STRANDS AND STANDARDS
DIETETICS AND NUTRITION 1

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Course Description

This course is designed to focus on principles of food preparation, sports nutrition, consumerism, and career options in the food industry. The study and application of nutrition, sanitation, food sciences and technology in this course provides students with laboratory-based experiences that will strengthen their comprehension of concepts and standards outlined in Science, Technology, Engineering and Math (STEM) education. FCCLA may be an integral part of this course.

Intended Grade Level	9-12
Units of Credit	0.5
Core Code	34.01.00.00.160
Concurrent Enrollment Core Code	00.00.00.13.000
Prerequisite	Food and Nutrition 1
Skill Certification Test Number	343
Test Weight	0.5
License Area of Concentration	CTE and/or Secondary Education 6-12
Required Endorsement(s)	
Endorsement 1	Family and Consumer Sciences
Endorsement 2	CTE License: Food Sciences/Nutrition
Endorsement 3	Culinary Arts

STRAND 1

Students will review and apply the skills of kitchen management, safety and sanitation.

Standard 1

Identify food safety and sanitation rules and guidelines to maintain a safe working environment.

- Define food borne illness: An illness results from eating contaminated foods.
  - General Symptoms: Fever, headache and digestive troubles are symptoms of food-borne illness.
- Review causes of unsafe food.
  - Physical: hair, metal shavings, fingernails, pieces of glass, etc.
  - Chemical: cleaning products
  - Biological: pathogens
    - Salmonella: (Bacteria) Often found in fresh poultry and raw eggs.
    - E-coli: (Bacteria) Usually found in undercooked ground beef, unpasteurized milk, fruit juices, produce.
    - Botulism: (Spore) Associated with improperly canned foods, specifically low-acid foods.
    - Hepatitis A: (Virus) Virus that can be transferred to food when infected food preparers touch food or equipment.
    - Listeria: (Bacteria) Commonly found in unpasteurized foods and deli meats.
    - Staphylococcus: (Bacteria) Caused by eating foods that were contaminated by food workers.
      - General conditions for bacteria growth: temperature, moisture, food and time.
- Review methods of prevention for food borne illnesses.
  - Personal Hygiene
    - Practicing proper hand washing can prevent a large majority of food- borne illnesses.
    - Hair should be controlled/restrained and covered when preparing food.
    - Uniform should be clean.
    - Hand washing and hand care
    - Wash with hot water and soap, scrub for 20 seconds, cleaning under fingernails and between fingers. Fingernails should be short and clean, with no nail polish or false nails, and jewelry should be removed to help prevent the spread of pathogens.
- Discuss appropriate use of gloves.
  - Single use gloves.
  - Wash hands before putting on gloves.
  - Change gloves when they get dirty, torn, or changing task.
  - Wear gloves when handling ready-to-eat (RTE) foods.
  - Wear bandage and gloves if there is a cut or open wound.
  - When handling raw meat, poultry, and seafood.
- While handling ready-to-eat food (foods that won't be heated before serving).
  - Storage of food
    - FIFO: First in first out in food storage rotation.
  - Do not buy or use bulging cans. (Botulism)
- Cold TCS (Temperature Controlled for Safety) foods should be stored at 41°F or below.
  - Raw meat, poultry, and seafood should be stored in the following top- to-bottom order in the refrigerator: seafood, whole cuts of meat, ground meats, then poultry. All raw meat, poultry, or seafood should be stored below any ready-to-eat food.
  - Ready to Eat Foods (Vegetables/Fruits)
    - 145F Whole Cuts of Meat/Seafood/Eggs

