

Culinary Arts





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The purpose of this document is to communicate the required Career and Technical Education (CTE) academic standards for the Culinary Arts Program of Study. The academic standards in this document are theoretical and performance-based. The standards contain content from Colorado, Maryland, Tennessee, and Texas and were validated by D.C. business and industry partners. All content is used with permission.

In addition to academic standards, OSSE has incorporated into this document Labor Market Information (LMI) definitions and explanations for the Program of Study; program aligned Industry Recognized Credentials; and Work-Based Learning resources and requirements by course level.

This document is intended for use by educational administrators and practitioners. A similar document is available for each state-approved CTE Program of Study.



Table of Contents

Course Descriptions: Culinary Arts	4
Industry Certifications	4
Work-Based Learning Examples and Resources	5
Labor Market Information Definitions and Data	5
Model Six-Year Plan: Culinary Arts	7
Course Standards	8
Introduction to Culinary Arts	8
Culinary Arts I	12
Culinary Arts II	16
Practicum in Culinary Arts	20



Course Descriptions: Culinary Arts		
Course Level	Course Information	Description
Level I	Introduction to Culinary Arts OSSEID: 16052G1.0014 Grades: 9-12 Prerequisite: None Credit: 1	Introduction to Culinary Arts will emphasize the principles of planning, organizing, staffing, directing, and controlling the management of a variety of food service operations. The course will provide insight into the operation of a well-run restaurant. Introduction to Culinary Arts will provide insight into food production skills, various levels of industry management, and hospitality skills. This is an entry level course for students interested in pursuing a career in the food service industry.
Level II	Culinary Arts I OSSEID: 16052G1.0024 Grades: 10-12 Prerequisite: Introduction to Culinary Arts Credit: 1	Culinary Arts I begins with the fundamentals and principles of the art of cooking and the science of baking and includes management and production skills and techniques. Students can pursue a national sanitation certification or other appropriate industry certifications. This course is offered as a laboratory-based course.
Level III	Culinary Arts II Practice OSSEID: 16052G1.0034 Grades: 11-12 Prerequisite: Culinary Arts I Credit: 1	Culinary Arts II will extend content and enhance skills introduced in Culinary Arts I by in-depth instruction of industry-driven standards in order to prepare students for success in higher education, certifications, and/or immediate employment.
Level IV	Practicum in Culinary Arts OSSEID: 16950G1.0044 Grades: 12 Prerequisite: Culinary Arts II Credit: 1	Practicum in Culinary Arts is a unique practicum that provides occupationally specific opportunities for students to participate in a learning experience that combines classroom instruction with actual business and industry career experiences. Practicum in Culinary Arts integrates academic and career and technical education; provides more interdisciplinary instruction; and supports strong partnerships among schools, businesses, and community institutions with the goal of preparing students with a variety of skills in a fast-changing workplace.

Industry Certifications

National Restaurant Association ServSafe Manager NRA (National Restaurant Association)
 ManageFirst Professional® (MFP) Credential
 Prostart Level I and II



Work-Based Learning Examples and Resources

Level I Course	Level II Course	Level III Course	Level IV Course
Career Exploration Industry Visits Guest Speakers Participate in a CTSO	Career Awareness <i>All of Level I, plus:</i> Postsecondary Visits Program-Specific Site Tours Mock Interviews	Career Preparation <i>All of Level I and II, plus:</i> Job Shadow Paid/Unpaid Internships	Career Preparation Paid/Unpaid Internships Apprenticeships

Several resources are available to help instructors meet the Level I and Level II WBL requirements, including:

Career Coach DC (<http://careercoachdc.emsicc.com>). Online site designed to help students find and connect to a career pathway by providing the most current local data on wages, employment, job postings, and associated education and training. The resource includes a Career Assessment for students.

Nepris (<https://dc.nepris.com/>). Connects educators and learners with a network of industry professionals virtually, bringing real-world relevance and career exposure to all students. Nepris also provides a skills-based volunteering platform for business and industry professionals to extend their educational outreach.

Virtual Job Shadow (<https://virtualjobshadow.com>). Provides interactive tools which empower students to discover, plan, and pursue their dreams. Rich video library presents a “day in the life of” view for thousands of occupations.

Labor Market Information Definitions and Data

Career and Technical Education programs of study in the District of Columbia must meet at least one of the High Wage, High Skill, and In-Demand definitions below to be considered appropriate for our students and the regional labor market. These definitions were created in collaboration with Career and Technical Education leaders from District of Columbia LEAs, the University of the District of Columbia Community College, and national guidance from Research Triangle International (RTI) and Education Northwest. Additionally, previous work was consulted by researchers at MIT’s Labor Wage Index Project and the DC CTE Task Force’s 2012 Strategic Plan for the District of Columbia.

