

2013 Culinary Arts

Mississippi Department of Education



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The Research and Curriculum Unit (RCU), located in Starkville, MS, as part of Mississippi State University, was established to foster educational enhancements and innovations. In keeping with the land grant mission of Mississippi State University, the RCU is dedicated to improving the quality of life for Mississippians. The RCU enhances intellectual and professional development of Mississippi students and educators while applying knowledge and educational research to the lives of the people of the state. The RCU works within the contexts of curriculum development and revision, research, assessment, professional development, and industrial training.

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Standards

Standards are superscripted in each unit and are referenced in the appendices. Standards in the *Culinary Arts Curriculum Framework and Supporting Materials* are based on the following:

American Association of Family & Consumer Sciences Standards

For more than 100 years, the American Association of Family & Consumer Sciences (AAFCS) has provided leadership and support to professionals whose work assists individuals, families, and communities in making informed decisions about their well-being, relationships, and resources to achieve optimal quality of life.

AAFCS is the only professional association for family and consumer sciences (FCS) students and professionals from both multiple practice settings and content areas. Our members are educators, administrators and managers, human service and business professionals, researchers, community volunteers, and consultants. They provide research-based knowledge about the topics of everyday life, including human development, personal and family finance, housing and interior design, food science, nutrition and wellness, textiles and apparel, and consumer issues

Common Core State Standards Initiative

The Common Core State Standards© provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them. The standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers. With American students fully prepared for the future, our communities will be best positioned to compete successfully in the global economy. Copyright 2010. National Governors Association Center for Best Practices and Council of Chief State School Officers. All rights reserved. States and territories of the United States as well as the District of Columbia that have adopted the Common Core State Standards in whole are exempt from this provision and no attribution to the National Governors Association Center for Best Practices and Council of Chief State School Officers is required. Reprinted from <http://www.corestandards.org/>.

National Educational Technology Standards for Students

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21st Century Skills and Information and Communication Technologies Literacy Standards

In defining 21st-century learning, the Partnership for 21st Century Skills has embraced five content and skill areas that represent the essential knowledge for the 21st century: global awareness; civic engagement; financial, economic, and business literacy; learning

skills that encompass problem-solving, critical-thinking, and self-directional skills; and information and communication technology (ICT) literacy.

Preface

Secondary career and technical education programs in Mississippi face many challenges resulting from sweeping educational reforms at the national and state levels. Schools and teachers are increasingly being held accountable for providing true learning activities to every student in the classroom. This accountability is measured through increased requirements for mastery and attainment of competency as documented through both formative and summative assessments.

The courses in this document reflect the statutory requirements as found in Section 37-3-49, *Mississippi Code of 1972*, as amended (Section 37-3-46). In addition, this curriculum reflects guidelines imposed by federal and state mandates (Laws, 1988, Ch. 487, §14; Laws, 1991, Ch. 423, §1; Laws, 1992, Ch. 519, §4 eff. from and after July 1, 1992; Carl D. Perkins Vocational Education Act IV, 2007; and No Child Left Behind Act of 2001).

Mississippi Teacher Professional Resources

There are several resources for Mississippi teachers.

My PLC: An online registration for all professional-development sessions

To register for any session, teachers will need an account in the registration system, MyPLC, <https://myplc.rcu.msstate.edu>. To create an account, click on the link and navigate to the "Request a Guest ID" link. The ID should be the teacher's first initial and last name and the last four (4) digits of the social security number. Teachers should complete the entire form, which will then be sent to a secure server. Upon activation of the teacher's account, he or she will receive an e-mail with login instructions. The teacher may then browse for the available sessions and register for the desired courses.

Should you need additional instructions, please call 662.325.2510.

Blackboard/PACE site: An online resource

Preparation for Academic and Career Education (PACE) sites have been created for Mississippi career and technical educators to have one central location for obtaining information regarding their teaching practice and classrooms. Each of the 16 career clusters has an individual site. Within the appropriate PACE site, a career pathway that is currently taught in Mississippi schools will be located, along with information from the Mississippi Department of Education (MDE) state curriculum coordinator, the MDE student organization coordinator, and the Research and Curriculum Unit (RCU) curriculum specialist. As information that is relevant to an educator's particular course is available, this information will be posted to the PACE site.

To log in to Blackboard:

1. Visit <http://rcu.blackboard.com>.
2. Log in with your first initial, last name, and last four (4) digits of your social security number (e.g., ddorroh3456).
3. Input the password: rcu.
4. Should you need additional instructions, please call 662.325.2510.

Culinary Arts Executive Summary

Pathway Description

Culinary Arts is a pathway for students in the Hospitality and Tourism Career Cluster. The following description is from the Mississippi Department of Education's current Standard Course of Study for Career-Technical Education.

The Culinary Arts Pathway includes classroom and hands-on experiences that will prepare students for employment or continuing education in the foodservice industry. This program was written to incorporate the **National Restaurant Associations (NRA) ProStart** learning objectives. Any student who successfully completes this program and the mentoring requirements will be eligible to take the National ProStart Certificate of Achievement exam, which is a certification recognized in the foodservice industry nationwide.

Industry Certification

This program was designed to articulate to postsecondary Food Production, Hotel and Restaurant Management, and Culinary Arts. Industry standards are based on the NRA's ProStart and ServSafe Certifications.

Assessment

Students will be assessed at the end of their first year using the first-year Mississippi Career Planning and Assessment System (MS-CPAS2) test for Culinary Arts, which is based on content from the first year of Culinary Arts curriculum. At the end of their second year, students will be assessed using the second-year MS-CPAS2 test for Culinary Arts, which is based on content from the second year of the Culinary Arts curriculum. The MS-CPAS2 blueprint can be found at <http://www.rcu.msstate.edu/Curriculum/CurriculumDownload.aspx>. Any questions regarding

assessment of this program should be directed to the Culinary Arts instructional design specialists at the Research and Curriculum Unit who can be reached at 662.325.2510.

Student Prerequisites

In order for students to experience success in the Culinary Arts program, the following student prerequisites are required:

1. C or higher in English (the previous year)
2. C or higher in Math (last course taken or the instructor can specify the math course)

or

3. Instructor approval and a TABE Reading Score of eighth grade or higher

or

4. Instructor approval

Applied Academic Credit

The mathematics content in the Culinary Arts program is meaningful and useful to students who are entering the foodservice industry. Applied mathematics content was aligned to the 2007 Mississippi Mathematics Framework Revised Academic Benchmarks.

Teacher Licensure

The latest teacher licensure information can be found at <http://www.mde.k12.ms.us/educator-licensure>.

Professional Learning

For specific questions about the content of any of the training sessions provided, please contact the Research and Curriculum Unit at 662.325.2510 and ask for a professional-learning specialist.

Course Outlines

Option 1—Four 1-Carnegie-Unit Courses

This curriculum consists of four one-credit courses, which should be completed in the following sequence:

1. Orientation to Culinary Arts — Course Code: 996002
2. Theory and Application of Culinary Arts I — Course Code: 996004
3. Advanced Studies in Culinary Arts — Course Code: 996006
4. Theory and Application of Culinary Arts II — Course Code: 996005

Course Description: Orientation to Culinary Arts includes a survey of the foundational skills necessary in the foodservice industry. Content such as food safety and sanitation, equipment, safety and security, culinary foundations and math, and an introduction to the hospitality industry are included in the course. Mastery of the competencies listed in the food safety and sanitation unit will prepare the student to take the NRA's ServSafe exam to become ServSafe Food Safety certified. As of January 1, 1999, every foodservice establishment in Mississippi must have a full-time certified food manager employed in order to meet the FDA Food Code requirements. Students are encouraged to take this exam (Course Code: 996002).

Course Description: Theory and Applications of Culinary Arts I emphasizes real-world, hands-on practice of food preparation. Food preparation techniques included in this course include breakfast foods, dairy, and sandwiches; fruits, vegetables, salads, and garnishes; and potatoes and grains. This 1-Carnegie unit course should be taken only after students successfully pass Orientation to Culinary Arts (Course Code: 99004).

Course Description: Theory and Applications of Culinary Arts II emphasizes real-world, hands-on practice of food preparation. Food preparation techniques included in this course include desserts and baked goods; meat, poultry, and seafood; and stocks, sauces, and soups. This 1-Carnegie unit course should be taken only after students successfully pass Theory and Applications of Culinary Arts I (Course Code: 996005).

Course Description: Advanced Studies in Culinary Arts is a culminating course that places emphasis on an internship experience. While students participate in on-the-job training, they will use their skills related to management and business concepts, customer communication, and customer service. Before students can complete the Advanced Placement Culinary Arts course, they must meet the following requirements (Course Code: 996006):

- Score 80% or higher on the MS-CPAS2 summative assessment or ProStart Exam;
- Maintain an attendance rate of 92% or better in Orientation to Culinary Arts (Course Code: 996002), Theory and Applications of Culinary Arts parts A and B (Course Code: 996004 and 996005), and Advanced Studies in Culinary Arts (Course Code: 996006) courses; and
- Find a job related to the culinary industry.

Course Name Orientation to Culinary Arts — Course Code: 996002

Unit	Unit Name	Hours
1	Introduction	32
2	Food Safety and Sanitation	28
3	Workplace Safety	26
4	Professionalism and Utilizing Standard Recipes	26
5	Equipment and Techniques	28
Total		140

Course Name Theory and Application of Culinary Arts I — Course Code: 996004

Unit	Unit Name	Hours
6	Stocks, Sauces, and Soups	27
7	Communication	27
8	Management Essentials	30
9	Fruits and Vegetables	29
10	Serving Your Guests	27
Total		140

Course Name Theory and Application of Culinary Arts II — Course Code: 996005

Unit	Unit Name	Hours
11	Potatoes and Grains	19
12	Building a Successful Career in the Industry	22
13	Dairy Products, Breakfast Foods, and Sandwiches	21
14	Nutrition	19
15	Cost Control	19
16	Salads and Garnishing	19
17	Purchasing and Inventory	21
Total		140

Course Name Advanced Studies in Culinary Arts — Course Code: 996006

Unit	Unit Name	Hours
18	Meat, Poultry, and Seafood	28
19	Marketing	28
20	Desserts and Baked Goods	28
21	Sustainability in the Restaurant and Foodservice Industry	28
22	Global Cuisine	28
Total		140

Option 2—Two 2-Carnegie-Unit Courses

This curriculum consists of two two-credit courses, which should be completed in the following sequence:

1. Culinary Arts I—Course Code: 996000

2. Culinary Arts II—Course Code: 996001

Course Description: Culinary Arts I See Orientation to Culinary Arts and Theory and Application of Culinary Arts I course descriptions under Option 1.

Course Description: Culinary Arts II See Theory and Application of Culinary Arts II and Advanced Studies in Culinary Arts course descriptions under Option 1.

Course Name Culinary Arts I—Course Code: 996000

Unit	Unit Name	Hours
1	Introduction	21
2	Food Safety and Sanitation	31
3	Workplace Safety	24
4	Professionalism and Utilizing Standard Recipes	24
5	Equipment and Techniques	24
6	Stocks, Sauces, and Soups	22
7	Communication	23
8	Management Essentials	24
9	Fruits and Vegetables	21
10	Serving Your Guests	23
11	Potatoes and Grains	21
12	Building a Successful Career in the Industry	22
Total		280

Course Name Culinary Arts II—Course Code: 996001

Unit	Unit Name	Hours
13	Dairy Products, Breakfast Foods, and Sandwiches	24
14	Nutrition	30
15	Cost Control	33
16	Salads and Garnishing	26
17	Purchasing and Inventory	30
18	Meat, Poultry, and Seafood	28
19	Marketing	28
20	Desserts and Baked Goods	25
21	Sustainability in the Restaurant and Foodservice Industry	25
22	Global Cuisine	33
Total		280

Culinary Arts Research Synopsis

Introduction

Students who successfully master the Culinary Arts curriculum should have the skills required to take the National Restaurant Association's Prostart exam, which is based on industry-validated performance indicators. In addition, students will be prepared to take the Mississippi Culinary Arts MSCPAS2 exams through the Mississippi Department of Education and also to complete the requirements and take the certification test to become ServSafe certified on a national level.

Needs of the Future Workforce

Data for this synopsis was compiled from employment projections prepared by the United States Census Bureau, the US Bureau of Labor Statistics (2010), and the Mississippi Department of Employment Security (2011).

Current and Projected Employment in Culinary Arts

Description	Current Jobs, 2010	Projected Jobs, 2020	Change (Number)	Change (Percent)	Median Hourly Earning
Bakers	150	148	-2	-1.00	\$10
Butchers and Meat Cutters	13	15	2	15.00	\$12
Chefs and Head Cooks	390	410	20	5.00	\$17
Combined Food Preparation and Serving Workers, Including Fast Food	7,010	8,659	1,649	24.00	\$8
Cooks, All Other	36	45	9	25.00	\$9
Cooks, Institution and Cafeteria	1,070	1,335	265	25.00	\$9
Cooks, Restaurant	6,500	7,528	1,028	16.00	\$9
First-Line Supervisors/Managers of Food Prep and Serving Workers	6,360	7,269	909	14.00	\$12
Food Batchmakers	11	14	3	27.00	\$11
Food Preparation Workers	11,410	12,563	1,153	10.00	\$8
Food Service Managers	850	957	107	13.00	\$22

Perkins IV Requirements

The Culinary Arts curriculum meets Perkins IV requirements of high-skill, high-wage, and/or high-demand occupations by introducing students to and preparing students for occupations. It also offers students a program of study including secondary, postsecondary, and institutions of higher learning (IHL) courses that will prepare them for occupations in these fields. Additionally, the Culinary Arts curriculum is integrated with academic Common Core Standards. Finally, the Culinary Arts curriculum focuses on ongoing and meaningful professional development for teachers as well as relationships with industry.

Curriculum Content

Summary of Standards

The standards to be included in the Culinary Arts curriculum are the Common Core Standards for Mathematics and Science, 21st Century Skills, and the National Educational Technology Standards (NETS) for Students. Mastery of these standards will result in highly skilled, well-rounded students who are prepared to enter a postsecondary academic or career and technical program of study. They will also be prepared to compete academically at a national level as the Common Core Standards are designed to prepare students for success in community colleges, IHLs, and careers.

Transition to Postsecondary Education

The following articulation plan is in place for the Culinary Arts Pathway.

Statewide Guidelines on Articulated Credit

Eligibility

- To be eligible for articulated credit, a student must do the following:
 - Complete the articulated Secondary Career and Technical Program.

- Score 80% or higher on the MS CPAS2 exam in his or her secondary program of study.
- To be awarded articulated credit, a student must do the following:
 - Complete application for articulated credit at the community or junior college.
 - Enroll in the community or junior college within 18 months of graduation.
 - Successfully complete 12 nondevelopmental career/technical or academic credit hours in the corresponding articulated postsecondary career-technical program of study.

How MS CPAS2 will be documented

- The Research and Curriculum Unit of Mississippi State University will provide the Mississippi Community College Board (MCCB) a list of all secondary career and technical education (CTE) students scoring at or above the 80th percentile for the articulated programs.
- The MCCB will forward the list of students eligible for articulated credit to the colleges.

Transcripting of Articulated Credit

- Students must complete 12 nondevelopmental career/technical or academic credit hours in the articulated postsecondary career-technical program of study before the articulated credit is transcripted.
- No grade will be given on the transcript for articulated courses; only hours granted will be transcripted (thus resulting in no change in quality points).

Time Limit

- MS-CPAS2 scores will be accepted to demonstrate competencies for up to 18 months after high school graduation.

Cost

- No costs will be assessed on hours earned through articulated credit.
- Articulation credit from Secondary to the Postsecondary will be awarded beginning upon implementation of this curriculum by the college. Courses to be articulated are listed in the chart below with the stipulation of passing the MS-CPAS2 according to MS Community College Board (MCCB) guidelines.

Statewide Articulated Credit from secondary programs to postsecondary programs are outlined in the Mississippi Statewide Articulation Agreement that is revised annually and posted to the Mississippi Community College Board Career and Technical Education website (<http://www.mccb.edu/CareerTechEdu/ctDefault.aspx>)

Best Practices

Innovative Instructional Technologies

Recognizing that today's students are digital learners, the classroom should be equipped with tools that will teach them in the way they need to learn. The Culinary Arts teacher's goal should be to include teaching strategies that incorporate current technology. It is suggested that each classroom house a classroom set of desktop computers for students and one laptop for the teacher. To make use of the latest online communication tools such as wikis, blogs, and podcasts, the classroom teacher is encouraged to use a learning management system, such as the Culinary Arts Teacher Blackboard Content Management System, which introduces students to education in an online environment and places the responsibility of learning on the student.

Differentiated Instruction

Students learn in a variety of ways. Some are visual learners, needing only to read information and study it to succeed. Others are auditory learners, thriving best when information is read aloud to them. Still others are tactile learners, needing to participate actively in their learning experiences. Add the student's background, emotional health, and circumstances, and a very unique learner emerges. To accommodate this, the Culinary Arts curriculum is written to include several instructional methods by using the Understanding by Design (UbD) approach. This method of instructional design leads students to a deeper understanding of course material and provides multiple opportunities for students to succeed in different ways. Many activities are graded by rubrics that allow students to choose the type of product they will produce. By

providing various teaching and assessment strategies, students with various learning styles can succeed.

Career and Technical Education Student Organizations

Teachers should investigate opportunities to sponsor a student organization. There are several available in Mississippi that will foster the types of learning expected from the Culinary Arts curriculum. The FCCLA is the student organization for Culinary Arts, and it provides students with growth opportunities and competitive events. It also opens the doors to the world of Culinary Arts and scholarships opportunities.

Cooperative Learning

Cooperative learning can help students understand topics when independent learning cannot. Therefore, several opportunities for group work are incorporated into the Culinary Arts curriculum. To function in today's workforce, students need to be able to work collaboratively with others and solve problems without excessive conflict. The Culinary Arts curriculum provides opportunities for students to work together and help each other to complete complex tasks.

Conclusions

Culinary Arts is one of Mississippi's most comprehensive curricula. Students that complete these programs are well equipped for a variety of endeavors. Instructors are urged to encourage Culinary Arts students to pursue educational opportunities at community colleges and universities in Mississippi.

Professional Organizations

American Association of Family and Consumer Science (AAFCS)

400 North Columbus Street, Suite 202

Alexandria, VA 22314

703.706.4600

<http://www.aafcs.org/>

American Culinary Federation

180 Center Place Way

St. Augustine, FL 32095

Toll Free: 800.624.9458

Local: 904.824.4468

Fax: 904.825.4758

<http://www.acfchefs.org/>

Association for Supervision and Curriculum Development (ASCD)

1703 North Beauregard Street

Alexandria, VA 22311-1714

800.933.ASCD

<http://www.ascd.org>

Association for Career and Technical Education (ACTE)

1410 King Street

Alexandria, VA 22314

800.826.9972

<http://www.acteonline.org>

Family, Career, and Community Leaders of America (FCCLA)

1910 Association Drive

Reston, VA 20191-1584

703.476.4900

<http://www.fcclainc.org/>

Mississippi Association for Career and Technical Education (MSACTE)

<http://www.mississippiacte.com/>

Mississippi Association of Family and Consumer Sciences

<http://www.mafcs.com/index.html>

Mississippi Association for Supervision and Curriculum Development (MASCD)

P.O. Box 13576

Jackson, MS 39236

601.591.2210

<http://www.mascd.com>

Mississippi Department of Education (MDE)
Office of Vocational Education and Workforce Development
P.O. Box 771
Jackson, MS 39205
601.359.3940
<http://www.mde.k12.ms.us/vocational/news/>

National Restaurant Association Educational Foundation (NRAEF)
175 West Jackson Boulevard, Suite 1500
Chicago, IL 60604-2814
800.765.2122
<http://www.nraef.org/>

Using This Document and the Blackboard Site

Suggested Time on Task

This section indicates an estimated number of clock hours of instruction that should be required to teach the competencies and objectives of the unit. A minimum of 140 hours of instruction is required for each Carnegie-unit credit. The curriculum framework should account for approximately 75–80% of the time in the course.

Competencies and Suggested Performance Indicators

A competency represents a general concept or performance that students are expected to master as a requirement for satisfactorily completing a unit. Students will be expected to receive instruction on all competencies. The suggested performance indicators represent the enabling and supporting knowledge and performances that will indicate mastery of the competency at the course level.

Suggested Teaching Strategies (Found on the Blackboard site)

This section of each unit indicates research-based strategies that can be used to enable students to master each competency. Emphasis has been placed on strategies that reflect active learning methodologies. Teachers should feel free to modify or enhance these suggestions based on needs of their students and resources available in order to provide optimum learning experiences for their students.

Suggested Assessment Strategies (Found on the Blackboard site)

This section indicates research-based strategies that can be used to measure student mastery. Examples of suggested strategies could include rubrics, class participation, reflection, and journaling. Again, teachers should feel free to modify or enhance these suggested assessment strategies based on local needs and resources.

Integrated Academic Topics, 21st Century Skills and Information and Communication Technology Literacy Standards, ACT College Readiness Standards, and Technology Standards for Students

This section identifies related academic topics as required in the Subject Area Testing Program (SATP) in Algebra I, Biology I, English II, and U.S. History from 1877, which are integrated into the content of the unit. Research-based teaching strategies also incorporate ACT College Readiness standards. This section also identifies the 21st Century Skills and Information and Communication Technology Literacy skills. In addition, national technology standards for students associated with the competencies and suggested objectives for the unit are also identified.

References

A list of suggested references is provided for each unit. The list includes some of the primary instructional resources that may be used to teach the competencies and suggested objectives. Again, these resources are suggested, and the list may be modified or enhanced based on needs and abilities of students and on available resources.

Unit 1: Introduction

Competencies and Suggested Scenarios	
1. Research the creation of the modern restaurant.	DOK 1 2PS1
a. Trace the history of the foodservice industry and explain its relationship to world history.	
b. Research famous chefs and note their major accomplishments.	
2. Analyze the tourism and travel industry, and determine how the industry will change over time.	DOK 2 2PS11, 2PS12
a. Explain the role of tourism in the hospitality industry.	
b. Categorize the types of businesses that make up the tourism industry.	
c. Identify career opportunities offered by the travel and tourism industry.	
3. Analyze the lodging industry.	DOK 3 2PS3, 2PS11
a. Describe the differences between leisure and business travelers.	
b. List the characteristics of lodging operations.	
c. Describe national organizations that rate lodging and foodservice establishments.	
d. Describe the use of Property Management Systems (PMS) in reservations management.	

Scenario

Contemporary Events in Foodservice:

Research foodservice developments in your community during the past 10 years. Write two paragraphs about your findings.

It's all about the Organization:

Larger hotels and resorts can be quite complex, with a number of amenities and job positions. Create an imaginary hotel or resort and describe it in a paragraph or two, including amenities provided. Develop an organizational chart, including both lodging and foodservice positions.

Attachments for Scenario

None

Unit 2: Food Safety and Sanitation

Competencies and Suggested Scenarios	
1. Discuss and relate the importance of food safety to society.	DOK 2 IPS2, IPS3, SS1, SS2, SS3, SS4, SS5
a. List reasons why it is important to keep food safe.	
b. List the conditions under which bacteria can multiply rapidly and use the letters FAT-TOM.	
c. Give examples of TCM foods.	
d. Categorize and describe how to prevent biological contamination of food.	
e. Describe good personal hygiene and how it affects food safety.	
2. Analyze the flow of food through a foodservice establishment.	DOK 2 IPS2, SS5, SS6, SS7, SS8, SS9, B2
a. Distinguish between situations in which contamination and cross-contamination can occur.	
b. Explain how time and temperature guidelines can reduce the growth of microorganisms.	
c. Differentiate between different types of thermometers and demonstrate how to use them.	
d. Outline proper procedures for receiving, storing, preparing, cooking, holding, cooling, reheating, and serving food that includes use of proper tools and equipment.	
3. Explain the importance of establishing a food-safety management system.	DOK 2 IPS2, IPS3, SS10
a. List the seven major steps in a Hazard Analysis Critical Control Points (HACCP) system.	
b. Explain the importance of the HACCP principles.	
4. Maintain a clean and sanitary kitchen.	DOK 1 IPS2, SS1, SS11
a. Define the difference between clean and sanitary.	
b. Demonstrate procedures for cleaning and sanitizing tools and equipment.	

Scenario

HACCP for Everyone:

Choose a recipe provided by the instructor. Identify the hazards for this dish, and determine the CCPs, critical limits, and monitoring procedures that your restaurant staff should use to keep the recipe safe.

Attachments for Scenario

None

Unit 3: Workplace Safety

Competencies and Suggested Scenarios	
1. Analyze how vital workplace safety is to customers and employees.	DOK 1 IPS3, SS3
a. Discuss the legal responsibility of the Occupational Safety and Health Administration (OSHA) and why it is important.	
b. Describe the Hazard Communication Standard requirements for employers.	
c. Identify the location and purpose of Material Safety Data Sheets.	
d. List ways to use protective clothing and equipment to prevent injuries.	
e. Describe procedures to manage robberies, natural disasters, food security, and vandalism.	
f. Explain the importance of completing standard reports for accidents or illnesses.	
2. Implement safe work habits to prevent injuries (ongoing).	DOK 2 IPS3, SS3
a. Classify fire hazards that contribute to accidental fires and the extinguishers used for each.	
b. Describe the ways to prevent and treat both fire and chemical burns.	
c. List hazards that contribute to injury due to slips, trips, or falls.	
d. Demonstrate the proper use of ladders.	
e. Demonstrate proper lifting and carrying procedures to avoid injury.	
f. Demonstrate correct and safe use of knives, including handling, walking, passing, washing, and storing.	
3. Explain emergency techniques and procedures.	DOK 1 IPS3, SS10
a. Describe basic first-aid concepts and procedures for choking, cuts, burns, falls, strains, electrical shocks, and heart attacks.	
b. Identify and describe external threats to a foodservice operation.	

Scenario

Safety Plan:

As the food and beverage manager for a large restaurant and banquet facility, you are responsible for the safety and well being of foodhandlers, serving staff, maintenance staff, administrators, and thousands of guests using your restaurant and banquet facility every day. Develop an outline of a comprehensive safety plan for your facility.

Attachments for Scenario

None

Unit 4: Professionalism and Utilizing Standard Recipes

Competencies and Suggested Scenarios	
1. Identify the attributes and assignments of a culinary professional. ^{DOK1 TPS0}	
a. Investigate the importance of a professional culinarian's attributes and work ethic, including knowledge, skill, flavor, aroma, taste, judgment, dedication, pride, respect, personal responsibility, and education.	
b. Investigate types of workstations in the culinary industry, including the kitchen brigade system and the dining room brigade system.	
2. Apply basic mathematical calculations to basic food preparation skills. ^{DOK 2 TPS10, SGM1, PRA1, TTA1}	
a. Given a list of numbers, add, subtract, multiply, and divide using basic math operations.	
b. Identify the components and functions of a standardized recipe.	
c. List the common equivalents of weights and measures, including both customary and metric measurement units.	
d. Convert a standardized recipe to smaller and greater quantities.	
e. Weigh and measure ingredients with smallware and utensils by weight and volume.	
f. Calculate amounts for as purchased (AP) and edible portion (EP).	
g. Calculate recipe cost, including total cost and cost per serving.	

Scenario

The Importance of Professionalism:

Professionalism means many things. What do you think are three of the most important parts of being a culinary professional and why? Prepare a brief report on your selections.

Calculating Recipe Cost:

A ratatouille recipe serves ten. The EP amounts required to make the recipe are as follows:

- 2 lb tomatoes (\$0.95/lb)
- 2 lb summer squash (\$0.79/lb)
- 1 lb eggplant (\$1.19/lb)
- 8 oz onion (\$0.52/lb)
- ½ oz garlic (\$0.35/lb)
- 1 fl oz olive oil (\$25/gal)
- ⅛ oz kosher salt (\$2/lb)

Using the Percentage Yields of Various Produce Items list, calculate the recipe cost, and then convert the recipe to yield 25 portions. What is the new recipe cost? Calculate the portion cost.

Attachments for Scenario

None

Unit 5: Equipment and Techniques

Competencies and Suggested Scenarios	
1. Demonstrate the safe use and maintenance of equipment needed for receiving and storing, pre-preparation, preparation, and holding and serving food and supplies. <small>DOK 2 IPS4, 1PS5, SS11</small>	
a. Demonstrate how to receive and store, pre-prep, prepare, hold, and serve food using standard kitchen equipment.	
b. Identify and use basic kitchen hand tools.	
c. Identify, use, and analyze the appropriate types and sizes of pots and pans.	
d. Identify different types of knives and demonstrate basic knife cuts, safety, and maintenance.	
2. Develop and demonstrate basic food preparation techniques. <small>DOK 2 IPS4, 1PS10, SS8, SGM4, PRA4, TTA2</small>	
a. Define the importance of and apply mise en place through practice.	
b. Use common spices and herbs appropriately.	
c. Demonstrate basic food pre-preparation techniques.	
3. Develop and demonstrate basic food cooking methods. <small>DOK 2 IPS4, 1PS5, 1PS6, SS8</small>	
a. Demonstrate the dry-heat cooking methods.	
b. Demonstrate the moist-heat cooking methods.	
c. Demonstrate the combination-cooking methods.	
d. Identify other cooking methods.	
e. Describe the importance of and common ingredients of a garnish.	
f. Design an appropriately garnished plate.	
4. Discuss the components of cooking and nutrition. <small>DOK 1 IPS6</small>	
a. Describe a healthy diet.	
b. Identify and describe the <i>Dietary Guidelines for Americans, 2010</i> and MyPlate.	
c. Use the <i>Dietary Guidelines for Americans</i> and MyPlate to plan and produce a meal.	
d. Interpret information on a nutrition label.	
e. Describe obesity and how it can be prevented.	

Scenario

My Restaurant:

Your 100-seat, casual dining restaurant will open later this year. What is your restaurant's theme, and how will your menu choices, which should include healthy nutritional options, reflect that theme? Select three cooking methods and develop an appetizer, an entrée (protein, starch, and vegetable), and a dessert based on each method. Include three knife cuts in your pre-preparation techniques. Include what equipment and tools you will use to prepare your menu. Plan how each plate will be designed. Write up your plan, providing diagrams of your plate presentations.

