Department of College and Career Readiness

Culinary Science III
Curriculum

5.0 Credits

Unit One
Culinary Science III
Course Description

Culinary Science III provides students enrichment and extension in two specific elements: cuisine and baking/pastry.

Baking & Pastry – This course provides learners with a comprehensive understanding of the ingredients, techniques, and procedures used in creating baked goods and pastries. Students progress through becoming proficient in the use of baking tools and equipment to utilizing baking ingredients to create cakes, pastries, breads and chocolate confections. Students also practice time management, acquire culinary math skills, and practice food safety and sanitation practices. Furthermore students will expand their knowledge of the fundamental skills in culinary and use those skills in conjunction with the basics they will be learning in the course to bring together the complete experience of working in a restaurant/commercial kitchen. Students will understand the concept of taste and how methods of cooking can affect color, flavor and textures. Menu implementation will play a bigger role and menu layout, marketing, concept development, product utilization, target customers and trends will be a part of this course.

Cuisine – Cuisine is a course in which students will expand their knowledge of the fundamental skills in culinary and use those skills in conjunction with the basics they will be learning in the course to bring together the complete experience of working in a restaurant/commercial kitchen. Students will understand the concept of taste and how methods of cooking can affect color, flavor and textures. Menu implementation will play a bigger role and menu layout, marketing, concept development, product utilization, target customers and trends will be a part of this course.
# Culinary Science III

## Pacing Guide

<table>
<thead>
<tr>
<th>Unit</th>
<th>Topic</th>
<th>Suggested Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1</td>
<td>Baking &amp; Pastry: Introduction to Baking Techniques and Methods (Cakes and Yeast Doughs I) Pastries I and Chocolate Confections</td>
<td>approx. 9 weeks</td>
</tr>
<tr>
<td>Unit 2</td>
<td>Baking &amp; Pastry: Cakes and Pastries (Specialty Cakes and Advanced Pastries) &amp; Yeast Doughs II</td>
<td>approx. 9 weeks</td>
</tr>
<tr>
<td>Unit 3</td>
<td>Cuisine: Costing &amp; Cooking, Table Service &amp; Banquets</td>
<td>approx. 9 weeks</td>
</tr>
<tr>
<td>Unit 4</td>
<td>Cuisine: Developing Taste, Charcuterie &amp; Final Review</td>
<td>approx. 9 weeks</td>
</tr>
</tbody>
</table>
### Educational Technology Standards

|---|

#### Technology Operations and Concepts

- Collaborate in online courses, learning communities, social networks or virtual worlds to discuss a resolution to a problem or issue.
  
  **Example of use within unit:** Students will use online forums to communicate with professional bakers and search for assistance on pastry recipes.

- Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.
  
  **Example of use within unit:** Students will use desktop publishing software to create a menu for a bakery.

#### Creativity and Innovation

- Apply previous content knowledge by creating and piloting a digital learning game or tutorial.
  
  **Example of use within unit:** Students will create a web blog designed to teach the reader how to make a specific sweet dish.

#### Digital Citizenship

- Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
  
  **Example of use within unit:** Students will research how to ethically use other people’s desert recipes.

#### Critical Thinking, Problem Solving, Decision Making

- Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.
  
  **Example of use within unit:** Compare how the move away from print to digital has made cooking and baking more accessible to the masses.
Career Ready Practices

Career Ready Practices describe the career-ready skills that all educators in all content areas should seek to develop in their students. They are practices that have been linked to increase college, career, and life success. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

CRP1. Act as a responsible and contributing citizen and employee
Career-ready individuals understand the obligations and responsibilities of being a member of a community, and they demonstrate this understanding every day through their interactions with others. They are conscientious of the impacts of their decisions on others and the environment around them. They think about the near-term and long-term consequences of their actions and seek to act in ways that contribute to the betterment of their teams, families, community and workplace. They are reliable and consistent in going beyond the minimum expectation and in participating in activities that serve the greater good.

- **Example of use within unit:** Assume the role of a game designer and adhere to copyright rules while developing an original game.

CRP2. Apply appropriate academic and technical skills.
Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation.

- **Example of use within unit:** Use word processing software and online search tools and software to create lesson on the history of video games.

CRP4. Communicate clearly and effectively and with reason.
Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual
Career Ready Practices

methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others’ time. They are excellent writers; they master conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome.

- **Example of use within unit:** Assume the role of teacher and turnkey information about job roles in the culinary industry to peers.

**CRP5. Consider the environmental, social and economic impacts of decisions.**
Career-ready individuals understand the interrelated nature of their actions and regularly make decisions that positively impact and/or mitigate negative impact on other people, organization, and the environment. They are aware of and utilize new technologies, understandings, procedures, materials, and regulations affecting the nature of their work as it relates to the impact on the social condition, the environment and the profitability of the organization.

