Culinary 1

Exam Information

Exam number
343

Items
33

Points
38

Prerequisites
None

Recommended course length
One semester

National Career Cluster
Hospitality & Tourism

Performance standards
Included (Optional)

Certificate available
Yes

Description

This course is the second step in the Culinary Arts Pathway. Experiences will highlight food safety and sanitation, careers, introduce knife skills and cooking techniques, and basic culinary skills related to stocks, sauces, and yeast breads. There will be a focus on career readiness. Student leadership and competitive events (FCCLA) may be integrated into this course.

Exam Blueprint

Standard	Percentage of exam
1. Workplace safety & sanitation	26%
2. Career & employment	0%
3. Knives & food service equipment	13%
4. Math concepts	13%
5. Cooking techniques	21%
6. Stocks & sauces	13%
7. Breads	13%

Standard 1

Students will consistently demonstrate food safety, sanitation techniques, and workplace safety.

Objective 1 Identify health and hygiene requirements for food handling.

1. Identify proper hand washing.
    a. Wash hands with soap and warm water for a minimum of twenty seconds.
    b. Wash hands before and after handling raw meat, poultry or eggs.
    c. Wash hands after using restroom, sneezing, coughing, or touching a phone, hair, face or clothes, etc.
2. Identify appropriate clothing and hair restraints.
    a. Appropriate clothing includes clean clothing.
    b. Cover and tie back hair with appropriate hair restraints before working with food.
3. When tasting foods, always use a clean spoon and use only once.
4. Discuss the appropriate use of gloves.
    a. Single-use gloves only.
    b. Wash hands before putting on gloves.
    c. Change gloves when they get dirty, or torn, or changing tasks, or touching a phone, hair, face or clothes. Any time you would normally wash your hands.
    d. Wear gloves when handling ready-to-eat (RTE) foods.
    e. Wear gloves and bandage for an open cut or wound.

Objective 2 Recognize food-borne illness and prevention.

1. Identify the ways food becomes unsafe.
    a. Physical: fingernail, hair, metal shard, Bandage
    b. Chemical: cleaning chemicals, sanitizers
    c. Biological: pathogens
2. Define food-borne illness.
    a. Food-borne illness results from eating foods containing pathogens.
    b. Pathogens are any bacteria, virus, parasite, or fungi that can cause illness.
3. The big six food-borne illnesses include: Hepatitis A, Norovirus, Salmonella Typhi, Nontyphoidal Salmonella, E-Coli, and Shigella.
4. Bacteria need certain conditions to grow. FATTOM: Food, Acid, Time, Temperature, Oxygen, and Moisture.
    a. Controlling time and temperature
        i. Foods like milk/dairy, meat, fish, eggs, poultry, shellfish/crustaceans, baked potatoes, tofu, sprouts, cooked rice, beans, vegetables, sliced melons or tomatoes, and lettuce are susceptible to pathogens. These are known as TCS foods (Time/Temperature Control for Safety).
5. Viruses need a living host to grow, not controlled by time and temperature.
        i. Most often transmitted by poor personal hygiene.
    b. Common symptoms of a foodborne illness include fever, headache, nausea, vomiting, and diarrhea.
    c. Food will often look and smell normal.
    d. When in doubt, throw it out.

e. Time and Temperature Control
f. Temperature Danger Zone: 41-135 degrees
    i. Foods held in the danger zone for longer than 4 hours should be thrown out.
        1. Time in the danger zone includes preparation, transporting or holding for service.
g. Frozen foods: 0°F
h. Refrigerator/Cold Food: 41°F or below
i. Holding Hot Foods: 135°F

6. Seafood, Beef, Pork, Lamb: 145°F
7. Ground Meats: 155°F
8. Poultry Whole or Ground and Reheated food: 165°F
9. Identify the ways to safely thaw TCS foods.
    a. In the refrigerator.
    b. In a sink of cold, running water or a sink full of cold water, change the water every 30 minutes.
    c. Prepare and use food immediately.
    d. In the microwave. Prepare and use food immediately.
    e. As part of the cooking process.
10. Identify the correct cooling of TCS foods.
    a. Shallow containers or reduce portion size in refrigerator
    b. Ice bath
    c. Blast chiller
11. Preventing cross-contact and cross-contamination
    a. Cross contact is when a food item containing an allergen comes in contact with another food.
12. The big 9 allergens include: tree nuts, sesame, peanuts, soy, wheat, eggs, milk, fish, and shellfish
    a. Cross contamination is the transfer of pathogens from people, surfaces, or food to food.