Attachments for Scenario

None

Unit 6: Stocks, Sauces, and Soups

Competencies and Suggested Scenarios	
1. Identify, prepare, and evaluate stocks.	DOK 3 2PS10, SS2, SS3, SS4, SS5, SS6, SS7, SS8
a. Identify the four essential parts of stock and the proper ingredients for each.	
b. Demonstrate methods for preparing bones for stock.	
c. List the ways to properly cool and degrease stock.	
d. Prepare the ingredients for and cook several kinds of stock.	
2. Identify, prepare, and evaluate sauces.	DOK 3 2PS10, SS2, SS3, SS4, SS5, SS6, SS7, SS8
a. Identify the grand sauces and describe other sauces made from them.	
b. List the proper ingredients for sauces.	
c. Prepare and match sauces to appropriate foods.	
3. Identify, prepare, and evaluate soups.	DOK 3 2PS10, SS2, SS3, SS4, SS5, SS6, SS7, SS8
a. Identify and give examples of the two basic kinds of soups.	
b. Demonstrate the preparation of clear soups.	
c. Demonstrate the preparation of thick soups.	

Scenario

Comparing Stocks:

Pick two different types of stock and write a short report comparing and contrasting the ingredients, cooking process, and nutritional value of each. Suggest three dishes for which each stock might be the base.

Which Sauce Should I Use?

Create a main dish with an accompanying sauce for a specific event as assigned by your teacher. Some examples might include a family brunch, a dinner at home, or an open house. Create the menu, and then describe why you chose that specific dish and sauce for the event.

Soup to Soup:

Typically, you would not serve multiple courses of soup at a meal; however, for this activity, create a soup appetizer, a soup main course, and a soup dessert. Make sure the flavors and textures are complementary.

Attachments for Scenario

None

Unit 7: Communication

Competencies and Suggested Scenarios
1. Identify positive communication skills. <small>DOK 1 2PS12</small> a. Identify effective communication skills. b. Identify the barriers to effective communication.
2. Demonstrate positive communication skills. <small>DOK 2 2PS12</small> a. List ways personal characteristics affect communication skills. b. List and demonstrate effective speaking skills. c. Model proper and courteous telephone skills through demonstrations. d. List and demonstrate effective writing skills.
3. Analyze organizational and interpersonal communication related to human resource management. <small>DOK 3 1PS0, 1PS8, SS12</small> a. Describe and model common elements of organizational communication. b. Demonstrate effective interpersonal communication skills.

Scenario

Enhancing Your Communication Skills:

Communication is a big part of daily living, and it is a skill that most people have mastered, right? Wrong. In fact, several techniques are available to develop better communication skills and enhance our relationships at home, school, and work.

Develop a personal plan for enhancing your communication skills and public image using the information you learned in this unit. Practice it for one week. At the end of the practice period, evaluate how your interactions have changed. Do you feel yourself becoming a more effective communicator? Why or why not? Present your plan and findings in a short report or blog.

Attachments for Scenario

None

Unit 8: Management Essentials

Competencies and Suggested Scenarios	
1. Analyze the importance of working together in the culinary industry.	DOK 2 TPS1, TPS2, SS9
<ul style="list-style-type: none">a. Discuss the difference between school and workplace environments.b. Explain how stereotypes and prejudices can negatively affect how people work together.c. Explain how diversity can have a positive effect in the workplace and how diversity can be promoted.d. Identify a respectful workplace and the guidelines for handling harassment claims.e. Explore the elements of teamwork.	
2. Identify the attributes of a successful leader in the culinary industry.	DOK 1 TPS0
<ul style="list-style-type: none">a. Define ethics and business ethics.b. Explore leadership characteristics.c. Discuss employee expectations of a manager and the manager's role in motivating employees.d. Explore organizational goals and why they should be SMART.e. Discuss vision and mission statements and how employees' roles and jobs impact them.f. Apply the problem-solving process to real-life situations.	
3. Analyze the importance of interviewing and orientation to the culinary industry.	DOK 2 TPS1, TPS2, SS9
<ul style="list-style-type: none">a. Discuss job descriptions and why they are important in the workplace.b. Differentiate between exempt and nonexempt employees.c. Explain the importance of knowledge of and compliance with labor laws.d. List and demonstrate effective legal interviewing skills.e. Explain the onboarding process.f. Discuss the employees' expectations of orientation and describe the items and topics addressed in orientation sessions and employee manuals.	
4. Analyze managerial skills related to training and evaluation.	DOK 3 TPS0, TPS8, SS12
<ul style="list-style-type: none">a. Analyze the benefits of training, what skills a trainer should have, and the key points of effective employee training.b. Analyze the benefits of cross-training, effective group training, and on-the-job training.c. List and apply effective techniques used in performance evaluations.	

Scenario

Hamburger University:

Perhaps you have heard of Hamburger University, McDonald's training center in Illinois. Each year, over 5,000 students from around the world attend training programs for managers and franchise-holders. Hamburger University helps develop leadership by encouraging innovative and original thinking while immersing students in McDonald's corporate culture. Research Hamburger University and the role it plays in maintaining the company's success. Then think about a restaurant you would like to own someday. First, identify the type of restaurant you'll have, the number of employees you'll hire, and the services and products you will provide. Then develop a vision statement for your restaurant. Now that you know what your restaurant will do and why it will do it, plan a training program for your future employees. Will it be similar to the program at Hamburger University? Why or why not?

Workplace Diversity Report:

Select a restaurant you admire for its products, for its corporate ethics, or for some other reason. Research its workplace diversity, both through its public statements and its actual employment practices. Create a one-page report that presents your findings.

Attachments for Scenario

None

Unit 9: Fruits and Vegetables

Competencies and Suggested Scenarios
1. Identify, store, and prepare fruits. <small>DOK 2 TPS11, SS6, SS7, SS8</small> <ol style="list-style-type: none">Identify the types and market forms of fruits.List and explain the USDA quality grades for fresh fruit.Identify and demonstrate the procedures for properly storing fruit.Prepare, cook, and serve fruit using appropriate preparation skills, cooking methods, and plating techniques.
2. Identify, store, and prepare vegetables. <small>DOK 2 TPS11, SS6, SS7, SS8</small> <ol style="list-style-type: none">Identify the types and market forms of vegetables.List and explain the USDA quality grades for fresh vegetables, including hydroponic vegetables.Identify and demonstrate the procedures for properly storing vegetables.Prepare, cook, and serve vegetables using appropriate preparation skills, cooking methods, and plating techniques.

Scenario

Fruit and Vegetable Cookbook:

Work with three other classmates to find two recipes that use a vegetable as an appetizer, two recipes that use a fruit as an appetizer, two recipes that use a vegetable as the main ingredient of a salad, two recipes that use a fruit as a main ingredient of a salad, two recipes that use a vegetable as an entrée, two recipes that use a fruit as an entrée, two recipes that use a vegetable as a dessert, and two recipes that use a fruit as a dessert. Compile the recipes to create a fruit and vegetable cookbook. Include storage, preparation, and plating techniques for each recipe.

Attachments for Scenario

None

Unit 10: Serving Your Guests

Competencies and Suggested Scenarios	
1. Analyze the importance of service to the culinary industry.	DOK 2 TPS1, TPS2, SS9
a. Explore the elements of service and hospitality, including first impressions.	
b. Explore the elements of excellent service, including anticipation of special customers' needs.	
2. Ensure a positive dining experience.	DOK 2 TPS0, TPS1, TPS2, TPS3
a. Identify and describe reservations and requests.	
b. Identify and describe greeting and taking guests' orders.	
c. Demonstrate suggestive selling techniques.	
d. Identify and describe professional alcohol service.	
e. Identify and describe processing payments.	
f. Identify and describe effective ways to get feedback on customer satisfaction.	
g. List ways to respond to and resolve customer complaints.	
3. Identify service styles, setup, and staff in the foodservice industry.	DOK 1 2PS4
a. Demonstrate the similarities and differences among American, French, English, Russian, and contemporary service styles.	
b. Identify the various types of traditional dining utensils and their proper use.	
c. Describe traditional service staff, and list the duties and responsibilities of each.	
d. Identify various service tools and the correct way to stock a service station.	
e. Demonstrate setting and clearing items properly for table service.	

Scenario

Mission Accomplished:

It can sometimes be difficult to ensure that all the employees at a large restaurant or foodservice establishment are maintaining the same high level of customer service. To make it easier, restaurants often adopt a mission statement, which defines an establishment's overall goals and philosophy. Write a mission statement for a restaurant you want to start, making sure to address customer service. Then, identify the specific steps you can take to make sure that you and your employees are treating your guests in ways that match your mission statement.

Service with a Style:

You're starting up a new mid- to upscale restaurant and need to determine what service style to use. You can choose one of the traditional service styles or combine aspects of different ones to create your own. Write up a one-page description of the service style you chose and why.

Allergies:

It is critical that servers be informed about the ingredients in each dish on the menu because of customers who suffer from food allergies, which can be fatal. Identify and research a food allergy or sensitivity, such as peanut, soy, or gluten, and prepare a two-paragraph summary of your findings. Identify some foods that contain these ingredients.

Attachments for Scenario

None

Unit 11: Potatoes and Grains

Competencies and Suggested Scenarios	
1. Select, store, prepare, and critique potatoes.	DOK 3 PS2, SS2, SS3, SS7, SS8
a. Outline methods to select, receive, and store potatoes.	
b. Using a variety of recipes and cooking techniques, prepare and cook potatoes.	
2. Select, store, prepare, and critique legumes and grains.	DOK 3 PS2, SS2, SS3, SS7, SS8
a. Outline methods to select, receive, and store legumes and grains.	
b. Using a variety of recipes and cooking techniques, prepare and cook legumes and grains.	
3. Select, store, prepare, and critique pasta and dumplings.	DOK 3 PS2, SS2, SS3, SS7, SS8
a. Outline methods to select, receive, and store pasta and dumplings.	
b. Using a variety of recipes and cooking techniques, prepare and cook pasta and dumplings.	

Scenario

Potato Matrix:

Create a comparison matrix of the different types of potatoes.

Type of potato	Origin	Nutritional Value	Appearance	Flavor	Cooking Method	Storage

What is a Legume?

What qualifies as a legume? Research the definition of legume, list at least five different legumes, and create a menu item that could be created with each.

Asian and Italian Pasta and Noodles:

Asian cuisine uses pasta-type noodles extensively. Compare and contrast Asian and Italian pasta/noodle foods. Write two paragraphs about your conclusions.

Attachments for Scenario

None

Unit 12: Building a Successful Career in the Industry

Competencies and Suggested Scenarios	
1. Formulate a plan for an effective job search. ^{DOK 1 IPS0}	<ol style="list-style-type: none">a. Identify the skills needed for a successful career.b. Explore the steps for searching for a job.c. Create an effective one-page résumé.d. Identify portfolios and the items that can be part of a portfolio.e. Create an eye-catching cover letter.
2. Complete applications effectively and prepare for a job interview. ^{DOK 1 IPS0}	<ol style="list-style-type: none">a. Complete a job, college, and scholarship application forms.b. Participate in a mock job interview.
3. Advance in a career. ^{DOK 1 IPS0}	<ol style="list-style-type: none">a. Identify the factors for maintaining health and wellness throughout a career.b. Identify the relationship between time and stress and the ways to manage both.c. Identify the steps to writing a letter of resignation.d. Identify the importance of and the opportunities for professional development.
4. Identify career opportunities in the culinary, lodging, travel, and tourism industry. ^{DOK 1 IPS0}	<ol style="list-style-type: none">a. Investigate entry-level job opportunities in the culinary industry, including hosts/cashiers, servers, quick-service counter servers, bussers, prep cooks, and dishwashers.b. Investigate career opportunities in the restaurant and foodservice industry, lodging, travel, and tourism industries.

Scenario

Creating Your Portfolio:

Create an electronic or paper portfolio using Microsoft PowerPoint software, Blackboard, or a binder. Your portfolio should include a cover page, table of contents, letter of introduction, résumé, and letters of recommendation. Content should include but not be limited to a list and samples of skills and abilities, samples of work, examples of problems solved, examples of demonstrating teamwork, leadership and responsibility, certificates, newsletters, reports, letters of thanks, test scores, and original recipes to showcase a collection of work.

Career Goals:

What do you hope to achieve professionally? Draft your career goals and then develop a time line for accomplishing your desires. Begin with an entry-level position and diagram at least three potential career paths.

Stress-Management Plan:

Stress-management plans are crucial to your professional and personal development. Create a stress-management plan to help you organize your life and goals.

Attachments for Scenario

Portfolio Assessment Rubric

Unit 13: Dairy Products, Breakfast Foods, and Sandwiches

Competencies and Suggested Scenarios	
1. Demonstrate preparation and handling of dairy products and eggs. <small>DOK 2 IPS7, SS6, SS7, SS8, B2</small>	
a. Explain the market forms of milk and how to keep milk products safe and sanitary.	
b. Differentiate between butter, butter substitutes, and margarine.	
c. Distinguish between and give examples of several types of cheeses.	
d. Identify the various grades and sizes of eggs.	
e. Prepare and critique breakfast egg items.	
2. Create and evaluate breakfast foods and drinks. <small>DOK 3 IPS7, SS6, SS7, SS8, B2</small>	
a. Identify basic breakfast foods and drinks.	
b. Prepare and critique basic breakfast foods and drinks.	
3. Construct and evaluate several types of sandwiches. <small>DOK 3 IPS7, SS6, SS7, SS8</small>	
a. Give examples of basic kinds of sandwiches and their components.	
b. Construct various sandwiches.	

Scenario

Wedding Brunch:

Create two complete breakfast menu options for a wedding brunch. Each menu must include a main course, side dishes, and beverage(s). Explain why you chose those specific menu options for the event. Prepare the menu.

Sandwich Station:

Create a flowchart that illustrates the most efficient way to make a hot sandwich and a cold sandwich. Your chart should start with the initial prepping of main ingredients and progress to final assembly of the sandwich on the plate. Set up a sandwich station to correspond to your flowchart and prepare your sandwiches. Take into consideration how the components will be arranged and how much space will be required. How will you control temperatures?

Attachments for Scenario

None

Unit 14: Nutrition

Competencies and Suggested Scenarios

- | |
|---|
| 1. Discuss the components of a healthy diet. ^{DOK 1 IPS6} <ol style="list-style-type: none">Describe the importance of a healthy diet.Identify and discuss the role of nutrients, including carbohydrates, lipids, proteins, vitamins, minerals, and water.Explain the role of digestion in the absorption of nutrients.Identify food additives and their functions.Describe a healthy diet and diseases caused by malnutrition. |
| 2. Design and produce a nutritious menu. ^{DOK 3 IPS6, B2} <ol style="list-style-type: none">Apply nutritional concepts to various ways of preserving nutrients throughout the flow of food.Apply nutritional concepts to various ways of making recipes more healthful, including modification of recipes to reduce excessive fats and salts.Explore recent developments in food production that have an effect on nutrition. |

Scenario

Nutrients:

Create a presentation that includes the type, major function, and a food source for each of the six main nutrient categories.

Diseases with Nutritional Implications:

Choose a disease or condition that has nutrition implications (diabetes, heart disease, kidney disease, obesity, failure to thrive, etc.). Find three Web sources, including American Dietetic Association's Web site, with diet and nutrition information pertaining to this condition. Write a report describing the condition and ascertain whether or not the information among the three sites is consistent.

Attachments for Scenario

<http://www.eatright.org>

Unit 15: Cost Control

Competencies and Suggested Scenarios	
1. Control food costs.	DOK 2 1PS10, SS6, SS7, SS8, PRA1
a. Outline and follow basic steps in controlling food costs.	
b. Calculate total food cost.	
c. Determine food-cost percentage.	
d. Calculate standard portion costs.	
e. Compute and compare the different methods of arriving at menu selling prices, including the food cost percentage method, contribution margin method, the straight markup pricing method, and the average check method.	
2. Control Labor Costs.	DOK 2 1PS10, SS6, SS7, SS8, PRA1
a. Outline how to budget labor costs.	
b. Explain the factors contributing to labor costs.	
3. Control Quality Standards.	DOK 2 1PS10, SS6, SS7, SS8, PRA1
a. Outline and follow purchasing and receiving, and storing procedures to control costs.	
b. Outline and follow quality standards for food production and service to control costs.	
c. Outline and follow quality standards for inventory to control costs.	

Scenario

Fruit Tray with Orange Dip:

Calculate the food cost, portion cost, and menu pricing for the Fruit Tray with Orange Dip recipe using the worksheet provided.

A Tale of Two Recipes:

Find a recipe online and write it two ways: edible portion (EP) and as purchased (AP). Write a report that discusses under what circumstances it would be appropriate to use each version.

Employee Policies and Cost Control:

Research the employee policies of two different restaurant or foodservice operations. What do they offer employees in terms of scheduling, benefits, and pay? Write a paragraph summarizing each of the two employee policies, and then, in an additional paragraph, explain which one you think is better in terms of controlling labor costs and why.

Attachments for Scenario

See Food Cost, Portion Cost, and Menu Pricing Practice worksheet on the following two pages.

FRUIT TRAY with ORANGE DIP

RECIPE YIELD: 30 appetizer servings

INGREDIENTS	QUANTITY	UNIT COST (\$)	EXTENDED COST (\$)
leaf lettuce	1 head	1.79/ea	
strawberries	2 qt	2.50/qt	
melon (cantaloupe, honey dew, or one-half watermelon)	1	3.00/ea	
pineapple chunks	3-15.5 oz. cans	1.09/ea	
grapes	1 lb	2.59/lb	
apples (preferably Fuji or Pink Lady)	3 or 4 (2 lb)	1.49/lb	
Sprite	1 12-oz can	.50/ea	
lemon juice	1 32-oz jar	.79/ea	
marshmallow crème	2 7-oz jars	.99/ea	
whipped topping	2 8-oz	1.99/12 oz	
orange juice	1/4 c	.99/16 oz	
fresh orange rind (or 2 tsp dried orange zest)	2 Tbsp	1.49/8 oranges	

TOTAL COST
COST PER SERVING

CALCULATE STRAIGHT MARK-UP:

FC% = 65%: _____

FC%= 50%: _____

FC%= 45%: _____

PORTION COST
PORTION COST
PORTION COST

State reasons for your decision on selling price:

SELLING PRICE

--

TEACHER'S KEY

FRUIT TRAY with ORANGE DIP

RECIPE YIELD: 30 appetizer servings

INGREDIENTS	QUANTITY	UNIT COST (\$)	EXTENDED COST (\$)
leaf lettuce	1 head	1.79/ea	1.790
strawberries	2 qt	2.50/qt	5.000
melon (cantaloupe, honey dew, or one-half watermelon)	1	3.00/ea	3.000
pineapple chunks	3 15.5-oz. cans	1.09/ea	3.270
grapes	1 lb	2.59/lb	2.590
apples (preferably Fuji or Pink Lady)	3 or 4 (2 lb)	1.49/lb	2.980
Sprite	1 12-oz can	.50/ea	0.500
lemon juice	1 32-oz jar	.79/ea	0.790
marshmallow crème	2 7 oz jars	.99/ea	1.980
whipped topping	2 8-oz containers	1.99/12 oz	2.653
orange juice	2 oz	.99/16 oz	0.124
fresh orange rind (or 2 tsp dried orange zest)	2 Tbsp	1.49/8 oranges	0.186
		TOTAL COST	24.863
		COST PER SERVING	

CALCULATE STRAIGHT MARK-UP:

FC% = 65%: _____	38.251	PORTION COST	1.275
FC%= 50%: _____	49.726	PORTION COST	1.658
FC%= 45%: _____	55.251	PORTION COST	1.842
		SELLING PRICE	

Unit 16: Salads and Garnishing

Competencies and Suggested Scenarios	
1. Prepare and evaluate various types of salads. <small>DOK 2 IPS9, SS6, SS7, SS8</small>	<ol style="list-style-type: none">a. Identify the ingredients, parts, and types of salads.b. Compare and contrast the different types of salads served throughout the course of a meal.c. Demonstrate appropriate methods to clean and store salads.
2. Prepare and evaluate salad dressings. <small>DOK 2 IPS9, SS6, SS7, SS8</small>	<ol style="list-style-type: none">a. Differentiate among different types of salad dressings.b. Identify different types of dips.
3. Demonstrate appropriate garnishing techniques. <small>DOK 3 IPS9, SS6, SS7, SS8</small>	<ol style="list-style-type: none">a. Describe the importance of a garnish and how it is used.b. Investigate ingredients used to garnish desserts and soups.

Scenario

The Classics:

In a small group, have each member research a classic salad. Some examples include salad nicoise, Waldorf salad, crab Louis, coleslaw, German potato salad, and caprese salad. Learn the ingredients, preparation, and a brief history of the salad, and then present your findings to the class.

Salad Bar:

Prepare a salad bar for your class using proper cleaning and storage techniques. Include each type of salad on your salad bar and use appropriate garnishes and dressings. Include at least one type of dip.

Garnishing:

Experiment with chocolate string-work garnishes on a dessert or on an empty dessert plate. Experiment with different shapes, techniques, and styles. Share your best creation with the class. Make as many garnishes for carrots as you can.

Attachments for Scenario

None

Unit 17: Purchasing and Inventory

Competencies and Suggested Scenarios	
1. Examine the purchasing process. <small>DOK 1 2PS7</small>	<ol style="list-style-type: none">a. Identify the major steps and basic goals in the purchasing process.b. Explain the relationship between primary and intermediary sources and retailers.c. Identify the goods and services that restaurants and foodservice establishments purchase.d. Explain what a buyer does and the difference between the formal and informal purchasing processes.
2. Explain and defend the decisions to be made when purchasing. <small>DOK 2 2PS7, PRA1, PRA5</small>	<ol style="list-style-type: none">a. Develop specifications based on quality standards.b. Conduct a make-or-buy analysis.c. Explain the production records used to determine what to purchase.d. Write purchase orders for items to be purchased.e. List the factors that influence food prices.
3. Explain the procedures for receiving, storing, and taking inventory of food and supplies. <small>DOK 2 2PS7, SS4, SS5, SS6, SS7, SS10</small>	<ol style="list-style-type: none">a. List proper receiving procedures.b. Discuss the proper storage procedures for orders.c. Explain why taking inventory is important, and differentiate between the physical inventory and the perpetual inventory methods.

Scenario

Charting the Purchasing Process:

Create a detailed flow chart that illustrates the entire purchasing process.

Make or Buy Caesar Dressing?

Your restaurant is known for its excellent Caesar salads, made with your secret salad dressing recipe. The recipe takes about 15 minutes to prepare, and the cook who usually makes it is paid \$12.00 an hour. One of your trusted specialty suppliers, who understands your high standards and attention to detail, brings you a sample of a prepared Caesar dressing to try. Both the prepared product and the homemade recipe are of similar quality, although the flavor is somewhat different. Conduct a make-or-buy analysis to determine which product is a better financial deal. Which dressing do you choose and why?

Jacqui's Famous Caesar Dressing: Makes 1.5 quarts		Freshmaker Direct Caesar Dressing	
(House-made dressing)		(Purchased from vendor)	
		\$32/gallon	
Amount	Ingredient	Total Cost	
2 Tbsp	Pasteurized egg yolk	\$1.00	
1 c	Olive oil	\$3.25	
3 c	Canola oil	\$4.00	
½ oz	Garlic	\$0.15	
2 each	Anchovies	\$0.90	
1 tsp	Dijon mustard	\$0.10	
½ each	Lemon	\$0.12	
4 oz	Parmesan cheese	\$2.00	
To taste	Hot sauce	-	
To taste	Worcestershire sauce	-	
To taste	Black pepper	-	

Attachments for Scenario

None

Unit 18: Meat, Poultry, and Seafood

Competencies and Suggested Scenarios	
1. Prepare, cook, and evaluate a quality meat product.	DOK 3 2PS8, SS2, SS3, SS4, SS5, SS6, SS7, SS8
a. Outline the federal inspection and grading systems for meat.	
b. Describe primary cuts of meat.	
c. Identify the factors that go into purchasing and receiving meat.	
d. Demonstrate proper procedures for preparing and cooking meat.	
2. Prepare, cook, and evaluate a quality poultry product.	DOK 3 2PS8, SS2, SS3, SS4, SS5, SS6, SS7, SS8
a. Outline the federal inspection and grading systems for poultry.	
b. Outline the forms of poultry and the guidelines for purchasing, fabricating, and storing poultry.	
c. Demonstrate proper procedures for preparing and cooking poultry.	
3. Prepare, cook, and evaluate a quality seafood product.	DOK 3 2PS8, SS2, SS3, SS4, SS5, SS6, SS7, SS8
a. Outline the federal inspection and grading systems for seafood.	
b. Outline the forms of seafood and the guidelines for purchasing, fabricating, and storing seafood.	
c. Demonstrate proper procedures for preparing and cooking seafood.	
4. Examine charcuterie and garde manger.	DOK 1 2PS7
a. Identify charcuterie and garde manger	
b. Outline the two types of charcuterie.	

Scenario

Matching Cuts with Cooking:

List the different cuts of beef, and then indicate whether dry or moist heat is best for each cut. Finally, create a menu item description for the dry heat and moist heat cut.

The WHOLE Chicken:

Create a menu that uses every usable part of a chicken. Name and describe each menu item.

Service with a Style!

Go to a local fish market or grocery-store fish department. Talk with an employee about the current local catch. Learn what is fresh and plentiful in your locale. Learn about the seasons of fish in your area. Report your findings in a one-page paper.

Cruise Ship Garde Manger:

Imagine that you are the garde manger on a luxurious cruise ship. You are asked to present an afternoon class for the passengers about the buffet displays that they see onboard the ship. Write an outline for your 20-minute class. Include descriptions or pictures of your displays.

Attachments for Scenario

None

Unit 19: Marketing

Competencies and Suggested Scenarios	
1. Explore marketing principles. ^{DOK 2 2PS6}	<ol style="list-style-type: none">a. Define marketing.b. Describe the contemporary market mix.c. Develop a marketing plan.d. Explain the purpose of SWOT and conduct a SWOT analysis.
2. Identify, analyze, and communicate with the market. ^{DOK 2 2PS6}	<ol style="list-style-type: none">a. Outline the basic types of research methods used to gather marketing information.b. Define market segmentation.c. Explain how to create a unique market identity.d. Demonstrate ways to communicate a message to the market.
3. Develop a menu as a marketing tool. ^{DOK 3 2PS6}	<ol style="list-style-type: none">a. Discuss what functions a menu serves.b. Differentiate between the different types of menus.c. Consider the factors that influence creating a menu and create a sample menud. Analyze methods used to price a menu.e. Analyze menu sales.

Scenario

Menu Creation and Pricing:

You plan to open a 50-seat, fine-dining restaurant later this year. What kind of menu would you choose? What kind of pricing formula? Develop three menu items using ingredients available from a local grocery, and then plan the recipes that will be needed to produce each. Cost each recipe to determine the cost of each menu item. What should the selling price of each menu item be? Show your calculations.

Dealing with the Local Competition:

Develop a marketing strategy for a new restaurant in your area. Research similar restaurant and foodservice operations in your community and discuss tactics that you would use to help the new establishment create its own unique identity. Prepare a two-page report of your ideas.

Attachments for Scenario

None

Unit 20: Desserts and Baked Goods

Competencies and Suggested Scenarios	
1. Describe bakeshop basics. <small>DOK 1 2PS5, SS6, SS7, SS8</small>	<ol style="list-style-type: none"> a. Identify and describe the function of common ingredients in baking. b. Describe primary percentages needed for baking.
2. Prepare, cook, and evaluate yeast breads. <small>DOK 3 2PS5, SS6, SS7, SS8</small>	<ol style="list-style-type: none"> a. Outline the two basic types of yeast bread dough and the two basic methods to make yeast breads. b. List the ten basic steps to making yeast bread. c. Demonstrate proper procedures for preparing and cooking yeast bread.
3. Prepare, cook, and evaluate quick breads and cake batters. <small>DOK 3 2PS5, SS6, SS7, SS8</small>	<ol style="list-style-type: none"> a. Define quick breads and cake batters and describe how to prepare them. b. Outline the three basic purposes for icing and describe the various types of icing. c. Identify steamed puddings and soufflés. d. Demonstrate proper procedures for preparing and cooking quick breads, cakes, icings, steamed puddings, and soufflés.
4. Prepare, cook, and evaluate pies, pastries, and cookies. <small>DOK 3 2PS5, SS6, SS7, SS8</small>	<ol style="list-style-type: none"> a. Identify the dough used in pie crust and describe how it is made. b. Identify the dough used in pastries. c. Describe the dough used for cookies and the seven makeup methods for cookie preparation. d. Demonstrate proper procedures for preparing and cooking pies, pastries, and cookies.
5. Create, prepare, and evaluate chocolate products. <small>DOK 3 2PS5, SS6, SS7, SS8</small>	<ol style="list-style-type: none"> a. Outline how chocolate is made, stored, and tempered. b. Demonstrate proper procedures for preparing and cooking a chocolate product.
6. Prepare, cook, and evaluate a specialty dessert. <small>DOK 3 2PS5, SS6, SS7, SS8</small>	<ol style="list-style-type: none"> a. Discuss the types of frozen desserts. b. Describe poached fruit and tortes. c. Identify dessert sauces and creams. d. Describe how desserts should be plated and presented. e. Demonstrate proper procedures for preparing and cooking a specialty dessert.

Scenario

Bread and Culture:

Bread is involved in many traditional and cultural events and ceremonies. Research one. Create a presentation to share with the class on the type of bread you chose, how it is made, the culture it comes from, the significance it has on that culture, and the kind of ceremony in which it is used.

Cookies of the World:

Research a traditional cookie from a foreign country. Describe the cookie, where it is from, how it is made, and include pictures.

Perfect Chocolate-Dipped Strawberry

Produce a chocolate-dipped strawberry. Rate the product from 1-5 according to the following criteria: quality of the berry, ease of eating, smoothness of the chocolate, appearance, and shine of the cooled chocolate.