- **Example of use within unit:** Examine the social and economic impact of having multiple food/ingredients sources like we do here in America.
**WIDA Proficiency Levels:** At the given level of English language proficiency, English language learners will process, understand, produce or use:

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
</table>
| **6- Reaching** | - Specialized or technical language reflective of the content areas at grade level  
- A variety of sentence lengths of varying linguistic complexity in extended oral or written discourse as required by the specified grade level  
- Oral or written communication in English comparable to proficient English peers |
| **5- Bridging** | - Specialized or technical language of the content areas  
- A variety of sentence lengths of varying linguistic complexity in extended oral or written discourse, including stories, essays or reports  
- Oral or written language approaching comparability to that of proficient English peers when presented with grade level material. |
| **4- Expanding** | - Specific and some technical language of the content areas  
- A variety of sentence lengths of varying linguistic complexity in oral discourse or multiple, related sentences or paragraphs  
- Oral or written language with minimal phonological, syntactic or semantic errors that may impede the communication, but retain much of its meaning, when presented with oral or written connected discourse, with sensory, graphic or interactive support |
| **3- Developing** | - General and some specific language of the content areas  
- Expanded sentences in oral interaction or written paragraphs  
- Oral or written language with phonological, syntactic or semantic errors that may impede the communication, but retain much of its meaning, when presented with oral or written, narrative or expository descriptions with sensory, graphic or interactive support |
| **2- Beginning** | - General language related to the content area  
- Phrases or short sentences  
- Oral or written language with phonological, syntactic, or semantic errors that often impede the communication when presented with one to multiple-step commands, directions, or a series of statements with sensory, graphic or interactive support |
| **1- Entering** | - Pictorial or graphic representation of the language of the content areas  
- Words, phrases or chunks of language when presented with one-step commands directions, WH-, choice or yes/no questions, or statements with sensory, graphic or interactive support |
Language Development Supports For English Language Learners
To Increase Comprehension and Communication Skills

**Environment**
- Welcoming and stress-free
- Respectful of linguistic and cultural diversity
- Honors students’ background knowledge
- Sets clear and high expectations
- Includes routines and norms
- Is thinking-focused vs. answer-seeking
- Offers multiple modalities to engage in content learning and to demonstrate understanding
- Includes explicit instruction of specific language targets
- Provides participation techniques to include all learners
- Integrates learning centers and games in a meaningful way
- Provides opportunities to practice and refine receptive and productive skills in English as a new language
- Integrates meaningful and purposeful tasks/activities that:
  - Are accessible by all students through multiple entry points
  - Are relevant to students’ lives and cultural experiences
  - Build on prior mathematical learning
  - Demonstrate high cognitive demand
  - Offer multiple strategies for solutions
  - Allow for a language learning experience in addition to content

<table>
<thead>
<tr>
<th>Sensory Supports*</th>
<th>Graphic Supports*</th>
<th>Interactive Supports*</th>
<th>Verbal and Textual Supports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real-life objects (realia) or concrete objects</td>
<td>Graphs</td>
<td>In a whole group</td>
<td>Labeling</td>
</tr>
<tr>
<td>Physical models</td>
<td>Charts</td>
<td>In a small group</td>
<td>Students’ native language</td>
</tr>
<tr>
<td>Manipulatives</td>
<td>Timelines</td>
<td>With a partner such as Turn-and-Talk</td>
<td>Modeling</td>
</tr>
<tr>
<td>Pictures &amp; photographs</td>
<td>Number lines</td>
<td>In pairs as a group (first, two pairs work independently, then they form a group of four)</td>
<td>Repetitions</td>
</tr>
<tr>
<td>Visual representations or models such as diagrams or drawings</td>
<td>Graphic organizers</td>
<td>In triads</td>
<td>Paraphrasing</td>
</tr>
<tr>
<td>Videos &amp; films</td>
<td>Graphing paper</td>
<td>Cooperative learning structures such as Think-Pair-Share</td>
<td>Summarizing</td>
</tr>
<tr>
<td>Newspapers or magazines</td>
<td></td>
<td>Interactive websites or software</td>
<td>Guiding questions</td>
</tr>
<tr>
<td>Gestures</td>
<td></td>
<td>With a mentor or coach</td>
<td>Clarifying questions</td>
</tr>
<tr>
<td>Physical movements</td>
<td></td>
<td></td>
<td>Probing questions</td>
</tr>
<tr>
<td>Music &amp; songs</td>
<td></td>
<td></td>
<td>Leveled questions such as What? When? Where? How? Why?</td>
</tr>
</tbody>
</table>

BUILDING EQUITY IN YOUR TEACHING PRACTICE

How do the essential questions highlight the connection between the big ideas of the unit and equity in your teaching practice?