Indicator	Definition	Data for the Culinary Arts Program of Study (source: EMSI, August 2022)
High Wage	Those occupations that have a 25 th percentile wage equal to or greater than the most recent MIT Living Wage Index for one adult in the District of Columbia, and/or leads to a position that pays at least the median hourly or annual wage for the Washington, DC, metropolitan statistical area.	Standard Occupational Code (SOC): 35-1011.00 Chefs and Head Cooks Hourly Wages 25th Percentile: \$23.31 50th Percentile: \$30.29 75th Percentile: \$38.84



	<i>Note: A 25th percentile hourly wage of \$23.13 or greater is required to meet this definition.</i>	
High Skill	Those occupations located within the Washington, DC, metropolitan statistical area with the following education or training requirements: completion of an apprenticeship program; completion of an industry-recognized certification or credential; associate's degree, or higher.	Typical Entry-Level Education: High school diploma or equivalent
In-Demand	Those occupations in the Washington, DC, metropolitan statistical area having more than the median number of total (growth plus replacement) annual openings over a five-year period. <i>Note: An occupation is required to have an annual growth plus replacement rate of 105 openings, or greater, between 2021-2026 to meet this definition.</i>	Annual Openings: 876



Model Six-Year Plan: Culinary Arts

College: University of the District of Columbia Community College

Program/CIP:

Plan:

Entity: Office of the State Superintendent of Education

Career Cluster: Hospitality and Tourism

Program of Study: Culinary Arts

Subject	High School				College			
	9 th Grade	10 th Grade	11 th Grade	12 th Grade	Semester I	Semester II	Semester III	Semester IV
English (4)	English I	English II	English III	English IV				
Math (4)	Algebra I	Geometry	Algebra II	Math				
Science (4)	Biology	Lab Science	Anatomy and Physiology	Science				
Social Studies (4)	World History and Geography I: Middle Ages	World History and Geography II: Modern World	U.S. History	U.S. Government (.5) and D.C. History (.5)				
Health (.5) and Physical Ed (1)	Health (.5) Physical Ed (.5)	Physical Ed (.5)						
World Languages (2)			World Language I	World Language II				
Art (.5)		Art (.5)						
Music (.5)		Music (.5)						
Elective / Major Courses	Introduction to Culinary Arts	Culinary Arts I	Culinary Arts II	Practicum in Culinary Arts				
Total possible college credits completed in high school: XX					Credit hours required to complete the AAS program: XX			



Course Standards

Introduction to Culinary Arts

1. **General requirements.** This course is recommended for students in Grades 9-12. Students shall be awarded one credit for successful completion of this course.
2. **Introduction.**
 - A. Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
 - B. The Hospitality and Tourism Career Cluster focuses on the management, marketing, and operations of restaurants and other food/beverage services, lodging, attractions, recreation events, and travel-related services.
 - C. Introduction to Culinary Arts will emphasize the principles of planning, organizing, staffing, directing, and controlling the management of a variety of food service operations. The course will provide insight into the operation of a well-run restaurant. Introduction to Culinary Arts will provide insight into food production skills, various levels of industry management, and hospitality skills. This is an entry level course for students interested in pursuing a career in the food service industry.
 - D. Students will participate in at least two Career Exploration Work-Based Learning experiences in this course, which might include guest speakers and work-place tours relevant to the program of study.
 - E. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
3. **Knowledge and skills.**
 - A. **The student demonstrates professional standards/employability skills as required by business and industry.**
The student is expected to:
 1. model effective oral and written communication;
 2. practice professional grooming and hygiene standards;
 3. exercise punctuality and time-management skills;
 4. demonstrate self-respect and respect for others;
 5. demonstrate effective teamwork and leadership; and
 6. employ initiative, adaptability, and problem-solving techniques in practical applications.
 - B. **The student applies advanced reading, writing, mathematics, and science skills for the food service industry.**
The student is expected to:
 1. compose industry appropriate documents such as purchasing specifications and purchase orders;
 2. comprehend a variety of texts such as operations and training manuals;