Attachments for Scenario

None

Unit 21: Sustainability in the Restaurant Industry

Competencies and Suggested Scenarios	
1. Describe sustainability and water conservation in the foodservice industry. <small>DOK 1 CS1, CS4, CS5, CCW7, T1, T4, T6</small>	
a. Define sustainability and conservation.	
b. Defend the importance of water conservation and what a foodservice operation can do to conserve water.	
2. Determine the importance of energy conservation. <small>DOK 2 CS1, CS4, CS5, CCW7, T1, T4, T6</small>	
a. Differentiate between renewable and nonrenewable energy sources.	
b. Defend the importance of energy efficiency and what a restaurant or foodservice operation can do to become energy efficient.	
c. List the steps an operation can take to construct a more sustainable building.	
3. Describe waste management in the foodservice industry. <small>DOK 1 CS1, CS4, CS5, CCW7, T1, T4, T68</small>	
a. Outline ways to reduce total waste in a foodservice operation.	
b. Describe items a restaurant can reuse, reduce, and recycle.	
4. Investigate sustainable food practices in foodservice. <small>DOK 2 CS1, CS4, CS5, CCW7, T1, T4, T68</small>	
a. List current trends in local sourcing food practices, and explain how they influence the foodservice industry.	
b. List and explain the factors to be considered in sustainably produced seafood.	
c. Explain the issues surrounding sustainably produced coffee, animal products, and organic food.	

Scenario

Going Green:

Research a local, regional, or national restaurant or foodservice company that has a reputation for being “green.” What sustainable practices does this company use, and how are these practices promoted? What effect does this activity have on current and potential consumers? Could the company take other steps to become more “green”? Discuss your findings in a two-page essay.

Attachments for Scenario

None

Unit 22: Global Cuisine

Competencies and Suggested Scenarios	
1. Research the cuisines of North America. ^{DOK 1 2PS1}	<ol style="list-style-type: none">a. Explore the cultural influences and flavor profiles of the Northeast.b. Explore the cultural influences and flavor profiles of the Midwest.c. Explore the cultural influences and flavor profiles of the South.d. Explore the cultural influences and flavor profiles of the Southwest.e. Explore the cultural influences and flavor profiles of the Pacific Coast.f. Explore the cultural influences and flavor profiles of Mexico.
2. Research the cuisines of Central America and the Caribbean. ^{DOK 1 2PS1}	<ol style="list-style-type: none">a. Explore the cultural influences and flavor profiles of Central America.b. Explore the cultural influences and flavor profiles of the Caribbean.
3. Research the cuisines of South America. ^{DOK 1 2PS1}	<ol style="list-style-type: none">a. Explore the cultural influences and flavor profiles of Brazil.b. Explore the cultural influences and flavor profiles of Peru.
4. Research the cuisines of Europe. ^{DOK 1 2PS1}	<ol style="list-style-type: none">a. Explore the cultural influences and flavor profiles of France.b. Explore the cultural influences and flavor profiles of Italy.c. Explore the cultural influences and flavor profiles of Spain.
5. Research the cuisines of the Mediterranean. ^{DOK 1 2PS1}	<ol style="list-style-type: none">a. Outline the cultural influences and flavor profiles of Morocco.b. Outline the cultural influences and flavor profiles of Greece.c. Outline the cultural influences and flavor profiles of Tunisia.
6. Research the cuisines the Middle East. ^{DOK 1 2PS1}	<ol style="list-style-type: none">a. Explore the cultural influences and flavor profiles of Egypt.b. Explore the cultural influences and flavor profiles of Iran.c. Explore the cultural influences and flavor profiles of Saudi Arabia.
7. Research the cuisines of Asia. ^{2PS1}	<ol style="list-style-type: none">a. Explore the cultural influences and flavor profiles of China.b. Explore the cultural influences and flavor profiles of Japan.c. Explore the cultural influences and flavor profiles of India.

Scenario

Taste of North America:

Create a six-course meal incorporating one dish from each of the six regions of North America. You will need to include a recipe for each of the six dishes you use. Be sure to consider how the dishes will work together in terms of taste, texture, and the sequence in which they are served. Each dish should reflect what you feel is the essence of each region's cuisine. Include the recipes for each course that you chose.

Caribbean Meal:

Create a three-course meal focusing on Caribbean cuisine. Include an appetizer, entrée, and a dessert. Include the recipes for each course that you chose.

South American Seafood Dinner:

Create a three-course seafood menu, using ingredients and cooking techniques from South America. Include the recipes for each course that you chose.

European, Mediterranean, Middle Eastern, or Asian Dinner:

Create a three-course menu, using ingredients and cooking techniques of Europe, the Mediterranean, the Middle East, or Asia. Include the recipes for each course that you chose and a full explanation of the cooking methods you used.

Attachments for Scenario

None

Student Competency Profile

Student's Name: _____

This record is intended to serve as a method of noting student achievement of the competencies in each unit. It can be duplicated for each student, and it can serve as a cumulative record of competencies achieved in the course.

In the blank before each competency, place the date on which the student mastered the competency.

Unit 1: Introduction		
	1.	Research the creation of the modern restaurant.
	2.	Analyze the tourism and travel industry, and determine how the industry will change over time.
	3.	Analyze the lodging industry.
Unit 2: Food Safety and Sanitation		
	1.	Discuss and relate the importance of food safety to society.
	2.	Analyze the flow of food through a foodservice establishment.
	3.	Explain the importance of establishing a food safety management system.
	4.	Maintain a clean and sanitary kitchen.
Unit 3: Workplace Safety		
	1.	Analyze how vital workplace safety is to customers and employees.
	2.	Implement safe work habits to prevent injuries (ongoing).
	3.	Explain emergency techniques and procedures.
Unit 4: Professionalism and Utilizing Standard Recipes		
	1.	Identify the attributes and assignments of a culinary professional.
	2.	Apply basic mathematical calculations to basic food preparation skills.
Unit 5: Equipment and Techniques		
	1.	Demonstrate the safe use and maintenance of equipment needed for receiving and storing, pre-preparation, preparation, and holding and serving food and supplies.
	2.	Develop and demonstrate basic food preparation techniques.
	3.	Develop and demonstrate basic food cooking methods.
	4.	Discuss the components of cooking and nutrition.
Unit 6: Stocks, Sauces, and Soups		
	1.	Identify, prepare, and evaluate stocks.
	2.	Identify, prepare, and evaluate sauces.

	3.	Identify, prepare, and evaluate soups.
Unit 7: Communication		
	1.	Identify positive communication skills.
	2.	Demonstrate positive communication skills.
	3.	Analyze organizational and interpersonal communication related to human resource management.
Unit 8: Management Essentials		
	1.	Identify the attributes of a successful leader in the culinary industry.
	2.	Analyze the importance of interviewing and orientation to the culinary industry.
	3.	Analyze managerial skills related to training and evaluation.
	4.	Identify the attributes of a successful leader in the culinary industry.
Unit 9: Fruits and Vegetables		
	1.	Identify, store, and prepare fruits.
	2.	Identify, store, and prepare vegetables.
Unit 10: Serving Your Guests		
	1.	Analyze the importance of service to the culinary industry.
	2.	Ensure a positive dining experience.
	3.	Identify service styles, setup, and staff in the foodservice industry.
Unit 11: Potatoes and Grains		
	1.	Select, store, prepare, and critique potatoes.
	2.	Select, store, prepare, and critique legumes and grains.
	3.	Select, store, prepare, and critique pasta and dumplings.
Unit 12: Building a Successful Career in the Industry		
	1.	Formulate a plan for an effective job search.
	2.	Complete applications effectively and prepare for a job interview.
	3.	Advance in a career.
	4.	Identify career opportunities in the culinary, lodging, travel, and tourism industry.
Unit 13: Dairy Products, Breakfast Foods and Sandwiches		
	1.	Demonstrate preparation and handling of dairy products and eggs.
	2.	Create and evaluate breakfast foods and drinks.
	3.	Construct and evaluate several types of sandwiches.
Unit 14: Nutrition		
	1.	Discuss the components of a healthy diet.
	2.	Design and produce a nutritious menu.
Unit 15: Cost Control		

	1.	Control Food Costs.
	2.	Control Labor Costs.
	3.	Control Quality Standards.
Unit 16: Salads and Garnishing		
	1.	Prepare and evaluate various types of salads.
	2.	Prepare and evaluate salad dressings.
	3.	Demonstrate appropriate garnishing techniques.
Unit 17: Purchasing and Inventory		
	1.	Examine the purchasing process.
	2.	Explain and defend the decisions to be made when purchasing.
	3.	Explain the procedures for receiving, storing, and taking inventory of food and supplies.
Unit 18: Meat, Poultry, and Seafood		
	1.	Prepare, cook, and evaluate a quality meat product.
	2.	Prepare, cook, and evaluate a quality poultry product.
	3.	Prepare, cook, and evaluate a quality seafood product.
	4.	Examine charcuterie and garde manger.
Unit 19: Marketing		
	1.	Explore marketing principles.
	2.	Identify, analyze, and communicate with the market.
	3.	Develop a menu as a marketing tool.
Unit 20: Desserts and Baked Goods		
	1.	Describe bakeshop basics.
	2.	Prepare, cook, and evaluate yeast breads.
	3.	Prepare, cook, and evaluate quick breads and cake batters.
	4.	Prepare, cook, and evaluate pies, pastries, and cookies.
	5.	Create, prepare, and evaluate chocolate products.
	6.	Prepare, cook, and evaluate a specialty dessert.
Unit 21: Sustainability in the Restaurant Industry		
	1.	Describe sustainability and water conservation in the foodservice industry.
	2.	Determine the importance of energy conservation.
	3.	Describe waste management in the foodservice industry.
	4.	Investigate sustainable food practices in foodservice.
Unit 22: Global Cuisine		
	1.	Research the cuisines of North America.

	2.	Research the cuisines of Central America and the Caribbean.
	3.	Research the cuisines of South America.
	4.	Research the cuisines of Europe.
	5.	Research the cuisines of the Mediterranean.
	6.	Research the cuisines the Middle East.
	7.	Research the cuisines of Asia.

Appendix A: Unit References

Unit 1

Books: *Foundations of Restaurant Management and Culinary Arts Level One*

Online: <http://foodtimeline.org>; <http://www.schonwalder.org/historyFood.htm>;
<http://www.godecookery.com/afeast/afeast.htm>

Other: Inspiration software, Microsoft PowerPoint software

Unit 2

Books: *Foundations of Restaurant Management and Culinary Arts Level One*

Online: <http://www.fightbac.org/>

Other: Inspiration software, Microsoft PowerPoint software

Unit 3

Books: *Foundations of Restaurant Management and Culinary Arts Level One*

Online:

Other: Inspiration software, Microsoft PowerPoint software

Unit 4

Books: *Foundations of Restaurant Management and Culinary Arts Level One*

Other: Inspiration software, Microsoft PowerPoint software

Unit 5

Books: *Foundations of Restaurant Management and Culinary Arts Level One*

Online: <http://www.ardculinary.com/>; http://www.culinarycafe.com/Spices_Herbs/index.html

Other: Inspiration software, Microsoft PowerPoint software

Unit 6

Books: *Foundations of Restaurant Management and Culinary Arts Level One*

Other: Inspiration software, Microsoft PowerPoint software

Unit 7

Books: *Foundations of Restaurant Management and Culinary Arts Level One*

Other: Inspiration software, Microsoft PowerPoint software

Unit 8

Books: *Foundations of Restaurant Management and Culinary Arts Level One*

Online:

http://www.aboutmcdonalds.com/mcd/corporate_careers/training_and_development/hamburger_university.html

Other: Inspiration software, Microsoft PowerPoint software

Unit 9

Books: *Foundations of Restaurant Management and Culinary Arts Level One*

Other: Inspiration software, Microsoft PowerPoint software

Unit 10

Books: *Foundations of Restaurant Management and Culinary Arts Level One*

Online: <http://www.brightsettings.com/Setup-Tableware.html>

Other: Inspiration software, Microsoft PowerPoint software

Unit 11

Books: *Foundations of Restaurant Management and Culinary Arts Level One*

Online: <http://www.potatogoodness.com>

Other: Inspiration software, Microsoft PowerPoint software

Unit 12

Books: *Foundations of Restaurant Management and Culinary Arts Level One*

Online: <http://www.goprostart.com/>; <http://www.fcclainc.org/content/fccla/>;
<http://www.skillsusa.org/>; <http://www.coahomacc.edu/> <http://www.colin.edu/>;
<http://www.eccc.edu/>; <http://www.hindscc.edu/>; <http://www.holmescc.edu/>;
<http://www.iccms.edu/>; <http://www.jcjc.edu/>; <http://www.mcc.cc.ms.us/>;
<http://www.msdelta.edu/>; <http://www.mgccc.edu/>; <http://www.nemcc.edu/wordpress/>;
<http://www.northwestms.edu/web/>; <http://www.prcc.edu/>; <http://www.smcc.edu/>;
<http://www.alcorn.edu/>; <http://www.deltastate.edu/pages/1.asp>; <http://www.jsums.edu/>;
<http://www.msstate.edu/>; <http://web2.muw.edu/index.php>; <http://www.mvsu.edu/index.php>;
<http://www.usm.edu/>; <http://www.olemiss.edu/>;
<https://rcu.blackboard.com/webapps/portal/frameset.jsp>

Other: Inspiration software, Microsoft PowerPoint software, Blackboard

Unit 13

Books: *Foundations of Restaurant Management and Culinary Arts Level Two*

Online: <http://www.ciaprochef.com/coffee/index.html>; <http://www.cheese.com/>

Other: Inspiration software, Microsoft PowerPoint software, Blackboard

Unit 14

Books: *Foundations of Restaurant Management and Culinary Arts Level Two*

Online: <http://www.eatright.org>

Other: Inspiration software, Microsoft PowerPoint software, Blackboard

Unit 15

Books: *Foundations of Restaurant Management and Culinary Arts Level Two*

Online: <http://mathonline.southseattle.edu/math110/mat110culinary.html>

Other: Inspiration software, Microsoft PowerPoint software, Blackboard

Unit 16

Books: *Foundations of Restaurant Management and Culinary Arts Level Two*

Online: <http://www.foodtimeline.org/> <http://www.wish-bone.com/>;
<http://whatscookingamerica.net/History/SaladHistory.htm>; <http://www.hiddenvalley.com/>;
<http://foodstylin.com/>

Other: Inspiration software, Microsoft PowerPoint software, Blackboard

Unit 17

Books: *Foundations of Restaurant Management and Culinary Arts Level Two*

Other: Inspiration software, Microsoft PowerPoint software, Blackboard

Unit 18

Books: *Foundations of Restaurant Management and Culinary Arts Level Two*

Other: Inspiration software, Microsoft PowerPoint software, Blackboard

Unit 19

Books: *Foundations of Restaurant Management and Culinary Arts Level Two*

Online: scholarsarchive.jwu.edu/menus/

Other: Inspiration software, Microsoft PowerPoint software, Blackboard

Unit 20

Books: *Foundations of Restaurant Management and Culinary Arts Level Two*

Online: <http://baking911.com/>;
http://www.yesnet.yk.ca/schools/wes/webquests_themes/chocolate_linda/chocolate_theme.html

Other: Inspiration software, Microsoft PowerPoint software, Blackboard

Unit 21

Books: *Foundations of Restaurant Management and Culinary Arts Level Two*

Online: <http://www.epa.gov/>; <http://www.sierraclub.org/>

Other: Inspiration software, Microsoft PowerPoint software, Blackboard

Unit 22

Books: *Foundations of Restaurant Management and Culinary Arts Level Two*

Online: <http://www.zunal.com/process.php?w=12918;>
<http://www.epicurious.com/recipesmenus/global/recipes>

Appendix B: Glossary

Unit 1:

aboyeur: Expeditor who takes orders from servers and calls out the orders to the various production areas in the kitchen.

all-suite properties: Apartment-style facilities offered at midmarket prices. They have larger spaces that include a sitting area, often with dining space, and small kitchen or bar area, in addition to a bedroom and bath.

amenity: A service or product provided to guest for their convenience, either with or without an additional fee.

American Automobile Association's AAA *Tourbook*: The most widely recognized rating service in the United States; it uses a diamond system in judging overall quality.

back of the house: Employees who work outside the public space. Back-of-the-house positions include chef, line cooks, pastry chefs, dishwashers, bookkeepers, storeroom clerks, purchasers, dietitians, and menu planners.

bed and breakfasts: Cater to guest looking for quaint, quiet accommodations with simple amenities. Bed and breakfasts are usually privately owned homes converted to have several guest rooms. Guests are served breakfast during a specified time in a small dining room.

café: A coffeehouse usually offering pastries and baked goods.

cafeteria: An assembly line process of serving food quickly and cheaply without the need for servers.

chain: A group of restaurants owned by the same business organization.

chef: A mark of respect and distinction that describes a professional cook who has reached the position through hard work and dedication to quality.

concessions: A branch of a foodservice operation set up and operating in a place belonging to another commercial enterprise, such as a monument, museum, or ballpark.

contract feeding: Businesses that operate foodservice for companies in the manufacturing or service industry. Contractors will manage and operate the employee dining facilities.

convention: A gathering of people, all who have something in common. They are often all members of a particular organization, or they may simply be individuals who share a hobby.

convention centers: Facilities specifically designed to house large-scale special events, including conventions, expositions, and trade shows.

economy lodging: Clean, low-priced accommodations primarily designed for traveling salespeople, senior citizens, and families with modest incomes.

epicurean: A person with a refined taste for food and wine.

expositions: Large shows, open to the public, that highlight a particular type of product or service. Such shows give manufacturers and service providers a chance to display their offerings to many people at a single event.

front of the house: Employees who serve guests directly. Front-of-the-house positions include managers, assistant managers, banquet managers, dining room managers, maître d's, hosts, cashiers, bar staff, serving staff, and bussers.

full-service properties: Properties that cater to travelers in search of a wide range of conveniences. They offers larger rooms and well-trained staff and feature amenities such as swimming pools, room service, fitness centers, or services for business travelers.

gourmet: A lover of food and drink.

guilds: Associations of people with similar interests or professions.

haute cuisine: An elaborate and refined system of food preparation.

hospitality: The services that people use and receive when they are away from home. This includes, among other services, restaurants and hotels.

kitchen brigade system: A system that assigns certain responsibilities to kitchen staff. Developed by Georges August Escoffier.

lesche: Private clubs for the ancient Greeks that offered food to members.

luxury properties: Hotels that offer top-of-the-line comfort and elegance. While often defined as part of the full-service sector, luxury hotels take service and amenities to new heights of excellence.

Michelin Guide: A rating system better known in Europe than the United States, but it has recently begun rating organizations in the United States and elsewhere. Restaurants are rated from one to three stars.

mid-priced facilities: These fall somewhere between the full-service and economy sectors. They are designed for travelers who want comfortable, moderately-priced accommodations. Also known as tourist-class properties.

Mobil Travel Guides: A major American rating resource. The *Mobil Travel Guides* rate thousands of properties with a five-star system.

monuments: Typically either structures built to memorialize something or someone, or structures recognized for their historical significance. Examples of monuments include the Statue of Liberty, the Eiffel Tower, Mount Rushmore, and the pyramids.

pasteurization: Process of making milk safer to drink by heating it to a certain temperature to destroy harmful bacteria. Named for Louis Pasteur.

phatnai: Establishments that catered to travelers, traders, and visiting diplomats in ancient Greece.

POS system: “POS” means “point of sale” or “point of service.” POS refers to the place where some sort of transaction occurs. Although POS could be a retail shop or restaurant, a POS system generally indicates a computer terminal or linked group of terminals.

Property Management System (PMS) software: This technology can serve a variety of functions by which managers and staff can improve guest experiences, such as scheduling, database maintenance, accounting, and sales.

refrigeration: Keeps food from spoiling quickly and also helps to feed larger numbers of people.

resorts: Locations that feature extensive facilities for vacationers who are looking for recreational activities and entertainment.

restorante: In 1765, a man named Boulanger began serving hot soups called *restaurers* (meaning restoratives) for their health-restoring properties. He named his café a “restorante,” the origin of our modern word “restaurant.”

satellite/commissary feeding: When one kitchen prepares food that is then shipped to other locations to be served.

self operators: Employees at a manufacturing or service company who are also utilized for foodservice.

trade shows: Restricted to those involved in the industry being featured. Producers or manufacturers rent space at trade shows to exhibit, advertise, and demonstrate their products or services to people interested in that specific field.

travel and tourism: The combination of all of the services that people need and will pay for when they are away from home. This includes all of the businesses that benefit from people traveling and spending their money, such as transportation or restaurants.

Zagat Survey, The: A consumer-based guide that rates restaurants on four qualities: food, décor, service, and cost.

Unit 2:

bacteria: Cause many foodborne illnesses. Some bacteria, as they grow and die, create toxins (poisons) in food. Cooking may not destroy these toxins, and people who eat them can become sick.

bimetallic stemmed thermometer: Can check temperatures from 0°F to 220°F. This makes it useful for checking both hot and cold types of food.

calibration: Regular adjustments to tools to keep them accurate.

cleaners: Chemicals that remove food, dirt, rust, stains, minerals, and other deposits.

cleaning: Removing food and other dirt from a surface.

contact time: The specific period of time during which objects being sanitized must be immersed in a solution. The contact time depends on the type of sanitizer being used.

contamination: Occurs when harmful things are present in food making it unsafe to eat.

corrective action: Action taken to fix a problem if a critical limit hasn't been met.

critical control points (CCPs): The points in a process where identified hazard(s) can be prevented, eliminated, or reduced to safe levels.

critical limit: A requirement, such as a temperature requirement, that must be met to prevent, eliminate, or reduce a hazard.

cross-contact: The transfer of allergens from food containing an allergen to the food served to a customer.

cross-contamination: The spread of pathogens from one surface or food to another.

FAT TOM: A way to remember the six conditions pathogens need to grow: food, acidity, temperature, time, oxygen, and moisture.

first-in, first-out (FIFO) method: Rotation of food in storage to use the oldest inventory first. Many operations use the FIFO method to rotate refrigerated, frozen, and dry food during storage.

flow of food: The path that food takes in an operation. It begins when you buy the food and ends when you serve it.

food allergy: The body's negative reaction to a food protein.

food safety management system: A group of procedures and practices that work together to prevent foodborne illness.

foodborne illness: A disease transmitted to people from food.

foodborne-illness outbreak: When two or more people get the same illness after eating the same food items.

foodhandlers: This includes more than just the people who prepare food. Servers and even dishwashers are considered foodhandlers, because they either handle food directly or work with the surfaces that food will touch.

fungi: Can cause illness, but most commonly, they are responsible for spoiling food. Fungi are found in air, soil, plants, water, and some food. Mold and yeast are two examples of fungi.

handwashing: The most important part of personal hygiene.

hazard: Something with the potential to cause harm. In the preparation of food, hazards are divided into three categories: biological, chemical, and physical.

Hazard Analysis Critical Control Point (HACCP): A type of food safety management system. HACCP identifies major hazards at specific points within a food's flow through the operation.

high-risk populations: Certain groups of people who have a higher risk of getting a foodborne illness than others.

host: A person, animal, or plant on which another organism, such as a parasite, lives and feeds.

immune system: The body's defense against illness.

infrared thermometers: These thermometers, which measure the temperatures of food and equipment surfaces, do not need to touch a surface to check its temperature, so there is less chance for cross-contamination and damage to food.

inspection: A formal review or examination conducted to see whether an operation is following food safety laws.

integrated pest management program (IPM): A system that will prevent, control, or eliminate pest infestations in an operation.

master cleaning schedule: A schedule that contains what should be cleaned, who should clean it, when it should be cleaned, and how it should be cleaned.

mold: Molds grow under almost any condition, but especially in acidic food with little moisture. Molds often spoil food and sometimes produce toxins that can make people sick. Refrigerator and freezer temperatures may slow the growth of molds, but cold does not kill them.

parasites: Parasites are organisms that live on or in another organism (the host). The parasite receives nutrients from the host.

pathogens: The microorganisms that cause illness.

personal hygiene policies: These policies must address personal cleanliness, clothing, hand care, and health in order to prevent foodhandlers from contaminating food.

pest control operator (PCO): Experts at applying, storing, and disposing of pesticides who have access to the most current and safe methods for eliminating pests. They are trained to determine the best methods for eliminating specific pest and are knowledgeable about local regulations.

ready-to-eat-foods: Food that can be eaten without further preparation, washing, or cooking. sanitizing: Reducing pathogens on a surface to safe levels.

TCS food: Food that is most vulnerable for pathogen growth is also referred to as food that need time and temperature control for safety (TCS).

temperature danger zone: The temperature range between 41°F and 135°F. Pathogens grow well in food that has a temperature in this range.

thermocouples and thermistors: Common in restaurant and foodservice operations. They measure temperatures through a metal probe and display them digitally. The sensing area on thermocouples and thermistors is on the tip of the probe.

time-temperature abuse: Food that is cooked to the wrong internal temperature, held at the wrong temperature, or cooled and reheated improperly.

viruses: The leading cause of foodborne illness. Viruses can survive refrigerator and freezer temperatures.

yeast: Can spoil food quickly. The signs of spoilage include the smell or taste of alcohol, white or pink discoloration, slime, and bubbles.

Unit 3:

accident: An unplanned, undesirable event that can cause property damage, injuries or fatalities, time lost from work, or disruptions of work.

accident investigation: Each operation needs to have forms for reporting injuries or illnesses involving both guests and employees. The investigation involves eight steps:

1. Record information as soon as possible after the event occurs, ideally within one hour. Use OSHA-required forms as well as appropriate corporate or company forms.
2. Include a description of the event, the date, and two signatures on accident report forms.
3. Collect physical evidence or take pictures at the site.
4. Interview all people involved and any witnesses.
5. Determine as clearly as possible the sequence of events, the causes and effects, and the actions taken.
6. Submit reports to OSHA, the insurance carrier, lawyer, and corporate headquarters, as appropriate. Keep copies of all reports and photographs for your files.
7. Keep all employees informed of procedures and hazards that arise from the situation.
8. If they aren't already available, post emergency phone numbers in public places.

arson: The deliberate and malicious burning of property.

automatic systems: These fire-safety systems operate even when no one is in the facility and usually include a type of heat detector that releases dry or wet chemicals, carbon dioxide, or inert gases.

cardiopulmonary resuscitation (CPR): Restores breathing and heartbeat to injured persons who show no signs of breathing or a pulse.

class A fires: Usually involve wood, paper, cloth, or cardboard and typically happen in dry-storage areas, dining areas, garbage areas, and restrooms.

class B fires: Usually involve flammable liquids and grease and typically start in kitchens and maintenance areas.

class C fires: Usually involve electrical equipment and typically occur in motors, switches, cords, circuits, and wiring.

emergency plan: A plan designed to protect workers, guests, and property in the case of an emergency or disaster.

evacuation routes: Routes planned to give everyone at least two ways out of the building to a safe meeting place in case of emergency.

first aid: Medical treatment given to an injured person either for light injuries or until more complete treatment can be provided by emergency service or other health care providers.

flame detectors: Work by reacting to the movement of flames.

general safety audit: A safety inspection of facilities, equipment, employee practices, and management practices. The purpose of a general safety audit is to judge the level of safety in the operation.

Hazard Communication Standard (HCS): Also called Right-to-Know and HAZCOM. This safety standard requires that all employers notify their employees about chemical hazards present on the job and train employees to use these materials safely.

health hazards: Items (including chemicals) that cause short- or long-term injuries or illnesses.

heat detectors: Work by reacting to heat. Detect fires where there is no smoke. They are activated by the significant increase of temperature associated with fire.

Heimlich maneuver: Removes food or other obstacles from the airway of a choking person.

liability: The legal responsibility that one person has to another.

Material Safety Data Sheet (MSDS): A report OSHA requires from chemical manufacturers and suppliers for each hazardous chemical they sell.

near miss: An event in which property damage or injury is narrowly avoided.

Occupational Safety and Health Administration (OSHA): The federal agency that creates and enforces safety-related standards and regulations in the workplace.

OSHA Form No. 300: A summary of occupational injuries and illnesses that each operation maintains throughout the year.

physical hazards: Materials, situations, or things (including chemicals) that can cause damage to property and immediate injury.

premises: All the property around a restaurant or foodservice establishment.

safety program guidelines: Designed to meet the specific needs of the operation, these guidelines are based on existing safety practices and the insurance carrier's requirements.

smoke detectors: Work by reacting to smoke. Smoke detectors require a flow of air in order to work well and should not be used in food preparation areas.

Unit 4:

as purchased (AP): The amount of a product before it has been trimmed and cut and before being used in recipes.

baker's scale: Also called a **balance beam**. The weight of the item is placed on one end and the product is placed on the other end until the beam balances.

balance beam: Also called a **baker's scale**. The weight of the item is placed on one end and the product is placed on the other end until the beam balances.

borrowing: A technique often used when subtracting large numbers. If a digit in one column is too large to be subtracted from the digit above it, then 10 is borrowed from the column immediately to the left.

conversion chart: A list of food items showing the expected, or average, shrinkage from AP amount to EP amount.

conversion factor: $\text{Desire yield} \div \text{Original yield} = \text{Conversion factor}$, which is the number by which to multiply the ingredients.

culinarian: One who has studied and continues to study the art of cooking.

customary units: The most commonly used system of measurement in the United States is based on customary units. Some examples of these customary units are ounces, teaspoons, tablespoons, cups, pints, and gallons.

denominator: The lower portion of a fraction.

desired yield: The number of servings that are needed.

dividend: Larger numbers are divided using a combination of division and subtraction. The dividend is the number being divided and is placed inside the long division sign.

divisor: The divisor is the number by which another number (the dividend) is divided. It is placed outside the long division sign.

dry measuring cup method: Used to measure fat by packing the fat down into a cup, pressing firmly to remove air bubbles. Level off the top.

edible portion (EP): The amount left after vegetables have been trimmed and cut, and before being used in recipes.

electronic scale: A scale that measures resistance electronically.

equivalent: The same amount expressed in different ways by using different units of measure.

flavor: All the sensations produced by whatever is in the mouth, but mostly food's aroma and taste.

like fractions: Fractions in which the denominators can be divided into evenly.

lowest common denominator: The smallest number that both denominators can be divided into evenly.

measurement: How much of something is being used in a recipe.

metric units: Based on multiples of 10 and includes milliliters, liters, milligrams, grams, and kilograms. The metric system is the standard system used in many parts of the world, outside of the United States.

mise en place: French for "to put in place;" the preparation and assembly of ingredients, pans, utensils, and equipment or serving pieces needed for a particular dish or service.

numerators: The upper portion of a fraction.

nutrition information: May include amounts of fat (saturated and unsaturated), carbohydrates, protein, fiber, sodium, vitamins, and minerals.

percent: Part per 100. Percentages are a particularly important mathematical operation in foodservice operations.

personal responsibility: A term that indicates that a person is responsible for the choices he or she makes.

portion size: The individual amount that is served to a person.

recipe: A written record of the ingredients and preparation steps needed to make a particular dish.

respect: Having consideration for oneself and others.

sifting: A process that removes lumps from an ingredient and gives it a smooth consistency.

spring scale: A scale that measure the pressure places on the spring.

standardized recipes: Recipes for institutional use.

step-by-step instructions: How and when to combine the ingredients.

stick method: Used to measure fat that comes in $\frac{1}{4}$ pound sticks, such as butter or margarine. The wrapper is marked in tablespoons and in fractions of a cup.

taring: Accounting for the weight of the container in which the item is located when correctly weighing an item.

temperature, time, and equipment: Includes size and type of pans and other equipment needed, the oven temperature, cooking time, and any preheating instructions.

umami: One of the five basic tastes: salt, sour, bitter, sweet, and **umami** (or savory).

volume: The amount of space an ingredient takes up.

water displacement method: Used to measure fat by combining fat with water in a liquid measuring cup. First, do some math: subtract the amount of fat to be measured from one cup. The difference is the amount of water to pour into the measuring cup.

weight: The measurement of an item's resistance to gravity. Weight is expressed in ounces and pounds.

work section: A group of workstations using the same or similar equipment for related tasks.

workstation: A work area in the kitchen dedicated to a particular task, such as broiling or salad making.

yield: The number of servings or the amount the recipe makes.