**CONTENT INTEGRATION**
Teachers use examples and content from a variety of cultures & groups.

- This unit / lesson is connected to other topics explored with students.
- There are multiple viewpoints reflected in the content of this unit / lesson.
- The materials and resources are reflective of the diverse identities and experiences of students.
- The content affirms students, as well as exposes them to experiences other than their own.

**KNOWLEDGE CONSTRUCTION**
Teachers help students understand how knowledge is created and influenced by cultural assumptions, perspectives & biases.

- This unit / lesson provides context to the history of privilege and oppression.
- This unit / lesson addresses power relationships.
- This unit / lesson helps students to develop research and critical thinking skills.
- This curriculum creates windows and mirrors* for students.

**PREJUDICE REDUCTION**
Teachers implement lessons and activities to assert positive images of ethnic groups & improve intergroup relations.

- This unit / lesson helps students question and unpack biases & stereotypes.
- This unit / lesson helps students examine, research and question information and sources.
- The curriculum encourages discussion and understanding about the groups of people being represented.
- This unit / lesson challenges dominant perspectives.

**EQUITABLE PEDAGOGY**
The instruction has been modified to meet the needs of each student.

- Students feel respected and their cultural identities are valued.
- Additional supports have been provided for students to become successful and independent learners.
- Opportunities are provided for student to reflect on their learning and provide feedback.

**EMPOWERING SCHOOL CULTURE**
Using the other four dimensions to create a safe and healthy educational environment for all.

- There are opportunities for students to connect with the community.
- My classroom is welcoming and supportive for all students.
- I am aware of and sensitive to the needs of my students and their families.
- There are effective parent communication systems established.

Culturally Relevant Pedagogy Examples

- **Relationships:**
  - Learn about your students’ individual cultures.
  - Adapt your teaching to the way your students learn.
  - Develop a connection with challenging students.
  - Communicate and work with parents/guardians on a regular basis (email distribution, newsletter, phone calls, notes, meetings, etc.).

- **Curriculum:**
  - Incorporate student-centered stories, vocabulary and examples.
  - Incorporate relatable aspects of students’ lives.
  - Create lessons that connect the content to your students’ culture and daily lives.
  - Incorporate instructional materials that relate to a variety of cultures.

- **Instructional Delivery:**
  - Establish an interactive dialogue to engage all students.
  - Continuously interact with students and provide frequent feedback.
  - Use frequent questioning as a means to keep students involved.
  - Intentionally address visual, tactile, and auditory learners.
  - Present relatable real world problems.
## Differentiated Instruction

### Strategies to Accommodate Students Based on Individual Needs

<table>
<thead>
<tr>
<th>Time/General</th>
<th>Processing</th>
<th>Comprehension</th>
<th>Recall</th>
</tr>
</thead>
</table>
| - Extra time for assigned tasks  
- Adjust length of assignment  
- Timeline with due dates for reports and projects  
- Communication system between home and school  
- Provide lecture notes/outline | - Extra Response time  
- Have students verbalize steps  
- Repeat, clarify or reword directions  
- Mini-breaks between tasks  
- Provide a warning for transitions  
- Reading partners | - Precise step-by-step directions  
- Short manageable tasks  
- Brief and concrete directions  
- Provide immediate feedback  
- Small group instruction  
- Emphasize multi-sensory learning | - Teacher-made checklist  
- Use visual graphic organizers  
- Reference resources to promote independence  
- Visual and verbal reminders  
- Graphic organizers |

<table>
<thead>
<tr>
<th>Assistive Technology</th>
<th>Tests/Quizzes/Grading</th>
<th>Behavior/Attention</th>
<th>Organization</th>
</tr>
</thead>
</table>
| - Computer/whiteboard  
- Tape recorder  
- Spell-checker  
- Audio-taped books | - Extended time  
- Study guides  
- Shortened tests  
- Read directions aloud | - Consistent daily structured routine  
- Simple and clear classroom rules  
- Frequent feedback | - Individual daily planner  
- Display a written agenda  
- Note-taking assistance  
- Color code materials |
# Differentiated Instruction

## Strategies to Accommodate Students Based on Content-Specific Needs

- Extra time for assigned tasks
- Adjust length of assignment
- Timeline with due dates for reports and projects
- Communication system between home and school
- Small group instruction
- Assistive Technology
- Translation Software
## Enrichment