    - 155F Ground Meats
    - 165F Poultry/Stuffed Foods/ Previously Cooked Foods
- Stored food must be labeled with the name of the food and the discard date.
- Cooling Foods – (from 135°F to 70°F within 2 hours and then 70°F to 41°F within 4 hours).
    - Dividing food into smaller portions and storing in shallow containers.
    - Cooling time can also be decreased by placing containers of hot food into an ice bath and stirring frequently or using a chill blaster.
- Food Preparation
    - Proper thawing of food
    - Refrigeration- Keep temperature at 41 degrees or lower.
    - Running Water- Cool running water.
    - Microwave- Cook food immediately.
    - Part of the cooking process.
    - Danger zone (41°F-135°F degrees)
        - If food is held in the danger zone longer than 4 hours, it should be thrown out.
    - Cross-contamination is how bacteria can spread. It occurs when pathogens from unclean objects, people, or food touch cooked or ready-to-eat foods.
        - Be aware of the tools used during cooking—never use the same knife or equipment for raw-meat, poultry or seafood to prepare ready-to-eat foods.
        - Always wash hands. Wash and sanitize equipment when switching tasks.
    - Frequently clean and sanitize work surfaces.
        - Clean means to remove visible soil and food particles.
        - Sanitize means to use heat or chemical agents to reduce pathogens.
    - Food will often look and smell normal. When in doubt, throw it out.
    - Minimum Internal meat temperatures:
        - 145 °F - Seafood, pork, beef, veal, lamb (for 15 seconds)
        - 155 °F - Ground meats (for 15 seconds)
        - 165 °F - All Poultry (for 15 seconds)
- Reheat internal food temperature – 165 °F minimum (for 15 seconds)
- Apply established safety rules and guidelines to maintain a safe working environment.
- Preventing Accidents
    - Cuts
        - Maintain a sharp knife (sharp knives are safer than dull knives).
        - Always use the correct knife for the job.
        - Store knives safely.
        - Use a stabilized cutting board.
        - Never catch a falling knife.
        - When walking with a knife, keep it pointed at the floor.
    - Slips/Falls/Strains
        - Wear non-slip shoes.
        - Clean up spills immediately.
        - Don’t lift heavy objects without help.
        - Bend at the knees, not at the waist and keep the back straight.
    - Fire and burns
        - Stay in the kitchen when frying, grilling or broiling food.
        - Keep anything flammable away from heat sources.

- Basic first aid
  - Cuts
    - In the case of a minor cut, clean wound, bandage and wear a glove. Apply direct pressure as needed.
  - Burns
    - Cool the burn with cool or lukewarm water. Never use ice.
    - In case of a grease fire, turn off the burner and cover with a lid, smother, or use the appropriate fire extinguisher. Never use water on a grease fire.

Standard 2

Discuss and apply basic food preparation principles.

- Terms
  - Mise en place: The planning and placement of ingredients and equipment before food preparation
- Measuring
  - Equivalents
    - 3 teaspoon = 1 tablespoon
    - 1 cup = 16 tablespoon
    - 16 ounce = 1 pound
    - 2 cups = 1 pint
    - 4 cups = 1 quart
    - 16 cups = 1 gallon
  - Yield—the amount produced by recipe
    - Conversion factor=desired yield divided by original yield
- Equipment
  - Thermometer (digital and dial)
    - Insert thermometer into the thickest part of the food without touching bone or fat, when checking the temperature.
    - Calibrate a thermometer:
      - If calibrating a traditional thermometer. Fill a large glass with ice. Add clean tap wateruntil the glass is full and stir well, let water sit for 3 minutes. Put the thermometer stem or probe in the ice water mixture so that the entire sensing area is submerged. Do not let the stem of the thermometer or probe touch the sides or bottom of the glass. Wait until indicator stops moving. With the stem of the thermometer or probe still in the ice water mixture, use a wrench to turn the adjusting nut until the thermometer reads 32°F (0°C).
      - If calibrating a digital thermometer, press the reset button to automatically calibrate the thermometer.
  - Scale
    - Kitchen scales come in different types including a portion (spring) scale, electronic scale, and balance scale.
    - Scales are more accurate than volume measurements. More consistent results will occur with the use of a scale and recipes can be easily adjusted to fit any number of servings.
  - Identify types and use of knives.
    - Most commonly used knives
      - Chef's Knife: All-purpose knife.
      - Paring Knife: Used for peeling, trimming and cutting small fruits and vegetables.
      - Serrated Knife: Used to cut baked goods and other delicate food items.