Unit 5:

Adequate intakes: Similar to RDAs, they also identify daily intake levels for healthy people, but AIs are typically designed when scientists don't have enough information to set an RDA.

bain-marie: Any type of hot-water bath meant to keep food items warm.

baker's scale: Also called a balance scale: this weighs dry ingredients in the bakeshop area.

baking: Cooking food by surrounding the items with hot, dry air in the oven. As the outer layers of the food become heated, the food's natural juices turn to steam and are absorbed into the food.

balance scale/baker's scale: A balance scale weighs dry ingredients in the bakeshop area.

barding: Wrapping an item (usually a naturally lean piece of meat, such as a pork tenderloin) with strips of fat before cooking to baste the meat, making it more moist.

basket method: When deep-frying an item, bread the food, place it in a basket, lower the basket and food into the hot oil, and then lift it all out with the basket when the food is done.

batter: A combination of dry and wet ingredients. It is a mixture of the primary dry ingredient (wheat flour, all-purpose flour, cornmeal, rice flour), the liquid (beer, milk, wine, water), and a binder (usually egg), which helps the mixture adhere to the product.

bench scraper: A rigid, small sheet of stainless steel with a metal blade use to scrape material off a work surface or "bench" or to cut or portion soft, semi-firm items (like bread dough or cookie dough).

bimetallic coil thermometer: A thermometer that stays in food as it cooks and provides an instant read.

blade: The cutting surface of a knife.

blanching: A moist-heat method of cooking that involves cooking in a liquid or with steam just long enough to cook the outer portion of the food.

Blanquette: A white stew made traditionally from veal, chicken, or lamb, garnished with mushrooms and pearl onions, and served in a white sauce.

bolster: Located at the heel of a knife blade where the blade meets the handle.

boning knife: A 6-inch knife used to separate raw meat from the bone. The blade is thin, flexible, and shorter than the blade of a chef's knife.

bouillabaisse: A Mediterranean fish stew combining a variety of fish and shellfish.

bowl scraper: A flexible piece of rubber or plastic used to combine ingredients in a bowl and then scrap them out again, to cut and separate dough, and to scrape extra dough and flour from wooden work tables.

braising: A cooking method in which the preparer first sears the food item in hot oil and then partially covers it in enough liquid to come halfway up the food item. Then, they cover the pot or pan tightly and finish cooking the food slowly in the oven or on the stovetop until it is tender.

braising pan: A high-sided, flat-bottomed cooking pan used to braise, stew, and brown meat. Also called a brazier or a rondeau.

brazier: A medium to large pot, more shallow than sauce pots, with straight sides and two handles for lifting. Also called a rondeau.

breeding: Has the same components as batter, but they are not blended together. A standard breeding would be seasoned all-purpose flour and an egg and buttermilk dip.

broiling: A rapid cooking method that uses high heat from a source located above the food.

butcher knife: Also known as a scimitar, cooks use the butcher knife to fabricate raw meat. It is available with 6- to 14-inch blades.

butt: The end of a knife handle.

butter knife: A small knife with a blunt-edge blade used to spread butter, peanut butter, and cream cheese on bread or dinner rolls.

cake pans: Baking pans with straight sides. They are available in a variety of sizes and shapes including round, rectangular, square, and specialty (such as heart-shaped).

can opener: In restaurant and foodservice kitchens, can openers are mounted onto metal utility tables because they are used to open large cans. A small handheld , like those for home use, may be used in a restaurant or foodservice kitchen to open small cans of food.

carbonated beverage machine: This machine is attached to tanks that hold the premixed blends for selected soft drinks and to a tank that contains CO². Pressing the switch on the unit automatically mixes the blend and gas to make the completed beverage.

carryover cooking: This is what happens to food after it has been removed from the oven, when the roasted item holds a certain amount of heat that continues to cook the food.

cast-iron skillet: A heavy, thick pan made of cast iron. Use it to pan grill, pan-fry, and braise food items such as meat or vegetables.

ceramic steels: Slender ceramic rods embedded in a wooden handle. They are used both on ceramic and metal knives to hone sharpened knives.

chafing dishes: Used to keep food items hot on a buffet table. The heat sources for chafers are sterno that are placed underneath the chafers filled with hot water.

channel knife: A small knife used to cut grooves lengthwise in a vegetable such as a carrot.

charbroiler: Uses gas or electricity to mimic the effects of charcoal in a grill. Food juices drip onto the heat source to create flames and smoke, which add flavor to broiled food items.

cheesecloth: A light, fine mesh gauze for straining liquids, such as stocks or custards, for bundling herb, or for thickening yogurt.

cheese knife: A thinly shaped utensil that cooks use to cut through hard or soft-textured cheese.

chef's (French) knife: An all-purpose knife for chopping, slicing, and mincing all types of food items. Its blade is normally 8 to 14 inches long and tapers to a point at the tip.

China cap: A pierced, metal, cone-shaped strainer used to strain soups, stocks, and other liquids to remove all solid ingredients.

chinois: A very fine China cap made of metal mesh that strains out very small solid ingredients.

clam knife: A short, blunt-point knife used to shuck, or open, clams. Unlike the oyster knife, it has a very sharp edge.

cleaver: A heavy, rectangular knife used to chop all kinds of food, from vegetables to meat. It is also used to cut through bones.

colander: Used to drain liquid from cooked pasta and vegetables. Colanders stand on metal feet, while strainers are usually handheld.

combination cooking: A combination of both dry-heat and moist-heat cooking methods.

combi-oven: Combines a convection oven with a steamer. Using a combi-oven, cooks can work with convective steam, with convective dry hot air, or with a combination of both. These are very efficient, flexible units, but they are relatively expensive.

conduction: The transfer of heat from one item to another when the items come into direct contact with each other.

convection: The transfer of heat caused by the movement of molecules (in the air, water, or fat) from a warmer area to a cooler one.

convection oven: Has a fan that circulates heated air around the food as it cooks. This shortens cooking times and uses energy efficiently.

convection steamers: Steam is generated in a boiler and then piped to the cooking chamber, where it is vented over the food. Pressure does not build up in the unit. Rather, it is continually exhausted, which means the door may be opened at any time without danger of scalding or burning as with a pressure steamer. Cooks use convection steamers to cook large quantities of food.

conventional (standard) oven: The heat source is located on the floor of the oven. Heat rises into the cavity, or open space in the oven, which contains racks for the food to sit on as it cooks. These ovens are usually located below a range-top burner.

conveyor oven: In this type of oven, a conveyor belt moves the food along a belt in one direction. It cooks with heat sources on both top and bottom.

cook's fork (kitchen fork): A fork with two long, pointed tines used to test the doneness of braised meat and vegetables, to lift items to the plate, and to steady an item being cut.

cookware: Pots and pans.

corer: A small tool used to remove the core of an apple or pear in one long, cylindrical piece.

countertop blender: Used to purée, liquefy, and blend food. The blender consists of a base that houses the motor and a removable lidded jar with a propeller-like blade in the bottom.

countertop broiler: A small broiler that sits on top of a worktable. Primarily quick-service restaurants use these. The heat source is located above the food and produces an intense radiant heat.

crêpe pan: A shallow skillet with very short, slightly sloping sides. Used to create crêpes, a specialty pancake.

cuisson: The liquid from shallow poaching, which transfers much of the flavor of the food from the food item to the liquid. The liquid is used as a sauce base.

cutting edge: The edge located along the bottom of a knife blade between the tip and the heel. Use it for slicing, carving, and making precision cuts.

daube: A braised dish usually made with red meat, often beef, vegetables, red wine, and seasoning. The main item is often marinated before braising.

deck oven: A deck oven is a type of conventional oven in which two to four shelves are stacked on top of each other. Cook food directly on these shelves, or decks.

deep-fat fryer: Gas and electric fryers cook food in oil at temperatures between 300°F and 400°F. Some computerized fryers lower and raise the food baskets automatically.

deep-frying: Breading- or batter-coating food, immersing (completely covering) it in hot fat, and frying it until it is done. The outside of the food item develops a crispy coating while the inside stays moist and tender.

deglazing: Process of using liquid in the bottom of a pan to dissolve the remaining bits of sautéed food.

deli knife: A knife with a serrated blade used for thick sandwiches. The most common deli knife is 8 inches.

diamond steels: Slender metal rods, or sometimes flattened rods, that are impregnated with diamond dust. They should not be used to hone ceramic knives.

Dietary Guidelines for Americans 2005: A document published jointly by the Department of Health and Human Services and the USDA. This report offers science-based advice for healthy people over the age of two about food choices to promote health and reduce risk for major chronic diseases.

digital (electronic) scale: A precise scale used to measure weight. Provides a digital readout in both U.S. and metric systems.

discretionary calorie allowance: The remaining amount of calories in a food intake pattern after accounting for the calories needed from all food groups.

double boiler: A pot that has an upper pot and a lower pot. The lower pot holds boiling or simmering water that gently cooks the food in the upper pot; used for melting chocolate or heating milk, cream, or butter.

double-basket method: When deep-frying certain food items, they need to be fully submerged in hot oil for a longer period of time in order to develop a crisp crust. In this method, place the food item in a basket, then fit another basket on top of the first. The top basket keeps the food from floating to the surface of the oil.

dough arm (hook): A mixer attachment used to mix heavy, thick dough.

espresso machine: Produces the traditional Italian coffee beverage called espresso, a concentrated coffee beverage brewed by forcing hot water under pressure through finely ground coffee.

estouffade: This French term refers to both the braising method and the dish itself (a beef stew made with red wine).

fillet knife: A thin, flexible blade for cutting fish fillets. It is a short knife, about 6 inches long.

fish poacher: A long, narrow, metal pan with a perforated rack that cooks use to raise or lower the fish so it doesn't break apart.

fish scaler: A small tool used to remove scales from fish.

flat beater paddle: Used in a mixer to mix, mask, and cream soft food items.

flat ground and tapered: When the cutting edge of a knife has both sides of the blade taper smoothly to a narrow V-shape.

flat-top burner: Also called a French top; a flat-top burner cooks food on a thick slate of cast iron or a steel plate that covers the heat source. A flat-top burner provides even and consistent heat.

flavor: The way a food tastes, as well as its texture, appearance, doneness, and temperature.

flavoring: Something that enhances the base ingredients of a dish or can bring another flavor to the product.

float: The point when deep-frying an item when the item rises to the surface of the oil and appears golden brown; this indicates doneness.

fondue pot: A pot with a heat source directly below the pot; use it for a food preparation process known as fondue.

food chopper: Chops vegetables, meat, and other food using a vertical rotating blade and a bowl that rotates the food under the blade. This unit is often called a buffalo chopper.

food mill: A machine that comes with several detachable parts. Cooks use it to purée food to different consistencies.

food processors: A processing machine that houses the motor separately from the bowl, blades, and lid. Food processors grind, purée, blend, crush, and knead food.

food warmer or steam table: This unit differs from the bain-marie in two ways. First, the unit is designed to hold hotel pans, either one full-size pan or multiple smaller pans per slot. Second, different types of units are designed to work with water in the holding unit, without water, or either way.

forged blade: Cutting surface of a knife made from a single piece of heated metal that is dropped into a mold and the struck with a hammer and pounded into the correct shape.

fricassée: A white stew, often made from veal, poultry, or small game.

funnel: Use a funnel to pour liquid from a large to a smaller container.

garnish: Enhances the food being served. A garnish should be something that will be eaten with the item, functioning as a flavor component, while visually adding to the appearance of the item.

goulash: This stew originated in Hungary and is made from beef, veal or poultry, seasoned with paprika, and usually served with potatoes or dumplings.

granton: A type of knife edge in which ovals are ground into the sides of a blade, which helps food to release easily.

grater: A small tool used to grate hard cheeses, vegetables, potatoes, and other food items.

griddle: Similar to a flat-top range, a griddle has a heat source located beneath a thick plate of metal. Cook food directly on this surface, which is usually designed with edges to contain the food and a drain to collect waste.

griddling: Cooking a food item on a hot, flat surface (known as a griddle) or in a relatively dry, heavy-bottomed fry pan or cast-iron skillet.

grilling: A very simple dry-heat method that is excellent for cooking smaller pieces of food. The food is cooked on a grill rack above the heat source.

guiding hand: When using a knife, the guiding hand is the one that is not holding the knife; it prevents slippage and helps to control the size of the cut.

handle: The part of a knife that you grip. Made with various materials including hardwoods or textured metal.

heel: The widest and thickest part of a knife blade. The heel is used to cut through large, tough, or hard food.

herbs: The leaves, stems, or flowers of an aromatic plant.

hollow-ground: When the sides of a knife blade near the edge are ground away to form a hollow, making the blade extremely sharp.

honoring: The regular maintenance required to keep knives in the best shape.

honoring steel: When performing knife maintenance, this steel helps remove broken pieces and realign the remaining ground edges. It looks like a short sword with a round blade.

horizontal cutter mixer (HCM): This mixer cuts, mixes, and blends food quickly with a high-speed horizontal rotating blade that is housed in a large bowl with a tight cover.

hot box: This is an insulated piece of equipment designed to hold sheet pans and hotel pans.

hotel broiler: Use this large, radiant broiler to broil large amounts of food quickly.

hotel pan: Used to hold prepared food in a steam table, hot-holding cabinet, or refrigerator. These are sometimes used for baking, roasting, or poaching meat and vegetables.

hot-holding cabinet: A heavily insulated cabinet designed to hold either hotel pans or sheet pans on racks in the interior. A thermostat controls the temperature so that the cabinet holds food at the desired temperature.

ice machine: Make ice cubes, flakes, chips, and crushed ice.

immersion blender: Also known as a hand blender, stick blender, or burr mixer. It is a long, stick-like machine that houses a motor on one end of the machine with a blade on the other end. This operates in the same manner as a countertop blender to purée and blend food, except that a cook holds it manually in a container of food, whereas a countertop blender contains the food itself.

induction burner: Generates heat by means of magnetic attraction between the cooktop and a steel or cast-iron pot or pan. The cooktop itself remains cool. Reaction time is significantly faster with the induction cooktop than with traditional burners. Do not use pans on this burner that contain copper or aluminum. They will not work.

infrared heat: Created when the heat from a source is absorbed by one material and then radiated out to the food.

kitchen shears: Strong scissors used to cut string and butcher's twine and cut grapes into small clusters.

lacto-ovo-vegetarian: Person who consumes all vegan items plus dairy products and eggs.

lacto-vegetarian: Person who consumes all vegan items plus dairy products.

ladle: Used to portion out liquids; available in various sizes measured in fluid ounces and milliliters.

larding: Inserting long, thin strips of fat into a large, naturally lean piece of meat with a special needle before cooking with the purpose of basting the meat from the inside.

lettuce knife: A plastic serrated knife designed to cut lettuce without causing the edges of the lettuce to turn brown.

mandolin: A manually operated slicer made of stainless steel with adjustable slicing blades to slice and julienne. Its narrow, rectangular body sits on the work counter at a 45-degree angle. It is useful for slicing small quantities of fruit or vegetables, situations where a large electric slicer isn't necessary.

marinating: Soaking an item in a combination of wet and dry ingredients to provide flavor and moisture.

matelote: A special type of fish stew, usually prepared with eel.

measuring cup: Measures varying quantities of both dry goods and liquids. Measuring cups with spouts measure liquids, and those without spouts measure dry ingredients.

measuring spoon: Cooks use this item to measure small quantities of spices or liquids. The spoons measure the amounts of $\frac{1}{8}$ teaspoon (not all sets include this smallest size), $\frac{1}{4}$ teaspoon, $\frac{1}{2}$ teaspoon, 1 teaspoon, and 1 tablespoon.

meat grinder: A free-standing machine or an attachment for a standing mixer. Food is dropped through a feed tube, pulled along by a metal worm, and then cut by blades as the food is forced out through the grinder plate.

meat slicer: Most have a slanted circular blade. Food either passes through the machine automatically, or a cook pushes a hopper holding the product along a carriage into the blade. The thickness of the slicer is set by increasing and decreasing the distance between the guide plate and the blade.

microwave oven: Heats food not with heat, but with microwaves of energy that cause a food's molecules to move rapidly and create heat inside the food.

mise en place: French for "to put in place." It refers to the preparation and assembly of ingredients, pans, utensils, equipment, or serving pieces needed for a particular dish or service.

mixer: Available in 5-quart, 20-quart, 60-quart, and 80-quart sizes. Used to mix and process large amounts of food with any number of specialized attachments, including paddles, wire whips, dough hooks, meat grinders, shredders, slicers, and juicers.

muffin tins: Small, round cups or molds used to make muffins, cupcakes or other small baked goods.

MyPyramid: This food guide from the USDA, along with the Nutrition Facts Panel, serves as a tool to help people put dietary guidelines into practice. MyPyramid translates the RDAs and dietary guidelines into the kinds and amounts of food to eat each day.

navarin: A stew usually prepared from mutton or lamb, with a garnish of root vegetables, onions, and peas. The name probably comes from the French word for turnips (navets), which are used as the principal garnish.

Nutrition Facts Panels: Help people select the appropriate packaged food products for their nutritional needs.

obese: A person who is overweight or has a weight that is greater than what is generally considered healthy.

offset spatula: A small tool used to turn food items on a griddle or broiler. It has a wide, chisel-edged blade and a short handle.

open burner: A grate-style gas burner supplies direct heat by way of an open flame to the item being cooked. The heat can be easily controlled.

overportioning: When too great an amount of an item is served to guests, resulting in increased cost and lower profit from an item.

ovo-vegetarian: Person who consumes all vegan food items plus eggs.

oyster knife: A short stubby knife with a pointed tip for shucking oysters.

pan-frying: Cooking food in an oil over less intense heat than that used for sautéing or stir-frying.

pans: Usually smaller and shallower than pots. Pans are used for general stove top cooking, especially sautéing, frying, or reducing liquids rapidly, baking, and for holding food.

par-cooking: See *blanching*.

paring knife: A small knife with a sharp blade, only 2 to 4 inches long, used to trim and pare vegetables and fruits.

parisienne scoop: Also called a melon baller; used to cut ball shapes out of soft fruits and vegetables.

pastry bag: A bag made of canvas, plastic, or nylon which is used to pipe out frosting, creams, and puréed food. Different pastry tips create a variety of decorations.

pastry brush: A small brush used to brush egg wash, melted butter, glazes, and other liquids on items such as baked goods, raw pasta, or glazes on meats.

pastry knife (paddle): Used in a mixer to mix shortening into dough.

paupiettes: Thin slices of meat or fish rolled around a filling of ground meat or vegetables. Often shallow poached.

peeler: A small tool used to cut a thick layer from vegetables and fruits more efficiently than a paring knife.

pie server: A specially shaped spatula made for lifting out and serving pieces of pie.

pipng tools: Include piping bags (canvas, plastic, disposable), decorative tips (metal, plastic, of varying shapes), and presses (cylinders with a handle on one end that force dough through a metal cutout).

pizza cutter: A small tool used to cut pizza and rolled-out dough.

plating: The decision about what serving vessel will be used to present the product as well as the layout of the item on the plate or in the bowl. Garnishing of the item is included in this decision.

poaching: Cooking food in liquid between 160°F and 180°F. The surface of the poaching liquid should show some motion, but no air bubbles should break the surface.

portion: The amount of an item that is served to the guest.

portion scale: Use this scale to measure recipe ingredients, from ¼ ounce to 1 pound to 2 pounds.

pot-roasting: A common American term for braising as well as the name of a traditional dish.

pots: Available in a range of sizes based on volume; use them on the stove top for making stocks or soups, or for boiling or simmering food.

pressure steamer: Cooks food with high-temperature steam. Water is heated under pressure in a sealed compartment allowing it to reach temperatures greater than 212°F. It's very important to release the pressure before opening the door on a pressure steamer.

radiation: Does not require physical contact between the heat source and the food being cooked. Instead, heat moves by way of microwave and infrared waves.

ragout: This is a French term for stew that means "restores the appetite."

reach-in freezer: A freezer that can have one, two, or three internal compartments.

reach-in refrigerator: A refrigerator that can have one, two, or three internal compartments.

receiving table/area: Location where employees weigh, inspect, and check delivered items.

Recommended Dietary Allowances: Daily nutrient standards established by the U.S. government. They are the average daily intakes that meet the nutrient requirements of nearly all healthy individuals of a particular age and gender group.

recovery time: When deep-frying, this is the amount of time it takes oil to reheat to the correct cooking temperature once food is added. The more food items dropped in the oil at one time, the longer the recovery time.

ricer: A pierced hopper (small basket-shaped container that holds the material) through which cooked food is pressed by means of a plate on the end of a lever. The result is rice-like pieces.

ring-top burner: With a ring-top burner, cooks add or remove different-sized rings or plates to allow more or less heat to cook the food item. A ring-top burner provides direct, controllable heat. It can be either gas or electric.

rivets: On a knife, they hold the handle to the tang.

roasting: Cooks food by surrounding the items with hot, dry air in the oven. As the outer layers of the food become heated, the food's natural juices turn to steam and are absorbed into the food.

roasting pan: A shallow, rectangular pan with medium-high sides and two handles. Use it to roast and bake food items, such as meat and poultry.

rolling pin: A cylinder that cooks use to roll over pastry to flatten or shape it.

rondeau: A medium to large pot, more shallow than a sauce pot, with straight sides and two handles for lifting. Also called a brazier.

rotary oven: Has three to five circular shelves on which food cooks as the shelves move around a central rod.

rotisserie: A unit in which cooks place food on a stick, or spit, and roast it over or under a heat source. The unit may be open or enclosed like an oven. Cooks use it most often for cooking chicken, turkey, and other types of poultry.

rubber spatula: A spatula with a long handle, often called a scraper, used to fold ingredients together and scrape the sides of bowls.

salamander: A small radiant broiler usually attached to the back of a range. Use it to brown, finish, and melt food to order.

sandwich spreader: A short, stubby spatula that cooks use to spread sandwich fillings and condiments.

santoku: A general-purpose kitchen knife with a 5- to 7-inch blade length. The santoku knife is designed for a comfortable, well-balanced grip, while allowing for full blade use.

saucepan: A pan with medium height, straight sides, and a single long handle. Use it for general cooking, in particular liquid or liquid-based mixtures, on ranges.

sauce pot: Used to prepare sauces, soups, and other liquids. Sauce pots are shallower than stock pots, with straight sides and two loop handles for lifting.

sauté pan: The original French sauté pan is slope-sided and made of thin metal for quick heating. It is used strictly to sauté items. In the United States, the “fry pan” is generally referred to as a sauté pan. A fry pan has curved sides and a long handle is generally made of slightly thicker metal. It is used both to sauté and pan-fry.

sautéing: This method cooks food rapidly in a small amount of fat over relatively high heat.

sautoir: The classic *sautoir* shape is called a sauté pan in the United States. It has a wide bottom and straight sides. Some typical tasks include pan-frying, stir-frying, and shallow poaching.

scales: Employees weigh items using a scale to confirm that what was ordered matches what is delivered.

scales: The part of a knife that creates the handle.

scimitar: Also known as a butcher knife; a long, curved blade used for cutting through large cuts of raw meat.

seasoning: Something that enhances the flavor of an item without changing the primary flavor of the dish.

serrated: When a knife blade is shaped into a row of teeth that can be set very closely or widely apart.

serrated slicer: A knife with a long, thin serrated blade used to slice breads and cakes.

shallow poaching: Cooks food using a combination of steam and a liquid bath. Shallow poaching is a last-minute cooking method best suited to food that is cut into port-sized or smaller pieces.

sharpening stone: Used to grind and hone the edges of steel tools and implements.

sheet pan: Cooks use this very shallow pan, about 1-inch deep, for just about anything from baking cookies to roasting vegetables.

shelving: Used for food storage. Shelving in storage areas should be made of stainless steel.

shocking: Immediately placing blanched food in ice water to stop carryover cooking.

sieve: A small tool with a mesh screen to sift flour and other dry baking ingredients and to remove any large impurities.

simmering: Completely submerging food in a liquid that is at a constant, moderate temperature.

single-side: When the cutting edge of a knife is on just one side.

skimmer: A small tool with a larger round, flat head with holes. Use it to remove foam from stock or soup and remove solid ingredients from liquids.

slicer: A knife used for slicing cooked meat; its blade can be as long as 14 inches.

slow-roasting oven: Use this oven to roast meat at low temperatures. This helps preserve the meat’s moisture, reduce shrinkage, and brown its surfaces.

smallware: Small hand tools and small equipment.

smoker: Use a smoker for smoking and slow-cooking food items. A true smoker treats food with smoke and operates at either cool or hot temperatures. Smokers generally have racks or hooks, allowing food to smoke evenly.

smoking point: The temperature at which fats and oils begin to smoke, which means that the fat has begun to break down.

sous vide: A method in which food is cooked for a long time, sometimes well over 24 hours. *Sous vide* is French for “under vacuum.” Rather than placing food in a slow cooker, the sous vide method involves cooks putting food in airtight plastic bags and then placing the bags in water that is hot but well below boiling point. This cooks the food using precisely controlled heating, at the temperature at which it should be served.

speed racks: Generally made of metal and have slots into which foodhandlers can slide sheet pans. This can create shelves of various heights, depending on need.

spices: The bark, roots, seeds, buds, or berries of an aromatic plant.

spine: The top of a knife blade, which is the noncutting edge of the blade.

spoons: Cooking spoons for quantity cooking are solid, perforated, or slotted. They are made of stainless steel and hold about 3 ounces. Solid spoons are serving spoons without holes in them. Perforated and slotted spoons have holes that allow liquid to drain while holding the solid items on the spoon.

springform pans: A two-part, spring-loaded baking pan. The bottom piece and ring are secured with a spring to hold the bottom in place. Once an item is baked, the pastry chef can release the spring to make it easy to remove the cake from the pan.

stamped blade: The cutting surface of a knife made by cutting blade-shaped pieces from sheets of milled steel.

steak knife: A curved knife used for cutting beef steaks from the loin.

steamer: Used to steam food items like vegetables and grains. It uses low or high steam pressure. A steamer often consists of a set of stacked pots. The lower pot holds boiling water. The upper pot has a perforated bottom that allows the steam to enter through and cook the food in the pot above. All types of steamers cook food items quickly in very hot (212°F) water vapor.

steaming: Cooking food by surrounding it in steam in a confined space such as a steamer basket, steam cabinet, or combi-oven. Direct contact with the steam cooks the food.

steam-jacketed kettle: Available in free-standing and tabletop versions and in a very wide range of sizes. The kettle's bottom and sides have two layers, and steam circulates between the layers, heating liquid food like soups and stews quickly and evenly.

steel: A long metal rod that is lightly grooved and magnetized. It removes the microscopic burrs that are created as a knife is used.

stewing: Cooking technique similar to braising, but the pre-preparation is a little different. First, cut the main food item into bit-sized pieces and either blanch or sear them. As with braising, cook the food in oil first and then add liquid. Stewing requires more liquid than braising. Cover the food completely while it is simmering.

stir-frying: A cooking method closely related to sautéing. Food is cooked over a very high heat, generally in a wok with a little fat, and stirred quickly.

straight spatula: A flexible, round-tipped tool used for icing cakes, spreading fillings and glazes, leveling dry ingredients when measuring, and turning pancakes and other food items.

strainer: A tool made of mesh-like material or metal with holes in it. Strainers come in different sizes and are often shaped like a bowl. Strainers are used to strain pasta, vegetables, and other larger food cooked in liquid.

swimming method: To use this method, when deep-frying an item, gently drop a breaded or batter-coated food in hot oil. It will fall to the bottom of the fryer and then swim to the surface. Once the food items reach the surface, turn them over, if necessary, so they brown on both sides.

tamis/drum sieve: A screen that stretches across a metal or wood base that is shaped like a drum. Food is forced through it, and it's used to purée very soft food items and remove solids from purées.

tandoori oven: A cylindrical or barrel-shaped oven, often made of clay, with a wood or charcoal fire inside at the base and an open top. Food can be thrust inside the oven on long metal spikes (famously, chicken), or portions of thin dough can be slapped against the inside of the oven to develop characteristic bubbling and charring. These ovens usually reach 800°-900°F.

tang: The metal that continues from a knife blade through the handle. A full tang is as long as the whole knife handle.

tea maker: Works the same as the coffee maker, but it makes tea for iced tea.

thermocouple: An accurate thermometer that measures temperature in thick or thin food instantly.

tilting fry pan: Often called a fry pan or skillet; used to grill, steam, braise, sauté, and stew many different kinds of food. Most tilting fry pans have lids that allow the unit to function as a steamer.

tip: The forward part of a knife that includes the knife point. Cooks use the tip for detailed work such as paring, trimming, and peeling.

tongs: A scissor-like utensil foodhandlers use to pick up and handle all kinds of solid food.

tourné: Similar to a paring knife, but with a curved blade for cutting the curved surfaces of vegetables.

utility carts: Carts of durable injection molded shelving or heavy steel used to carry food cases to storage areas.

utility knife: An all-purpose knife used for cutting fruits, vegetables, and some meat. Its blade ranges from 6 to 8 inches long.

vegan: A person who follows the strictest diet of all and will consume no dairy, eggs, meat, poultry, fish, or anything containing an animal product or byproduct, including honey. They consume only grains, legumes, vegetables, fruit, nuts, and seeds.

vegetable peeler: Not technically a knife, but this tool has sharp edges for peeling potatoes, carrots, and other vegetables.

vegetarian: A person who consumes no meat, fish, or poultry products.

volume measures: Similar to liquid measuring cups but bigger, usually available in sizes of 1 pint, 1 quart, ½ gallon, and 1 gallon.

walk-in freezer: Often called a “walk-in,” built right into the foodservice facility itself.

walk-in refrigerator: Often called a “walk-in,” built right into the foodservice facility itself.

wing whip: A heavier version of the wire whip; used in a mixer to whip, cream, and mash heavier food items.

wire whip (whisk): Small tools of different sizes and heaviness used to mix, beat, and stir food.

wok burner: A gas burner (or propane for home use) with multiple jets, designed to cradle a rounded wok pan in extremely intense heat. The high heat of a wok burner produces the “*wok hey*,” which is a particularly savory charred flavor associated with the best wok-cooked dishes.

wok: A metal pan with a rounded bottom and curved sides. The curved sides make it easy to toss or stir food. Cooks use woks especially for frying and steaming in Asian cooking.

zester: A small tool used to shred small pieces of the outer peel of citrus fruits such as oranges, lemons, and limes.