### Strategies Used to Accommodate Based on Students Individual Needs:

- Adaption of Material and Requirements
- Evaluate Vocabulary
- Elevated Text Complexity
- Additional Projects
- Independent Student Options
- Projects completed individual or with Partners
- Self Selection of Research
- Tiered/Multilevel Activities
- Guided Practice
- Independent Book and Magazine Studies
- Open-Ended Activities
## Assessments

**Suggested Formative/Summative Classroom Assessments**

- Daily cooperative learning/performance assessments
- Daily assessment of proper cleanliness, organization, sanitation procedures and handling of tools and equipment
- Daily practical application assessments, Weekly Practical application assessments
- Charts, Graphic Organizers
- Research assignments
- Teacher-created Unit Assessments, Chapter Assessments, Quizzes
- Small Group and Individual Projects
- Teacher-created Essays, Short Answer
## Interdisciplinary Connections

<table>
<thead>
<tr>
<th>English Language Arts</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close reading of professional culinary related content. (NJSLSA.R1)</td>
<td>Calculate how a restaurant money within the commercial industry. (N.Q.A.1)</td>
</tr>
<tr>
<td>Write professional level food review. (NJSLSA.W2)</td>
<td>Use proportions to understand recipe scaling. (N.Q.A.2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Studies</th>
<th>Fine &amp; Performing Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research the history of the restaurant industry. (6.1.12)</td>
<td>Compare graphics used in menus and food blogs. (1.2.12)</td>
</tr>
<tr>
<td>Research the social impact and economic impact of the food industry. (6.3.12)</td>
<td>Critique design food blogs. (1.4.12)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>World Language</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translate restaurant industry-content (7.1.ILA)</td>
<td>Research latest developments in the culinary industry technology (HS-ETS1-4)</td>
</tr>
<tr>
<td>Create a translated index of culinary industry vocabulary (7.1.ILA)</td>
<td>Investigate applicable-careers in STEM fields within the culinary industry. (9.2.12)</td>
</tr>
</tbody>
</table>
New Jersey Student Learning Standards

9.3– Career and Technical Education

Career Cluster: Hospitality & Tourism (HT)

- 9.3.HT.6 Describe career opportunities and means to attain those opportunities in each of the Hospitality & Tourism Career Pathways
- 9.3.HT- RFB.2 Demonstrate safety and sanitation procedures in food and beverage service facilities.
- 9.3.HT- RFB.4 Demonstrate leadership qualities and collaboration with others.
- 9.3.HT- RFB.7 Utilize technical resources for food services and beverage operations to update or enhance present practice.
- 9.3.HT- RFB.8 Implement standard operating procedures related to food and beverage production and guest service.
- 9.3.HT- RFB.9 Describe career opportunities and qualifications in the restaurant and food service industry.
- 9.3.HT- RFB.10 Apply listening, reading, writing and speaking skills to enhance operations and customer service in food and beverage service facilities.
- 9.3. HT-TT.2 Apply unit conversion skills to compute cost factors.

Key Ideas and Details:

- RL.11-12.1 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.

Research to Build and Present Knowledge:

- W.11-12.7 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.
Make inferences and justify conclusions from sample surveys, experiments, and observational studies:

- IC. B.3 Recognize the purposes of and differences among sample surveys, experiments and observational studies; explain how randomization relates to each.
Course: Culinary Science III  
Unit: 1 – Baking & Pastry: Introduction to Baking Techniques and Methods  
Pastry Dough and Chocolate Confections  
Grade Level: 9-12

<table>
<thead>
<tr>
<th>Student Learning Objectives (SLOs)</th>
<th>Essential Questions</th>
<th>Skills &amp; Indicators</th>
<th>Sample Activities</th>
<th>Resources</th>
</tr>
</thead>
</table>
| Identify essential baking tools and equipment, and their uses, where to locate them, and demonstrate proficiency in using small and large kitchen equipment in a safe, organized and efficient manner. | ✓ How does baking differ from cooking?  
✓ Why is it important to identify and use the proper tools to accomplish a given task?  
✓ Which important kitchen tasks need to be performed daily? | • Maintaining a clean and orderly work environment.  
• Proficient use of a gram scale, candy thermometer, industrial size mixer, dough hook, bench and bowl scrapers, and other task relative tools.  
• Utilizing the proper techniques | Practical Application  
Prepare basic cookie dough recipes using weights, measures and related tools.  
Prepare, cake batter recipes using weights, measures and related tools.  
Knead, turn and shape Yeast doughs.  
Peer Pair to gather, | Professional Baking, Gisselen, Wayne-Sixth Edition  
Introduction to Baking and Ingredients Module 1- Course 1, Institute of Culinary Education  
Essential Tools for Baking www.keiseruniversity.edu/baking-pastry-arts/ |
<table>
<thead>
<tr>
<th>Student Learning Objectives (SLOs)</th>
<th>Essential Questions</th>
<th>Skills &amp; Indicators</th>
<th>Sample Activities</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.7, HSS. IC. B.3</td>
<td></td>
<td>for scaling dry ingredients.</td>
<td>organize and scale <em>mis en place</em>.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Utilizing proper technique and tools for cutting butter.</td>
<td>Research the life and career of a prominent Pastry Chef</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Serve as Sous Chef and Kitchen Assistant on a rotating basis.</td>
<td>Identify print and digital resources for obtaining information.</td>
<td></td>
</tr>
</tbody>
</table>