- Cutting boards
  - A cutting board is used to cut food to prevent damage to the countertop and knife.
  - Stabilize cutting boards for safety.
- Identify and demonstrate different knife cuts
  - Batonnet = ¼" by ¼" by approx. 2" long.
  - Julienne = 1/8" by 1/8" by approx. 2" long
  - Brunoise=1/8" cubed
  - Dice
  - Large dice = ¾" cubed
  - Medium dice = ½" cubed
  - Small dice = ¼" cubed
- Chiffonade
  - Cutting leafy vegetables into long, thin strips.
  - Diagonal=45 degree angle cut

- Principles of food preparation management
  - Plan:
    - Read the recipe completely before beginning
    - It should be organized according to time so that all foods are ready to eat at the same time.
  - Organize the kitchen.
    - Keep frequently used items such as cooking oils/sprays, spatulas, cutting boards, and spices within easy reach.
    - Before beginning to cook, clear off the counters.
    - Gather all ingredients needed for the meal.
    - Clean as you go.
  - Cooking Terms
    - Moist heat cooking methods
    - Boiling: Cooking in liquid at boiling point. (Not oil)
    - Blanching: Partially cooking by boiling and immediately cooling.
    - Simmering: Cooking in liquid just below the boiling point.
    - Poaching: Cooking in a flavorful liquid in a temperature just below simmering.
    - Steaming: Cooking food in closed environment with steam.
  - Dry heat cooking methods
    - Fat Frying: Completely submerge food in hot fat or oil.
    - Broiling/Grilling: Food cooked close to a direct heat source (high heat environment).
    - Baking/Roasting: Cooking in an oven using hot, dry air.
    - Sauteing: Hot pan with a small amount of fat. Food is tossed or flipped during the cooking process.
  - Combination cooking methods
    - Braising: Sear food. Add some liquid and cover pan to create a moist cooking environment.
    - Stewing: Small pieces of food are seared then covered completely with a liquid and simmered.

STRAND 2

Students will explore the changing nutritional needs through the life span and health concerns related to diet.

Standard 1

Identify the changing nutritional needs across the life span.

- Child (12 months to 11yrs)
  - Young children are active and growing, they need nutrient dense foods in small amounts frequently.
  - Set an example, children watch and learn from their caregivers.
  - Make meals fun, serve foods with bright color, different textures and shapes.
  - Do not use food as a reward or punishment.
  - Encourage children to drink water and/or milk instead of sugary drinks.
- Adolescence (12 to 20)
  - During growth spurts, more food is needed but the food should be nutrient dense.
  - Avoid high sugar and high fat snack foods and beverages.
  - Avoid high energy drinks.
- Adult (21 to 60)
  - Adults should be aware of the balance between caloric intake and spent energy.
  - Choose a variety of healthy nutrient dense foods.
  - Make regular physical activity a priority.
- Older Adults (60+)
  - Good nutrition plays a major role in wellness and disease prevention.
  - Thirst signals decline with age. Increase liquid intake by eating foods like soups, smoothies and cooked cereals.
  - Often older adults have special dietary needs such as low fat or low sodium.
  - Malnutrition is a concern especially for older adults that live alone. There are social service programs in most communities to help them receive nutritious meals.

Standard 2

Exploring common dietary needs related to health and lifestyle.

- Athletic nutritional needs
  - Training
    - Conditioning and nutrition is key to top athletic performance. Daily food choices can make a difference between a good performance and a poor one.
    - Athletes should eat a varied, nutrient dense diet following the dietary guidelines.
    - Athletes do not necessarily need supplements.
  - Pre-event/exercise
    - The last meal before a competition or intense exercise should be a carbohydrate-rich meal, with a moderate amount of protein, low in fiber and fat consumed 1-4 hours before event or competition.
  - Hydration
    - Water helps the body regulate many important functions. (Refer to Foods 1 Strand 5 Standard 3)
    - Allowing the body to become dehydrated can cause muscles to cramp, alter blood pressure, cause weight loss during exercise, delay recovery time, and decrease performance.
    - Drinking too much water can alter electrolytes and cause bodily harm.
    - Athletes should drink water before and after an event even if they don't feel thirsty. Fluid needs