3. calculate numerical concepts such as percentages and estimations in practical situations, including weight and measures;
 4. understand scientific principles used in culinary arts;
 5. read and comprehend standardized recipes;
 6. write and convert standardized recipes; and
 7. calculate and manage food costs.
- C. **The student integrates listening, writing, and speaking skills using verbal and nonverbal communication to enhance operations, guest satisfaction, and professional development. The student is expected to:**
1. create formal or informal presentations;
 2. properly answer business phones;
 3. write instructions for a specific restaurant for a culinary procedure or the use of a piece of equipment; and
 4. attend and participate in an industry-focused staff meeting.
- D. **The student demonstrates an understanding that personal success depends on personal effort. The student is expected to:**
1. demonstrate a proactive understanding of self-responsibility and self-management;
 2. explain the characteristics of personal values and principles;
 3. demonstrate positive attitudes and work habits;
 4. demonstrate exemplary appearance and personal hygiene; and
 5. identify and manage the effects of exercise, dietary habits, and emotional factors such as stress, fatigue, or anxiety on job performance.
- E. **The student develops principles in time management, decision making, effective communication, and prioritization. The student is expected to:**
1. apply effective practices for managing time and energy; and
 2. analyze various steps in the decision-making process.
- F. **The student researches, analyzes, and explores lifestyle and career goals. The student examines jobs available in the food service industry and accesses career opportunities. The student is expected to:**
1. research the major job duties and qualifications for various positions in the food service industry to facilitate selection of career choices in culinary arts;
 2. update a personal career portfolio;
 3. demonstrate proper interview techniques; and
 4. establish personal short- and long-term goals.
- G. **The student understands factors that affect the food service industry. The student is expected to:**
1. research how historical and current trends in society affect the food service industry;
 2. identify global cultures and traditions related to food;
 3. research famous chefs from history; and
 4. summarize historical entrepreneurs who influenced food service in the United States.
- H. **The student evaluates and determines equipment, ingredients, and procedures used in a professional food setting. The student is expected to:**



1. identify and demonstrate the role of mise en place in the professional food service setting;
 2. identify and use large and small equipment in a commercial kitchen;
 3. develop and practice food production and presentation techniques;
 4. identify and use the appropriate application of moist, dry, and combination cookery methods;
 5. demonstrate the preparation skills of items commonly prepared in food service operations such as breakfast cookery, salads and dressings, soups and sandwiches, stocks and sauces, appetizers, seafood, poultry, meat, pastas and grains, and fruits and vegetables; and
 6. demonstrate baking techniques such as yeast breads and rolls, quick breads, and desserts.
- I. **The student understands the various food service operations such as quick service, fast casual, casual, fine dining, institutional, and beverage service. The student is expected to:**
1. explain quality customer service;
 2. demonstrate types of table setting, dining, and service skills;
 3. differentiate between service styles; and
 4. compare and contrast the roles of the front of the house and the back of the house in the various food service operations.
- J. **The student uses technology and computer applications to manage food service operations. The student is expected to:**
1. use technology tools appropriate for the industry;
 2. operate technology applications to perform workplace tasks;
 3. explain and use point-of-sale systems in various food service operations;
 4. demonstrate knowledge in computer programs used for food management;
 5. evaluate information sources for culinary arts; and
 6. interpret data such as spreadsheets, databases, and sales reports.
- K. **The student demonstrates leadership, citizenship, and teamwork skills required for success. The student is expected to:**
1. apply team-building skills;
 2. apply decision-making and problem-solving skills;
 3. determine leadership and teamwork qualities in creating a pleasant working atmosphere; and
 4. participate in community leadership and teamwork opportunities to enhance professional skills.
- L. **The student explains how employees, guests, and property are protected to minimize losses or liabilities. The student is expected to:**
1. determine the basics of safety in culinary arts;
 2. assess workplace conditions and identify safety hazards;
 3. determine the basics of sanitation in a professional kitchen;
 4. determine proper receiving, storage, and distribution techniques;
 5. demonstrate proper cleaning of equipment and maintenance in the commercial kitchen;
 6. assess food hazards and determine ways to prevent food hazards; and
 7. prepare for a state or national food sanitation certification or other appropriate certifications.



M. The student recognizes and models work ethics and legal responsibilities. The student is expected to:

1. understand and comply with laws and regulations specific to the food service industry; and
2. demonstrate a positive work ethic.

N. The student develops technology skills. The student is expected to:

1. use technology as a tool to research, organize, evaluate, and communicate information.
2. use digital technologies (computers, PDAs, media players, GPSs, etc.), communication/networking tools, and social networks appropriately to access, manage, integrate, evaluate, and create information to successfully function in a knowledge economy.
3. demonstrate utilizing current and new technologies specific to the program of study, course, and/or industry; and
4. apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies.



