CAREER PATHWAY
CULINARY ARTS
CIP Code 12.0508

Pennsylvania's Targeted Industry Cluster:
Hospitality & Tourism
Potential Careers

<table>
<thead>
<tr>
<th>Code</th>
<th>Occupation</th>
<th>2010</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>35-1012</td>
<td>Supervisors – Food Preparation &amp; Serving Workers</td>
<td>801,100</td>
<td>879,600</td>
<td>24,830</td>
</tr>
<tr>
<td>35-2011</td>
<td>Cooks, Fast Food</td>
<td>3,550</td>
<td>2,550</td>
<td></td>
</tr>
<tr>
<td>35-2012</td>
<td>Cooks, Institution &amp; Cafeteria</td>
<td>3,550</td>
<td>2,550</td>
<td></td>
</tr>
</tbody>
</table>

National and State Occupational Outlook Trends (Based on Department of Labor and Industry Reports)

<table>
<thead>
<tr>
<th>United States</th>
<th>Employment</th>
<th>Percent Change</th>
<th>Job Openings</th>
<th>2011 Median Annual Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor – Food Preparation and Serving Workers</td>
<td>801,100</td>
<td>+10%</td>
<td>24,830</td>
<td>$29,600</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>Employment</td>
<td>Percent Change</td>
<td>Job Openings</td>
<td>2011 Median Annual Wage</td>
</tr>
<tr>
<td>Supervisor – Food Preparation and Serving Workers</td>
<td>31,750</td>
<td>+6%</td>
<td>420</td>
<td>$34,300</td>
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</tbody>
</table>

¹Job Openings refers to the average annual job openings due to growth and net replacement

Supervisor – Food Prep and Serving Workers

- Train workers in food preparation, and in service, sanitation, and safety procedures.
- Compile and balance cash receipts at the end of the day or shift.
- Perform various financial activities such as cash handling, deposit preparation, and payroll.
- Supervise and participate in kitchen and dining area cleaning activities.
- Estimate ingredients and supplies required to prepare a recipe.
- Resolve customer complaints regarding food service.
- Control inventories of food, equipment, smallware, and liquor, and report shortages to designated personnel.
- Purchase or requisition supplies and equipment needed to ensure quality and timely delivery of services.
- Observe/evaluate workers and work procedures to ensure quality standards and service, and complete disciplinary write-ups.
- Specify food portions and courses, production and time sequences, and workstation and equipment arrangements.

Skills and Abilities

- Speaking — Talking to others to convey information effectively.
- Active Listening — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- Coordination — Adjusting actions in relation to others’ actions.
- Service Orientation — Actively looking for ways to help people.
- Management of Personnel Resources — Motivating, developing, and directing people as they work, identifying the best people for the job.
- Monitoring — Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.
- Instructing — Teaching others how to do something.
- Social Perceptiveness — Being aware of others’ reactions and understanding why they react as they do.
- Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Reading Comprehension — Understanding written sentences and paragraphs in work related documents.
- Oral Expression — The ability to communicate information and ideas in speaking so others will understand.
- Oral Comprehension — The ability to listen to and understand information and ideas presented through spoken words and sentences.
- Problem Sensitivity — The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- Deductive Reasoning — The ability to apply general rules to specific problems to produce answers that make sense.
- Speech Recognition — The ability to identify and understand the speech of another person.
- Speech Clarity — The ability to speak clearly so others can understand you.
- Written Comprehension — The ability to read and understand information and ideas presented in writing.
- Information Ordering — The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
- Inductive Reasoning — The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
- Near Vision — The ability to see details at close range (within a few feet of the observer).
Character Traits for Workplace Success

- Cooperation — Job requires being pleasant with others on the job and displaying a good-natured, cooperative attitude.
- Stress Tolerance — Job requires accepting criticism and dealing calmly and effectively with high stress situations.
- Dependability — Job requires being reliable, responsible, and dependable, and fulfilling obligations.
- Self Control — Job requires maintaining composure, keeping emotions in check, controlling anger, and avoiding aggressive behavior, even in very difficult situations.
- Concern for Others — Job requires being sensitive to others' needs and feelings and being understanding and helpful on the job.
- Leadership — Job requires a willingness to lead, take charge, and offer opinions and direction.
- Adaptability/Flexibility — Job requires being open to change (positive or negative) and to considerable variety in the workplace.
- Integrity — Job requires being honest and ethical.
- Attention to Detail — Job requires being careful about detail and thorough in completing work tasks.
- Initiative — Job requires a willingness to take on responsibilities and challenges.