are highly individual.
    - Replenish electrolytes during and after vigorous exercise. (greater than or equal to 60 minutes) Sports drinks can be used for replenishment.
  - During an event/exercise
    - Carbohydrate is the body's primary energy source during exercise.
    - Carbohydrates are stored in the liver and in the muscle as glycogen.
    - During exercise, the body draws upon these glycogen stores to fuel working muscles.
  - Recovery
    - The body is primed to replenish lost nutrients soon after exercise.
    - Focus on carbohydrates and protein as replenishment. Protein is needed to help build and repair the body.
    - After an event start refueling within 60 minutes.
- Diet related health concerns
  - Diabetes:
    - Symptoms of diabetes are: increased thirst, frequent urination, extreme hunger, fatigue, blurred vision, slow-healing sores.
    - Type I
    - The body does not produce insulin.
    - No prevention.
    - Treatment involves insulin therapy and other treatments.
    - Type 2
    - The body does not use insulin properly.
    - Contributing factors for developing this type of diabetes: family history, obesity, blood pressure, age, ethnicity, physical activity, and weight.
    - Ways to reduce risk: maintain a healthy weight, eat nutritious foods, and keep active.
  - Heart disease
    - Plaque forms along the inner walls of the arteries.
    - Symptoms of a heart attack include: chest pain, shortness of breath, general pain, numbness and/or weakness or coldness in legs and/or arms.
    - Contributing factors: genetics, age, obesity, high-fat diet, lack of exercise, high stress, smoke and tobacco use, excessive alcohol consumption, high blood pressure, low fiber intake.
    - Ways to reduce risk: exercise, decrease foods that are high in saturated fats and sodium.
  - Anemia
    - Severe depletion of iron stores resulting in low blood hemoglobin.
    - Symptoms are: weakness, tired and mental state is affected.
    - Contributing factors: women of menstruating age, and diet.
    - Ways to reduce risk: eat iron rich foods.
  - Colon cancer
    - Often there are no early symptoms but may include bloody stool and abdominal pain.
    - Contributing factors: obesity, family history and lack of fiber in the diet.
    - Ways to reduce risk: Eat between 25 and 35 grams of fiber per day. Regular colonoscopy
    - screening at age 50+.
  - Osteoporosis
    - Bones are porous and fragile due to a lack of calcium.
    - Symptoms: bones break easily, curvature of the spine.
    - Contributing factors: females, older adults, race, family history, body frame size.
    - Ways to reduce risk: Eat foods rich in calcium. Weight bearing exercises.

- Obesity
  - Obesity an excessive amount of stored body fat.
  - Contributing factors: poor diet and lack of exercise, genetics.
  - Balance calorie intake with output, generally people tend to underestimate their calorie intake and overestimate their calorie output.
  - Ways to reduce risk: eat nutrient dense foods, increase physical activity.
  - Complications: Type 2 diabetes, heart disease, cancer, high blood pressure, stroke,breathing disorders, mental disorders.

STRAND 3

Explore the purposes of planning meals: provide good nutrition, control cost, and present a complete dining experience.

Standard 1

Discuss planning meals to provide good nutrition.(Refer to Foods 1 Strand 6 for general information. Consider individual dietary needs discussed in Foods 2 Strand 2.)

- Identify the components of a food label to determine nutritional content
  - The nutrition facts panel on a food package lists the calories, nutrients, number of servings, and portion size of food.
  - Ingredients are listed from the largest to the smallest amount by weight.
  - % Daily Value on the nutrition facts label indicates the nutrients in one serving of food in relationship to a 2000 calorie diet.
  - calorie needs differ with each person- based on age, sex, and activity level.
  - Serving size Nutrition information is given per serving. Make sure to note the number of servings in a package before consuming it.

Standard 2

Discuss the factors in controlling costs/budget when meal planning.

- A budget is a plan for managing money.
  - Factors to consider: The number of family members, time and skills available for food preparation, how often families eat out, , and the family income.
- Plan menus. Good planning can help consumers create tasty, nutritious meals within a budget.
- Apply shopping strategies.
  - Assess pantry and food inventory before planning a menu/meal.
  - Create a categorized shopping list.
  - Plan the menu based on what is on sale at the local grocery store. Fruits and vegetable that are “in season” usually are less expensive and have better quality.
  - Do not shop when hungry or tired.
  - Shop alone.
  - Take advantage of technology. Examples: grocery apps, shopping online, grocery delivery.
  - Coupon use:
    - Coupons should only be used on products that a consumer would purchase anyway. Coupons are instant savings.
  - Avoid Impulse buys.
    - Impulse purchases are unplanned purchases.
  - Check package date to assure freshness and avoid waste.