Objective 3 Identify proper food and equipment storage and appropriate sanitation techniques.

1. Equipment Storage: Store service ware and food containers upside down on a clean, sanitized surface, and store utensils with handles up.
    a. Store food 6 inches off the ground, label stored food correctly, and store ready-to-eat (RTE)food separately or above raw food.
2. Food Preparation: clean and sanitize the work area and equipment, wash hands between tasks, and never place cooked food on a plate that has previously held raw meat, poultry, or seafood.
    a. Serving food: no bare-hand contact with RTE food.
    b. Cleaning and Sanitizing
    b. Cleaning removes food and other dirt from the surface.
    c. Sanitizing reduces pathogens on the surface.

3. Steps to cleaning and sanitizing:
    a. Scrape and rinse
    b. Wash
    c. Rinse
    d. Sanitize
    e. Air dry
1. Clean and sanitize after completing a task or after 4 hours of constant use.
2. Remove garbage from prep area as soon as possible.
3. To reduce pests/insects, avoid crumbs or spills, keep staples in airtight containers and dispose of garbage properly.

Objective 4 Apply established safety rules and guidelines in a work environment.

1. Identify prevention, protocol, and treatment for cuts.
    a. Prevention
        i. Use sharp knives, dull knives are more dangerous
        ii. Hold the knife correctly, using the claw hand position on the guide hand.
        iii. Use a stabilized cutting board.
        iv. Hold onto the knife handle while cleaning, do not soak.
    b. Protocol
        i. Clean and sanitize the affected area and equipment as soon as possible.
    c. Treatment
        i. Minor cuts clean wound, apply bandage, and wear glove.
        ii. Severe cuts apply pressure and seek medical attention.
2. Identify prevention, protocol, and treatment for fires, chemical, and heat-related incidents.
    a. Prevention
        i. Avoid flammable materials or clothing on or near the range.
        ii. Turn handles away from the front of the range.
        iii. Lift lids on hot foods away from you.
        iv. Use hot pads or oven mitts for handling hot baking pans.
        v. Keep equipment clean.
        vi. Keep chemicals away from food.
    b. Protocol
        i. To extinguish a fire use the correct fire extinguisher. (A, B, C, or K)
        ii. To extinguish a grease fire, cover/smother the pan, and pour baking soda/salt. Avoid water, flour, or sugar on grease fires.
        iii. Follow manufacturer directions for all chemical use and storage, do not mix chemicals.
    c. Treatment
        i. First-Degree Burn and Second-Degree Burn: immerse burn in cool water or use a cool compress for 10-15 minutes.
        ii. Third Degree Burn: seek medical treatment
        iii. For Chemical Burns: seek medical treatment or call poison control.
3. Identify prevention, protocol, and treatment for breaks, strains, and sprains.
    a. Prevention
    b. Keep floors clean and dry.

i. Post caution signs for wet floors.
ii. Store heavy items on lower shelves.
iii. Use ladders or step stools appropriately.
iv. Lift heavy items appropriately.
v. Wear non-slip shoes.

c. Treatment
i. Seek medical attention.

Performance Skills

1. Practice food safety in preparation to take the assessment for a Food Handlers Permit.

Standard 1 Performance Evaluation included below (Optional)

Standard 2

Students will explore career opportunities and employment skills required in the food service industry.

Objective 1 Identify career opportunities and educational requirements.

1. Career paths
    a. Such as: dietician, food stylist, chef, pastry chef, food scientist, event planner
2. Education opportunities
    a. College of tech, apprentices, work-based learning, CTE internships
    b. On the job training
    c. Industry certifications
        i. Such as: National Restaurant Association, American Culinary Federation

Objective 2 Investigate and apply professional work behavior and employability skills.