Unit 6:

aromatics: Herbs, spices, and flavorings that create a savory aroma, such as bouquet garni and sachet d’épices.

au jus: Meat served with its own juice.

béchamel: A grand sauce made from milk and white roux.

beurre manié: A thickener made of equal parts flour and soft, whole butter.

bisque: A cream soup made from puréed shellfish shells, such as lobster, shrimp, or crab.

bouillon: The liquid that results from simmering meat or vegetables: also referred to as broth.

bouquet garni: French for “bag of herbs;” a bundle of fresh herbs such as thyme, parsley, stems, and a bay leaf tied together.

brown or **espagnole sauce:** A grand sauce made from brown stock and brown roux.

brown stock: An amber liquid produced by simmering poultry, beef, veal, or game bones, after these bones have been browned.

China cap: A pierced metal cone-shaped strainer; use it to strain soups, stocks, and other liquids to remove all solid ingredients.

chinois: A very fine China cap made of metal mesh that strains out very small solid ingredients.

clarified: The liquid that remains after the removal of the raft when making consommé.

clear soups: Flavored stocks, broths, and consommés.

compound butter: A mixture of raw butter and various flavoring ingredients, such as herbs, nuts, citrus zest, shallots, ginger, and vegetables.

concassé: A coarsely chopped mixture. Tomato *concassé* is created by adding tomatoes, garlic, and seasonings to vegetable stock to flavor or darken the stock, but tomatoes must be strained with a cheesecloth or filter so that no seeds or skins get into the stock.

coulis: A thick, puréed sauce, such as tomato coulis.

court bouillon: An aromatic vegetable broth, used for poaching fish or vegetables.

degreasing: The process of removing fat that has cooled and hardened from the surface of stock.

demi-glace: A rich brown sauce traditionally made by combining equal parts espagnole sauce and veal stock.

foodborne pathogens: Micro-organisms on food that cause illness. These need time and moisture to grow, but they won't grow when the temperature of the food is colder than 41°F or hotter than 135°F.

fumet: A highly flavored stock made with fish bones; fish stock is very similar to fumet.

glace: A reduced stock with a jelly-like consistency, made from brown stock, chicken stock, or fish stock; it is sometimes referred to as “glaze.”

grand sauces: Five classical sauces that are the basis for most other sauces. These are sometimes called “mother sauces.”

hollandaise: A rich, emulsified grand sauce made from butter, egg yolks, lemon juice, and cayenne pepper.

jus: A rich, lightly reduced stock used as a sauce for roasted meat.

jus-lié: A sauce made from the juices of cooked meat and brown stock.

liaison: A mixture of egg yolks and heavy cream, often used to finish some sauces, such as Allemande sauce.

maître d'hôtel butter: A softened butter that is flavored with lemon juice and chopped parsley. It is often used to garnish grilled meat or fish.

mirepoix: A French word that refers to the mixture of coarsely chopped onions, carrots, and celery. This mixture provides a flavor base for stock.

oignon brûlé: A “burnt onion.” Cut an onion half across its hemisphere and then char the flat part either on a flattop or in a dry (fat-free) pan.

raft: When making consommé, the raft is the floating layer of egg whites, meat and vegetable solids, and fats.

remouillage: A weak stock made from bones that have already been used in another preparation, sometimes used to replace water as the liquid used in a stock; *remouillage* is the French word for “rewetting.”

roux: A thickener made of equal parts cooked flour and a fat, such as clarified butter, oil, or shortening.

sachet d'épices: Similar to bouquet garni, except it really is a bag of herbs and spices.

salsa: A cold mixture of fresh herbs, spices, fruits, and/or vegetables.

sauce: A liquid or semisolid product that is used in preparing other food items.

saucier: A cook who specializes in making sauces.

slurry: Cornstarch mixed with a cold liquid, which can be used instead of roux.

stock: A flavorful liquid made by gently simmering bones and/or vegetables.

temper: To slowly mix a little bit of hot sauce with eggs or cream to raise the temperature slowly and prevent the mixture from cooking or curdling.

thick soups: Cream and purée soups.

tomato sauce: A grand sauce made from a stock and tomatoes (roux is optional).

vegetable stock: Usually made from mirepoix, leeks, and turnips.

velouté: A grand sauce made from veal, chicken, or fish stock and a white or blond roux.

white stock: A clear, pale liquid made by simmering poultry, beef, or fish bones.

wringing method: An easy way to strain sauce. In this method, place a clean cheesecloth over a bowl and pour the sauce through the cheesecloth into the bowl. The cloth is then twisted at either end to squeeze out the strained sauce. The cheesecloth catches the unwanted lumps of roux, or herbs, spices, and other seasonings.

yield: The given amount of a dish that a recipe makes.

Unit 7:

communication: The process of sending and receiving information by talk, gestures, or writing for some type of response or action.

credibility: The ability of a person to be believed.

empathy: The act of identifying with the feelings, thoughts, or attitudes of another person.

feedback: Communication that helps a person understand how well he or she has done something and how to improve.

interpersonal communication: Any two-way communication that has immediate feedback.

listening: The ability to focus closely on what another person is saying to summarize the true meaning of a message.

mission statement: Primarily serves an internal function; it describes the company's purpose and key objectives to its team and owners.

organizational communication: The numerous messages and information that convey operational procedures, policies, and announcements to a wide variety of audiences.

vision statement: Directed both internally and externally; it defines the company's purpose and values to employees (so they know how they are expected to behave.)

Unit 8:

action plan: A strategy of steps to carry out so that a problem does not recur.

bias: A tendency toward a particular perspective or idea based on prejudice.

child labor laws: Offer additional protections for children and youth in the workplace.

complainant: The person with a complaint, usually in regards to harassment.

cover letters and résumés: Letters that show a person's interest in a job, accompanied by an outline of their experience and education.

cross-training: When employees learn the functions of another job within the operation.

cultural tendencies: A term to describe the fact that many groups of people have common beliefs, such as religion, or share common ways of acting that produce tendencies to act in certain ways based on their beliefs and habits.

discrimination: Making a decision based on a prejudice.

diversity: The great variety of people and their backgrounds, experiences, opinions, religions, ages, talents, and abilities.

empathy: The act of showing understanding and sensitivity to someone else about a situation.

employee manual: Contains general information about employment, including company policies, rules and procedures, employee benefits, and other topics related to the company.

employee performance appraisal: A formal evaluation of a person's work performance over a specific period of time.

Equal Employment Opportunity Commission (EEOC): Enforce laws that ensure everyone, regardless of race, age, gender, religion, national origin, color, or ability/disability, gets a fair chance at any job opening.

ethics: A set of moral values that a society holds. They are typically based on the principles of honesty, integrity, and respect for others.

exempt positions: Positions not covered under the Fair Labor Standards Act (FLSA); not legally entitled to overtime pay or the minimum wage established by the FLSA.

external motivation: When personal drive comes from the desire to receive something, such as a reward or recognition for achieving results.

goals: Statements of desired results.

harassment: When slurs or other verbal or physical conduct related to a person's race, gender, gender expression, color, ethnicity, religion, sexual orientation, or disability interfere with the person's work performance or create an unhealthy work environment.

harassment-free environment: A workplace in which complaints are handled appropriately and respect for all employees is supported on an ongoing basis.

internal motivation: The personal drive to do the best work possible whether there are rewards or not.

interpersonal skills: People skills; a person who possesses good interpersonal skills can generally relate to and work well with others.

job application: A standard form filled out by anyone who wants a job in an operation; the form helps managers to get the same types of information from every interested person.

job description: A document that defines the work involved in a particular assignment or position.

mission statement: Refines the vision statement by stating the purpose of the organization to employees and customers. It should include what the organization intends to sell or provide and to whom, and sometimes the geographic region as well.

modeling: Demonstrating the behavior expected from others.

motivation: The reasons why a person takes action or behaves in a certain way.

nonexempt positions: Positions covered by the Fair Labor Standards Act (FLSA); these employees must be paid for every hour of overtime.

objective: A specific description or statement of what a manager wants to achieve.

onboarding: The process that a company uses to integrate new employees into an organization.

on-the-job training: Appropriate for teaching skills that are easily demonstrated and practices, such as preparing menu items, operating cash registers, and using tools and equipment.

organizational goals: Goals that focus on broad statements of what the organization as a whole wants to achieve.

orientation: The process that helps new employees learn about the procedures and policies of the operation and introduces them to their coworkers.

performance appraisal form: The most effective way a manager has to rate and evaluate employee performance.

personal treatment: The ways in which managers interact with staff and the value system that governs their daily contact.

point-of-sale (POS) systems: These systems allow servers to enter orders and prompts for other order information.

positive cross-cultural interaction: Meaningful communication among employees from diverse cultures and backgrounds.

prejudice: A general attitude toward a person, group, or organization on the basis of judgments unrelated to abilities.

problem solving: An intentional process followed in a logical sequence. Following the sequence leads to a reasonable conclusion.

problem-solving model: Used to explore all of a problem's potential causes. Each step provides input to the next until the final phase, which calls for documenting the outcome of the process.

professional development: The sum of activities a person performs to meet goals and/or to further his or her career.

professionalism: The combination of the knowledge, skills, attitudes, and behavior a person shows while performing a job. It includes interactions with other employees, vendors, and guests.

root cause: The action or situation that initiates a problem.

screening interviews: Discussions that come before a job interview. They are intended to find out whether an applicant meets the basic requirements to be considered for the job.

stereotypes: Generalizations that individuals make about particular groups that assume that all members of that group are the same.

successive interviewing: A series of interviews used as part of the screening process for a job.

team: A group of individuals with different skill and experience levels who are working to complete a task or meet a goal.

teamwork: Working as a group and using each member's strengths, so that the group can attain a higher level of success than working alone.

training: The process of acquiring the knowledge, skills and competencies necessary for a specific position or assignment.

turnover: The number of people who leave a company during a given time period.

vision statement: Describes what an organization wants to become and why it exists. Vision statements aim high and are inspiring, stimulating, and exceptional.

workplace ethics: Guiding principles that effective leaders use in setting the professional tone and behavior in their operations.

zero tolerance policy: No violation is forgiven; the offender is disciplined accordingly. The discipline goes up to and includes termination.

Unit 9:

acids: Help fruit to retain its structure (for example, lemon juice).

alkalis: Cause the cells to break down more quickly, making fruit soft (for example, baking soda).

brassica: A vegetable in the cabbage family, which is strong enough to survive the winter and often found in spring salads.

caramelization: A browning process.

compote: A sauce made by simmering dried fruits, such as apricots, currants, and raisins.

coulis: A sauce made from a purée of vegetables or fruits that can be served hot or cold.

crudités: Sticks or pieces of raw vegetables, often seasonal, usually served with a dipping sauce.

dicing: Cutting a product into cubes with a chef's knife. Normally, dicing refers to about a half-inch cube – the same size as dice.

drupes: Fruits that have a central pit enclosing a single seed.

enzymatic browning: A chemical process that occurs when the oxygen in the air comes into contact with the flesh of a cut fruit.

ethylene gas: A gas emitted by certain fruits (including apples, bananas, melons, and avocados) that causes fruits to ripen. It also causes ripe fruits and vegetables to spoil.

field mixes: Tender greens that can be planted in the spring for harvest a few weeks later.

fructose: A natural form of sugar responsible for the sweetness of fruits.

fruit: An organ that develops from the ovary of a flowering plant and contains two or more seeds.

fungi: A large group of plants ranging from single-celled organisms to giant mushrooms.

glazing: A finishing technique that gives vegetables a glossy appearance by adding a small amount of honey, sugar, or maple syrup to the vegetable to coat it and give it a sheen as the vegetable reheats.

hydroponic farming: Vegetables are grown indoors year-round, under regulated temperatures and light in nutrient-rich water.

mesclun mix: A seed blend that includes a variety of leafy lettuce and other greens.

microplane: A small handheld tool used to zest the peel of citrus fruit.

mincing: A fine chop cut made by using a chef's knife or mezzaluna. The cut is commonly used on smaller food items, such as garlic, fresh herbs, and ginger.

parboiling: Like blanching, parboiling partially cooks vegetables in boiling water.

poaching: A cooking technique in which food is cooked in simmering liquid.

polyphenol oxidase: An enzyme in some fruit that causes enzymatic browning to occur more quickly.

puréed: A technique in which food is cooked until it is tender enough to purée easily by pushing it through a sieve or food mill, or using a vertical chopping machine or blender.

quality grades: The U.S. Department of Agriculture (USDA)'s rating system based on quality standards. The better the quality, the higher the quality grade assigned to it. The quality is based on a combination of size, color, shape, texture, and defects.

root vegetables: Rich in sugars, starches, vitamins, and minerals, these plants exist both above and below ground. A single root extends into the ground and provides nutrients to the leafy green part of the vegetable that is above ground.

seed: The process of removing seeds from fruit or vegetables.

sous vide: A method in which food is cooked for a long time, sometimes well over 24 hours. Rather than placing food in a slow cooker, the sous vide method uses airtight plastic bags placed in hot water well below boiling point. Food is cooked using precisely controlled heating, at the temperature at which it will be served.

summer fruits: Berries, cherries, grapes, melons, peaches, nectarines, plums, and pears.

tempura: Japanese-style breaded and deep-fried vegetables.

tropical fruits: Named for the climactic conditions under which they are grown. None of these fruits can tolerate frost. Tropical fruits include figs, dates, kiwis, mangos, bananas, papayas, pomegranates, guava, star fruit, and passion fruit.

tuber vegetables: Includes potatoes, sweet potatoes and yams. Tubers are enlarged, bulbous roots capable of generating a new plant. Tubers are actually fat, underground stems.

vegetable: An edible herb-like plant.

winter fruits: Apples and citrus fruits, such as oranges, grapefruits, lemons, limes, and tangerines.

Year One Unit 10:

American service: Food is arranged on plates in the kitchen by cooks and brought directly to the guests' table by the server. The meal is complete on one plate.

appearance: Includes dress, hygiene, and behavior. Employees make a good impression on guests by presenting themselves professionally.

apprentice: A server in training.

bouillon spoon: Use for clear soups or broths. The bouillon spoon has a rounded spoon head.

bread and butter plate: This is used for more than bread and butter. Use it as a base for jams and other condiments that may easily spill.

bussers: Assist with the cleaning up and resetting of tables.

butter knife: Smaller than a dinner knife and used to butter bread or cut breakfast food, fruit, and other softer food items.

cake fork: Has only three tines and is used to eat cakes, tortes, pies, and pastries.

captain: Responsible for a server area of usually 15 to 25 guests and is assisted by the front waiter or an apprentice.

chargers: Service plates that don't directly touch the food.

china: Dinnerware.

coffee spoon: Smaller than a soup or sauce spoon; used not only with coffee, tea, and hot chocolate, but also for fruit cocktails and ice cream.

comment cards: Quick surveys that customers complete noting their satisfaction with the food and service.

competitive advantage: The thing that attracts a customer to one operation over another.

customer interaction: One of the best ways in which to make a strong first impression. An initial interaction can come in many different settings, and a good customer service plan accounts for them all.

dessert forks: Often have a broader tine and can cut like a knife through a soft cake or other pastry.

dinner knife: Used for all entrées and main courses.

dinner plate: 10 to 12 inches across; these plates are used for all kinds of main courses and meals and as a base plate for smaller plates and bowls.

drinking glasses: Includes mugs and cups; they come in many shapes and sizes; and often are made of clear glass, plastic, or a thicker, solid ceramic.

English service: Also known as family-style dining. English service is the simplest and least expensive. In English service, bowls and platters of food are placed on the table, and a seated host or hostess places the food onto plates.

espresso spoon or **demitasse spoon:** Much smaller than a coffee spoon and matches small espresso cups.

family-style dining: Also known as English service, the simplest and least expensive. In English service, bowls and platters of food are placed on the table, and a seated host or hostess places the food onto plates.

finger bowl: A small bowl filled with water and often a citrus slice (lemon or orange), to clean the fingers after eating, especially with messier meals, such as shellfish or ribs.

first impressions: An impression made within the first few seconds of meeting someone; often the strongest impression we have of a person, place, or event.

fish fork: Used only for eating fish.

fish knife: Used only to filet and cut fish.

floor manager: Person in charge of the operation during a particular shift; supervises a team of servers.

focus groups: Consist of customers that meet as a group to talk with managers about possible improvements in service or other areas.

food runners: These staffers are sometimes employed to assist with bringing food from the kitchen to the tables.

French service: This style is considered the most elegant, but it is very expensive. Servers present the food to guests from a tableside cart.

front waiter: Typically, this waiter has only 1 to 2 years of experience and works with the captain.

grapefruit spoon: Has jagged edges for carving into the grapefruit.

gravy boat: Has a special lip or spout to prevent spilling when pouring the sauce onto the plate.

greeter: Provides the first impression in appearance, friendliness, and attentiveness. To do this, the greeter evaluates and determines the customer's specific needs for the current visit.

guéridon: A tableside cart used in French service that holds food or liquid items that will be served to guests, as well as serving dishes and other utensils the servers and guests may need.

headwaiter: Responsible for service in a particular area, such as a banquet room or dining room.

hospitality: The feeling that guests take with them from their experience with the operation. It refers to the interaction between a guest and a host – the service, care, and attention.

maître d'hôtel: Responsible for the overall management of service.

monkey dish: A shallow bowl, often used for relishes or dipping sauces.

mugs: Made from thick glass or ceramic; used to serve hot drinks like coffee, tea, and cocoa.

mystery shoppers: Hired by an operation to visit and report on their experiences and impressions of a particular foodservice operation.

quick-service: An easy and fast way to dine; typically, it involves no servers. Instead, guests help themselves to food set up in food bars or order at the counter.

rechaud: A warming unit in the tableside cart used in French service.

Russian service: This style is the most formal service style. All food preparation is done in the kitchen. The bowls and platters of food are then brought on a cart to guests at the table.

salad fork: Smaller than the dinner fork and used for salads, appetizers, desserts, fruit, smoked fish, and other delicate food items.

salad plate: Much smaller than a dinner plate (7 or 8 inches across). Use it for desserts and appetizers as well as salads and as a base plate for gravy and sauce boats and sundae glasses that are served with a napkin or paper doily to prevent slipping.

sauce spoon: Use with dishes served with sauce on the side.

service: Work, behavior, and actions of restaurant and foodservice employees that impact the customers' experience in their establishment.

service station: The area in which an operation keeps additional items; napkins, silverware, cups and saucers, condiments, menus, and water glasses.

serving utensils: Servers use these tools when they serve food to guests.

shell cracker: Used to crack the hard and thick shells of lobsters and crabs.

snail fork and lobster fork: Small, thin forks used only to eat those shellfish. Small, round **oyster fork** is served with both oysters and clams.

snail plate: Has six or twelve indentations for holding snails.

snail tongs: A specialized utensil for holding a snail shell so the snail can be removed.

soup bowl: Small and deep bowl with no flat edge, and unlike the soup plate, used only for soup. Soup bowls or cups are sometimes equipped with lids (individual tureen) or a single handle for easier service.

soup plate: Flat around the edge with a dip in the center to hold soup, pastas, and even mussels, shrimp, and clams.

soup spoon: Large spoon with an oval spoon head used for cream soups and long strands of pasta.

steak knife: A table knife with a sharp, usually serrated blade, suitable for cutting beef.

suggestive selling: Involves recommending additional or different items to a guest. It is one of the keys to the success of any retail business.

sundae or iced-tea spoon: Has an especially long handle to dip into a deep sundae or stir large glasses of tea.

surveys: Similar to comment cards, but sometimes include more open-ended questions.

traditional service: This style reflects four main influences: American, French, English, and Russian. Each service style varies depending on the menu, theme, and décor.

tureen: A large covered bowl used to serve soup for up to eight people.

underliner plate or charger: A large decorative plate used underneath the plate on which food is served.

Unit 10:

al dente: A state of doneness when pasta feels firm to the bite.

arborio: Medium-grain rice often used in risotto.

bran: A great source of fiber and B vitamins; the tough layer surrounding the endosperm of whole grains.

colander: A colander is used to drain liquid from cooked pasta and vegetables. Colanders stand on metal feet, while strainers are usually handheld.

dumplings: Small, round balls of dough often cooked in liquid; sometimes dumplings are filled with ground meat or vegetables.

en casserole: A cooking technique in which the ingredients are cooked and served in the same dish.

endosperm: The largest part of a grain and a major source of protein and carbohydrate.

gnocchi: Small potato dumplings served in Italian cuisine.

grains: Grasses that grown edible seeds.

hull: The protective coating, or husk, that surrounds a whole grain.

latkes: Potato pancakes.

legumes: Seeds from pod-producing plants.

milling process: When the germ, bran, and hull of the grain are removed or polished.

multiple-state technique: A cooking technique in which food is prepared using more than one cooking method before it becomes a finished product.

pierogi: A Polish dumpling.

pilaf: A technique for cooking grains in which the food preparer sautés the grain briefly in oil or butter and then simmers it in stock or water with various seasonings.

resting stage: When mixing pasta dough, this is the most important stage. If the dough is not sufficiently relaxed, it will be difficult to roll the dough into thin sheets.

risotto: A labor-intensive Italian rice specialty made by stirring hot stock into a mixture of rice that has been sautéed in butter.

sieve: A small tool with a mesh screen to sift flour and other dry baking ingredients and to remove any large impurities.

single-stage technique: A cooking technique in which food goes directly from the raw state to the finished state using one cooking method.

solanine: A harmful, bitter-tasting substance that appears as a greenish color on potatoes that are exposed to light.

spaetzle: Small German dumplings, or breadlike dumplings, that are tasty in stews.

stone ground: The process in which grains are ground and broken down; the grains retain more of their nutrients because the germ, bran, and hull are left intact.

tubers: Fat, underground stems capable of growing a new plant.

whole grains: Grains that have not been milled.

Unit 11:

albumen: White part of an egg, which consists of protein and water.

basted egg: Egg that has been fried and then steamed in a covered pan.

black tea: Tea in which the leaves have been fermented.

bread: Basic component of the sandwich, bread serves as an edible container for the food inside and also provides bulk and nutrients.

butter substitute: Any alternative used to replace butter in a recipe. Examples include margarine, olive oils, and soy-based oils.

caffeine: Stimulant that occurs naturally in coffee and tea.

canapé: Small, open-faced cold sandwich that is a type of hors d'oeuvre. They are usually made from bread or toast cutouts, English muffins, crackers, melba toasts, and tiny unsweetened pastry shells.

chalazae: Membranes that hold an egg yolk in place.

clarified butter: Butter that is created when the chef or manufacturer heats butter and then removes milk solids and water.

club sandwich: Three slices of toasted bread spread with mayonnaise and filled with an assortment of sliced chicken and/or turkey, ham, bacon, cheese, lettuce, and tomato.

cold sandwich: Sandwich consisting of two slices of bread or two halves of a roll, a spread, and a filling.

crêpe: Very thin pancake-type item with a high egg content, the result is a delicate, unleavened griddlecake.

curdling: Process in which dairies make cheese by separating a milk's solids from its liquid.

deep-fried sandwich: Sandwich made by dipping it in beaten egg (sometimes with bread crumbs) and then deep-frying. Cook the sandwich on the griddle or in the oven to reduce fat and make it less greasy.

filling: Basic component of the sandwich, the filling provides the primary flavor and generally it is protein-based, but it doesn't have to be.

French toast: Sliced bread (preferably day-old) dipped in an egg-and-milk mixture and cooked on a lightly oiled griddle or flat pan.

fried egg: Egg that has been fried in cooking fat at 143°F for at least 15 seconds. If it is going to be held for a few minutes, it should be cooked at 155°F. The yolk should be cooked to whatever doneness the customer requests.

frittatas: Flat omelet that may be made into individual portions or in larger quantities.

green tea: Tea in which the leaves are not fermented.

grilled (or toasted) sandwich: Another type of hot sandwich in which the outside of the bread is buttered and browned on the griddle or in a hot oven.

hard-cooked egg: Product made by simmering, and then **shocking**, eggs.

hashed brown potatoes, or hash browns: Potatoes prepared by steaming or simmering them in lightly salted water and then peeling, chilling, and shredding. Shredded potatoes are cooked on a lightly oiled griddle on medium heat to a light golden brown on both sides.

home fries: Raw potatoes that have been peeled and then sliced, diced, or shredded and then cooked on a well-oiled griddle or pan-fried until golden brown and cooked through.

homogenization: Process in which milk is strained through very fine holes to break down fat and then blended into one fluid.

hors d'oeuvre: Hot or cold bite-sized finger food that is served before a meal.

hot cocoa: Popular breakfast drink made from cocoa powder or shaved chocolate and sugar stirred into heated milk or water.

hydrogenate: To combine with, treat with, or expose to the action of hydrogen.

margarine: One of the most common butter substitutes, this manufactured food product often contains no milk products. Margarine is made of vegetable oils and animal fats with added flavoring, emulsifiers, colors, preservatives, and vitamins.

mise en place: Condition in which everything needed to prepare a particular item or use for a particular service period is ready and at hand.

multi-decker sandwich: Sandwich with more than two slices of bread (or rolls) with several ingredients in the filling.

omelet: Dish made by slightly beating eggs and then cooking them in a skillet with a filling, such as cheese, mushrooms, onions, or ham.

open-faced hot sandwich: Sandwich made by placing one slice of buttered or unbuttered bread or roll on a serving plate with hot meat or other filling and covering it with a hot topping, such as sauce or cheese. Some are broiled quickly if the cheese needs melting or the topping should be crisped.

over easy egg: Egg that has been fried on the bottom, turned over, and then fried very lightly on its top side.

pancake: Griddlecake made from a medium-weight pour batter.

panini: Sandwich made by grilling on a panini press, which compresses the sandwich and warms the ingredients without adding additional fat to the outside of the sandwich.

pasteurization: Process in which milk is heated to kill microorganisms that cause spoilage and disease without affecting its nutritional value.

pizza: Hot, open-faced Italian pie with a crisp yeast-dough bottom.

Plugrá: European-style butter that is low in moisture and high in butterfat. Regular butter is 80 percent butterfat and 20 percent water and milk solids, Plugrá is 82 percent butterfat. It is slow-churned, which helps to create a creamy texture.

poached egg: Egg that has been shelled (removed from the shell) and simmered in water. A properly poached egg should be tender and well shaped, meaning the yolk is centered and the white is not rough or ragged.

pooled eggs: Eggs that are cracked open and combined in a container. Cook them immediately after mixing, or store them at 41°F or lower.

processed cheese: Cheese product that manufacturers make by grinding, blending, and forming one or more natural cheese. Emulsifiers help to make the product uniform. It's also pasteurized to prevent it from aging.

Pullman loaf: Sandwich loaf of sliced white bread that is the most frequently used sandwich bread.

quiche: Savory egg custard baked in a crust.

ramekins: Small, ceramic, oven-proof dishes.

ripened cheese: Some cheeses are ripened by external bacteria put into curds (Brie, bleu, Roquefort, Camembert). Others are ripened by bacteria naturally in the curds (Swiss, Havarti).

scrambled eggs: Eggs that have been blended until the yolks and whites are combined and then cooked over gentle heat while constantly stirring and scraping from the bottom and sides of the pan to keep them creamy and to prevent burning.

shirred egg: Variety of a baked egg.

shocking: Process of putting something in cold water immediately after cooking it to stop the cooking.

smoke point: Point at which an oil or fat begins to burn.

soufflé: Baked dish made with eggs that can be savory or sweet.

spread: Basic component of the sandwich that serves three main purposes: to prevent the bread from soaking up the filling, to add flavor, and to add moisture.

submarine sandwich: Usually a cold sandwich served on a long, sliced roll with several types of cheese, meat, lettuce, tomato, onion, and various other toppings. These sandwiches may also be referred to as sub, grinder, hero, or hoagie.