    - Calculate unit pricing/cost per serving.
        - Unit pricing is the cost per ounce, quart, pound, etc.
        - Most stores show the unit price on the shelf label.
        - If no unit price is given, it can be calculated it by dividing the item's total price by the number of units.
    - Comparison-shopping means matching prices and characteristics of similar items to determine which offers the best value.
        - Name brand products are usually more expensive than store brand products because more money is spent on advertising.
        - Explore the use of convenience foods in relation to time and money.
- Utilize smart shopping with bulk food items with frequently used food/items.
    - % daily value
    - Budget
    - Calories
    - Convenience Food
    - Etiquette
    - Food label
    - Serving size
    - Unit Price
    - Food label
    - Serving size
    - Unit Price

STRAND 4

Explore baking and pastry field basics.

Standard 1

Identify types of yeast dough.

- Lean Dough: Lean dough contains small amounts of sugar and fat, if any. Breads made from lean dough tend to have a chewier texture and a larger crumb.
    - Examples include: Hard rolls, soft pretzels, and French bread
- Rich/Enriched Dough: Enriched dough may have fat, dairy, eggs, or sugar added. It is usually softer, and the finished product has a softer texture and smaller crumb. They may be golden in color because of the use of eggs and sugar.
    - Examples include: sandwich breads, sweet rolls, and soft rolls

Standard 2

Identify ingredients in baked goods.

- Types flour
    - All-purpose, unbleached, bread, whole wheat, etc.
- Review common ingredients in baked goods (refer to Foods 1 Strand 3, Standard 3)
    - Leavening Agent
        - Yeast works by fermentation by using sugar and producing carbon dioxide and alcohol.
        - Yeast are living organisms.
        - In extremely hot or extremely cold temperatures they can die or slow down.

Standard 3

Identify the science principles of yeast breads.

- Kneading
  - When liquid and flour combine, they form gluten. As the dough is kneaded the gluten strands line up creating a structure where the carbon dioxide bubbles from the yeast are trapped, allowing the dough to rise.
- Fermentation
  - When yeast breaks down sugars, carbon dioxide and alcohol are produced, which causes the bread to rise.
- Proofing
  - The time period that dough rises prior to baking.
- Oven spring
  - The expansion of the carbon dioxide when put into the oven.

Standard 4

Distinguish types of pies (pie shell, single, double).

- A pie is any dish that has a crust with a filling.
  - Single Crust Pies: A pie with a crust on the bottom.
    - For some single-crust pies, the crust and filling are baked together. (pumpkin or pecan pies).
    - For others, the crust is baked empty or blind, and a prepared filling is added later (cream pies).
  - Double Crust Pies: A pie with a top and bottom crust.
    - Double-crust pies are fruit filled(apple, cherry) or savory pies (chicken pot pie).
  - Tarts: A tart is a filled dessert with a single crust.
    - Tarts are similar to a single crust pie based on the nature of the crust, shallow, varied of shapes and sizes.

Standard 5

Identify main ingredients of a pie crust and their functions.

- Flour
  - forms the structure of the pie crust.
- Fat
  - tenderizes and adds flavor (butter or lard).
- Salt
  - gives flavor to the pie crust.
- Water

Standard 6

Identify proper storage of pies.

- Cream/custard pies
  - Cream pies and custards need to be refrigerated.
- Savory pies
  - Savory pies contain cooked meat, poultry, seafood, or vegetables in a thickened sauce. Savory pies should be refrigerated.
- Fruit pies
  - Fruit pies can be stored at room temperature.

STRAND 5

Identify commonly used meat and poultry and appropriate preparation techniques.

Standard 1

Identify sources of meat products.

- Source of complete protein.
- Meat products provide varying amounts of saturated fat based on the type of cut.
  - Pork: Meat from a pig.
    - Mild flavor.
    - Commonly used in processed meat products. (Sausage, bacon, ham cured meats)
  - Beef: Cattle more than one year old.
    - Come cuts of meat are more tender than others. The two main reasons for this are muscle movement and age.
    - Marbling is small white flecks of fat that melt during cooking making the meat more flavorful. Cuts with marbling are also more tender.
    - Ground beef is available with different amounts of fat.
  - Veal: Calves (young cattle), usually one to three months old.
    - Mild flavor, smooth, velvety texture,light gray-pink color with very little fat.
    - Can be expensive and difficult to source.
  - Lamb: Sheep less than a year old.
    - Unique, mild flavor; bright, pink-red color; brittle white fat.
    - Poultry
    - Poultry is any bird raised for food. (Chicken, Turkey, Duck etc..)
    - Most of the fat in poultry is attached to the skin.
    - Versatile; can be prepared using all cooking methods and compatible with a wide range of ingredients.
    - Within poultry, there are two types of meats—white and dark. The different colors are based on the different locations and uses of the muscles.
      - Dark meats occur in the legs. Dark meat generally has more flavor and fat than the white meat.
      - White meat is generally large pieces and a mild flavor.
  - Seafood
    - Crustaceans (crabs, lobsters, shrimp)
    - Mollusks/bivalves (clams, oysters, octopus, scallops)
    - Bony/Fin Fish (salmon, trout, cod, halibut, tuna)
      - Low in saturated fat.
      - Contains omega 3 fatty acids (salt-water fish contain more than fresh water fish).
      - Can be a common allergen.