1. Communication
2. Collaboration
3. Creativity
4. Critical Thinking
5. Citizenship
6. Character

Standard 2 Performance Evaluation included below (Optional)

Standard 3

Students will identify knives and food service equipment; function, proper use and care. (Suggested 6 days)

Objective 1 Identify types of knives, understand their proper use and care, and demonstrate proper knife safety.

1. Types of knives, including chef, boning, paring, serrated
2. Correct holding technique, sharpening, washing and storing

Objective 2 Identify and demonstrate different knife cuts, including:

1. Batonnet—1/4 x 1/4 x 2-3 inch
2. Julienne—1/8 x 1/8 x 1-2-inch
3. Brunoise—1/8 x 1/8 x 1/8 inch
4. Dice, small—1/4 x 1/4 x 1/4 inch; medium—1/2 x 1/2 x 1/2 inch; large—3/4 x 3/4 x 3/4 inch
5. Chiffonade—stack leaves, roll and slice into thin shreds
6. Diagonal—cut on a 45-degree angle
7. Mince – chopping food as finely as possible
8. Identify sustainability practices when cutting foods
9. Examples: making stocks, jelly/jams, compositing, and purees.

Objective 3 Identify common small-ware food preparation tools and how it is to be safely used and cleaned. (i.e. peeler, microplane (zester), grater, wooden spoon, whisk, spatula, tongs, bench scraper scales, mixing bowls)

Objective 4 Identify common cookware and bakeware and how it is safely used and cleaned. (i.e. stock pot, saucepan, sauté pan, skillet, sheet pan, baking pan, ramekin)

Objective 5 Identify common food preparation equipment and how it is to be safely used and cleaned (e.g., immersion blender, food processor, microwave, blender, stove, stand mixer, hand mixer).

Objective 6 Identify the process of mise en place.

Mise en place (to put in place): organizing equipment and preparing ingredients (measuring, doing knife cuts) before you begin cooking.

Objective 7 Identify and practice professional culinary practices

1. Read the recipe all the way through and follow the directions as you cook.
    a. Once you have made the recipe and understand it, improve it and make it your own. Take notes as you go to make improvements for next time.
2. Keep your work area tidy. Set a bowl for trimmings as your mise en place station to minimize trips to the garbage can.
    a. Clean the surfaces and dishes as you go to be sanitary and minimize the clean up afterward.
3. Respect your ingredients. Try to utilize all usable portions of meats, fruits, and vegetables.
    a. Use scraps to build flavors for stocks.
4. Monitor the dish as it cooks, taste and season as needed.

a. Season in small amounts at a time.

5. Understand how flavors and taste place a role in the balance of the dish. Use your knowledge of the tastes of sweet, salty, sour, bitter, and umami to build flavor and balance your dish.
    a. Discuss how temperature also plays a role in how we perceive flavor.
6. Practice patience while cooking.
    a. The maillard reaction is key to building flavor in cooking. Allow your food to brown and develop flavor if appropriate for the dish.
    a. Use your senses and measure temperature to determine doneness.
7. Master the basic cooking techniques.
    a. When you understand cooking techniques, you can make most dishes successful without using a recipe. Practice is key to success.

Performance Skills

2. Demonstrate competency with at least 4 of the knife cuts listed in STRAND 3.

Standard 3 Performance Evaluation included below (Optional)

Standard 4

Students will apply basic culinary math concepts and use them in standardized recipes.

Objective 1 Identify appropriate measuring tools.

1. Measurements are either by volume or by weight.
    a. Volume measuring tools include teaspoons, tablespoons, cups, pints, quarts, gallons, and various sizes of ladles and scoops.
    b. Weight measuring tools include balance/baker scales, spring scale, and digital scale.
    c. Weight measurements ensure more accurate results.

Objective 2 Identify measurement equivalents and apply by adjusting recipe yield.