Swedish pancake: Pancake made with a slightly sweetened batter that is a bit heavier than a crêpe batter. Cook these pancakes on a flat griddle or in a special fluted pan.

tea sandwich: Small, cold sandwich usually served on bread or toast, trimmed of crusts, and cut into shapes.

tea: Breakfast beverage that is generally less expensive than coffee, although some rare teas can be quite expensive. One cup of tea has about half the caffeine contained in a cup of coffee. Tea is served either very hot or iced.

trans fat: Short for transformed fat, this fat is artificially created when manufacturers hydrogenate liquid oils to make the oils solid, so they have longer shelf lives.

unripened cheese: Fresh cheeses, including cream cheese and cottage cheese, that have not been ripened with either naturally occurring bacteria or added external bacteria.

up (sunny side up): Egg that is fried only on the bottom.

waffle: Cake-like breakfast dish made from a medium-weight pour batter similar to pancake batter, but with more egg and oil. Cook waffles in a specially designed waffle maker, or iron, that creates grid-like holes or specialty designs.

wrap sandwich: Sandwich made on any type of flat bread – for example, tortillas, cracker bread, or rice paper wrappers – and spread with a hot or cold sandwich filling and then rolled up.

yolk: Yellow part of an egg, which contains protein, fat, and lecithin, a natural emulsifier (thickener).

Year One Unit 12:

back of the house: Employees who work outside the public space. Back-of-the-house positions include chefs, line cooks, pastry chefs, dishwashers, bookkeepers, storeroom clerks, purchasers, dietitians, and menu planners.

career: A profession or work in a particular field, such as foodservice, that individuals choose for themselves.

career ladder: A series of jobs through which people can advance to further their careers.

certification: Indicates that a student has demonstrated a high level of skill and has met specific performance requirements by participating in a rigorous process to become certified.

closed questions: Can be answered with a simple yes or no or with a brief, factual statement.

college or trade school applications: These documents require education information; they may also require that applicants state the program or course of study they are applying for and ask them to complete a short essay.

conciierge: Employed by hotels, motels, and resorts, the concierge serves guests by helping them buy tickets to shows and events, answering questions, booking restaurant reservations, and more.

cover letter: A brief letter in which an applicant introduces herself or himself to an employer.

etiquette: Good manners.

financial aid: Monetary help for students that includes grants, educational loans, and work study.

Free Application for Federal Student Aid (FAFSA): An application used by the federal government to determine the total amount of financial aid for which an applicant qualifies.

job application: A standard form filled out by anyone who wants a job in an operation; the form helps managers to get the same types of information from every interested person.

mentor: Someone who can play the role of a wise advisor.

networking: Connecting with several people to build relationships that may result in career advancement, industry updates, and knowledge or career enhancements.

open-ended questions: These questions encourage job applicants to talk about themselves, making them feel more comfortable and giving the interviewer important information and valuable insight about the applicant.

portfolio: A collection of samples that showcase interests, talents, contributions, and studies.

reference: Unrelated people who know an applicant well and can provide information about that applicant.

résumé: A written summary of experience, skills, and achievements that relate to the job being sought.

scholarship: A grant or financial aid award to a student for the purpose of attending college.

stress: The condition or feeling that demands exceed the resources available for use.

stress management: A process people use to identify what causes stress for them in the workplace as well as in their personal lives, and then to apply various strategies to minimize the effects of that stress.

time management: Using tools to increase a person's efficiency and productivity. To manage time effectively also means to know how to waste less time on noncritical, unimportant activities and avoidable problems.

work study: Working as a student for the school to offset educational costs.

Unit 12:

additive: Chemical that might occur naturally or be synthetic, but is chemically identical to natural substances. Additives are added to food as a result of processing, production, or packaging.

adequate intakes (AIs): Similar to RDAs, AIs also identify daily intake levels for healthy people. AIs are typically assigned when scientists don't have enough information to set an RDA.

amino acids: Chemical compounds that have special functions in the body, including supplying nitrogen for growth and maintenance.

antibiotic: Medicines that prevent bacterial infections.

calorie: *See kilocalorie.*

carbohydrate: Body's main energy source; this type of nutrient provides the body with four kilocalories of energy per gram of food eaten and helps the body use protein and fat efficiently.

cardiovascular diseases: Diseases that affect the heart and blood vessels and include hypertension, strokes, and heart attacks. Collectively, they are the number one cause of death in the United States.

certified organic: Products that meet the requirements of their certifying organization. The "certified organic" name applies to farming and processing techniques that are simple, nontoxic, and sustainable. If a label is USDA "certified organic," it will apply to these standards.

cholesterol: White, waxy substance produced in the liver that helps the body carry out its many processes.

coagulate: This is when a substance thickens and congeals.

complementary proteins: Two or more incomplete protein sources that together provide adequate amounts of all the essential amino acids.

complete proteins: Proteins that contain all the essential amino acids in the right amount. Good sources of complete proteins are meat, poultry, fish, eggs, and dairy products.

complex carbohydrate: This energy source contains long chains that include many glucose molecules. They are found in plant-based foods such as grains, legumes, and vegetables. They provide a long-lasting source of energy.

conventional product: Product grown using approved USDA and FDA agricultural methods. The methods allow the use of certain fertilizers, pesticides, hormones, and drugs that are recognized as safe. Most of the food in the supermarket and from restaurant and foodservice suppliers comes from conventional producers.

diabetes mellitus: Condition in which the body cannot regulate blood sugar properly.

Dietary Guidelines for Americans 2005: Document published jointly by the Department of Health and Human Services and the USDA that offers science-based advice for healthy people over the age of two about food choices to promote health and reduce risk for major chronic diseases. Like the recommended dietary allowances, these dietary guidelines apply to diets eaten over several days, not to single food items or meals.

Dietary Reference Intakes (DRIs): Recommended daily nutrient and energy intake amounts (that is, what a person needs to consume) for healthy people of a particular age range and gender. They are the guides for nutrition and food selection.

essential amino acids: Nine amino acids that have to be obtained from food each day.

fat: Usually refers to both fats and oils, although basic differences exist between the two. Fats are solid at room temperature and often come from animals.

fat-soluble vitamin: Vitamins A, D, E, and K, which are found in food containing fat. They're stored in the liver and body fat. The body draws on these stored vitamins when needed.

fiber: Substance found in plant food, such as whole grains, fruit, vegetables, nuts, and legumes, that promotes digestive health and regularity.

foam: Sauce that has been aerated and then spooned onto the dish.

food additive: Substance or combination of substances present in food as a result of processing, production, or packaging.

genetically modified organism (GMO): Plant or animal whose genetic makeup has been altered.

glucose: Very important simple sugar; glucose is the primary source of energy and the only source of energy for the brain and nervous system. Good sources of glucose are fruit, vegetables, and honey.

GMO (genetically modified organism): Plant or animal whose genetic makeup has been changed.

herbicide: Weed killer.

hormones: Special chemical messengers made by bodies that regulate different body functions. This term might also refer to substances injected into animals to make them grow.

hydrogenation: Process in which fats are combined with, treated with, or exposed to hydrogen to alter their physical properties and make them stay fresh longer.

incomplete protein: Food that lacks one or more of the essential amino acids. Food from plant sources are incomplete proteins.

insoluble fiber: Fiber that does not dissolve in water. It was once referred to as roughage because it is rough. It acts like a stiff broom to clean and scrub the digestive tract so we can eliminate wastes from our systems more easily.

insulin: Hormone produced in the pancreas that allows glucose, or blood sugar, to travel throughout the body for energy use.

iodized salt: Table salt that has been enriched with iodine as a nutritional supplement.

iron-deficiency anemia: Condition caused by lack of iron in a person's blood.

kilocalorie: Energy needed to heat 1 kilogram (about 2.2 pounds) of water by approximately 1°C. In nutrition, the unit of measurement for energy is the kilocalorie, but it is more commonly called a calorie.

Kosher salt: Has no additives, so it has a purer flavor than table salt. It is usually coarser than table salt, which means it has larger crystals.

lacto-ovo-vegetarian: Person who consumes vegetarian items plus dairy products and eggs.

lacto-vegetarian: Person who consumes vegetarian items plus dairy products.

lipids: Another word for fat, lipids are a group of molecules that include fats, oils, waxes, steroids, and other compounds.

malnutrition: Physical condition caused by a lack of nutrients or an imbalance of nutrients.

mineral: Inorganic element essential to nutrition that is classified as major or trace, according to how much is needed in the diet. Even though some minerals are needed in very tiny amounts, getting the right amount is important to good health. Minerals are part of body structures and are also needed for body functions.

natural: Legally meaningless as a term. Food products labeled as "natural" may or may not have any organic ingredients or processing.

nutrients: Components of food that are needed for the body to function.

nutrition: Study of the nutrients in food and how they nourish the body.

obese: Describes a person who has excessive body fat; a person has traditionally been considered to be obese if they are more than 20 percent over their ideal weight.

organic: (1) Food that is generally defined according to agricultural practices as products that have been produced without pesticides or synthetic fertilizers. (2) Generally, the term refers to products that have been produced without pesticides or synthetic fertilizers. Soil and water are also usually conserved. Animals don't receive antibiotics or growth hormones.

osteoporosis: Condition in which the bones gradually lose their minerals, becoming weak and fragile.

overweight: Describes a person who has a weight greater than what is generally considered healthy; identifies a range of weight that has been shown to increase the likelihood of certain diseases and other health problems.

oxidation: Chemical process that causes unsaturated fats to spoil. Heat, light, salt, and moisture help speed up oxidation.

pesticide: Chemical that kills insects and other plant pests.

phyllo dough: (1) Dough used to prepare baklava; (2) Thin layers of pastry dough used in various Greek and Near Eastern sweet and savory preparations.

phytochemical: Also known as a phytonutrient, this type of chemical aids the body in fighting or preventing diseases.

portion control: Controlling the quantity of particular foods by using appropriately sized servings.

protein: Composed of large complex molecules that contain long chains of amino acids, protein is a class of nutrients that can supply energy to the body. Proteins are needed to build new cells and repair injured ones. If used for energy, proteins can provide four calories of energy per gram to the body.

Recommended Dietary Allowances (RDAs): Daily nutrient standards established by the U.S. government; the average daily intakes that meet the nutrient requirement of nearly all healthy individuals of a particular age and gender group. The nutrients recommended are protein, eleven vitamins, and seven minerals.

reduction: (1) Process of thickening or intensifying the flavor of a liquid mixture such as a soup, sauce, wine, or juice by evaporation; (2) Simmering a stock made from vegetables, meat, poultry, or fish until it is about one-third of the original volume. In the process of reduction, the stock develops body, and its flavors intensify.

rock salt: Less refined than table salt and not meant to be eaten. It is used in ice cream makers and as a bed for certain items, such as oysters or clams on their shells.

sea salt: Extracted from the ocean using evaporation techniques. It is usually not refined, so it

contains additional minerals and other elements found in sea water, which affect the flavor.

simple carbohydrate: Contains one or two sugars. Sugars are called simple carbohydrates because their chemical structure is relatively simple compared to starch and fiber, which are complex carbohydrates.

soluble fiber: Fiber that dissolves in water, slows down the release of sugar into the blood, and helps lower cholesterol levels in the blood.

table salt: The most common salt found on every table. It is refined to remove other minerals and impurities. It is processed to give it a fine, even grain, and a small amount of starch to keep it from forming clumps.

trans fatty acid: Result of taking a liquid fat and making it solid. This is achieved through a process called hydrogenation.

vegan: Person who follows the strictest diet of all and will consume no dairy, eggs, meat, poultry, fish, or anything containing an animal product or byproduct. They consume only grains, legumes, vegetables, fruit, nuts, and seeds.

vegetarian: Person who consumes no meat, fish, or poultry products. *See also lacto-vegetarian, lacto-ovo-vegetarian, and vegan.*

vitamins: Chemical compounds found in food that are needed for regulating metabolic processes, such as digestion and the absorption of nutrients.

water-soluble vitamins: Vitamins C and B, which are found in food such as oranges and grapefruit. These vitamins are vulnerable to cooking and may be destroyed by heat or washed away by steam or water.

Unit 13:

as-purchased (AP) method: Used to cost an ingredient at the purchase price before any trim or waste is taken into account.

average check method: (1) Menu pricing method in which managers divide the total revenue by the number of seats, average seat turnover, and days open in one year. (2) Way to price a menu in which the total revenue is divided by the number of seats, average seat turnover, and days open in one year.

average sales per customer: Calculated by the total dollar sales divided by the total number of customers.

beverage costs: One of four main cost categories that a restaurant or foodservice operation needs to effectively manage.

business volume: Amount of sales an operation is doing for a given time period.

closing inventory: Inventory at the end of a given period.

contribution margin method: Way to price a menu in which an operation must know the portion costs for each item sold. An operation can determine the average contribution margin needed to cover overhead and yield a desired profit at an expected level of sales volume.

contribution margin: Portion of dollars that a particular menu item contributes to overall profits.

controllable costs: Costs subject to change based on how the operation is doing; the operation has a certain amount of control in how it spends on these aspects of the operation.

conversion factor: Number to multiply ingredients by in order to convert a recipe to serve a different number of people. For example, if your chili recipe serves eighty and you need to serve forty: $40 \div 80 = 0.5$. The conversion factor is 0.5.

cost control: A business's efforts to manage how much it spends.

cost: Price an operation pays out in the purchasing and preparation of its products or the providing of its service.

crew schedule: Chart that shows employees' names and the days and times they are supposed to work.

edible-portion (EP) method: Used to cost an ingredient after trimming and removing waste so that only the usable portion of the item is reflected.

employee turnover: Number of employees hired to fill one position in a year's time.

fixed costs: Costs that need to be paid regardless of whether the operation is making or losing money. Fixed costs, in contrast to variable costs, do not change based on the operation's sales.

food cost: Actual dollar value of the food used by an operation during a certain period.

food costs: One of four main cost categories that a restaurant or foodservice operation needs to effectively manage.

food production chart: Form that shows how much product should be produced by the kitchen during a given meal period.

forecast: Prediction of sales levels or costs that will occur during a specific time period.

full-line supplier: Company that provides equipment, food, and supplies and usually has programs available to their customers that help with controlling costs.

historical data: Information about past performance that a manager uses to forecast foodservice sales and costs.

inventory: Dollar value of a food product in storage; can be expressed in terms of units, values, or both.

invoice: Document from a vendor that lists such details as items purchased, date of order, purchaser, and sales price; also called a bill.

labor costs: One of four main cost categories that a restaurant or foodservice operation needs to effectively manage.

master schedule: Template, usually a spreadsheet, showing the number of people needed in each position to run the restaurant or foodservice operation for a given time period.

moving average technique: Also called the smoothing technique, this involves averaging together sales information for two or three recent and similar periods. The average can produce a forecast that is more likely to be accurate, since it is not based solely on one period that might have had unique circumstances.

noncontrollable costs: *See fixed costs.*

opening inventory: Physical inventory at the beginning of a given period (such as the month of April).

operating budget: Financial plan for a specific period of time that lists the anticipated sales revenue and projected costs and gives an estimate of the profit or loss expected for the period.

operational standards: Specifications of an operation with regard to products. If an item must be redone to meet standards, this costs money, not only in terms of wasted product that increases food cost, but also in terms of productivity that increases labor cost.

overhead costs: One of four main cost categories that a restaurant or foodservice operation needs to effectively manage. These costs can include insurance, utilities, or an operation's lease or mortgage on the building.

physical inventory: Process of counting and recording the number of each item in the storeroom.

pilfering: Stealing that occurs when employees illegally take inventory items for their personal

use.

point-of-sale (POS) systems: Computerized cash register system.

price point: Price that appears on a menu and that takes into consideration the cost of purchasing and preparing a menu item.

production sheet: Form that lists all menu items that the chefs will prepare on a given day.

profit-and-loss report: Compilation of sales and cost information for a specific period of time. This report shows whether an operation has made or lost money during the time period covered by the report.

quality standards: Specifications of an operation with regard to products and service.

recipe cost card: Tool used to calculate the standard portion cost for a menu item.

recipe yield: Process of determining the number of portions that a recipe produces.

revenue: Income from sales before expenses, or costs, are subtracted.

sales history: Record of the number of portions of every item sold on a menu.

semivariable costs: Costs that can change based on sales.

standard portion cost: Exact amount that one serving, or portion, of a food item should cost when prepared according to the item's standardized recipe.

standardized recipes: Guidelines and instructions that are followed every time a menu item is prepared.

straight markup pricing method: Way to price a menu in which an operation multiplies raw food costs by a predetermined fraction.

total food cost percentage: Relationship between sales and the cost of food to achieve those sales.

variable costs: Costs that can change based on sales.

variances: Changes that have occurred over time. Observing variances is a good way to analyze what happened and to develop a plan of how to correct the problem.

Unit 14:

accompaniment salad: Also known as a side salad, this salad is served with the main course of the meal.

base: Usually a layer of salad greens that line the plate or bowl in which a salad will be served.

body: Main ingredients of a salad.

bound salad: A salad type in which salad ingredients such as meat, poultry, fish, egg, or starch such as potato, pasta, or rice are cooked and then "bound" with some type of heavy dressing such as mayonnaise.

brunoise: Cuts of uncooked, unseasoned red pepper that add color, but do nothing to enhance flavor.

combination salad: Incorporates a combination of any of the four salad types: green, bound, vegetable, or fruit.

composed: Type of green salad in which the ingredients are not mixed together prior to plating.

consommés: Rich, clarified stocks or broths.

dauphinoise potatoes: Croquettes of potatoes mixed with pastry or bread crumbs and formed into shapes.

dessert salads: Salads that are usually sweet and that often contain fruits, sweetened gelatin, nuts, cream, and whipped cream.

dollop (DOLL-up): Small glob of a soft food item, such as sour cream.

duchesse potatoes: Puréed cooked potatoes with egg yolks and butter, which are formed into small shapes or used as a garnish and baked until golden brown.

emulsified vinaigrettes: Dressings that have gone through the emulsion process to keep them from separating.

emulsifier: Ingredient that can permanently bind unlike ingredients, such as oil and vinegar, together on a molecular level.

fruit salad: Mixed fruit with a slightly sweet or sweet/sour dressing to enhance the flavor.

garnish: Object that enhances the appearance of a salad while also complementing the overall taste. A garnish should be something that will be eaten with the body, functioning as a flavor component.

gougères: Small, finger-sized pastries filled with ingredients such as mushrooms, beef, or ham.

guacamole: Avocado dip of Aztec origin.

hummus: Chick pea with garlic and tahini (from the Middle East).

intermezzo salad: Intended to be a palate cleanser after a rich dinner and before dessert.

main course salads: Large enough to serve as a full meal, these salads also contain protein ingredients, such as meat, poultry, seafood, egg salad, beans, or cheese.

mayonnaise: The most stable and thickest emulsified dressing; contains a higher ratio of oil to vinegar and a greater quantity of egg yolks than is required for an emulsified vinaigrette.

mayonnaise-based: Type of dressing that is typically creamy.

napping: Coating or drizzling lightly with sauce.

salad dressings: Liquids or semi-liquids used to flavor salads. They act as a sauce that holds the salad together.

salsa: Peppers, such as jalapeño or serrano, onions, and tomatoes (from Mexico).

starter salad: Served as an appetizer to the main meal, this salad is smaller in portion and consists of light, fresh, crisp ingredients to stimulate the appetite.

string work: Garnish consisting of thin strings used decoratively.

suspension: Temporary mixture of ingredients that eventually separates back into its unique parts.

tossed: Type of green salad in which the ingredients are mixed together prior to plating.

turner: Method of cutting food, usually vegetables, that results in a small shape with a pleasant appearance for the food being served.

vegetable salad: Salad in which cooked and/or raw vegetables are combined with either a heavy dressing to bind it or are tossed with a lighter dressing.

vinaigrette dressing: In its simplest form, this type of dressing is made of oil and vinegar.

Vinaigrettes are lighter, thinner dressings often used on more delicate ingredients, such as greens and vegetables.

Unit 15:

bids: Specialized, written price lists created for the restaurant by a supplier.

buyer: Person responsible for purchasing food items, beverages, and/or equipment and supplies. An operation might have more than one buyer.

capital: Assets that an operation has at its disposal.

cash position: Amount of funds available to an operation at any given time.

channel of distribution: Particular businesses that buy and sell a product as it makes its way from its original source to a retailer.

competitive position: Ability to attract customers and make a profit among other operations offering similar products.

credit memo: Written record that ensures the vendor will credit the operation for a rejected item.

daily food cost sheets: Ongoing records of daily and monthly food costs for an operation.

form value: Price savings created when a buyer purchases bulk quantities of food instead of individually portioned servings.

formal purchasing method: Purchasing method in which buyers prepare purchase specifications for the items they want. These specifications are then sent to several suppliers for bids.

franchise: People who are granted a license to market a company's goods or services in a certain area.

gross profit: Profit before all other costs are deducted.

humidity: Amount of water moisture in the air or in a contained space such as a refrigerator.

impinger oven: Conveyer-belt-style oven used to toast bread products.

informal purchasing method: Purchasing method in which buyers ask for verbal price quotes from a variety of suppliers before making a decision.

intermediary sources: Wholesalers, distributors, and suppliers.

inventory shrinkage: Difference between the total cost of food and the cost of goods issued during the period.

inventory: Record of all products an operation has in storage and in the kitchen.

issuing: Official procedures employees use when taking an item out of the storeroom and putting it into production.

JIT ("just in time") format: When buyers determine the amount of an item needed prior to the next delivery, with the goal that the chefs will have used up the majority of the previous order by the time the new delivery arrives.

kickbacks: Money or other goods received by a person in exchange for purchasing from a specific vendor.

leaders: Items that sell well.

losers: Items that don't sell well.

make-or-buy analysis: This analysis helps to balance how much food a kitchen produces with the quality standards of the operation and enables the operation to decide whether it should make an item from scratch or buy a ready-made version.

nonperishable products: Items that generally, due to packaging or processing, do not readily support the growth of bacteria.

overproduction: Making too much food.

par stock: The ideal amounts of inventory items that an operation should have at all times.

perishable products: Food products sold or distributed in a form that will spoil or decay within a limited period of time.

perpetual inventory method: Method in which employees record items when they are received and then when they are used up.

physical inventory method: Employees review the entire stock physically on a regular basis.

pilfering: Stealing that occurs when employees illegally take inventory items for their personal use.

place value: Differences in price of a product depending on where it needs to be shipped.

primary sources: Farmers and ranchers who raise produce and livestock; also manufacturers, and distillers.

product specifications: *See specifications.*

production records: Records that help to forecast buying needs and include production sheets, daily food cost sheets, and sales mix records.

production sheet: Form that lists all menu items that the chefs will prepare on a given day.

purchase order: Legally binding written document that details exactly what the buyer is ordering from the vendor.

quality standards: Specifications of an operation with regard to products and service.

quote: Notice of a price that a supplier gives to a buyer during the purchasing process.

receiving: Inspecting, accepting, and, in some cases, rejecting deliveries of goods and services.

reorder point, or ROP: When an inventory item reaches this point, the buyer knows to reorder that item to keep it in stock. The reorder point can be used with the par stock figure to help maintain proper inventory when suppliers do not deliver regularly.

requisition form: Formal request for an item or service needed that is sent to company headquarters. Once headquarters approves the purchase and notifies the buyer, then the buyer can place the order.

retailers: Operations that sell their products directly to the public.

sales mix records: Way of tracking each item sold from the menu.

service value: Additional convenience services that a vendor provides to its customers.

specifications: Set by the chef, manager, and/or owner, **specs** are a way of communicating quality standards to potential vendors; they are easy to follow when purchasing brand-name items such as alcohol or condiments.

staples: Items for which the demand is constant.

stockouts: Running out of a menu item.

supply and demand: As the demand for an item goes up, supply goes down; this can impact the cost of an item.

time value: Price retailers pay for the convenience of selecting the time of delivery from suppliers.

transportation value: Cost of choosing a quick but expensive form of transport to get goods delivered.

vermin: Small disease-carrying animals, such as lice, fleas, or mice that are difficult to control.

Unit 16:

à point: Point in cooking at which pressing the meat with the back of a fork yields a slight amount of "give"; any juices are colorless.

aging: Between 48 and 72 hours that butchers hang meat to allow the muscles to relax, which helps lengthen the muscle fibers and increases the tenderness of the meat.

bard: Technique in which the chef ties a layer of fat (bacon or pork fatback) around a roast; used for meats that have little or no natural fat cover in order to protect and moisten them during cooking.

boning: Separating meat from bones.

bouillabaisse: French seafood stew made with assorted fish and shellfish, onions, tomatoes, white wine, olive oil, garlic, saffron, and herbs.

butterflying: Butchering technique in which a piece of meat is cut lengthwise nearly in half so that it opens out and lies flat.

carryover cooking: Term for what occurs when heat absorbed during the cooking process

continues to cook food even after it's removed from the oven or stovetop.

cephalopods: Shellfish with a single internal shell and tentacles.

charcuterie: In French, "cooked flesh"; refers to specially prepared pork products, including sausage, smoked ham, bacon, pâté, and terrine.

contribution margin: The marginal profit per unit sale.

crustaceans: Shellfish with an outer skeleton and jointed appendages.

deveining: Process of removing a shrimp's digestive tract.

fabrication: Process of butchering primal cuts into usable portions, such as roasts or steaks.

fin fish: Fish with a backbone that can live in freshwater or in the ocean.

flatfish: Fin fish that are oval and flat in shape and have two eyes on the front part of the head.

forcemeat: Mixture of lean ground meat and fat that is emulsified, or forced together, in a food grinder and then pushed through a sieve to create a very smooth paste.

game meat: Meat from animals that are not raised domestically.

garde manger: Department typically found in a classical brigade system kitchen and/or the chef who is responsible for the preparation of cold foods.

graded: Levels assigned to meat's quality, which is based primarily on its overall flavor characteristics and tenderness.

IQF: The abbreviation for the term "individually quick frozen."

Kosher meat: Meat specially slaughtered to comply with Jewish dietary laws.

marbling: Lines of fat within the lean flesh portion of the meat.

meat: Beef, veal, lamb, mutton, or pork.

mirepoix: Combination of chopped aromatic vegetables.

mollusks: Shellfish with one or two hard shells.

mousseline: Forcemeat that is delicately flavored and lightened with cream and egg whites.

offal meat: Organ meat from hogs, cattle, or sheep.

paupiettes: Thin, rolled fillets filled with stuffing.

poultry: Chicken, turkey, duck, geese, guinea, and pigeon protein sources.

primal cuts: Primary divisions of meat produced by the initial butchering of animal carcasses.

quality grade: Measures the flavor characteristics of meat products. The USDA evaluates meat for traits that indicate its tenderness, juiciness, and flavor.

retail cuts: Cuts of meat that are ready for sale.

round fish: Fin fish with a round body shape and one eye on each side of the head; they swim upright in salt water or freshwater.

sausages: Originally referred to ground pork that the preparer forced into a casing made from the lining of animal intestines. Today, many other ingredients are used to make sausage including game, beef, veal, poultry, fish, shellfish, and even vegetables.

shellfish: Fish with an outer shell but no backbone that live primarily in salt water.

shucking: Opening or removing of a mollusk's shell.

truss: Tying the legs and wings to a bird's body.

yield grade: Measures the proportion of edible or usable meat after being trimmed of bones or fat.

Unit 17:

a la carte menu: Menu that prices each item separately.

advertising: Paying to present or promote an operation's products, services, or identity.