Somerset County Technology Center - Program of Study/Units of Instruction (3-Year Program)

<table>
<thead>
<tr>
<th>Unit Number &amp; Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>100 – Safety</td>
<td>1500 – Prepare Salads, Fruits and Salad Dressings</td>
</tr>
<tr>
<td>200 – Follow Sanitation Procedures</td>
<td>1600 – Properly Add Seasonings to Foods</td>
</tr>
<tr>
<td>300 – Demonstrate Knowledge of the Food Service Industry</td>
<td>1700 – Prepare Stocks, Soups and Sauces</td>
</tr>
<tr>
<td>400 – Purchasing, Receiving and Storage Procedures</td>
<td>1800 – Prepare International Cuisines</td>
</tr>
<tr>
<td>500 – Demonstrate Skill in Garde Manger</td>
<td>1900 – Identify, Prepare and Cook Meats</td>
</tr>
<tr>
<td>600 – Use/Care of Cutting Tools and Utensils</td>
<td>2000 – Prepare Poultry</td>
</tr>
<tr>
<td>700 – Use/Care of Mechanical Food Preparation Equipment</td>
<td>2100 – Prepare Seafood</td>
</tr>
<tr>
<td>800 – Follow Standardized Recipes</td>
<td>2200 – Demonstrate Skill in Basic Baking Practices</td>
</tr>
<tr>
<td>900 – Demonstrate Knowledge of Nutrition</td>
<td>2400 – Plan and Cost Menus</td>
</tr>
<tr>
<td>1000 – Prepare Breakfast Foods</td>
<td>2500 – Perform Institutional Food Service Procedures</td>
</tr>
<tr>
<td>1100 – Demonstrate Knowledge of Beverages</td>
<td>2600 – Perform “Front of the House” Operations</td>
</tr>
<tr>
<td>1200 – Prepare Vegetables and Fruits</td>
<td>2700 – Perform Dining Room Service</td>
</tr>
<tr>
<td>1300 – Prepare Pasta and Rice</td>
<td>2800 – Demonstrate Skill in the Use of a Personal Computer</td>
</tr>
<tr>
<td>1400 – Prepare Cheese</td>
<td></td>
</tr>
</tbody>
</table>

High School Courses Recommended For Career And Technical Education Students

<table>
<thead>
<tr>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>English I</td>
<td>English II</td>
<td>English III</td>
<td>English IV</td>
</tr>
<tr>
<td>Algebra I or Geometry</td>
<td>Geometry or Algebra II</td>
<td>Algebra II, Trigonometry or Pre-Calculus</td>
<td>Pre-Calculus, Trigonometry or Calculus</td>
</tr>
<tr>
<td>Biology I</td>
<td>Chemistry I</td>
<td>Physics</td>
<td>AP Science</td>
</tr>
<tr>
<td>Geography/State History</td>
<td>World History</td>
<td>American History</td>
<td>Economics/Government</td>
</tr>
<tr>
<td>Required Electives: PE, Art/Music,</td>
<td>Required Electives: PE, Foreign Language,</td>
<td>Required Electives: PE</td>
<td>Required Electives: PE</td>
</tr>
<tr>
<td>Foreign Language, Computer Technology</td>
<td>Computer Technology</td>
<td>Career and Technology Scope and Sequence</td>
<td>Career and Technology Scope and Sequence</td>
</tr>
</tbody>
</table>

Program's Math Skill Level

- Students must be able to complete math curriculum (10th – 12th) that incorporates a basic understanding of fractions, percentages, weights (by scale and by volume), ration/proportion, making change, order of operations, and algebra formulas for baking, inventory, and associated management functions.
### Certifications/Licensures

| Pennsylvania Skills Certificate (NOCTI) | ServSafe Certificate of Competency – Food Protection Manager Certification (Valid for 5 Years) |

### Continuing Education/College Options

<table>
<thead>
<tr>
<th>Articulation Agreements</th>
<th>Additional College/Continuing Education Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucks County Community College</td>
<td>Students who complete the Culinary Arts curriculum can earn college credit. SCTC’s Culinary Arts program has articulation agreements with colleges across Pennsylvania through the SOAR program. For more information on the SOAR program, please visit: <a href="http://www.techlinkpa.com">http://www.techlinkpa.com</a></td>
</tr>
<tr>
<td>Commonwealth Technical Institute</td>
<td></td>
</tr>
<tr>
<td>Community College of Beaver County</td>
<td></td>
</tr>
<tr>
<td>Delaware County Community College</td>
<td></td>
</tr>
<tr>
<td>Montgomery County Community College – Central Campus</td>
<td></td>
</tr>
<tr>
<td>Pennsylvania College of Technology</td>
<td></td>
</tr>
<tr>
<td>Westmoreland County Community College</td>
<td></td>
</tr>
</tbody>
</table>