1. Measurement Abbreviations:
    a. Tablespoon = T. or Tbsp.
    b. Teaspoon = t. or tsp.
    c. Gallon = gal.
    d. Quart = qt.
    e. Pint = pt.
    f. Cup = c.
    g. Pound = lb. or #
    h. Ounce = oz.
    i. Fluid oz. = fl. oz.
2. Equivalents:
    a. 3 t. = 1 T.

b. 16 T = 1 c.
c. 8 fl. oz. = 1 c.
d. 2c. = 1 pt.
e. 4 qt. = 1 gal.
f. 1 lb. butter = 2 c
g. 16 c. = 1 gal.
h. 4 c. = 1 qt.
i. 16 oz. = 1 lb.

Objective 3 Define and identify components of a standardized recipe.

1. Standardized recipe - specifically describes the exact, measurable amount of ingredients and the method of preparation needed to consistently produce a high-quality product.
2. Components of a standardized recipe.
    a. Title (name of the recipe)
    b. Yield - how many servings the recipe will make.
    c. List of ingredients and amounts, listed in order they appear in the recipe.
    d. Step by step directions in order to be completed.
    e. Equipment - container size and type.
    f. Temperature and time

Objective 4 Convert recipe yields.

1. Converting total yield: two-step method
    a. Divide the new yield by the old yield to get the conversion factor. (New Yield ÷ Old Yield = Con- version factor)
        i. Example: a doubled recipe is multiplied by 2 (2 is the conversion factor)
    b. Multiply every recipe ingredient by the conversion factor to get the new quantity needed for the new yield. (Old ingredient quantity x Conversion factor = New quantity)

Performance Skills

3. Adjust a recipe to yield 1/2, double and quadruple the servings.

Standard 4 Performance Evaluation included below (Optional)

Standard 5

Students will compare and contrast cooking techniques as applied to food preparation. (Suggested 10 days)

Objective 1 Moist heat cooking methods.

1. Boil: Cooking in liquid at boiling point. (Not oil)
2. Blanch: Partially cooking by boiling and immediately cooling.
3. Simmer: Cooking in liquid just below the boiling point.
4. Poach: Cooking in a flavorful liquid in a temperature just below simmering.
5. Steam: Cooking food in a closed environment with steam.

Objective 2 Dry heat cooking methods.

1. Bake: Cook with dry heat in a closed environment, usually in an oven generally under an hour.
2. Roast: Cook at a high heat; 400F or above for a long cooking time generally 2-3 hours.
3. Broil: To cook food directly under the heat source.
4. Grill: To cook food directly above the heat source.
5. Sauté: Quickly cook an item in a small amount of hot fat or oil, over moderate heat.
6. Stir Fry: Quickly cook an item at a higher heat, for a short amount of time; generally using specialized equipment.
7. Pan Fry: Cooking in hot fat or oil only coming up the sides of the food halfway.
8. Deep Fat Fry: Completely submerge food in hot fat or oil.
9. Sear: briefly cooking food at a high temperature to create a golden-brown crust. The food will not be fully cooked but will finish cooking with another method.

Objective 3 Combination cooking methods

1. Braise: Sear large cuts of meat or whole fish. Add liquid only coming up the sides of the food halfway and cover the pan to create a moist cooking environment. Usually large cuts of meat or whole fish.
2. Stew: Sear small cuts of meat or meat substitute then cover completely with a liquid and simmer.

Performance Skills

4. Actively participate in both a moist heat and dry heat food preparation experience.

Standard 5 Performance Evaluation included below (Optional)

Standard 6

Students will explore and prepare stocks and sauces. (Suggested 4 days)

Objective 1 Vocabulary used in making soups and sauces.

1. Mirepoix: 50% onion, 25% carrots, 25% celery
2. Roux: equal parts fat and flour
3. Stock: flavored liquid made from simmering bone and/or vegetables in water.
4. Aromatics: mirepoix, herbs, and spices.

Objective 2 Apply concepts of making a stock.