Advertising can be conducted through multiple mediums.

aesthetic: The way an operation looks and feels to the customers.

apparel and branded merchandise: An operation's name and/or logo on T-shirts or other garments, mugs, pencils, stuffed animals, etc.

average check method: (1) Menu pricing method in which managers divide the total revenue by the number of seats, average seat turnover, and days open in one year.

average contribution margin: $Total\ contribution\ margin\ of\ all\ menu\ items \div Total\ number\ sold = Average\ contribution\ margin.$

California menu: Lists all meals available at any time of day.

carryout and door hanger menus: Paper menus for customers to use outside of the restaurant; door hanger menus for hanging on doorknobs or handles.

communication mix: All the ways an operation actively tries to reach, or communicate, with its desired customers.

community relations: Interacting with people in the local area to create awareness of and trust for an operation.

contemporary marketing mix: Consists of the product-service mix, presentation mix, and communication mix.

contribution margin method: Menu pricing method that uses operation-wide data to determine a dollar amount that must be added to each major menu item's food cost. There are two steps to the formula: $(Total\ nonfood\ cost + Target\ profit) \div Number\ of\ customers = Contribution\ margin,$ and $Contribution\ margin + Food\ cost = Menu\ price$

cooperative sales promotions: When two or more sponsors develop complementary promotions or offer complementary promotion materials.

customer driven: Marketing strategy that is driven by satisfying the wants and needs of the customer.

cyclical menu: A menu in which chefs or managers change menu items after a certain period of time.

demographic segmentation: Marketing that looks at the personal makeup of individuals in a given location.

demographics: Ways in which researchers categorize or group people; for example, by age, income levels, geographic location, and so on.

direct mail: Mass mailing of coupons, menus, advertising about a promotion, etc., to customers in a particular area.

direct marketing: Making a concerted effort to connect directly with a certain segment of the market.

dogs: Menu items that are unpopular and unprofitable.

du jour menu: Lists the menu items that are available on a particular day.

email: Electronic mail targeted to a particular market.

experimental method: Marketing strategy in which an operation might try out a product for a limited time or with a limited group of people in order to judge the response.

fixed menus: Menu that offers the same items every day.

flyers: Paper notices that are distributed in a specific location or to a targeted group to create awareness of a certain promotion or menu item.

focus group: Specific, small group of people used to determine how well a product or service might do on a larger scale.

food percentage method: Menu pricing method in which an operation sets the percentage of

menu price that the food cost must be and then calculates the price that will provide this percentage using the following formula: $Item\ food\ cost \div Food\ cost\ percentage = Menu\ price.$

frequent shopper program: Provides a benefit in exchange for continuing patronage; often free food items or substantial discounts.

geographic segmentation: Marketing that includes such factors as where consumers live, where they work, and what kind of transportation they use.

lifestyle segmentation: Marketing strategy that looks at the activities, hobbies, interests, and opinions of a given location.

limited menu: Menu that offers only a few items.

margin: Difference between the amount of money left over from the sale of food or beverages (after preparation costs) and the amount needed to pay for other overhead, like rent and heat.

market segmentation: When marketers break down a large market into smaller groups of similar individuals that make up that market.

market trends: Responses to consumers' changing attitudes about food, service, or aesthetics. They can also be responses to broader trends, such as political issues to do with energy conservation and recycling, or economic upswings or downturns that can greatly affect the behavior of a given market.

market: Group of people who desire that product or service.

marketing mix: Combination of all the factors that go into creating, developing, and selling a product.

marketing plan: List of steps an operation must take to sell a product or service to a specific market.

marketing: The process of communicating a business's message to its market.

mass marketing: Treating everyone in the market as having the same needs and wants.

media relations: Relationships that marketers maintain with media outlets.

media vehicles: Particular publications or radio stations.

menu boards: Menus written with chalk on a blackboard, or even on a wall in the dining room, that is visible to all the patrons.

menu engineering: Breaks down a menu's components to analyze which items are making money and which items are selling; helps management make decisions about which menu items to leave alone, which to increase or decrease in selling price, which to promote, and which to eliminate.

menu mix percentage: $Item\ number\ sold \div Total\ number\ of\ purchases = Menu\ mix\ percentage.$

merchandising materials: Table tents and other display items in the restaurant.

observational method: Marketing strategy in which an operation observes how customers react in a natural setting toward a product.

personal selling: Face-to-face interactions between service staff and guests; well-trained service staff can also go a long way in communicating an operation's message.

plow horses: Menu items that are popular but less profitable.

point-of-purchase (POP) materials: Menu boards, video, print pieces, and other display items near the point of purchase, where customers make their decisions about what to buy; can be at the counter or at the table.

positioning: Creating within the marketplace a clear, specific identity for both a product and the operation that offers that product.

premiums: Free or reduced-price merchandise, such as a pen or cup that shows the name and location of the restaurant, usually given away or sold for a reduced price with the purchase of a

food item. Token gifts or giveaway items, such as pens, stationary, children's toys, mugs, T-shirts, or magnets that display the restaurant name and location or phone number.

presentation mix: All the elements that make the operation look unique.

press kit: Also called a media kit; a packet of information given to media representatives to answer questions they might have about a business or organization.

press release: Also called a news release; a brief presentation of promotional information written to sound like a news article.

prix fixe menus: Offers multiple menu items at one price. Often, customers are offered multiple courses for a single set price.

product usage: Marketing strategy that segments the market according to what products or services are popular in a given geographic area.

product-service mix: All of the food and services offered to customers.

profitability: Defined as the amount of money remaining for an operation after expenses, or costs, are paid.

promotional mix: Ways in which marketing communicates with an operation's market.

public relations (PR): Process by which an operation interacts with the community at large.

publicity: Attention an operation receives.

puzzles: Menu items that are unpopular but very profitable.

sales mix analysis: An analysis of the popularity and profitability of a group of menu items.

sales promotions: Limited, or short-term, incentives to entice customers to patronize an operation.

sales volume: Number of times the item is sold in a time period.

sales volume percentage: Managers use sales volume information to compare the number of each menu item sold to the total number of items sold on the entire menu in the same time period, which means each menu item's sales can be expressed as a percentage of total sales.

samples: Free, small tastes of food items, providing customers a risk-free opportunity to try a new item.

sampling: Marketing strategy in which an operation tests a product with a specific, small group of people, sometimes called a **focus group**.

set dollar amount markup: Menu pricing method in which a fixed dollar amount is added to the food cost of an item. Managers must know the food cost and the dollar amount of the markup: $Food\ cost + Markup = Menu\ price$. The markup is calculated based on the following: $Profit\ per\ menu\ item + Labor\ cost\ per\ menu\ item + Operating\ cost\ per\ menu\ item = Markup$.

set percentage increase method: Menu pricing method that builds on the set dollar amount markup method and takes it a step further. Managers calculate the markup and then determine what the percentage markup is in comparison to the items' food costs. $Food\ cost \times Percentage = Markup$
 $Markup \div Food\ cost = Percentage$.

signage: Menu boards, directional signs, and other signs that indicate where the operation is located and/or the items it serves.

special pricing: Limited-time reduced prices offered through specials, deals, coupons, or other programs; saves customers money and creates a low-risk opportunity to try a new item.

spoken menu: This is when servers memorize the menu and relay it verbally to the customers.

stars: Menu items that are both popular and profitable.

straight markup pricing method: Way to price a menu in which an operation multiplies raw food costs by a predetermined fraction.

survey method: Marketing strategy in which a marketer gathers information using

questionnaires.

SWOT analysis: Also called a situation assessment; identifies a restaurant or foodservice operation's Strengths, Weaknesses, Opportunities, and Threats.

table d'hôte menu: Similar to a prix fixe menu, it bundles various elements of the menu into one package.

target market: People an operation intends to pursue as customers.

target marketing: Treating people as different from each other and trying to make a focused appeal to a distinct group of customers.

value proposition: Statement of the value an operation's target customers will experience when they purchase its products and services.

Unit 18:

3-2-1 dough: Used for pies, this dough is made of three parts flour, two parts fat, and one part water.

all-purpose flour: Flour that falls between pastry and bread flour in regard to texture.

baker's percentages: Flour always has a proportion of 100 percent, and the percentages of all other ingredients are calculated in relation to the flour.

baking blind: Procedure for preparing a prebaked pie shell.

baking powder: Versatile leavener that is a mixture of baking soda and an acid with an inactive material, like starch.

baking soda: Sodium bicarbonate; a chemical leavener that releases carbon dioxide gas when mixed with a liquid and an acid.

Bavarian creams: Delicate creams made by combining three basic ingredients: vanilla sauce, gelatin, and whipped cream.

biscuit method: Instead of combining all the ingredients at once, rub or cut in the fat into the flour until the mixture is mealy or bumpy in appearance. This produces a stiff batter with a slightly chewier texture than that of more cake-like items.

bloom: White coating that sometimes appears on the surface of the chocolate and indicates that some of the cocoa butter has melted and then recrystallized on the surface.

bread flour: Strong flour that is used for making breads, hard rolls, and any product that needs high gluten for a strong texture.

butterscotch-flavored sauce: Vanilla and brown sugar added to caramel.

cake flour: Flour with a low gluten content; a very soft, smooth texture; and a pure white color.

caramel sauce: Cooked sugar caramelized with butter.

caramelization: Occurs whenever sugar is used as an ingredient in baked items; the heat causes the sugar to turn a light brown (caramel) color.

chocolate liquor: Cocoa beans crushed into a paste that is completely unsweetened.

chocolate sauce: Family of sauces and syrups with cocoa or melted chocolate as the base.

cocoa butter: Liquid from pressed cocoa liquor.

cocoa powder: Solid from pressed cocoa liquor that is ground down.

coulis: Fruit sauce made from fresh berries or other fruits.

creaming method: Beating fat and sugar together in order to introduce air into a batter as a leavener. Process of mixing the fat and sugar together to produce a very fine crumb and a dense, rich texture.

crème anglaise: Vanilla sauce for desserts.

curdle: Lumps that develop when exposed to too much heat.

dock (or pierce): To pierce a pie crust in several places with a fork.

double boiler: Stainless steel bowl over water simmering on very low heat.

durum flour: Hard wheat flour used to make breads; its gluten content is a little higher than that of typical bread flour.

extracts: Flavorful oils taken from such foods as vanilla, lemon, and almond.

ferments: Producing carbon dioxide gas and alcohol.

flavorings: Cocoa, spices, salt, extracts, and so on that affect a baked item's taste and color.

foaming method: Creating a foam of whole eggs, yolks, or whites provides the structure for the cake. This is used to make cakes with the lightest texture, such as angel food and chiffon cakes.

formulas: Standardized recipes for bakery products.

frozen yogurt: Frozen dessert that contains yogurt in addition to normal ice cream ingredients, such as sugar or other sweeteners, gelatin, coloring, and flavors.

fruit sauces: Dessert sauce made from raw or cooked fruit.

fruit syrup: Cooked sugar-based juice.

gluten: Protein found in flour.

high-ratio cake: Cake that contains more sugar than flour in the recipe.

ice cream: Frozen dessert with a custard base that must contain no less than 10 percent milk fat (vanilla) or 8 percent milk fat (all other flavors), melts readily in the mouth, and does not weep, or separate, when it softens at room temperature.

icings: Also called frostings, icings are sweet coatings for cakes and other baked goods.

kneading : Manipulating dough to develop the gluten and give the dough the stretch and give it needs to develop the proper texture.

lean doughs: Made with flour, yeast, water, and salt; they have very little or no sugar or fat.

leaveners: Necessary in baking; they allow the dough or batter to rise.

liquids: One of the most important elements used in baking; the liquid used in baking can be water, milk, cream, molasses, honey, or butter.

nibs: Small pieces of cocoa beans that are the basis of all cocoa products.

pastry creams: Also called crème pâtissière, these creams have greater density than custards and are frequently used as the filling for pastries such as éclairs.

pastry flour: Flour that is not as strong as bread flour and not as delicate as cake flour.

pâte à choux: Made by combining water (or another liquid), butter, flour, and eggs into a smooth batter.

pâte feuilletée: Feuilletée means squares. This is another name for puff pastry.

phyllo dough: Dough used to prepare baklava.

physical leaveners: Introducing air into a batter to leaven a baked item.

poached fruit: Combination of fruit with a liquid, usually a mixture of sugar, spices, and wine.

profiteroles: Small, round pastries made from pâte à choux filled with ice cream.

proof: To allow dough to rise a second time.

puff pastry: Elegant product also called pâte feuilletée; (feuilletée means squares) that can be used in both sweet and savory applications.

pushing up: When carbon dioxide gas gets trapped in the gluten during fermentation.

quark: Cheese that is a lot like sour cream.

quick breads: Popular snack and dessert item that is usually easy and quick to make. Quick breads use chemical leaveners rather than organic ones and, therefore, don't require a rising period.

rich doughs: Made with the addition of shortening or tenderizing ingredients such as sugars, syrups, butter, eggs, milk, and cream.

roll-in dough: This method (also called laminated dough) is used to make Danish, croissant, and puff pastry.

semolina flour: Type of durum flour, but it is more coarsely ground than the flour used to make most breads. It has a fine texture with a high gluten content and is primarily used to make pastas and certain Italian pastries.

sherbets: Frozen mixtures of fruit juice or fruit purée that contain milk and/or egg for creaminess.

shortenings: Any fat, such as oil or butter, that acts as a shortening in baking.

sifting: Adds air to flour, cocoa, and confectioner's sugar; removes lumps, and filters out any impurities.

sorbet: Frozen mixtures of fruit juice or fruit purée that contain no dairy and contain sweeteners and other flavors or additives.

soufflé: Soufflés are lightened with beaten egg whites and then baked. Baking causes the soufflé to rise like a cake. They rely on egg whites and are not as stable as puddings.

sourdough: Type of bread made with yeast batter and leavened with a starter.

sponge method: Used to mix yeast doughs. The first stage of this method involves mixing the yeast, half of the liquid, and half of the flour to make a thick batter called a sponge. After the sponge rises and doubles its size, the remaining fat, liquid, salt, sugar, and flour are added.

starter: Mixture of water, yeast, and all-purpose flour that has been fermented until it has a sour smell (usually overnight).

steamed puddings: More stable than soufflés because of the greater percentage of eggs and sugar in the batter. Baked custard and chocolate sponge pudding are examples of steamed puddings.

straight-dough method: Also called the straight-mix method; this method can be used for all types of doughs—lean, rich, and sponge. The baker can combine all ingredients at the same time, or he or she might mix the yeast with warm water first.

strengtheners: Provide stability and ensure that a baked item doesn't collapse when it is removed from the oven.

sweeteners: Refined sugars, sugar syrups, molasses, brown sugar, corn syrup, honey, and malt syrup.

syneresis: Watery liquid that leaks from a custard as it is cut and served or as it sits and ages. It is safe to eat.

tempering: Melting by heating it gently and gradually.

thickeners: Gelatin, flour, arrowroot (a powdered starch made from a tropical root), cornstarch, and eggs. Thickeners, combined with the stirring process, determine the consistency of the finished product.

tofu: Soy milk that has been coagulated and pressed into a semisolid form.

torte: Elegant, rich, many-layered cake often filled with buttercream or jam.

two-stage method: Used to make high-ratio cakes. The first stage is to combine a softened or melted shortening with the dry ingredients. The second stage is to add and blend in one-half of the liquid being used in the recipe and then gradually add the remaining liquid to the mixture.

yeast: An organic leavener, yeast is a microscopic fungus used often in baking. When yeast is mixed with carbohydrates (such as sugar and flour), it ferments.

yield: How much of something is produced.

zabaglione: Also called sabayon; a sauce that is too delicate to be made ahead of time and held. It is a fragile foam of egg yolks, sugar, and Marsala wine.

Unit 19:

aquaculture: Production of seafood under controlled conditions.

bottom trawling: Pulling trawls across the bottom of the sea floor, where the heavy equipment scrapes against it.

brownfield site: Previously abandoned industrial site that, once cleaned up, can be repurposed for commercial businesses.

bycatch: Other species caught in some fishing gear in addition to the species that is targeted in a given region.

closed systems: Fish farms that recondition and reuse the water in the farm, which doesn't need to be placed in or sometimes even near a natural body of water.

composting: Biological decomposition; a natural form of recycling that occurs when organic material decomposes (or composts) to form organic fertilizer.

conservation: The practice of limiting the use of a resource.

controlled environment: Environment in which food has been within the kitchen's control and has been kept safe from cross-contamination and time-temperature abuse.

dead zones: Very large algae blooms that deplete the oxygen in the water, which dooms the species in the area.

Environmental Protection Agency (EPA): Founded in 1970; a federal agency whose mission is to protect human health and the environment.

food miles: Amount of travel that some food products must make.

fossil fuels: Fuels that are formed from plant or animal remains and buried deep in the earth.

green building: Building that has been designed, built, renovated, or reused so that the structure conserves energy, uses resources more efficiently, and reduces the overall impact on the environment.

local source: Offers food produced by the surrounding growing region.

open systems: Fish farms that use a natural body of water to produce the fish.

organic: Food that is generally defined according to agricultural practices as products that have been produced without pesticides or synthetic fertilizers.

overfishing: Catching a species at a faster rate than it can reproduce.

renewable energy sources: Energy sources that do not rely on a finite supply of a resource, directly emit greenhouse gases, or contribute to air pollution.

repurposed food: Food that customers did not eat, but that back-of-house staff prepared, cooked, cooled, and held safely.

shade-grown: Coffee forests that offer numerous benefits to a local ecosystem. By this traditional method, coffee trees grow under taller rainforest trees, whose larger leaves shade the crop.

sun coffee: Crop produced on newer, mono-cultured farms, in which the larger forest is cleared or thinned to make room for more crops.

sustainability: Practices that meet current resource needs without compromising the ability to meet future needs.

trawlers: Fishing boats that pull large nets through the water (called "trawls"), catching everything that is too big to escape through the mesh of the nets.

Unit 20:

andouille: Pork sausage with a strong, smoky, garlicky taste.

Archestratos: Wrote around 330 BCE and produced one of the world's first cookbooks.

barbecued: Meat cooked with the heat of a fire, sometimes after a marinade, spice rub, or basting sauce has been applied.

bisque: Soup made from lobster shells, extracting all the color and flavor before straining them away.

Cajun: Style of cooking from the swamps and bayous of southwestern Louisiana.

comale: Round, flat griddle made of stone or earthenware.

cassoulet: Rich dish of beans and meat.

cha kaiseki: Japanese cuisine centered around tea drinking.

Columbian Exchange: Named for explorer Christopher Columbus, the trading that took place between the Roman Empire and Europe that brought many new foods to Europe, such as tomatoes, peppers, and beans.

couscoussiere: Specialized earthenware or glass cooking vessel used in Moroccan cuisine.

cuisine classique: Later called "nouvelle cuisine," this cuisine developed as chefs in the late twentieth century embraced lighter dishes and simpler flavors—in a sense, returning to their roots. Based on the works of Auguste Escoffier.

Creole: Developed in the city of New Orleans in the homes of the rich French and Spanish land owners. It is the blending of French grand cuisine principles with the cooking techniques of the enslaved Africans and then applied to local and imported foodstuffs and seasoning.

curtido: Typical Central American relish that is made from cabbage, onions, and carrots in vinegar.

duck confit: Salted pieces of duck, poached in duck fat.

fusion cuisine: Style of cooking and presenting food that combines the ingredients and techniques of Asian and West Coast cuisines.

gohan: Japanese word for cooked rice.

gallo pinto: Literally means "painted chicken," but has nothing to do with either paint or chickens. It is a mix of white rice and black beans, cooked separately and then fried together in coconut oil.

gumbo: Hearty soup with trinity and shrimp, thickened with brown roux containing okra (a seed-pod vegetable that helps gel the gumbo), and filé, a thickener made from dried sassafras leaves.

haute cuisine: Type of cuisine characterized by highly refined dishes and the creation of a strictly disciplined brigade system (a hierarchy of specialized roles in the kitchen).

jambalaya: Spicy Creole rice dish with chicken, andouille sausage, shrimp, crayfish, trinity, other vegetables, herbs, broth, and seasonings.

jambon de Bayonne: Mild local ham of Southwest France.

jerk spice: Used to be a local mixture of allspice, Scotch bonnet peppers (a very hot relative of the habañero chili), marjoram, cinnamon, and other local herbs. Europeans added garlic and rum to the mix, and recently dry mustard and other additions have added a deeper color.

lacquered meats: Brushing multiple layers of a flavorful, sweet marinade onto a cut of meat before roasting it.

Low Country boil: Well-spiced, one-pot dish, generally consisting of shrimp, smoked sausage, red potato, and corn.

Low Country cuisine: From the Low Country of South Carolina, Georgia, and northeastern Florida, cuisine influenced by the warmer climate and rice plantations combined with the busy port of Charleston, where pickles and relishes of the warmer climates became standard fare.

Maghreb: Countries of North Africa.

mole: Sauce or mixture and can sometimes be used as a suffix on words to describe the sauce.

New England boiled dinner: Very popular, classic menu item in New England that includes corned beef brisket (beef that is cured in a salt brine, often with spices), boiled potatoes, cabbage, and root vegetables like onions, carrots, or parsnips.

New England clam chowder: The most familiar version of a thick clam soup, creamy, white, and mild.

nouvelle cuisine: Type of cuisine developed as chefs in the late twentieth century embraced lighter dishes and simpler flavors. Differs from cuisine classique in that the dishes are even lighter and more delicate, and there is an increased emphasis on presentation.

poulet de Bresse: Blue-legged chicken of renowned tenderness and flavor.

pupusa: A stuffed corn tortilla.

quinoa: The high-protein dried fruits and seeds of the goosefoot plant used as a food staple and ground into flour.

red-cooking: Stewing meat or fish in a broth of soy sauce and water to develop a rich color and succulent taste.

reduction: Process of thickening or intensifying the flavor of a liquid mixture such as a soup, sauce, wine, or juice by evaporation.

salsa: Signature dish of the Southwest. The word means sauce in Spanish. Although salsa can be smooth and thin in consistency, it is usually a chunky sauce that may even resemble a relish.

Saltimbocca alla Romano: Popular Roman dish made of pounded scallops of veal sautéed with fresh sage and prosciutto.

sofrito: Mix of salt pork, ham, onions, garlic, green peppers, jalapeño, tomato, oregano, and cilantro that is cooked slowly together and then used as a foundation in soups and stews.

Szechwan-Hunan: Chinese cuisine from the neighboring provinces of Szechwan and Hunan best known for their hot, spicy foods.

tagines: Commonly eaten in Morocco, these meat stews are cooked for a long time and are usually based on lamb, fish, game, or chicken, and often served with preserved lemon.

tan: Grains and rice in Chinese cuisine.

Tao: Belief that a single guiding principle orders the universe.

Tidewater cuisine: From Virginia's and North Carolina's Tidewater region, cuisine influenced by the Native Americans who taught European settlers to plant corn and introduced them to native squashes, plums, berries, greens, game, and seafood, including fish and oysters.

trinity: Form of mirepoix that blends celery, onions, and green bell peppers instead of the carrots that are traditional in mirepoix. Trinity is considered foundational to Louisiana cooking.

ts'ai: Vegetables and meat in Chinese cuisine.

velveting: Coating prepared meats with cornstarch and egg whites before stir-frying to retain moisture and improve sauce adherence.

wabi sabi: Buddhist principle that means quiet simplicity merged with quiet elegance.

Appendix C: Industry Standards

Family Consumer Science

Family Consumer Science Crosswalk for Culinary Arts											
	Units	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10
Family Consumer Science											
S1								X			
S8			X		X	X					
S9							X			X	
S10									X		X
S13								X			

Family Consumer Science Crosswalk for Culinary Arts											
	Units	Unit 11	Unit 12	Unit 13	Unit 14	Unit 15	Unit 16	Unit 17	Unit 18	Unit 19	Unit 20
Family Consumer Science											
S1											
S8			X			X		X	X	X	
S9		X		X	X		X				X
S10			X			X					
S13											

Family Consumer Science Crosswalk for Culinary Arts											
	Units	Unit 21	Unit 22								
Family Consumer Science											
S1											
S8			X								
S9			X								
S10		X	X								
S13			X								

National Standards for Family and Consumer Sciences Education

Standard 1: Career, Community and Family Connections

Standard 8: Food Production and Services

Standard 9: Food Science, Dietetics, and Nutrition

Standard 10: Hospitality, Tourism, and Recreation

Standard 13: Interpersonal Relationships

Appendix D: 21st Century Skills¹

21st Century Crosswalk for Culinary Arts											
	Units	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10
21 st Century Standards											
CS1											
CS2									x		
CS3											
CS4							x			x	
CS5											
CS6											
CS7											
CS8								x			
CS9											
CS10											
CS11											
CS12											
CS13											
CS14											
CS15											
CS16											
		Unit 11	Unit 12	Unit 13	Unit 14	Unit 15	Unit 16	Unit 17	Unit 18	Unit 19	Unit 20
CS1											
CS2			x			x		x			
CS3											
CS4		x			x		x		x		x
CS5											
CS6											
CS7											
CS8											
CS9											
CS10											
CS11											
CS12						X					
CS13						X					
CS14						X					
CS15						X					
CS16						X					
		Unit 21	Unit 22								
CS1			x								
CS2		x									
CS3											
CS4											
CS5											
CS6											
CS7											
CS8											
CS9											
CS10											
CS11											
CS12											
CS13											
CS14											
CS15											
CS16											

¹ 21st century skills. (n.d.). Washington, DC: Partnership for 21st Century Skills.

CSS1-21st Century Themes

CS1 Global Awareness

1. Using 21st century skills to understand and address global issues
2. Learning from and working collaboratively with individuals representing diverse cultures, religions, and lifestyles in a spirit of mutual respect and open dialogue in personal, work, and community contexts
3. Understanding other nations and cultures, including the use of non-English languages

CS2 Financial, Economic, Business, and Entrepreneurial Literacy

1. Knowing how to make appropriate personal economic choices
2. Understanding the role of the economy in society
3. Using entrepreneurial skills to enhance workplace productivity and career options

CS3 Civic Literacy

1. Participating effectively in civic life through knowing how to stay informed and understanding governmental processes
2. Exercising the rights and obligations of citizenship at local, state, national, and global levels
3. Understanding the local and global implications of civic decisions

CS4 Health Literacy

1. Obtaining, interpreting, and understanding basic health information and services and using such information and services in ways that enhance health
2. Understanding preventive physical and mental health measures, including proper diet, nutrition, exercise, risk avoidance, and stress reduction
3. Using available information to make appropriate health-related decisions
4. Establishing and monitoring personal and family health goals
5. Understanding national and international public health and safety issues

CS5 Environmental Literacy

1. Demonstrate knowledge and understanding of the environment and the circumstances and conditions affecting it, particularly as relates to air, climate, land, food, energy, water, and ecosystems.
2. Demonstrate knowledge and understanding of society's impact on the natural world (e.g., population growth, population development, resource consumption rate, etc.).
3. Investigate and analyze environmental issues, and make accurate conclusions about effective solutions.
4. Take individual and collective action toward addressing environmental challenges (e.g., participating in global actions, designing solutions that inspire action on environmental issues).

CSS2-Learning and Innovation Skills

CS6 Creativity and Innovation

1. Think Creatively
2. Work Creatively with Others
3. Implement Innovations

CS7 Critical Thinking and Problem Solving

1. Reason Effectively

2. Use Systems Thinking
3. Make Judgments and Decisions
4. Solve Problems

CS8 Communication and Collaboration

1. Communicate Clearly
2. Collaborate with Others

CSS3-Information, Media and Technology Skills

CS9 Information Literacy

1. Access and Evaluate Information
2. Use and Manage Information

CS10 Media Literacy

1. Analyze Media
2. Create Media Products

CS11 ICT Literacy

1. Apply Technology Effectively

CSS4-Life and Career Skills

CS12 Flexibility and Adaptability

1. Adapt to change
2. Be Flexible

CS13 Initiative and Self-Direction

1. Manage Goals and Time
2. Work Independently
3. Be Self-directed Learners

CS14 Social and Cross-Cultural Skills

1. Interact Effectively with others
2. Work Effectively in Diverse Teams

CS15 Productivity and Accountability

1. Manage Projects
2. Produce Results

CS16 Leadership and Responsibility

1. Guide and Lead Others
2. Be Responsible to Others

Appendix E: Common Core Standards

Common Core Crosswalk for English/Language Arts (11-12)											
	Units	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10
Common Core Standards											
RL.11.1.											
RL.11.2.											
RL.11.3.											
RL.11.4.											
RL.11.5.											
RL.11.6.											
RL.11.7.											
RL.11.8.											
RL.11.9.											
RL.11.10.											
RI.11.1.											
RI.11.2.											
RI.11.3.											
RI.11.4.											
RI.11.5.											
RI.11.6.											
RI.11.7.											
RI.11.8.											
RI.11.9.											
RI.11.10.											
W.11.1.		x	x	x	x	x	x	x	x	x	x
W.11.2.		x	x	x	x	x	x	x	x	x	x
W.11.3.		x	x	x	x	x	x	x	x	x	x
W.11.4.		x	x	x	x	x	x	x	x	x	x
W.11.5.		x	x	x	x	x	x	x	x	x	x
W.11.6.		x	x	x	x	x	x	x	x	x	x
W.11.7.		x	x	x	x	x	x	x	x	x	x
W.11.8.		x	x	x	x	x	x	x	x	x	x
W.11.9.		x	x	x	x	x	x	x	x	x	x
W.11.10.		x	x	x	x	x	x	x	x	x	x
SL.11.1.		x	x	x	x	x	x	x	x	x	x
SL.11.2.		x	x	x	x	x	x	x	x	x	x
SL.11.3.		x	x	x	x	x	x	x	x	x	x
SL.11.4.		x	x	x	x	x	x	x	x	x	x
SL.11.5.		x	x	x	x	x	x	x	x	x	x
SL.11.6.		x	x	x	x	x	x	x	x	x	x
L.11.1.		x	x	x	x	x	x	x	x	x	x
L.11.2.		x	x	x	x	x	x	x	x	x	x
L.11.3.		x	x	x	x	x	x	x	x	x	x
L.11.4.		x	x	x	x	x	x	x	x	x	x
L.11.5.		x	x	x	x	x	x	x	x	x	x
L.11.6.		x	x	x	x	x	x	x	x	x	x
RH.11.1.		x	x	x	x	x	x	x	x	x	x
RH.11.2.		x	x	x	x	x	x	x	x	x	x
RH.11.3.		x	x	x	x	x	x	x	x	x	x
RH.11.4.		x	x	x	x	x	x	x	x	x	x
RH.11.5.		x	x	x	x	x	x	x	x	x	x
RH.11.6.		x	x	x	x	x	x	x	x	x	x
RH.11.7.		x	x	x	x	x	x	x	x	x	x
RH.11.8.		x	x	x	x	x	x	x	x	x	x
RH.11.9.		x	x	x	x	x	x	x	x	x	x
RH.11.10.		x	x	x	x	x	x	x	x	x	x
RST.11.1.		x	x	x	x	x	x	x	x	x	x
RST.11.2.		x	x	x	x	x	x	x	x	x	x

RST.11.3.											
RST.11.4.											
RST.11.5.											
RST.11.6.											
RST.11.7.											
RST.11.8.											
RST.11.9.											
RST.11.10.											
WHST.11.1.		x	x	x	x	x	x	x	x	x	x
WHST.11.2.		x	x	x	x	x	x	x	x	x	x
WHST.11.3.		x	x	x	x	x	x	x	x	x	x
WHST.11.4.		x	x	x	x	x	x	x	x	x	x
WHST.11.5.		x	x	x	x	x	x	x	x	x	x
WHST.11.6.		x	x	x	x	x	x	x	x	x	x
WHST.11.7.		x	x	x	x	x	x	x	x	x	x
WHST.11.8.		x	x	x	x	x	x	x	x	x	x
WHST.11.9.		x	x	x	x	x	x	x	x	x	x
WHST.11.10.		x	x	x	x	x	x	x	x	x	x
	Units	Unit 11	Unit 12	Unit 13	Unit 14	Unit 15	Unit 16	Unit 17	Unit 18	Unit 19	Unit 20
RL.11.1.											
RL.11.2.											
RL.11.3.											
RL.11.4.											
RL.11.5.											
RL.11.6.											
RL.11.7.											
RL.11.8.											
RL.11.9.											
RL.11.10.											
RI.11.1.											
RI.11.2.											
RI.11.3.											
RI.11.4.											
RI.11.5.											
RI.11.6.											
RI.11.7.											
RI.11.8.											
RI.11.9.											
RI.11.10.											
W.11.1.		x	x	x	x	x	x	x	x	x	x
W.11.2.		x	x	x	x	x	x	x	x	x	x
W.11.3.		x	x	x	x	x	x	x	x	x	x
W.11.4.		x	x	x	x	x	x	x	x	x	x
W.11.5.		x	x	x	x	x	x	x	x	x	x
W.11.6.		x	x	x	x	x	x	x	x	x	x
W.11.7.		x	x	x	x	x	x	x	x	x	x
W.11.8.		x	x	x	x	x	x	x	x	x	x
W.11.9.		x	x	x	x	x	x	x	x	x	x
W.11.10.		x	x	x	x	x	x	x	x	x	x
SL.11.1.		x	x	x	x	x	x	x	x	x	x
SL.11.2.		x	x	x	x	x	x	x	x	x	x
SL.11.3.		x	x	x	x	x	x	x	x	x	x
SL.11.4.		x	x	x	x	x	x	x	x	x	x
SL.11.5.		x	x	x	x	x	x	x	x	x	x
SL.11.6.		x	x	x	x	x	x	x	x	x	x
L.11.1.		x	x	x	x	x	x	x	x	x	x
L.11.2.		x	x	x	x	x	x	x	x	x	x
L.11.3.		x	x	x	x	x	x	x	x	x	x
L.11.4.		x	x	x	x	x	x	x	x	x	x
L.11.5.		x	x	x	x	x	x	x	x	x	x
L.11.6.		x	x	x	x	x	x	x	x	x	x
RH.11.1.											x

RH.11.2.											
RH.11.3.											
RH.11.4.											
RH.11.5.											
RH.11.6.											
RH.11.7.											
RH.11.8.											
RH.11.9.											
RH.11.10.											
RST.11.1.											
RST.11.2.											
RST.11.3.											
RST.11.4.											
RST.11.5.											
RST.11.6.											
RST.11.7.											
RST.11.8.											
RST.11.9.											
RST.11.10.											
WHST.11.1.		x	x	x	x	x	x	x	x	x	x
WHST.11.2.		x	x	x	x	x	x	x	x	x	x
WHST.11.3.		x	x	x	x	x	x	x	x	x	x
WHST.11.4.		x	x	x	x	x	x	x	x	x	x
WHST.11.5.		x	x	x	x	x	x	x	x	x	x
WHST.11.6.		x	x	x	x	x	x	x	x	x	x
WHST.11.7.		x	x	x	x	x	x	x	x	x	x
WHST.11.8.		x	x	x	x	x	x	x	x	x	x
WHST.11.9.		x	x	x	x	x	x	x	x	x	x
WHST.11.10.		x	x	x	x	x	x	x	x	x	x
	Units	Unit 21	Unit 22								
RL.11.1.											
RL.11.2.											
RL.11.3.											
RL.11.4.											
RL.11.5.											
RL.11.6.											
RL.11.7.											
RL.11.8.											
RL.11.9.											
RL.11.10.											
RI.11.1.											
RI.11.2.											
RI.11.3.											
RI.11.4.											
RI.11.5.											
RI.11.6.											
RI.11.7.											
RI.11.8.											
RI.11.9.											
RI.11.10.											
W.11.1.		x	x								
W.11.2.		x	x								
W.11.3.		x	x								
W.11.4.		x	x								
W.11.5.		x	x								
W.11.6.		x	x								
W.11.7.		x	x								
W.11.8.		x	x								
W.11.9.		x	x								
W.11.10.		x	x								
SL.11.1.		x	x								
SL.11.2.		x	x								
SL.11.3.		x	x								
SL.11.4.		x	x								

SL.11.5.		x	x									
SL.11.6.		x	x									
L.11.1.		x	x									
L.11.2.		x	x									
L.11.3.		x	x									
L.11.4.		x	x									
L.11.5.		x	x									
L.11.6.		x	x									
RH.11.1.		x	x									
RH.11.2.		x	x									
RH.11.3.		x	x									
RH.11.4.		x	x									
RH.11.5.		x	x									
RH.11.6.		x	x									
RH.11.7.		x	x									
RH.11.8.		x	x									
RH.11.9.		x	x									
RH.11.10.		x	x									
RST.11.1.		x	x									
RST.11.2.		x	x									
RST.11.3.		x	x									
RST.11.4.		x	x									
RST.11.5.		x	x									
RST.11.6.		x	x									
RST.11.7.		x	x									
RST.11.8.		x	x									
RST.11.9.		x	x									
RST.11.10.		x	x									
WHST.11.1.		x	x									
WHST.11.2.		x	x									
WHST.11.3.		x	x									
WHST.11.4.		x	x									
WHST.11.5.		x	x									
WHST.11.6.		x	x									
WHST.11.7.		x	x									
WHST.11.8.		x	x									
WHST.11.9.		x	x									
WHST.11.10.		x	x									

Reading Standards for Literature (11-12)

College and Career Readiness Anchor Standards for *Reading Literature*

Key Ideas and Details

RL.11.1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.