**Essential Questions**

- Why is it important to follow safety and sanitation procedures in the kitchen?
- What precautions need to be taken in the kitchen to ensure safe food handling?
- What are the proper procedures for wrapping, labeling, and storing food?

**Skills & Indicators**

- Daily preparedness; hand washing, clean uniform and apron, hair covered.
- Plan logical steps for preparing a recipe.
- Collaborate and Develop a plan of action for gathering *Mis en Place*.

**Sample Activities**

- Daily execution of proper Hand Washing techniques.
- Peer pair to Complete assigned kitchen cleaning tasks.
- Serve as Sous Chef and Kitchen Assistant on a rotating basis.

**Resources**

- ServSafe Essentials, National Restaurant Association, Fifth Edition
- Handwashing video - consumered.org
- www.consumered.org/gleamteam

**NJSLS:** 9.3 HT-RFB.2, 9.3 HT-RFB.4, 9.3 HT-RFB.7, 9.3 HT-RFB .8, 9.3 HT-RFB .10, 9.3 HT-TT. 2, RL 11-12.1, W 11-12.7, HSS. IC. B.3
<table>
<thead>
<tr>
<th>Student Learning Objectives (SLOs)</th>
<th>Essential Questions</th>
<th>Skills &amp; Indicators</th>
<th>Sample Activities</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Learning Objectives (SLOs)</td>
<td>Essential Questions</td>
<td>Skills &amp; Indicators</td>
<td>Sample Activities</td>
<td>Resources</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------</td>
<td>-----------</td>
</tr>
</tbody>
</table>
- What are the major functions of eggs?  
- What are the dangers of improperly tempering eggs? | during folding  
Whip eggs to soft, firm and stiff peak stages. | and pastry cream, and, soufflés.  
Preparation of meringue and meringue based fillings (Swiss and Italian buttercream) and cookies: Macaroons.  
**Mini Lesson:** Common Hydrocolloids and Starches | [PDF]Hydrocolloids Structure and Properties - STEP ITN  
**On Cooking, A Textbook of Culinary Fundamentals,**  
Labensky, Sarah R.,  
Hause, Alan M., Martell, Priscilla A.  
age1_9.html |
| Utilize conversion factors to calculate yield changes, gross weight, and the weight of one piece.  
**NJSLS:** 9.3 HT-RFB.2, 9.3 HT-RFB.4, 9.3 HT-RFB.7, 9.3 HT-RFB.8, 9.3 HT-RFB.10, 9.3 HT-TT.2, RL 11-12.1, W 11-12.7, HSS. IC. B.3 |  
- How is yield calculated?  
- How is gross weight determined?  
- What determines the weight of a single piece or unit? | Calculating yield changes to create smaller or larger quantities of a given recipe.  
Determining the gross weight of a given recipe  
Determining the weight of one piece. | **Practical Application**  
Complete several mathematical exercises that calculate yield changes.  
Complete several mathematical exercises that calculate gross yield.  
Complete several mathematical exercises that calculate gross weight. | **Converting Recipe Quantities - Scaling Recipes**  
[link](https://culinaryarts.about.com/od/measurementsconversions/a/scaling.htm)  
**Baking Math: The Recipe Conversion Factor (RCF)**  
[link](https://www.moderndomestic.com/2011/01/baking-...-recipes/) |
<table>
<thead>
<tr>
<th>Student Learning Objectives (SLOs)</th>
<th>Essential Questions</th>
<th>Skills &amp; Indicators</th>
<th>Sample Activities</th>
<th>Resources</th>
</tr>
</thead>
</table>
| **Evaluate the various stages of sugar cookery**
**NJSLS:** 9.3 HT-RFB.2, 9.3 HT-RFB.4, 9.3 HT-RFB.7, 9.3 HT-RFB.8, 9.3 HT-RFB.10, 9.3 HT-TT.2, RL 11-12.1, W 11-12.7, HSS. IC. B.3 | ➢ What are the various stages and temperatures of sugar cookery?  
➢ What are the functional roles of sugar in baking?  
➢ How does sugar interact with yeast to create leavening? | Measure and Monitor temperature using a high-heat thermometer  
Prepare dry caramel  
Perform tasks with a sense of urgency to ensure fluidity | Practical Applications  
Cook sugar to: thread, soft, firm, hard and caramel stages.  
Prepare sugar-based confections: fudge, nut brittle, torrone, marshmallows, and fondant  
Prepare fruit-based confections: pate a fruit, dried and candied fruits | How sugar is made - manufacture, used, processing, parts ... www.madehow.com › Volume 1  
Making Pate de Fruit https://www.youtube.com/watch?v=oWOSQM2J4nM  
Poured Sugar www.worldwideculinaryapprentice.com |
| **Utilize various mixing techniques to create** | ➢ How does the mixing method | Perform Basic Cake Mixing Methods:  
• One-Step | Prepare, cake batters using weights, measures and related tools. | Professional Baking, Gisselen, Wayne-Sixth Edition |
<table>
<thead>
<tr>
<th>Student Learning Objectives (SLOs)</th>
<th>Essential Questions</th>
<th>Skills &amp; Indicators</th>
<th>Sample Activities</th>
<th>Resources</th>
</tr>
</thead>
</table>
| classic American cakes. **NJSLS:** 9.3 HT-RFB.2, 9.3 HT-RFB.4, 9.3 HT-RFB.7, 9.3 HT-RFB.8, 9.3 HT-RFB.10, 9.3 HT-TT.2, RL 11-12.1, W 11-12.7, HSS. IC. B.3 | affect the finished product?  
 What are the effects of over mixing a batter?  
 What are the effects of under mixing a batter? | Method  
 Creaming Method  
 High Ratio Method  
Produce a uniform, emulsified batter  
Scale Ingredients accurately | Prepare cake pans for baking  
Bake and divide finished cakes into layers using a serrated knife | **Cakes Fillings and Icings, Module 3,** The Institute of Culinary Education  
**Professional Cake Decorating, 2nd Edition,** Garrett, Toba |
| Create European specialty and advanced cakes and apply decorative embellishments to cakes and cupcakes. **NJSLS:** 9.3 HT-RFB.2, 9.3 HT-RFB.4, 9.3 HT-RFB.7, 9.3 HT-RFB.8, 9.3 HT-RFB.10, 9.3 HT-TT.2, RL 11-12.1, W 11-12.7, HSS. IC. B.3 |  
 How is consistency of form achieved when creating decorative borders?  
 How are flowers (roses) of varying sizes created?  
 What is the process for creating swags and overlapping border design? | Creating a paper cornet and utilizing it to write “Happy Birthday”  
Applying a variety of borders to cake finishes  
Incorporating decorative elements to embellish cupcakes | Writing messages on cakes and cupcakes.  
Trim and frost cakes, ensuring that the sides are straight and the top is flat.  
Describe the process by which one decorative element is created.  
Filling a pastry bag and inserting tips and a coupler.  
Utilizing various | **Lessons 63 & 64 – Miroir, Charlotte | Dessert-o-licious**  
www.dessertolicious.com/blog/2011/05/lessons-63-64-miroir-charlotte/  
**Cake Decorating, Module 4,** The Institute of Culinary Education  
**Making a Gumpaste Peony - YouTube**  
https://www.youtube.com/watch?v=czY88teINQ |
<table>
<thead>
<tr>
<th>Student Learning Objectives (SLOs)</th>
<th>Essential Questions</th>