1. Start with cold water; never boil; never add salt.
2. Meat based stock includes bones, aromatics, and water.
3. Vegetable based stocks include vegetables, aromatics, and water.
4. Skim stock often to remove impurities.
5. Simmering time is based on the type of stock.
6. Strain stock, cool correctly, and remove fat after cooling.

Objective 3 Identify the five Mother Sauces.

1. Béchamel is a white sauce made from milk or cream and thickened with a roux.
2. Velouté is made from veal, chicken, or fish stock and a white or blond roux.

3. Espagnole, often referred to as brown sauce, uses a brown stock (such as beef) as a base and is thickened with a brown roux.
4. Tomato is made with sautéed aromatic vegetables and a tomato product.
5. Hollandaise is made by whisking egg yolks with clarified butter and an acid such as lemon juice.

Performance Skills

5. Actively participate in the preparation of a stock-based mother sauce.

Standard 6 Performance Evaluation included below (Optional)

Standard 7

Students will explore preparation principles of breads.

Objective 1 Types of breads.

1. Quick and Yeast breads
2. Quick breads: Breads made using instant leavening agents and are mixed to create limited gluten development.
    a. Use instant leavening agents (baking soda, baking powder, or air & eggs)
3. Examples of quick bread include muffins, pancakes, waffles, biscuits, cornbread, and fruit bread.
4. Compare and contrast quick breads and yeast breads including ingredients, preparation methods, texture/crumb, and appearance.

Objective 2 Types of yeast dough.

1. Lean Dough: Lean dough contains small amounts of sugar and fat, if any.
    a. Products made from lean dough tend dough tend to have a chewier texture and an open crumb.
    b. Examples include: Hard rolls, soft pretzels, and French bread
2. Enriched Dough may have fat, dairy, eggs, or sugar added.
    a. Products made from rich dough tend to have a softer and finer texture. They may be golden in color because of the use of eggs and sugar.
    b. Examples include: sandwich breads, sweet rolls, and soft rolls

Objective 3 Identify ingredients in baked goods.

1. Function of each ingredient.
    a. Flour: structure.
    b. Liquid: moisture and activates leavening agents.
    c. Leavening Agents: makes the product rise.
    d. Yeast works by fermentation, using sugar and producing carbon dioxide and alcohol.
    e. Yeast are living organisms.
    f. In extreme hot or cold temperatures, they can die or slow down.
2. Fat: tenderness, richness, and some flavor.
3. Salt: flavor and controls yeast.

4. Sugar: flavor and browning.

Performance Skills

6. Actively participate in the preparation of a bread product.

Standard 7 Performance Evaluation included below (Optional)

Workplace Skills

Students will develop professional and interpersonal skills needed for success in industry.

Objective 1 Determine the difference between hard skills and soft skills.

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

Objective 2 Identify soft skills needed in the workplace.

1. Professionalism
2. Respect legal requirements/expectations
3. Good communication skills
4. Resourcefulness and creativity
5. Work ethic

Workplace Skills Evaluation included below (Optional)

Culinary 1

Performance assessments may be completed and evaluated at any time during the course. The following performance skills are to be used in connection with the associated standards and exam. To pass the performance standard the student must attain a performance standard average of 8 or higher on the rating scale. Students may be encouraged to repeat the objectives until they average 8 or higher.

Student's Name: _____

Class: _____

Performance standards rating scale

0	Limited skills	2	→	4	Moderate skills	6	→	8	High skills	10

Performance Skills

- Investigate food safety and complete an assessment in preparation for a Food Handlers Permit. **Score:**
- Demonstrate competency with at least 4 of the knife cuts listed in Standard 3. **Score:**
- Adjust a recipe to yield 1/2, double and quadruple the servings. **Score:**
- Actively participate in both a moist heat and dry heat food preparation experience. **Score:**
- Actively participate in the preparation of a mother sauce. **Score:**
- Actively participate in the preparation of a bread products **Score:**

Workplace Skills

- Determine the difference between hard skills and soft skills. **Score:**
- Identify soft skills needed in the workplace. **Score:**

Performance standard average score:

Evaluator Name: _____

Evaluator Title: _____

Evaluator Signature: _____

Date: _____