RL.11.2. Determine two or more themes or central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to produce a complex account; provide an objective summary of the text.

RL.11.3. Analyze the impact of the author's choices regarding how to develop and relate elements of a story or drama (e.g., where a story is set, how the action is ordered, how the characters are introduced and developed).

Craft and Structure

RL.11.4. Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including words with multiple meanings or language that is particularly fresh, engaging, or beautiful. (Include Shakespeare as well as other authors.)

RL.11.5. Analyze how an author's choices concerning how to structure specific parts of a text (e.g., the choice of where to begin or end a story, the choice to provide a comedic or tragic resolution) contribute to its overall structure and meaning as well as its aesthetic impact.

RL.11.6. Analyze a case in which grasping point of view requires distinguishing what is directly stated in a text from what is really meant (e.g., satire, sarcasm, irony, or understatement).

Integration of Knowledge and Ideas

RL.11.7. Analyze multiple interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), evaluating how each version interprets the source text. (Include at least one play by Shakespeare and one play by an American dramatist.)

RL.11.8. (Not applicable to literature)

RL.11.9. Demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature, including how two or more texts from the same period treat similar themes or topics.

Range of Reading and Level of Text Complexity

RL.11.10. By the end of grade 11, read and comprehend literature, including stories, dramas, and poems, in the grades 11–CCR text complexity band proficiently, with scaffolding as needed at the high end of the range.

By the end of grade 12, read and comprehend literature, including stories, dramas, and poems, at the high end of the grades 11–CCR text complexity band independently and proficiently.

Reading Standards for Informational Text (11-12)

College and Career Readiness Anchor Standards for *Informational Text*

Key Ideas and Details

RI.11.1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.

RI.11.2. Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to provide a complex analysis; provide an objective summary of the text.

RI.11.3. Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text.

Craft and Structure

RI.11.4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze how an author uses and refines the meaning of a key term or terms over the course of a text (e.g., how Madison defines faction in Federalist No. 10).

RI.11.5. Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging.

RI.11.6. Determine an author's point of view or purpose in a text in which the rhetoric is particularly effective, analyzing how style and content contribute to the power, persuasiveness, or beauty of the text.

Integration of Knowledge and Ideas

RI.11.7. Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.

RI.11.8. Delineate and evaluate the reasoning in seminal U.S. texts, including the application of constitutional principles and use of legal reasoning (e.g., in U.S. Supreme Court majority opinions and dissents) and the premises, purposes, and arguments in works of public advocacy (e.g., The Federalist, presidential addresses).

RI.11.9. Analyze seventeenth-, eighteenth-, and nineteenth-century foundational U.S. documents of historical and literary significance (including the Declaration of

Independence, the Preamble to the Constitution, the Bill of Rights, and Lincoln’s Second Inaugural Address) for their themes, purposes, and rhetorical features.

Range of Reading and Level of Text Complexity

RI.11.10. By the end of grade 11, read and comprehend literary nonfiction in the grades 11–CCR text complexity band proficiently, with scaffolding as needed at the high end of the range.

By the end of grade 12, read and comprehend literary nonfiction at the high end of the grades 11–CCR text complexity band independently and proficiently.

College and Career Readiness Anchor Standards for *Writing*

Text Types and Purposes

W.11.1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

- a. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence.
- b. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience’s knowledge level, concerns, values, and possible biases.
- c. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
- d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- e. Provide a concluding statement or section that follows from and supports the argument presented.

W.11.2. Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

- a. Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole;

include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

b. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.

c. Use appropriate and varied transitions and syntax to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.

d. Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic.

e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

W.11.3. Write narratives to develop real or imagined experiences or events using effective techniques, well-chosen details, and well-structured event sequences.

a. Engage and orient the reader by setting out a problem, situation, or observation and its significance, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events.

b. Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters

c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome (e.g., a sense of mystery, suspense, growth, or resolution).

d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.

e. Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.

Production and Distribution of Writing

W.11.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

W.11.5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grades 11–12.)

W.11.6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

Research to Build and Present Knowledge

W.11.7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

W.11.8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

W.11.9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

a. Apply grades 11–12 Reading standards to literature (e.g., “Demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature, including how two or more texts from the same period treat similar themes or topics”).

b. Apply grades 11–12 Reading standards to literary nonfiction (e.g., “Delineate and evaluate the reasoning in seminal U.S. texts, including the application of constitutional principles and use of legal reasoning [e.g., in U.S. Supreme Court Case majority opinions and dissents] and the premises, purposes, and arguments in works of public advocacy [e.g., The Federalist, presidential addresses]”).

Range of Writing

W.11.10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

College and Career Readiness Anchor Standards for *Speaking and Listening*

Comprehension and Collaboration

SL.11.1. Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.

a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.

b. Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed.

c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.

d. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.

SL.11.2. Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.

SL.11.3. Evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.

Presentation of Knowledge and Ideas

SL.11.4. Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

SL.11.5. Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

SL.11.6. Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate. (See grades 11–12 Language standards 1 and 3 on page 54 for specific expectations.)

College and Career Readiness Anchor Standards for *Language*

Conventions of Standard English

L.11.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

a. Apply the understanding that usage is a matter of convention, can change over time, and is sometimes contested.

b. Resolve issues of complex or contested usage, consulting references (e.g., Merriam-Webster’s Dictionary of English Usage, Garner’s Modern American Usage) as needed.

L.11.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

a. Observe hyphenation conventions.

b. Spell correctly.

Knowledge of Language

L.11.3. Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

a. Vary syntax for effect, consulting references (e.g., Tufte’s *Artful Sentences*) for guidance as needed; apply an understanding of syntax to the study of complex texts when reading.

Vocabulary Acquisition and Use

L.11.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 11–12 reading and content, choosing flexibly from a range of strategies.

a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase.

- b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., conceive, conception, conceivable).
- c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, its etymology, or its standard usage.
- d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).

L.11.5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

- a. Interpret figures of speech (e.g., hyperbole, paradox) in context and analyze their role in the text.
- b. Analyze nuances in the meaning of words with similar denotations.

L.11.6. Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Reading Standards for Literacy in History/Social Studies (11-12)

Key Ideas and Details

RH.11.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

RH.11.2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas

RH.11.3. Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain

Craft and Structure

RH.11.4. Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10).

RH.11.5. Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole.

RH.11.6. Evaluate authors' differing points of view on the same historical event or issue by assessing the authors' claims, reasoning, and evidence.

Integration of Knowledge and Ideas

RH.11.7. Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.

RH.11.8. Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information.

RH.11.9. Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.

Range of Reading and Level of Text Complexity

RH.11.10. By the end of grade 12, read and comprehend history/social studies texts in the grades 11–CCR text complexity band independently and proficiently.

Reading Standards for Literacy in Science and Technical Subjects (11-12)

Key Ideas and Details

RST.11.1. Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.

RST.11.2. Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.

RST.11.3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.

Craft and Structure

RST.11.4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11–12 texts and topics.

RST.11.5. Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.

RST.11.6. Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.

Integration of Knowledge and Ideas

RST.11.7. Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

RST.11.8. Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.

RST.11.9. Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

Range of Reading and Level of Text Complexity

RST.11.10. By the end of grade 12, read and comprehend science/technical texts in the grades 11–CCR text complexity band independently and proficiently.

Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects (11-12)

Text Types and Purposes

WHST.11.1. Write arguments focused on discipline-specific content.

a. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.

b. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience’s knowledge level, concerns, values, and possible biases.

c. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s)

and reasons, between reasons and evidence, and between claim(s) and counterclaims.

d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

e. Provide a concluding statement or section that follows from or supports the argument presented.

WHST.11.2. Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.

a. Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

b. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.

c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.

d. Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.

e. Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).

WHST.11.3. (Not applicable as a separate requirement)

Production and Distribution of Writing

WHST.11.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

WHST.11.5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

WHST.11.6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

Research to Build and Present Knowledge

WHST.11.7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

WHST.11.8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

WHST.11.9. Draw evidence from informational texts to support analysis, reflection, and research.

Range of Writing

WHST.11.10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Common Core Crosswalk for Mathematics (11-12)

	Units	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10
Common Core Standards											
N-RN.1.											
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Mathematics (High School)

Number and Quantity

The Real Number System

N-RN.1. Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents.

N-RN.2. Rewrite expressions involving radicals and rational exponents using the properties of exponents.

N-RN.3. Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.

Quantities

N-Q.1. Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

N-Q.2. Define appropriate quantities for the purpose of descriptive modeling.

N-Q.3. Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

The Complex Number System

N-CN.1. Know there is a complex number i such that $i^2 = -1$, and every complex number has the form $a + bi$ with a and b real.

N-CN.2. Use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers.

N-CN.3. (+) Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers.

N-CN.4. (+) Represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers), and explain why the rectangular and polar forms of a given complex number represent the same number.

N-CN.5. (+) Represent addition, subtraction, multiplication, and conjugation of complex numbers geometrically on the complex plane; use properties of this representation for

computation. For example, $(-1 + \sqrt{3}i)^3 = 8$ because $(-1 + \sqrt{3}i)$ has modulus 2 and argument 120° .

N-CN.6. (+) Calculate the distance between numbers in the complex plane as the modulus of the difference, and the midpoint of a segment as the average of the numbers at its endpoints.

N-CN.7. Solve quadratic equations with real coefficients that have complex solutions.

N-CN.8. (+) Extend polynomial identities to the complex numbers. For example, rewrite $x^2 + 4$ as $(x + 2i)(x - 2i)$.

N-CN.9. (+) Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials.

Vector and Matrix Quantities

N-VM.1. (+) Recognize vector quantities as having both magnitude and direction. Represent vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes (e.g., \mathbf{v} , $|\mathbf{v}|$, $\|\mathbf{v}\|$, v).

N-VM.2. (+) Find the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point.

N-VM.3. (+) Solve problems involving velocity and other quantities that can be represented by vectors.

N-VM.4. (+) Add and subtract vectors

N-VM.4.a. Add vectors end-to-end, component-wise, and by the parallelogram rule. Understand that the magnitude of a sum of two vectors is typically not the sum of the magnitudes.

N-VM.4.b. Given two vectors in magnitude and direction form, determine the magnitude and direction of their sum.

N-VM.4.c. Understand vector subtraction $\mathbf{v} - \mathbf{w}$ as $\mathbf{v} + (-\mathbf{w})$, where $-\mathbf{w}$ is the additive inverse of \mathbf{w} , with the same magnitude as \mathbf{w} and pointing in the opposite direction. Represent vector subtraction graphically by connecting the tips in the appropriate order, and perform vector subtraction component-wise.

N-VM.5. (+) Multiply a vector by a scalar.

N-VM.5.a. Represent scalar multiplication graphically by scaling vectors and possibly reversing their direction; perform scalar multiplication component-wise, e.g., as $c(v_x, v_y) = (cv_x, cv_y)$.

N-VM.5.b. Compute the magnitude of a scalar multiple cv using $\|cv\| = |c|v$. Compute the direction of cv knowing that when $|c|v \neq 0$, the direction of cv is either along v (for $c > 0$) or against v (for $c < 0$).

N-VM.6. (+) Use matrices to represent and manipulate data, e.g., to represent payoffs or incidence relationships in a network.

N-VM.7. (+) Multiply matrices by scalars to produce new matrices, e.g., as when all of the payoffs in a game are doubled.

N-VM.8. (+) Add, subtract, and multiply matrices of appropriate dimensions.

N-VM.9. (+) Understand that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties

N-VM.10. (+) Understand that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse.

N-VM.11. (+) Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Work with matrices as transformations of vectors.

N-VM.12. (+) Work with 2×2 matrices as transformations of the plane, and interpret the absolute value of the determinant in terms of area.

Algebra

Seeing structure in expressions

A-SSE.1. Interpret expressions that represent a quantity in terms of its context.

A-SSE.1.a. Interpret parts of an expression, such as terms, factors, and coefficients.

A-SSE.1.b. Interpret complicated expressions by viewing one or more of their parts as a single entity. For example, interpret $P(1+r)^n$ as the product of P and a factor not depending on P .

A-SSE.2. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.

A-SSE.3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.

A-SSE.3.a. Factor a quadratic expression to reveal the zeros of the function it defines.

A-SSE.3.b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.

A-SSE.3.c. Use the properties of exponents to transform expressions for exponential functions.

A-SSE.4. Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems. For example, calculate mortgage payments.

Arithmetic with Polynomials and Rational Expressions

A-APR.1. Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials

A-APR.2. Know and apply the Remainder Theorem: For a polynomial $p(x)$ and a number a , the remainder on division by $x - a$ is $p(a)$, so $p(a) = 0$ if and only if $(x - a)$ is a factor of $p(x)$.

A-APR.3. Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.

A-APR.4. Prove polynomial identities and use them to describe numerical relationships.

A-APR.5. (+) Know and apply the Binomial Theorem for the expansion of $(x + y)^n$ in powers of x and y for a positive integer n , where x and y are any numbers, with coefficients determined for example by Pascal's Triangle.

A-APR.6. Rewrite simple rational expressions in different forms; write $a(x)/b(x)$ in the form $q(x) + r(x)/b(x)$, where $a(x)$, $b(x)$, $q(x)$, and $r(x)$ are polynomials with the degree of $r(x)$ less than the degree of $b(x)$, using inspection, long division, or, for the more complicated examples, a computer algebra system.

A-APR.7. (+) Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions.

Creating Equations

A-CED.1. Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.

A-CED.2. Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

A-CED.3. Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.

A-CED.4. Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. For example, rearrange Ohm's law $V = IR$ to highlight resistance R .

Reasoning with Equations and Inequalities

A-REI.1. Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

A-REI.2. Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.

A-REI.3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.

A-REI.4. Solve quadratic equations in one variable.

A-REI.4.a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form.

A-REI.4.b. Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b .

A-REI.5. Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.

A-REI.6. Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.

A-REI.7. Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. For example, find the points of intersection between the line $y = -3x$ and the circle $x^2 + y^2 = 3$.

A-REI.8. (+) Represent a system of linear equations as a single matrix equation in a vector variable.

A-REI.9. (+) Find the inverse of a matrix if it exists and use it to solve systems of linear equations (using technology for matrices of dimension 3×3 or greater).

A-REI.10. Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).

A-REI.11. Explain why the x-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.

A-REI.12. Graph the solutions to a linear inequality in two variables as a half plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

Functions

Interpreting Functions

F-IF.1. Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x . The graph of f is the graph of the equation $y = f(x)$.

F-IF.2. Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.

F-IF.3. Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. For example, the Fibonacci sequence is defined recursively by $f(0) = f(1) = 1$, $f(n+1) = f(n) + f(n-1)$ for $n \geq 1$.

F-IF.4. For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts;

intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.

F-IF.5. Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. For example, if the function $h(n)$ gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.

F-IF.6. Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.

F-IF.7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.

F-IF.7.a. Graph linear and quadratic functions and show intercepts, maxima, and minima.

F-IF.7.b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.

F-IF.7.c. Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior.

F-IF.7.d. (+) Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior.

F-IF.7.e. Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.

F-IF.8. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.

F-IF.8.a. Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.

F-IF.8.b. Use the properties of exponents to interpret expressions for exponential functions.

F-IF.9. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.

Building Functions

F-BF.1. Write a function that describes a relationship between two quantities.

F-BF.1.a. Determine an explicit expression, a recursive process, or steps for calculation from a context.

F-BF.1.b. Combine standard function types using arithmetic operations. For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.

F-BF.1.c. (+) Compose functions. For example, if $T(y)$ is the temperature in the atmosphere as a function of height, and $h(t)$ is the height of a weather balloon as a function of time, then $T(h(t))$ is the temperature at the location of the weather balloon as a function of time.

F-BF.2. Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.

F-BF.3. Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them.

F-BF.4. Find inverse functions.

F-BF.4.a. Solve an equation of the form $f(x) = c$ for a simple function f that has an inverse and write an expression for the inverse.

F-BF.4.b. (+) Verify by composition that one function is the inverse of another.

F-BF.4.c. (+) Read values of an inverse function from a graph or a table, given that the function has an inverse.

F-BF.4.d. (+) Produce an invertible function from a non-invertible function by restricting the domain.

F-BF.5. (+) Understand the inverse relationship between exponents and logarithms and use this relationship to solve problems involving logarithms and exponents.

Linear, Quadratic, and Exponential Models

F-LE.1. Distinguish between situations that can be modeled with linear functions and with exponential functions.

F-LE.1.a. Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.

F-LE.1.b. Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.

F-LE.1.c. Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another

F-LE.2. Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).

F-LE.3. Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.

F-LE.4. For exponential models, express as a logarithm the solution to $ab^{ct} = d$ where a , c , and d are numbers and the base b is 2, 10, or e ; evaluate the logarithm using technology.

F-LE.5. Interpret the parameters in a linear or exponential function in terms of a context.

Trigonometric Functions

F-TF.1. Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle.

F-TF.2. Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.

F-TF.3. (+) Use special triangles to determine geometrically the values of sine, cosine, tangent for $\pi/3$, $\pi/4$ and $\pi/6$, and use the unit circle to express the values of sine, cosine, and tangent for $\pi-x$, $\pi+x$, and $2\pi-x$ in terms of their values for x , where x is any real number.

F-TF.4. (+) Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions.

F-TF.5. Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.

F-TF.6. (+) Understand that restricting a trigonometric function to a domain on which it is always increasing or always decreasing allows its inverse to be constructed.

F-TF.7. (+) Use inverse functions to solve trigonometric equations that arise in modeling contexts; evaluate the solutions using technology, and interpret them in terms of the context.

F-TF.8. Prove the Pythagorean identity $\sin^2(\theta) + \cos^2(\theta) = 1$ and use it to find $\sin(\theta)$, $\cos(\theta)$, or $\tan(\theta)$ given $\sin(\theta)$, $\cos(\theta)$, or $\tan(\theta)$ and the quadrant of the angle.

F-TF.9. (+) Prove the addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems.

Geometry

Congruence

G-CO.1. Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.

G-CO.2. Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch).

G-CO.3. Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself.

G-CO.4. Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.

G-CO.5. Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.

G-CO.6. Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.

G-CO.7. Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.

G-CO.8. Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.

G-CO.9. Prove theorems about lines and angles. Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.

G-CO.10. Prove theorems about triangles. Theorems include: measures of interior angles of a triangle sum to 180° ; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.

G-CO.11. Prove theorems about parallelograms. Theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.

G-CO.12. Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). Copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line.

G-CO.13. Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.

Similarity, Right Triangles, and Trigonometry

G-SRT.1. Verify experimentally the properties of dilations given by a center and a scale factor:

G-SRT.1.a. A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged.

G-SRT.1.b. The dilation of a line segment is longer or shorter in the ratio given by the scale factor.

G-SRT.2. Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.

G-SRT.3. Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.

G-SRT.4. Prove theorems about triangles. Theorems include: a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem proved using triangle similarity.

G-SRT.5. Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.

G-SRT.6. Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.

G-SRT.7. Explain and use the relationship between the sine and cosine of complementary angles.

G-SRT.8. Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.

G-SRT.9. (+) Derive the formula $A = \frac{1}{2} ab \sin(C)$ for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side.

G-SRT.10. (+) Prove the Laws of Sines and Cosines and use them to solve problems.

G-SRT.11. (+) Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).

Circles

G-C.1. Prove that all circles are similar.

G-C.2. Identify and describe relationships among inscribed angles, radii, and chords. Include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.

G-C.3. Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.

G-C.4. (+) Construct a tangent line from a point outside a given circle to the circle.

G-C.5. Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector.

Expressing Geometric Properties with Equations

G-GPE.1. Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.

G-GPE.2. Derive the equation of a parabola given a focus and directrix.

G-GPE.3. (+) Derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant.

G-GPE.4. Use coordinates to prove simple geometric theorems algebraically. For example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle; prove or disprove that the point $(1, \sqrt{3})$ lies on the circle centered at the origin and containing the point $(0, 2)$.

G-GPE.5. Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).

G-GPE.6. Find the point on a directed line segment between two given points that partitions the segment in a given ratio.

G-GPE.7. Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.

Geometric Measurement and Dimension

G-GMD.1. Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. Use dissection arguments, Cavalieri's principle, and informal limit arguments.

G-GMD.2. (+) Give an informal argument using Cavalieri's principle for the formulas for the volume of a sphere and other solid figures.

G-GMD.3. Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.

G-GMD.4. Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.

Modeling with Geometry

G-MG.1. Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).

G-MG.2. Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).

G-MG.3. Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).

Statistics and Probability

Interpreting Categorical and Quantitative Data

S-ID.1. Represent data with plots on the real number line (dot plots, histograms, and box plots).

S-ID.2. Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.

S-ID.3. Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).

S-ID.4. Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate.

Use calculators, spreadsheets, and tables to estimate areas under the normal curve.

S-ID.5. Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.

S-ID.6. Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.

S-ID.6.a. Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.

S-ID.6.b. Informally assess the fit of a function by plotting and analyzing residuals.

S-ID.6.c. Fit a linear function for a scatter plot that suggests a linear association.

S-ID.7. Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.

S-ID.8. Compute (using technology) and interpret the correlation coefficient of a linear fit.

S-ID.9. Distinguish between correlation and causation.

Making Inferences and Justifying Conclusions

S-IC.1. Understand statistics as a process for making inferences about population parameters based on a random sample from that population.

S-IC.2. Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. For example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model?

S-IC.3. Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.

S-IC.4. Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.

S-IC.5. Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant.

S-IC.6. Evaluate reports based on data.

Conditional Probability and the Rules of Probability

S-CP.1. Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events (“or,” “and,” “not”).

S-CP.2. Understand that two events A and B are independent if the probability of A and B occurring together is the product of their probabilities, and use this characterization to determine if they are independent.

S-CP.3. Understand the conditional probability of A given B as $P(A \text{ and } B)/P(B)$, and interpret independence of A and B as saying that the conditional probability of A given B is the same as the probability of A, and the conditional probability of B given A is the same as the probability of B.

S-CP.4. Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities. For example, collect data from a random sample of students in your school on their favorite

subject among math, science, and English. Estimate the probability that a randomly selected student from your school will favor science given that the student is in tenth grade. Do the same for other subjects and compare the results.

S-CP.5. Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. For example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer.

S-CP.6. Find the conditional probability of A given B as the fraction of B's outcomes that also belong to A, and interpret the answer in terms of the model.

S-CP.7. Apply the Addition Rule, $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$, and interpret the answer in terms of the model.

S-CP.8. (+) Apply the general Multiplication Rule in a uniform probability model, $P(A \text{ and } B) = P(A)P(B|A) = P(B)P(A|B)$, and interpret the answer in terms of the model.

S-CP.9. (+) Use permutations and combinations to compute probabilities of compound events and solve problems.

Using Probability to Make Decisions

S-MD.1. (+) Define a random variable for a quantity of interest by assigning a numerical value to each event in a sample space; graph the corresponding probability distribution using the same graphical displays as for data distributions.

S-MD.2. (+) Calculate the expected value of a random variable; interpret it as the mean of the probability distribution.

S-MD.3. (+) Develop a probability distribution for a random variable defined for a sample space in which theoretical probabilities can be calculated; find the expected value. For example, find the theoretical probability distribution for the number of correct answers obtained by guessing on all five questions of a multiple-choice test where each question has four choices, and find the expected grade under various grading schemes.

S-MD.4. (+) Develop a probability distribution for a random variable defined for a sample space in which probabilities are assigned empirically; find the expected value. For example, find a current data distribution on the number of TV sets per household in the United States, and calculate the expected number of sets per household. How many TV sets would you expect to find in 100 randomly selected households?

S-MD.5. (+) Weigh the possible outcomes of a decision by assigning probabilities to payoff values and finding expected values.

S-MD.5.a. Find the expected payoff for a game of chance. For example, find the expected winnings from a state lottery ticket or a game at a fast-food restaurant.

S-MD.5.b. Evaluate and compare strategies on the basis of expected values. For example, compare a high-deductible versus a low-deductible automobile insurance policy using various, but reasonable, chances of having a minor or a major accident.

S-MD.6. (+) Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator).

S-MD.7. (+) Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game).

Appendix F: National Educational Technology Standards for Students (NETS-S)

NETS Crosswalk for Culinary Arts											
	Course	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10
NETS Standards											
T1		x	x	x	x	x	x	x	x	x	x
T2		x	x	x	x	x	x	x	x	x	x
T3		x	x	x	x	x	x	x	x	x	x
T4		x	x	x	x	x	x	x	x	x	x
T5		x	x	x	x	x	x	x	x	x	x
T6		x	x	x	x	x	x	x	x	x	x
		Unit 11	Unit 12	Unit 13	Unit 14	Unit 15	Unit 16	Unit 17	Unit 18	Unit 19	Unit 20
T1		x	x	x	x	x	x	x	x	x	x
T2		x	x	x	x	x	x	x	x	x	x
T3		x	x	x	x	x	x	x	x	x	x
T4		x	x	x	x	x	x	x	x	x	x
T5		x	x	x	x	x	x	x	x	x	x
T6		x	x	x	x	x	x	x	x	x	x
		Unit 21	Unit 22								
T1		x	x								
T2		x	x								
T3		x	x								
T4		x	x								
T5		x	x								
T6		x	x								

- T1** Creativity and Innovation
- T2** Communication and Collaboration
- T3** Research and Information Fluency
- T4** Critical Thinking, Problem Solving, and Decision Making
- T5** Digital Citizenship
- T6** Technology Operations and Concepts

- T1** Creativity and Innovation
Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students do the following:
 - a. Apply existing knowledge to generate new ideas, products, or processes.
 - b. Create original works as a means of personal or group expression.
 - c. Use models and simulations to explore complex systems and issues.
 - d. Identify trends and forecast possibilities.

- T2** Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students do the following:

- a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
- b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- c. Develop cultural understanding and global awareness by engaging with learners of other cultures.
- d. Contribute to project teams to produce original works or solve problems.

T3 Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students do the following:

- a. Plan strategies to guide inquiry.
- b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
- c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
- d. Process data and report results.

T4 Critical Thinking, Problem Solving, and Decision Making

Students use critical-thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

Students do the following:

- a. Identify and define authentic problems and significant questions for investigation.
- b. Plan and manage activities to develop a solution or complete a project.
- c. Collect and analyze data to identify solutions and/or make informed decisions.
- d. Use multiple processes and diverse perspectives to explore alternative solutions.

T5 Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students do the following:

- a. Advocate and practice safe, legal, and responsible use of information and technology.
- b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- c. Demonstrate personal responsibility for lifelong learning.
- d. Exhibit leadership for digital citizenship.

T6 Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students do the following:

- a. Understand and use technology systems.
- b. Select and use applications effectively and productively.
- c. Troubleshoot systems and applications.
- d. Transfer current knowledge to learning of new technologies.