<th>Skills &amp; Indicators</th>
<th>Sample Activities</th>
<th>Resources</th>
</tr>
</thead>
</table>
| **Apply knowledge of working with yeast and fermentation, to create yeast dough.**  
● What changes occur place during the fermentation process?  
● How does the presence or absence of steam affect the ability of a dough to form a crust? | ● Consistency and Appearance of starter dough  
● Kneading Techniques  
● Dough Formation Methods | Monitoring and Feeding a “starter” dough  
Kneading dough  
Forming dough into a variety of shapes and sizes  
Utilizing baker’s percentages to increase/decrease quantities | **Bread and Other Yeast Raised Doughs, Module 2-Course 3,**  
The Institute of Culinary Education  
**Proofing Yeast and Kneading Dough**  
[www.virtuousbread.com](http://www.virtuousbread.com)  
**Dan Lepard’s Australian Baking Bible:** bread video recipe | Life and [www.theguardian.com](http://www.theguardian.com) |
| **Create pastry dough**  
NJSLS: 9.3 HT-RFB.2, 9.3 HT-RFB.4, 9.3 HT-RFB.7, 9.3 HT-RFB .8, 9.3 HT-RFB .10, 9.3 HT- | ● What are the various types of pastry dough?  
● What are the mixing methods | ● Accuracy in rolling kneading and shaping dough  
● Creating tender, flaky layers | **Practical Application**  
Prepare savory and sweet dough to be utilized for filled pies and tarts. | **The Art of French Pastry; Pfeiffer, Jacquy**  
[joepastry.com](http://joepastry.com)  
[www.foodnetwork.com](http://www.foodnetwork.com) |
<table>
<thead>
<tr>
<th>Student Learning Objectives (SLOs)</th>
<th>Essential Questions</th>
<th>Skills &amp; Indicators</th>
<th>Sample Activities</th>
<th>Resources</th>
</tr>
</thead>
</table>
| TT. 2, RL 11-12.1, W 11-12.7, HSS. IC. B.3 | used to prepare pastry dough?  
  • Why does dough need to rest before it is manipulated?  
  • How does blind baking affect the final appearance and quality of pastry dough? | Creating double crusts and lattices | | |
| Prepare laminated doughs |  
➢ How are layers created during lamination?  
➢ What are “turns,” and “folds?” | Practical Application  
Prepare puff pastry  
Danish dough and croissants.  
Prepare brioche dough | www.keiseruniversity.com  
CookingwithCandra.com  
Videoculinary.com |
<table>
<thead>
<tr>
<th>Student Learning Objectives (SLOs)</th>
<th>Essential Questions</th>
<th>Skills &amp; Indicators</th>
<th>Sample Activities</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temper Chocolate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **NJSLS:** 9.3 HT-RFB.2, 9.3 HT-RFB.4, 9.3 HT-RFB.7, 9.3 HT-RFB.8, 9.3 HT-RFB.10, 9.3 HT-TT.2, RL 11-12.1, W 11-12.7, HSS. IC. B.3 | - Why is it important to temper chocolate?  
- What variations exist when tempering different types of chocolate?  
- How is tempered chocolate used? | - Chocolate has a shiny outer appearance  
- Chocolate displays no signs of blooming or “greying” in color.  
- A smooth and dried surface appearance within 4 minutes. A gentle “snap” | **Practical Application**  
Peer-Pair to create chocolate confection baskets  
Prepare mendiants glazes, and chocolate clusters. | How To Temper Chocolate  
escoffieronline.com  
How Chocolate is Made  
cocoarunners.com  
The Hershey Company  
www.thehersheycompany.com |
| Create Chocolate confections      |                      |                     |                   |           |
| **NJSLS:** 9.3 HT-RFB.2, 9.3 HT-RFB.4, 9.3 HT-RFB.7, 9.3 HT-RFB.8, 9.3 HT-RFB.10, 9.3 HT-TT.2, RL 11-12.1, W 11-12.7, HSS. IC. B.3 | - What options exist for customizing confections?  
- What factors create “blooming” in chocolate,  
- How is “texture” created in chocolate candy bars? | - Uniform texture and thickness of each piece  
- Absence of blooming  
Shiny outer coatings. | **Practical Application**  
Prepare chocolate lollipops, candy bars chocolate covered almonds and chocolate bark. | Chocolate Candy Recipes  
www.saveur.com  
Ecole Chocolat  
www.ecolechocolat.com  
Mouthwatering Recipes for Chocoholics  
www.chocoley.com |
<table>
<thead>
<tr>
<th>Student Learning Objectives (SLOs)</th>
<th>Essential Questions</th>
<th>Skills &amp; Indicators</th>
<th>Sample Activities</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mold, Dip and cast chocolate</td>
<td>How are chocolate molds filled?</td>
<td>• Filling evenly distributed</td>
<td>Practical Application</td>
<td>Callebut-Molding</td>
</tr>
<tr>
<td>NJSLS: 9.3 HT-RFB.2, 9.3 HT-RFB.4, 9.3 HT-RFB.7, 9.3 HT-RFB.8, 9.3 HT-RFB.10, 9.3 HT-TT.2, RL 11-12.1, W 11-12.7, HSS. IC. B.3</td>
<td>How are transfer sheets applied to chocolate molds?</td>
<td>• Chocolate outer covering evenly applied</td>
<td>Enrobe, Dip and Mold</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Why is it important to evenly scrape and fill chocolate molds?</td>
<td>• Absence of any leakage of filling</td>
<td>Create chocolate showpieces</td>
<td>Molded Chocolates</td>
</tr>
<tr>
<td></td>
<td>How are chocolates filled and sealed?</td>
<td>• Absence of “feet” or dragging of chocolate on finished product?</td>
<td>Create customized chocolates</td>
<td><a href="http://www.dish.allrecipes.com">www.dish.allrecipes.com</a></td>
</tr>
<tr>
<td></td>
<td>How are chocolate showpieces constructed?</td>
<td></td>
<td></td>
<td>Building a Chocolate Showpiece with Stephane Treand</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><a href="http://www.quiznatv.com">www.quiznatv.com</a></td>
</tr>
<tr>
<td>Using chocolate as a</td>
<td>What is a cornet?</td>
<td>• Writing is neat and legible</td>
<td>Practical Applications</td>
<td>Making a Parchment Pastry Cone</td>
</tr>
<tr>
<td>tool for writing messages and</td>
<td>How is a paper cornet made?</td>
<td>• Writing is evenly spaced</td>
<td>Writing Happy Birthday on cakes and cookies</td>
<td><a href="http://www.juliausher.com">www.juliausher.com</a></td>
</tr>
<tr>
<td>greetings.</td>
<td>What precautions need to be taken when using chocolate for as a writing medium?</td>
<td>• Lettering is glossy and shiny in appearance.</td>
<td>Creating “Made to Order” “ chocolate bars</td>
<td>Chocolate Cake Writing Tutorial</td>
</tr>
<tr>
<td>Student Learning Objectives (SLOs)</td>
<td>Essential Questions</td>
<td>Skills &amp; Indicators</td>
<td>Sample Activities</td>
<td>Resources</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>12.7, HSS. IC. B.3</td>
<td></td>
<td></td>
<td>Creating Chocolate showpieces</td>
<td>How to Write on a Cake <a href="http://www.zoebakes.com">www.zoebakes.com</a></td>
</tr>
</tbody>
</table>
### Unit Vocabulary

