app scraps, head/tail
- Chef's knife, fillet knife, scrape spoon, scissors

Bacon

- Red board
- Chef's knife
- Small bowl
- Small skillet/spoon to render

Veggies/fruits

- Bread- 2 slices
- Eggplant- slice
- Carrot- 2 ea.- oblique

- Parsnip- 1 ea.- rondelle
- Onion, sweet- ½ ea.- small dice
- Shallot- ½ ea.- small dice
- Red/green bell pepper- 1 ea.- brunoise
- Garlic- 1 ea.- mince
- Tomato- concasse then brunoise

Gloves

- Bibb lettuce- salad
- Apples- 1 ea.- julienne- salad
- Radicchio- shred- salad- soak
- Green onion- 2 ea.- chop- stuffing, potato
- Parsley- stuffing, jam, croquette breading
- Chives- remoulade, carrots
- Tarragon- remoulade
- Dill- garnish for app
- Beet- peel, med dice

White Board

- Potato- put together
- Chicken for croquette, chop

Introduction to Cakes and Cake Decorating

You will prepare, bake, and decorate a basic 1-2-3-4 Vanilla Cake and present it using buttercream frosting. You are encouraged to be as creative as your skillset allows.

There are two different categories of cakes.

- High-Fat or Shortened cakes. (see figure one (1) below)
- Low-Fat or Foam Type cakes. (see figure two (2) below)

There are three (3) different methods for making high-fat cakes:

- **Creaming Method:** Method used when sugar is creamed together using a paddle attachment, and the eggs are slowly added one at a time. Once the eggs are all incorporated, then the dry ingredients will be slowly blended into the creamed mixture.
- **Two-Stage Method:** Blend the dry ingredients with the fat, and then add the liquid ingredients to the dry mix.

- **One-Stage Method:** Add the liquid to the bowl, and then add all dry ingredients and proceed to blend the dry and liquid together.

There are multiple different methods for making low-fat/sponge/foam cakes:

- Angel food-Contains no egg yolks or butter; ungreased pan
- Chiffon- Contains whole eggs and oil; whites whipped separately
- Genoise- Contains whole eggs and butter; whole eggs usually whipped over warm water
- Joconde- Includes ground nuts (usually almonds); often used as a wrap
- Jelly Rolls usually filled with jam or coulis; Swiss roll usually filled with whipped cream or icing
- Boston cream pie classically filled with pastry cream and topped with ganache or chocolate fondant

What are the different types of icings?

- **Buttercreams:** Buttercream icings are light, smooth mixtures of fat and sugars. They may also contain eggs to increase their smoothness or lightness. These popular icings are used for many kinds of cakes and are easily flavored. Sweet butter-based mixture used especially as a filling or frosting.
- **Simple Buttercreams:** Made by creaming fat and confectioners' sugar together to the desired consistency and lightness. A small quantity of egg whites, yolks, or whole eggs may be whipped in.
- **French Buttercream:** Boiling syrup is beaten into egg yolks and whipped to a light foam and soft butter is added.
- **German Buttercream:** Used by mixing pastry cream and butter together.
- **Meringue-Type Creams:** are mixture of butter and meringues (Italian & Swiss).
- **Flat-Type Icings:** Also known as **Water Icings**, are simply mixtures of confectioners' sugar (powdered sugar) and water and are sometimes made with corn syrup and flavoring. They are used for coffee cake, pastries, and sweet rolls.
- **Foam-Type Icings:** Also known as **Boiled Icings**, are simply meringues made with a boiling syrup. Some also contain stabilizing ingredients such as gelatin. Foam icings should be applied thick to cakes and left in peaks and swirls.
- **Fondant:** Sugar syrup crystalized to a smooth and creamy white mass. It is commonly used as the icing for Napoleons, Eclairs, Petit Fours, and some cakes.
- **Fondant Icing:** Equal parts of Fondant and butter.
- **Fudge-Type Icings:** Rich and heavy and are somewhat like candy. Predominant ingredient is sugar and contains less fat than buttercream.

- **Glazes:** Thin, glossy, and transparent coatings that give a shine to baked products and helps to prevent drying. Simple glaze is made with sugar or diluted corn syrup, brushed on Coffee Cakes or Danish while it is hot.
- **Royal or decorators Icing:** Also known as **Decorating or Decorators Icing**, is like Flat Icings, except is much thicker and made with egg whites, making it hard and brittle when dry. It is exclusively used for decorative work.

What are the functions of Icings?

- They contribute flavor and richness.
- They improve appearance.
- They improve keeping qualities by a protective coating around cakes.

Cake Assembly

Assembling a layered cake:

1. Cool cakes completely.
2. Trim layers and remove ragged edges.
3. Brush all crumbs from the cake.
4. Place bottom layer upside down.
5. Place cake on the cake board and turntable.
6. Spread filling on the bottom layer out.
7. Place the top layer on the bottom layer right side up.
8. Ice the cake.

Piping Tips

Plain (round) tips: For writing and for making lines, beads, dots, and so forth. Also used to pipe sponge batters, creams, and choux paste and to fill choux pastries and other items.

Star Tips: For making rosettes, shells, and borders.

Rose Tip: For making flower petals. These tips have a slit-shaped opening that is wider at one end than the other.

Leaf Tips: For making leaves.

Ribbon or Basket Weave: For making smooth or ridged stripes or ribbons. These have a slit opening that is rigid on one side.

ST Honoré: Honoré tip is for filling Gâteaux.

Adding Designs and Borders

- Mask the sides of the cake with nuts, crumbs, or other coatings, either before or after decorating.
- If the cake is to have an inscription or message, such as a person's name or a holiday or birthday greeting, the afore mentioned text should be applied first!
- Add borders and paper-cone designs.
- Add flowers, leaves and similar decorations made with a pastry bag.
- Add additional items such as fruits, nuts, or candles.

Final Exam Review

(*Exam is comprised of questions from throughout the entire course.)

Introduction to Wine and Paring with Food:

- Types of Wines
- Terminology

Three Course:

- Terminology
- Techniques
- Methods

Table Setting and Service:

- Serving and Clearing procedures
- Table Setting
- Brigade System
- Types of Service
- Coffee and Tea Service
- Terminology

Sanitation / Safety ALWAYS!!!!

WHAT SHOULD YOU KNOW AS “THE” CHEF:

- Temperature Danger Zone
- Food Contaminations / Cross Contamination
- Food Thawing Procedures
- FOH / BOH
- Food Cooling Procedures

CULINARY CODE OF CONDUCT

As a proud member of the American Culinary Federation, I pledge to share my professional knowledge and skill with all culinarians. I will place honor, fairness, cooperation, and consideration first when dealing with my colleagues. I will keep all comments professional and respectful when dealing with my colleagues. I will protect all members from the use of unfair means, unnecessary risks and unethical behavior when used against them for another's personal gain. I will support the success, growth, and future of my colleagues and this great federation.

- ACF Members

“One can never know too much, the more one learns, the more one sees the need to learn more and that study as well as broadening the mind of the craftsman provides an easy way of perfecting yourself in the practice of your art.”

– Auguste Escoffier