Culinary Arts I

1. **General requirements.** This course is recommended for students in Grades 10-12. Prerequisite: Introduction to Culinary Arts. Students shall be awarded one credit for successful completion of this course.
2. **Introduction.**
 - A. Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
 - B. The Hospitality and Tourism Career Cluster focuses on the management, marketing, and operations of restaurants and other food/beverage services, lodging, attractions, recreation events, and travel-related services.
 - C. Culinary Arts I begins with the fundamentals and principles of the art of cooking and the science of baking and includes management and production skills and techniques. Students can pursue a national sanitation certification or other appropriate industry certifications. This course is offered as a laboratory-based course.
 - D. Students will participate in at least two Career Awareness Work-Based Learning experiences in this course, which might include informational interviews or job shadowing relevant to the program of study.
 - E. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
3. **Knowledge and skills.**
 - A. **The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:**
 1. model effective oral and written communication;
 2. practice professional grooming and hygiene standards;
 3. exercise punctuality and time-management skills;
 4. demonstrate self-respect and respect for others;
 5. demonstrate effective teamwork and leadership; and
 6. employ initiative, adaptability, and problem-solving techniques in practical applications.
 - B. **The student gains academic knowledge and skills required to pursue the full range of career and postsecondary education opportunities within the restaurant food service industry. The student is expected to:**
 1. organize oral and written information;
 2. compose a variety of written documents such as menus, presentations, and advertisements;
 3. calculate numerical concepts such as weights, measurements, and percentages;
 4. identify how scientific principles are used in the food service industry; and
 5. use mathematics and science knowledge and skills to produce quality food products.



- C. **The student uses verbal and nonverbal communication skills to create, express, and interpret information to establish a positive work environment. The student is expected to:**
1. develop and deliver presentations;
 2. identify various marketing strategies used by the food service industry such as traditional and innovative marketing strategies;
 3. demonstrate proper techniques for answering restaurant phones;
 4. relate interpersonal communications such as verbal and nonverbal cues to enhance communication with coworkers, employers, customers, and clients; and
 5. demonstrate active listening skills to obtain and clarify information.
- D. **The student solves problems using critical thinking, innovation, and creativity independently and in teams. The student is expected to:**
1. generate creative ideas to solve problems by brainstorming possible solutions; and
 2. employ critical-thinking and interpersonal skills to resolve conflicts with individuals such as coworkers, customers, clients, and employers.
- E. **The student uses information technology tools specific to restaurant management to access, manage, integrate, and interpret information. The student is expected to:**
1. use information technology tools and applications to perform workplace responsibilities;
 2. demonstrate knowledge and use of point-of-sale systems; and
 3. evaluate Internet resources for information.
- F. **The student understands roles within teams, work units, departments, organizations, and the larger environment of the food service industry. The student is expected to:**
1. explain the different types and functions of kitchen, front-of-the-house, and support roles;
 2. investigate quality-control standards and practices;
 3. differentiate between various styles of restaurant services such as table, buffet, fast food, fast casual, and quick service;
 4. illustrate various place settings using proper placement of dining utensils; and
 5. demonstrate the proper service techniques in food service operations.
- G. **The student understands the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance. The student is expected to:**
1. assess workplace conditions with regard to safety and health;
 2. analyze potential effects caused by common chemicals and hazardous materials;
 3. demonstrate first aid and cardiopulmonary resuscitation skills;
 4. apply safety and sanitation standards common to the workplace;
 5. research sources of food-borne illness and determine ways to prevent them;
 6. determine professional attire and personal hygiene for restaurant employees; and
 7. prepare for a state or national food sanitation certification or other appropriate certifications.



- H. **The student uses leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives. The student is expected to:**
1. apply team-building skills;
 2. apply decision-making and problem-solving skills;
 3. determine leadership and teamwork qualities to aid in creating a pleasant working atmosphere; and
 4. participate in community leadership and teamwork opportunities to enhance professional skills.
- I. **The student knows and understands the importance of professional ethics and legal responsibilities within the food service industry. The student is expected to:**
1. demonstrate ethical reasoning in a variety of workplace situations in order to make decisions;
 2. interpret and explain written organizational policies and procedures to help employees perform their jobs; and
 3. develop guidelines for professional conduct.
- J. **The student demonstrates an understanding that personal success depends on personal effort. The student is expected to:**
1. demonstrate a proactive understanding of self-responsibility and self-management;
 2. identify behaviors needed to be employable and maintain employment such as positive work ethics and positive personal qualities;
 3. identify and evaluate the effects of exercise, nutritional dietary habits, and emotional factors such as stress, fatigue, or anxiety on job performance;
 4. implement stress-management techniques; and
 5. follow directions and procedures independently.
- K. **The student develops principles in time management, decision making, effective communication, and prioritization. The student is expected to:**
1. apply effective practices for managing time and energy;
 2. analyze various steps in the career decision-making process; and
 3. discuss the importance of balancing a career, family, and leisure activities.
- L. **The student knows and understands the importance of employability skills. The student is expected to:**
1. demonstrate skills related to seeking employment in the food service industry;
 2. identify the required training and educational requirements that lead toward appropriate career goals;
 3. select educational and work history highlights to include in a career portfolio;
 4. create and update a personal career portfolio;
 5. recognize required employment forms and their functions such as I-9, work visa, W-4, and licensures to meet employment requirements;
 6. research the local and regional labor workforce market to determine opportunities for advancement;
 7. investigate professional development training opportunities to keep current on relevant trends and information within the industry; and
 8. recognize entrepreneurship opportunities.