### Prerequisites, Safety, and Equipment Requirements

<table>
<thead>
<tr>
<th>Requirements</th>
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</tr>
</thead>
<tbody>
<tr>
<td>General knowledge about food service equipment and how to use it: including; knives, oven/range, hand tools, etc.</td>
<td>Uniforms include: Chef’s Coat, Chef’s Pants, Hat or Hair restraint, aprons, etc.</td>
</tr>
<tr>
<td>Basic safety awareness with kitchen equipment.</td>
<td>All above items provided by the Culinary Class.</td>
</tr>
<tr>
<td>Problem-solving skills</td>
<td>Students are required to furnish Black or White Duty Shoes (NO Sneakers)</td>
</tr>
</tbody>
</table>

### Program Details

**Theory Structure**
- Instructor Lecture – approximately 3 hours per week
- Students work in large and small groups, read material provided by instructor, structured tests administrated by instructor
- Math Instructor – approximately 1 hour every other week
- Portfolio Instructor – approximately 9 hours per school year

**Textbook and Supplemental Reading Materials**
- Culinary Concepts with Workbook – MAVCC (8th to 12th grade reading level)
- Culinary Techniques with Workbook – MAVCC (8th to 12th grade reading level)
- Various texts and printed materials
- Various electronic and internet materials

**Lab Experience**
- 10th, 11th, & 12th grade students work in the restaurant and bakery
- Students work banquets and luncheons
- Students are also encouraged to get and keep part time jobs in the Culinary Arts field.

**Homework**
- Students are expected to complete tasks in a given amount of time, if necessary, this may be done at home.
- All banquets and some luncheons are done outside the normal school day
- Assignments are also given as homework. (may include research on spices and herbs and other subjects of individual interest.)

**Co-op Requirements (Grades 11-12)**
- Satisfactory attendance records.
- “C” average
- Instructor’s recommendation.
- Transportation
Specific Competencies and Skills Tested in this Assessment:

Recipes
- Display understanding of cooking terminology
- Read, follow, and convert standard recipes
- Establish mise en place (identify ingredients, weights and measures, pan sizes, assembling herbs, spices, and seasonings)

Knife Skills
- Identify and distinguish knife types and related terminology
- Demonstrate knife sharpening skills and safe knife usage and care
- Demonstrate basic knife cuts

Large and Small Equipment
- Identify and demonstrate proper use of measuring devices
- Identify large and small kitchen equipment
- Utilize large and small equipment

Sanitation and Safety
- Display knowledge of cleaning and sanitizing methods
- Maintain basic principles of nationally recognized sanitation protocols (i.e. ServSafe®, CPFM, ACF)
- Exhibit understanding of prevention, causes, and response to workplace injuries
- Describe fire extinguishers and fire safety procedures
- Understand OSHA regulations
- Maintain all kitchen equipment
- Maintain a safe kitchen and surroundings
Specific Competencies and Skills continued:

Cold Food Preparation
- Prepare salads and dressings
- Prepare cold soups, appetizers, and desserts
- Garnish and plate menu items
- Prepare sandwiches, spreads, and fillings
- Explain procedures for buffet preparation and maintenance
- Identify storage methods for cold foods

Fruits, Vegetables, and Starches
- Identify quality and grade of fruits and vegetables
- Prepare fruits and vegetables for cooking
- Identify and prepare potato dishes
- Identify and prepare pasta, grains, and legumes
- Identify storage methods for fruits and vegetables

Bakery Products
- Prepare cookies
- Prepare quick breads and cakes
- Prepare yeast dough products
- Prepare icings, fillings, sauces, and toppings
- Prepare pies, tarts, and pastries
- Prepare creams, custards, and mousse
- Identify storage methods for bakery products

Stocks, Sauces, and Hot Soups
- Prepare and flavor stocks and glace
- Prepare mother (foundation) sauces
- Prepare roux and thickening agents
- Identify and prepare soups
- Identify cooling and storage methods for stocks, sauces, and hot soups
Specific Competencies and Skills continued:

Meats, Poultry, Fish, and Seafood
- Identify and properly select cuts of meat, poultry, fish, and seafood
- Prepare meat, poultry, fish, and seafood
- Identify various cooking methods
- Determine proper degrees of doneness
- Identify storage methods for meats, poultry, fish, and seafood

Breakfast Foods
- Identify and prepare breakfast starches
- Identify and prepare breakfast meats
- Identify and prepare different styles of eggs
- Identify and prepare cereals
- Identify storage methods for breakfast foods