Standard 2

Discuss inspection and grading of meat and poultry.

- All meat and poultry sold in the United States must be inspected for safety and wholesomeness.
- The USDA also grades meats and poultry. Grading is classifying products according to quality.
  - Grading of meats is based on marbling, maturity, and muscle conformation.
    - Common Beef Grades are: Prime, Choice, and Select
    - Grading of poultry is based on size and quality.
  - Grading is voluntary and helps meatpackers market their products.

Standard 3

Identify appropriate meat preparation techniques

- Cooking methods for less tender cuts (Moist Heat: Braising, Stewing)
  - Cooking methods for tender cuts (Dry Heat: Broil, Grill, Roast, Sauté, Fry)
  - Identify proper internal cooking temperatures of meat, poultry and seafood.
    - Whole meats (seafood, pork, beef, veal, lamb) – 145°F
    - Ground meats (pork, beef, veal, lamb) – 155°F
      - When ground meats are processed the surface bacteria can be ground and mixed throughout product. This is why it is important to cook ground products to a higher internal temperature than other cuts.
    - Poultry (whole or ground) – 165°F

STRAND 6

Students will identify the purpose of and explore preparation techniques of salads.

Standard 1

Identify the purpose of salads

- Accompaniment/side salad is served with and compliments the main course.
- Main dish salad is a large salad that includes protein and is substantial and satisfying.
- Dessert salad may be sweetened, molded or frozen using gelatin or fruit.
- Can provide a variety of vitamins, minerals, healthy fats, and fiber in a meal.

Standard 2

Identify salad preparation and serving techniques.

- Preparing greens
  - Rinse with cold water and drain/spin to remove as much water as possible.
  - If it must be washed before use, store in a plastic bag wrapped in a paper towel.
  - Do not over handle greens or they will become bruised and wilted.
  - Ingredients should be well drained and cut into bite size pieces.
- Plating and Serving
- Salads can be served:
  - Tossed or mixed
  - Arranged or composed
  - Layered
  - Bound (held together by a thick dressing).
- Chilling the bowl or plate in the refrigerator helps the salad stay cold for serving and eating.

Standard 3

Identify classifications of salad dressings

- Vinaigrette is made with oil and vinegar, usually in a 3:1 ratio.
  - Vinaigrette quickly separates. That is why it is necessary to shake oil-and- vinegar dressings before using them.
- Mayonnaise based dressing uses mayonnaise and ingredients to add flavor.
  - Mayonnaise is a thick, creamy dressing that is a permanent emulsion of oil, vinegar or lemon juice, egg yolk and seasonings.
- An emulsifier is a substance that keeps the oil and vinegar blended.
- Egg yolk and/or mustard are effective emulsifiers.

STRAND 7

Students will explore and prepare soups and sauces.

Standard 1

Identify terminology used in making soups and sauces.

- Mire poix: 50% onion, 25% carrots, 25% celery
- Roux: equal parts fat and flour
- Stock: flavored liquid made from simmering bone and/or vegetables in water.

Standard 2

Identify and discuss the role of the five Mother Sauces. Other sauces are derived from these five Mother saues.