- M. The student understands the use of technical knowledge and skills required to pursue careers in the restaurant food service industry, including knowledge of design, operation, and maintenance of technological systems. The student is expected to:**
1. define job-specific technical vocabulary;
 2. analyze customer comments to formulate improvements in services and products and training of staff;
 3. detail ways to achieve high rates of customer satisfaction;
 4. use different types of payment options to facilitate customer payments for services; and
 5. demonstrate technical skills used in producing quality food service.
- N. The student understands factors that affect the food service industry. The student is expected to:**
1. outline the history and growth of the food service industry;
 2. identify an entrepreneur who has made significant contributions to the food service industry; and
 3. explain cultural globalization and its influence on food.
- O. The student evaluates and determines equipment, ingredients, and procedures in a professional food setting. The student is expected to:**
1. identify the role of mise en place;
 2. identify and use large and small equipment in the professional food service setting;
 3. identify the types of knives and proper usage in a commercial kitchen;
 4. demonstrate proper knife safety, handling, cleaning, and storage;
 5. differentiate between different types of produce and identify factors such as grading, purchasing, storage, and usage;
 6. differentiate between dry goods and identify factors such as purchasing and storage;
 7. differentiate between proteins and identify factors such as types, grades, purchasing, and storage;
 8. describe the methods of cooking, including dry heat, moist heat, and combination heat; and
 9. differentiate between common baking methods and identify common ingredients used in baking.
- P. The student develops technology skills. The student is expected to:**
1. use technology as a tool to research, organize, evaluate, and communicate information.
 2. use digital technologies (computers, PDAs, media players, GPSs, etc.), communication/networking tools, and social networks appropriately to access, manage, integrate, evaluate, and create information to successfully function in a knowledge economy.
 3. demonstrate utilizing current and new technologies specific to the program of study, course, and/or industry; and
 4. apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies.



Culinary Arts II

1. **General requirements.** This course is recommended for students in Grades 11-12. Prerequisite: Culinary Arts I. Students shall be awarded one credit for successful completion of this course.
2. **Introduction.**
 - A. Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
 - B. The Hospitality and Tourism Career Cluster focuses on the management, marketing, and operations of restaurants and other food/beverage services, lodging, attractions, recreation events, and travel-related services.
 - C. Culinary Arts II will extend content and enhance skills introduced in Culinary Arts I by in-depth instruction of industry-driven standards in order to prepare students for success in higher education, certifications, and/or immediate employment.
 - D. Students will participate in a Career Preparation Work-Based Learning experience in this course, which might include paid or unpaid internship experiences relevant to the program of study.
 - E. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
3. **Knowledge and skills.**
 - A. **The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:**
 1. model effective oral and written communication;
 2. practice professional grooming and hygiene standards;
 3. exercise punctuality and time-management skills;
 4. demonstrate self-respect and respect for others;
 5. demonstrate effective teamwork and leadership; and
 6. employ initiative, adaptability, and problem-solving techniques in practical applications.
 - B. **The student researches, analyzes, and designs a path to achieve career goals. The student examines jobs available in the food service industry and accesses career opportunities. The student is expected to:**
 1. demonstrate major duties and qualifications for all staff and managerial positions to facilitate selection of career choices in the food service industry;
 2. model proper interview techniques;
 3. critique personal and short-term goals; and
 4. create and update a career portfolio.