<table>
<thead>
<tr>
<th>Bark</th>
<th>Lecithin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bench scraper</td>
<td>Macerate</td>
</tr>
<tr>
<td>Bittersweet</td>
<td>Mendiant</td>
</tr>
<tr>
<td>Bloom</td>
<td>Meringue</td>
</tr>
<tr>
<td>Bon Bons</td>
<td>One-step method</td>
</tr>
<tr>
<td>Bowl scraper</td>
<td>Pate-a-fruit</td>
</tr>
<tr>
<td>Cacao</td>
<td>Pectin</td>
</tr>
<tr>
<td>Cocoa butter</td>
<td>Semi-sweet</td>
</tr>
<tr>
<td>Confection</td>
<td>Sucette</td>
</tr>
<tr>
<td>Cornet</td>
<td>Temper</td>
</tr>
<tr>
<td>Creaming method</td>
<td>Transfer sheet</td>
</tr>
<tr>
<td>Dough hook</td>
<td>Transfer sheet</td>
</tr>
<tr>
<td>Emulsify</td>
<td>Truffle</td>
</tr>
<tr>
<td>Emulsion</td>
<td>Unsweetened</td>
</tr>
<tr>
<td>Gelatin</td>
<td>Volume</td>
</tr>
<tr>
<td>Gelee</td>
<td>Weight</td>
</tr>
<tr>
<td>Gluten</td>
<td>White chocolate</td>
</tr>
<tr>
<td>Gram</td>
<td>Yeast</td>
</tr>
<tr>
<td>High-ratio method</td>
<td></td>
</tr>
<tr>
<td>Hydrocolloids</td>
<td></td>
</tr>
<tr>
<td>Leavener</td>
<td></td>
</tr>
</tbody>
</table>
Suggested Unit Projects