- Béchamel
  - A white sauce made from milk or cream and thickened with a roux (equal parts butter and flour). Béchamel sauces are often served with pasta, vegetables, eggs, or poultry.
- Veloute
  - Veloute is made from veal, chicken, or fish stock and a white or blond roux. Veloute sauces are often served with lighter dishes such as vegetables, fish, pasta, or poultry.
- Espagnole
  - Espagnole, often referred to as brown sauce, uses a brown stock, such as beef, as a base and is thickened with a brown roux. Espagnole is often flavored with aromatics, savory herbs, or tomato paste. Espagnole sauces are commonly served with roasted meats, such as beef, veal, lamb, or duck.
- Tomato
  - Made with sautéed aromatic vegetables and a tomato product. Red sauces have a tomato base and are thickened with purees, by reduction, or a roux. Red sauces can be served with nearly everything, including pasta, vegetables, fish, beef, veal, poultry, or polenta.
- Hollandaise
  - Made by whisking egg yolks with clarified butter and lemon juice over a double boiler. Hollandaise sauce is a rich creamy sauce that uses butter as a base and is a thickened emulsion. Hollandaise sauces are often served with eggs (eggs benedict), vegetables, or poultry.

Standard 3

Identify and prepare the two basic types of soup.

- Thick soup
  - Cream
    - A thick soup with a smooth texture.
  - Chowder
    - A thick soup typically containing potatoes.
  - Puree
    - Thickened through pureeing the main ingredient.
  - Bisque
    - A thick soup containing shellfish.
- Stock based soup.
  - Examples of Stock/Broth based soup: Chicken Noodle, Vegetable Beef, Minestrone, Pozole

Standard 4

Identify proper storage of soups.

- Divide soup into smaller portions in shallow containers. Cool to room temperature, refrigerate immediately.
- Soup can also be cooled by placing the soup container into an ice bath, stirring often, and then placing it into the refrigerator when it has cooled to room temperature.

STRAND 8

Students will explore career options and employment skills required in the food, nutrition, food science and agriculture industries.

Standard 1

Explore career opportunities and educational requirements associated.

- Dietitian
- Dietary Technician
- Health Coach
- Community Health Educator
- Sports Nutrition Specialist
- Food Safety Inspector
- Food Production Scientist
- Food Research and Development Scientist
    - Compare and contrast a career verses a job in the food nutrition, food science and agriculture industries.
        - Determine education and/or training requirements.
        - Explore earning potential.
        - Job Description
        - Soft skills needed to excel in the industry

Performance Skills

Strand 1

Demonstrate changing the yield in a recipe utilizing the conversion factor. Adjust a 4 serving recipe to yield 2, 8 and 16.

Correctly demonstrate 4 of the 6 knife cuts.

Strand 2

Actively participate in the preparation of a nutrient dense foods addressing any of the concerns in STRAND 2.

- Anemia
- Colon cancer
- Conditioning
- Diabetes
- Glycogen
- Heart disease
- Hydration
- Malnutrition
- Nutrient dense
- Obesity
- Osteoporosis
- Recovery

Strand 4
Actively participate in the preparation of yeast bread.
Vocabulary
- Carbon Dioxide
- Fermentation
- Kneading
- Lean dough
- Leavening Agent
- Oven Spring
- Proofing
- Rich/Enriched dough

Strand 4
Actively participate in the preparation of a pie or tart.
Vocabulary
- Baking Blind
- Double Crust
- Savory
- Single Crust
- Tart

Strand 5
Actively participate in the preparation of meat or poultry, use a thermometer to confirm the product has been heated to the proper internal temperature.
Vocabulary
- Grading
- Inspecting
- Marbling
- USDA

Strand 6
Actively participate in the preparation of a salad.
Vocabulary
- Accompaniment/Side
- Appetizer
- Arranged/Composed
- Bound
- Emulsion
- Layered
- Vinaigrette

Strand 7
Actively participate in the preparation of a mother sauce or soup.
Vocabulary
- Mother Sauces
- Cream
- Chowder
- Puree
- Bisque
- Broth

Strand 8
Research a career in the food nutrition, food science and agriculture industries using multiple sources (personal interview, internet, and periodicals) and present your findings.

Workplace Skills

Students will develop professional and interpersonal skills needed for success in industry. Determine the difference between hard skills and soft skills.

- Hard Skills: Hard skills are specific, teachable abilities that can be defined and measured
- Soft Skills: Personal attributes that enable someone to interact effectively and harmoniously with other people.

Identify soft skills needed in the workplace

- Professionalism
- Respect Legal requirements/expectations
- Good communication skills
- Resourcefulness & creativity
- Work Ethic

Skill Certification Test Points by Strand

Test Name	Test #	Number of Test Points by Strand										Total Points	Total Questions
		1	2	3	4	5	6	7	8	9	10		