- C. **The student explains how employees, guests, and property are protected to minimize losses or liabilities. The student is expected to:**
1. determine the basics of safety in culinary arts;
 2. assess workplace conditions and identify safety hazards;
 3. determine the basics of sanitation in a professional kitchen;
 4. determine proper receiving, storage, and distribution techniques;
 5. explain and demonstrate proper cleaning of equipment and maintenance of the commercial kitchen;
 6. assess food hazards and determine ways to prevent food hazards; and
 7. prepare for a state or national food sanitation certification or other appropriate certifications.
- D. **The student evaluates global cuisines, including the culture, history, and indigenous ingredients to create international recipes. The student is expected to:**
1. replicate advanced moist and dry cooking techniques from global cuisines such as American regional, Latin American, European, Mediterranean, Middle Eastern, and Asian;
 2. synthesize indigenous ingredients from global cuisine to create innovative dishes; and
 3. justify the connection of flavor, texture, visual appeal, taste, and customer satisfaction on product development.
- E. **The student demonstrates an understanding of sustainability in the restaurant industry and its local and global effect. The student is expected to:**
1. evaluate practices for water and energy conservation across the food service industry;
 2. identify waste management options to promote sustainability; and
 3. evaluate current sustainable food practices.
- F. **The student demonstrates comprehensive protein product knowledge as it relates to flavor, texture, visual appeal, taste, and customer satisfaction and establishes quality standards. The student is expected to:**
1. assess grading and classifications;
 2. identify primal, sub-primal, and retail cuts;
 3. demonstrate fabrication techniques on proteins;
 4. evaluate purchasing practices according to various food service operations;
 5. model appropriate cooking methods for proteins; and
 6. evaluate appropriate cooking methods in regard to various protein selections.
- G. **The student demonstrates comprehensive fish and shellfish product knowledge as it relates to flavor, texture, visual appeal, taste, and customer satisfaction and establishes quality standards. The student is expected to:**
1. categorize classifications of fish and shellfish;
 2. evaluate factors that influence seafood purchasing such as freshness, flavor, sustainability, and market conditions;
 3. demonstrate the ability to clean and fabricate round, flat, fin fish, and shellfish;
 4. model appropriate cooking methods for fish and shellfish; and
 5. evaluate the effects of cooking methods on product presentation.



- H. **The student demonstrates comprehensive knowledge of fruits, vegetables, grains, herbs, spices, and other dry goods as related to presentation, flavor, texture, visual appeal, taste, and customer satisfaction and establishes quality standards. The student is expected to:**
1. compare types of commonly available produce;
 2. identify factors contributing to cost and quality such as seasonality, market volatility, and transportation;
 3. compare and contrast forms and use of produce such as fresh, frozen, canned, dried, and other classifications;
 4. model appropriate cooking methods for produce; and
 5. evaluate the effects of cooking methods on produce.
- I. **The student understands advanced baking and pastry principles. The student is expected to:**
1. use professional food preparation equipment such as commercial-grade mixers, food processors, and measuring tools;
 2. apply proper measuring and scaling techniques; and
 3. compose various plated desserts appropriate for various food service operations.
- J. **The student demonstrates and practices the basic procedures for the production of yeast and quick bread products. The student is expected to:**
1. differentiate how various types of bread crusts are created through fermentation, proofing, baking temperatures, and humidity;
 2. prepare soft, hard, and artisanal breads through proper baking techniques; and
 3. differentiate between quick breads such as muffins, scones, and biscuits.
- K. **The student demonstrates and practices the basic procedures for the production of pastry crust, pastry dough, and cookie. The student is expected to:**
1. compare different types of pastry crusts and usage in pies and tarts;
 2. prepare pie fillings such as fruit, soft, and custard fillings;
 3. prepare different types of pastry dough such as Pate a Choux, Pate Sucrie, and laminated dough;
 4. differentiate between various cookie preparation methods;
 5. determine the causes of crispness, moistness, chewiness, and the spread of cookies; and
 6. bake, cook, and store cookies properly.
- L. **The student demonstrates and practices the basic procedures for the production of cakes, frostings, fillings, and icings. The student is expected to:**
1. differentiate between cake preparation methods;
 2. differentiate the functions of icings and determine appropriate application;
 3. assemble and ice simple layer cakes, sheet cakes, and cupcakes;
 4. demonstrate the ability to identify criteria for evaluation of cake products;
 5. prepare various icings such as fondant, buttercreams, flat, royal, and glazes; and
 6. perform basic piping skills with a parchment cone and pastry bag with tips.