Dairy Products and Alternatives
- Identify various milk products
- Identify dairy alternatives
- Identify cheese varieties
- Identify and distinguish butters and butter alternatives
- Identify storage methods for dairy products and alternatives

Receiving and Storage
- Take physical and perpetual inventory
- Exhibit knowledge of HACCP policies and procedures
- Compare costs, weights, and prices of ingredients

Nutritional Values
- Describe the basic food groups; make healthy food choices
- Describe healthy cooking techniques
- Describe different sources of nutrients and their effects
Specific Competencies and Skills continued:

Management and Employability Skills

- Exhibit understanding of professional behavior, appearance, and job interview skills
- Display knowledge of various job profiles and chain of command
- Calculate payroll
- Calculate food costs and percentages
- Demonstrate food cost controls

Customer Service

- Display understanding of basic customer service principles
- Demonstrate appropriate table settings, service, and clearing
- Calculate guest check, including taxes and gratuity
- Demonstrate knowledge of dining room duties, including a POS system
- Understand menu items and special preparation/ingredient requests
- Take and place guest orders
Written Assessment:

Administration Time: 3 hours
Number of Questions: 207

Areas Covered:

<table>
<thead>
<tr>
<th>Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recipes</td>
<td>4%</td>
</tr>
<tr>
<td>Knife Skills</td>
<td>4%</td>
</tr>
<tr>
<td>Large and Small Equipment</td>
<td>4%</td>
</tr>
<tr>
<td>Sanitation and Safety</td>
<td>11%</td>
</tr>
<tr>
<td>Cold Food Preparation</td>
<td>8%</td>
</tr>
<tr>
<td>Fruits, Vegetables, and Starches</td>
<td>7%</td>
</tr>
<tr>
<td>Bakery Products</td>
<td>11%</td>
</tr>
<tr>
<td>Stocks, Sauces, and Hot Soups</td>
<td>7%</td>
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<tr>
<td>Meats, Poultry, Fish, and Seafood</td>
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<td>Dairy Products and Alternatives</td>
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</tr>
<tr>
<td>Receiving and Storage</td>
<td>4%</td>
</tr>
<tr>
<td>Nutritional Values</td>
<td>4%</td>
</tr>
<tr>
<td>Management and Employability Skills</td>
<td>6%</td>
</tr>
<tr>
<td>Customer Service</td>
<td>9%</td>
</tr>
</tbody>
</table>
Sample Questions:

To maintain a range top grill,
- A. scrape and clean daily
- B. clean only when the grill starts to smoke
- C. grease daily to brown food evenly
- D. empty the grease pan once a week

When mashing potatoes, they should be
- A. hot and dry
- B. wet and cold
- C. hot and gluey
- D. soggy and hot

A bouquet garni traditionally is made up of
- A. bay leaf, thyme, and parsley stems
- B. celery, carrots, and onions
- C. garlic, shallots, and parsley
- D. rosemary, basil, and garlic

A basic granola recipe consists of
- A. oats, nuts, and dried fruit
- B. bananas, apples, pineapple, and dates
- C. yogurt, strawberries, and blueberries
- D. puffed cereal, chocolate chips, and marshmallows

Food safety control in a restaurant begins during
- A. receiving
- B. storage
- C. preparation
- D. cooking
Performance Assessment:

Administration Time: 3 hours
Number of Jobs: 5

Areas Covered:

18% Comprehensive Skills
Safety and sanitation procedures, knife safety skills overall, organization, and use of tools and equipment overall (Job 1).

23% Prepare Chicken Florentine with Tomato Concassé
Preparation of chicken, preparation of tomato concassé, appearance of finished product, taste of finished product, and time to complete Job 2.

18% Prepare Rice Pilaf
Preparation of rice, appearance of finished product, taste of finished product, and time to complete Job 3.

18% Prepare Steamed Green Vegetables
Preparation of vegetables, appearance of finished product, taste of finished product, and time to complete Job 4.

23% Prepare Apple Crostata and Crème Anglaise
Preparation of apple crostata, preparation of crème anglaise, appearance of finished product, taste of finished product, and time to complete Job 5.
Sample Job: Prepare Steamed Green Vegetables

Maximum Time: 30 minutes

Participant Activity: The participant will follow safety and sanitation procedures in all activities. Participant will prepare the provided vegetables for steaming, steam two portions to al dente, and season as desired.

The Association for Career and Technical Education (ACTE), the leading professional organization for career and technical educators, commends all students who participate in career and technical education programs and choose to validate their educational attainment through rigorous technical assessments. In taking this assessment you demonstrate to your school, your parents and guardians, your future employers and yourself that you understand the concepts and knowledge needed to succeed in the workplace. Good Luck!