Choose At Least One

| Research the Life and Career of a prominent Pastry Chef. Discuss their significant achievements and contributions to the Culinary Profession. Create a pamphlet that provides information about the life of this notable chef. | Peer and small group pair to create a Sugar Showpiece that showcases students’ ability to create artistic representations that utilize sugar as a medium. Develop a theme that integrates sugar coloring and casting techniques Demonstrate both skill and artistry in cooking and casting sugar. |
| Utilize casting techniques to create chocolate showpieces that incorporate tempering methods learned in class. |

Certification Exams

| ServSafe: Food Handler | TIPS (Training for Alcohol Intervention Procedures) |

Suggested Structured Learning Experiences

<table>
<thead>
<tr>
<th>Culinary Institute of America</th>
</tr>
</thead>
<tbody>
<tr>
<td>1946 Campus Drive</td>
</tr>
<tr>
<td>Hyde Park, NY 12538</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Community Food Bank of New Jersey</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 Evans Terminal Rd,</td>
</tr>
<tr>
<td>Hillside, NJ 07205</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IHOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>301 Main Street #180</td>
</tr>
<tr>
<td>Paterson, NJ 07505</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Passaic County Community College</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 College Boulevard</td>
</tr>
<tr>
<td>Paterson, NJ 07505</td>
</tr>
</tbody>
</table>