- M. **The student demonstrates and practices the basic procedures for the production of custards, creams, and mousse. The student is expected to:**
1. compose desserts such as ice creams, custards, mousse, and other desserts; and
 2. identify the roles of desserts such as ice creams, custards, mousse, and other desserts.
- N. **The student demonstrates and practices the basic procedures for the production of chocolate, sugars, confections, and sauces. The student is expected to:**
1. differentiate between the types of advanced confections;
 2. model methods of preparation in each type of confection;
 3. use chocolate as a major ingredient in dessert or food production;
 4. temper chocolate;
 5. use tempered chocolate in dessert preparation;
 6. cook sugar syrups to various stages of hardness;
 7. prepare dessert sauces such as custard, chocolate, caramel, fruit fillings, and coulis; and
 8. serve attractively plated desserts with appropriate sauces and garnishes.
- O. **The student evaluates nutrition concepts as they affect health and wellness, marketing, and menu planning. The student is expected to:**
1. analyze the role of carbohydrates, vitamins, minerals, proteins, and fats as they relate to food choices; and
 2. research and develop menus for populations with dietary requirements or restrictions.
- P. **The student analyzes the components of cost controls in a food service operation and develops a plan to manage cost. The student is expected to:**
1. differentiate between the major costs in food service such as food, beverage, and labor costs;
 2. validate the effect of controlling costs on the success of a food service operation;
 3. compare and contrast the concept of fixed costs, variable costs, and controllable costs; and
 4. compare and contrast the relationship between inventory management and cost control in food service operations.
- Q. **The student develops technology skills. The student is expected to:**
1. use technology as a tool to research, organize, evaluate, and communicate information.
 2. use digital technologies (computers, PDAs, media players, GPSs, etc.), communication/networking tools, and social networks appropriately to access, manage, integrate, evaluate, and create information to successfully function in a knowledge economy.
 3. demonstrate utilizing current and new technologies specific to the program of study, course, and/or industry; and
 4. apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies.



Practicum in Culinary Arts

1. **General requirements.** This course is recommended for students in Grade 12. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Hospitality and Tourism Career Cluster. Prerequisite: Culinary Arts II. Students shall be awarded one credit for successful completion of this course.
2. **Introduction.**
 - A. Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
 - B. The Hospitality and Tourism Career Cluster focuses on the management, marketing, and operations of restaurants and other food/beverage services, lodging, attractions, recreation events, and travel-related services.
 - C. Practicum in Culinary Arts is a unique practicum that provides occupationally specific opportunities for students to participate in a learning experience that combines classroom instruction with actual business and industry career experiences. Practicum in Culinary Arts integrates academic and career and technical education; provides more interdisciplinary instruction; and supports strong partnerships among schools, businesses, and community institutions with the goal of preparing students with a variety of skills in a fast-changing workplace.
 - D. Students will participate in a Career Preparation Work-Based Learning experience in this course, which includes paid or unpaid internship, pre-apprenticeship, or apprenticeship experiences relevant to the program of study.
 - E. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
3. **Knowledge and skills.**
 - A. **The student demonstrates professional standards/employability skills as required by business and industry.**
The student is expected to:
 1. model effective oral and written communication;
 2. practice professional grooming and hygiene standards;
 3. exercise punctuality and time-management skills;
 4. demonstrate self-respect and respect for others;
 5. demonstrate effective teamwork and leadership; and
 6. employ initiative, adaptability, and problem-solving techniques in practical applications.
 - B. **The student uses employability skills to gain an entry-level job in a high-skill, high-wage, or high-demand field.**
The student is expected to:
 1. identify employment opportunities;
 2. demonstrate the application of essential workplace skills in the career acquisition process;



3. complete employment-related documents such as job applications, I-9 and W-4 forms, and job descriptions; and
 4. demonstrate proper interview techniques in various situations.
- C. The student develops skills for success in the workplace. The student is expected to:**
1. comprehend and model appropriate grooming and appearance for the workplace;
 2. demonstrate dependability, punctuality, and initiative;
 3. develop positive interpersonal skills, including respect for diversity;
 4. demonstrate appropriate business and personal etiquette in the workplace;
 5. exhibit productive work habits, ethical practices, and a positive attitude;
 6. demonstrate knowledge of personal and occupational health and safety practices in the workplace;
 7. demonstrate the ability to work with the other employees to support the organization and complete assigned tasks;
 8. prioritize work to fulfill responsibilities and meet deadlines;
 9. evaluate the relationship of good physical and mental health to job success and personal achievement;
 10. demonstrate effective verbal, non-verbal, written, and electronic communication skills; and
 11. apply effective listening skills used in the workplace.
- D. The student demonstrates work ethics, employer expectations, interaction with diverse populations, and communication skills in the workplace. The student is expected to:**
1. relate how personal integrity affects human relations on the job;
 2. demonstrate characteristics of successful working relationships such as teamwork, conflict resolution, self-control, and the ability to accept criticism;
 3. implement employer expectations;
 4. demonstrate respect for the rights of others;
 5. demonstrate ethical standards; and
 6. comply with organizational policies.
- E. The student applies academics and job-readiness skills. The student is expected to:**
1. apply mathematical skills to business transactions;
 2. develop a personal budget based on career choice;
 3. interpret data from documents such as tables, charts, and graphs to estimate and find solutions to problems; and
 4. organize and compose workplace documents.
- F. The student applies ethical behavior standards and legal responsibilities within the workplace. The student is expected to:**
1. compare workplace policies reflecting various business establishments;
 2. apply responsible and ethical behavior;
 3. summarize provisions of the Fair Labor Standards Act;
 4. describe the consequences of breach of confidentiality; and
 5. research and model laws related to culinary arts professions.



- G. The student applies the use of interpersonal skills to accomplish objectives. The student is expected to:**
1. identify and practice effective interpersonal and team-building skills involving situations with coworkers, managers, and customers; and
 2. apply leadership and career development skills through participation in activities such as career and technical student organizations.
- H. The student uses concepts and skills related to safety in the workplace. The student is expected to:**
1. identify and apply safe working practices;
 2. solve problems related to unsafe work practices and attitudes;
 3. explain Occupational Safety and Health Administration regulations in the workplace;
 4. analyze health and wellness practices that influence job performance; and
 5. prepare for a state or national food sanitation certification or other appropriate certification.
- I. The student evaluates personal attitudes and work habits that support career retention and advancement. The student is expected to:**
1. analyze the future employment outlook in the occupational area;
 2. describe entrepreneurial opportunities in the area of culinary arts;
 3. evaluate nontraditional food service careers such as food photographer, food stylist, corporate research and development chef, food writer, and independent consultant;
 4. identify all of the aspects of a specific career path, including salary, skills level, and advancement opportunities;
 5. evaluate strategies for career retention and advancement in response to the changing hospitality industry;
 6. compare and contrast the rights and responsibilities of employers and employees; and
 7. determine effective money management and financial planning techniques.
- J. The student identifies skills and attributes necessary for professional advancement. The student is expected to:**
1. evaluate employment options, including salaries and benefits;
 2. determine factors that affect career choices such as personal interests, abilities, priorities, and family responsibilities;
 3. determine continuing education opportunities that enhance career advancement and promote lifelong learning; and
 4. demonstrate effective methods to secure, maintain, and terminate employment.
- K. The student demonstrates proper culinary techniques and knowledge of the professional kitchen. The student is expected to:**
1. use large and small equipment in a commercial kitchen;
 2. develop food production and presentation techniques;
 3. demonstrate moist, dry, and combination cookery methods;
 4. demonstrate food preparation skills used in commercial food service preparations such as breakfast cookery, salads and dressings, soups and sandwiches, stocks and sauces, appetizers, seafood, poultry cookery, meat cookery, pastas and grains, and fruits and vegetables;
 5. demonstrate baking techniques such as yeast breads and rolls, quick breads, and desserts;
 6. demonstrate proper receiving and storage techniques;



7. demonstrate proper cleaning of equipment and maintenance of the commercial kitchen; and
 8. compare and contrast the pairing of cuisine and service styles in food service operations.
- L. **The student determines how successful marketing impacts a food service operation. The student is expected to:**
1. explain marketing, product, service, presentation, and communication mixes;
 2. generate a marketing plan for multiple food service operations;
 3. evaluate the marketing plans based on various demographics;
 4. conduct market analysis and predict impact on current economy;
 5. identify marketing communication formats across multiple platforms; and
 6. design the menu as a marketing tool.
- M. **The student documents technical knowledge and skills. The student is expected to:**
1. complete a professional career portfolio to include items such as an updated resume, documentation of technical skill competencies, licensures or certifications, recognitions, awards and scholarships, community service hours, participation in student and professional organizations, abstract of key points of the practicum, and practicum supervisor evaluations; and
 2. present the portfolio to interested stakeholders.
- N. **The student develops technology skills. The student is expected to:**
1. use technology as a tool to research, organize, evaluate, and communicate information.
 2. use digital technologies (computers, PDAs, media players, GPSs, etc.), communication/networking tools, and social networks appropriately to access, manage, integrate, evaluate, and create information to successfully function in a knowledge economy.
 3. demonstrate utilizing current and new technologies specific to the program of study, course, and/or industry; and
 4. apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies.