Unit One
Culinary Science III- Baking and Pastry

Course Description

This course provides learners with a comprehensive understanding of the ingredients, techniques, and procedures used in creating baked goods and pastries. Culinary Science III – Baking and Pastry explores a range of topics designed to set students on the path to becoming accomplished bakers.

With an emphasis on theory and techniques, 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.
Culinary Science III- Baking and Pastry

<table>
<thead>
<tr>
<th>Unit</th>
<th>Topic</th>
<th>Suggested Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1</td>
<td>Introduction to Baking Techniques and Methods (Cakes and Yeast Doughs I)</td>
<td>approx. 12 weeks</td>
</tr>
<tr>
<td>Unit 2</td>
<td>Pastries I and Chocolate Confections</td>
<td>approx. 8 weeks</td>
</tr>
<tr>
<td>Unit 3</td>
<td>Cakes and Pastries (Specialty Cakes and Advanced Pastries)</td>
<td>approx. 10 weeks</td>
</tr>
<tr>
<td>Unit 4</td>
<td>Yeast Doughs II</td>
<td>approx. 5 weeks</td>
</tr>
</tbody>
</table>
### Educational Technology Standards


- **Technology Operations and Concepts**  
  - Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.

- **Creativity and Innovation**  
  - Apply previous content knowledge by creating and piloting a digital learning game or tutorial.

- **Digital Citizenship**  
  - Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.

- **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.
# 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.

<table>
<thead>
<tr>
<th>CRP1. Act as a responsible and contributing citizen and employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CRP2. Apply appropriate academic and technical skills.</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CRP3. Attend to personal health and financial well-being.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career-ready individuals understand the relationship between personal health, workplace performance and personal well-being; they act on that understanding to regularly practice healthy diet, exercise and mental health activities. Career-ready individuals also take regular action to contribute to their personal financial well-being, understanding that personal financial security provides the peace of mind required to contribute more fully to their own career success.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CRP4. Communicate clearly and effectively and with reason.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual 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</td>
</tr>
</tbody>
</table>
Career Ready Practices

individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome.

**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.

**CRP6. Demonstrate creativity and innovation.**

Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization.

**CRP7. Employ valid and reliable research strategies.**

Career-ready individuals are discerning in accepting and using new information to make decisions, change practices or inform strategies. They use reliable research process to search for new information. They evaluate the validity of sources when considering the use and adoption of external information or practices in their workplace situation.

**CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.**

Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others.

**CRP9. Model integrity, ethical leadership and effective management.**

Career-ready individuals consistently act in ways that align personal and community-held ideals and principles while employing strategies to positively influence others in the workplace. They have a clear understanding of integrity and act on this understanding.
Career Ready Practices

in every decision. They use a variety of means to positively impact the directions and actions of a team or organization, and they apply insights into human behavior to change others’ action, attitudes and/or beliefs. They recognize the near-term and long-term effects that management’s actions and attitudes can have on productivity, morals and organizational culture.

CRP10. Plan education and career paths aligned to personal goals.
Career-ready individuals take personal ownership of their own education and career goals, and they regularly act on a plan to attain these goals. They understand their own career interests, preferences, goals, and requirements. They have perspective regarding the pathways available to them and the time, effort, experience and other requirements to pursue each, including a path of entrepreneurship. They recognize the value of each step in the education and experiential process, and they recognize that nearly all career paths require ongoing education and experience. They seek counselors, mentors, and other experts to assist in the planning and execution of career and personal goals.

CRP11. Use technology to enhance productivity.
Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

CRP12. Work productively in teams while using cultural global competence.
Career-ready individuals positively contribute to every team, whether formal or informal. They apply an awareness of cultural difference to avoid barriers to productive and positive interaction. They find ways to increase the engagement and contribution of all team members. They plan and facilitate effective team meetings.
**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>
<tbody>
<tr>
<td>• Extra time for assigned tasks</td>
<td>• Extra Response time</td>
<td>• Precise step-by-step directions</td>
<td>• Teacher-made checklist</td>
</tr>
<tr>
<td>• Adjust length of assignment</td>
<td>• Have students verbalize steps</td>
<td>• Short manageable tasks</td>
<td>• Use visual graphic organizers</td>
</tr>
<tr>
<td>• Timeline with due dates for reports and projects</td>
<td>• Repeat, clarify or reword directions</td>
<td>• Brief and concrete directions</td>
<td>• Reference resources to promote independence</td>
</tr>
<tr>
<td>• Communication system between home and school</td>
<td>• Mini-breaks between tasks</td>
<td>• Provide immediate feedback</td>
<td>• Visual and verbal reminders</td>
</tr>
<tr>
<td>• Provide lecture notes/outline</td>
<td>• Provide a warning for transitions</td>
<td>• Small group instruction</td>
<td>• Graphic organizers</td>
</tr>
<tr>
<td></td>
<td>• Reading partners</td>
<td>• Emphasize multi-sensory learning</td>
<td></td>
</tr>
</tbody>
</table>

### Assistive Technology

- Computer/whiteboard
- Tape recorder
- Spell-checker
- Audio-taped books

### Tests/Quizzes/Grading

- Extended time
- Study guides
- Shortened tests
- Read directions aloud

### Behavior/Attention

- Consistent daily structured routine
- Simple and clear classroom rules
- Frequent feedback

### Organization

- Individual daily planner
- Display a written agenda
- Note-taking assistance
- Color code materials
## 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

### English Language Arts
- Close reading of industry-related content
- Keep a running word wall of industry vocabulary
- Utilize culinary terminology daily to communicate behaviors, procedures, tools and equipment

### Social Studies
- Research prominent individuals in the Culinary industry/profession
- Research the history of Pastry and Confections

### World Language
- Translate industry-content
- Create a translated index of industry vocabulary

### Math
- Perform mathematical conversions from avoirdupois weight to metrics (grams)
- Utilize conversion factor to increase or decrease yield
- Determine volume using mathematical formulas

### Fine & Performing Arts
- Create Chocolate and Sugar sculpture showpieces
- Design and Execute a two-tiered special occasion cakes
- Create a poster recruiting young people to focus their studies on a specific career or industry

### Science
- Research the environmental impact of a given career or industry
- Analyze the multiple roles and functions of basic baking ingredients
- Understand the chemical reactions that occur during baking
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.
Common Career Technical Core (CCTC)

Career Cluster Hospitality & Tourism

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

CCSS - English-Language Arts

Key Ideas and Details:

- CCSS.ELA-LITERACY.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:

- CCSS.ELA-LITERACY.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.

Common Core State Standards (CCSS)

CCSS – Mathematics

Make inferences and justify conclusions from sample surveys, experiments, and observational studies:

- CCSS. MATH CONTENT. HSS. 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 - Baking and Pastry  
**Unit:** 1 – Introduction to Baking Techniques and Methods  
**Grade Level:** 9-12

**Unit Overview:** Students will gain an in-depth understanding of the basic ingredients, techniques, equipment and procedures to be used throughout the course. Additionally, students will further learn several methods for preparing cake batters, working with simple yeast raised doughs, and commonly used piping techniques.

**New Jersey Student Learning Standards (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

**Common Career Technical Core (CCTC):** HT-RFB.2, HT-RFB.4, HT-RFB.7, HT-RFB.8, HT-RFB.10, HT-TT.2

**Common Core State Standards (CCSS):** 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>
</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. NJSLS: 9.3 HT-RFB.2, 9.3 HT-RFB.7, 9.3 HT-RFB.8, 9.3 HT-RFB.10 | ➢ 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 | • 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. | 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. | 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](http://www.keiseruniversity.edu) |
<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>
| **CCTC:** HT-RFB.2, HT-RFB.7, HT-RFB.8, HT-RFB.10  
**CCSS:** W 11-12.7, HSS.IC.B.3 | performed daily? | • Utilizing the proper techniques for scaling dry ingredients.  
• Utilizing proper technique and tools for cutting butter. | Peer Pair to gather, organize and scale *mis en place*.  
Research the life and career of a prominent Pastry Chef  
Identify print and digital resources for obtaining information. | u/baking-pastry-arts/ |
| **Understand basic kitchen rules and procedures of safety and sanitation.** | 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 | • 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. | 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. | ServSafe Essentials, National Restaurant Association, Fifth Edition  
Food Safety and Sanitation  
Handwashing video - consumered.org  
www.consumered.org/glsteamteam |
<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>Identify ingredients essential to baking (eggs, sugars, butter, flour, dairy, fruits and flavorings) and the function of each ingredient in creating the finished product.</td>
<td>✓ What role does each ingredient play in the baking process? ✓ How does the composition of flour determine its effect on a finished product? ✓ Why are fresh and preserved fruits utilized in baking? ✓ How are flavorings incorporated into baked goods?</td>
<td>Proper scaling and sifting of flour, sugar and butter. Differentiating between wet and dry ingredients. Separating egg yolks from egg whites. Cutting butter into cubes. Selecting and utilizing complimentary flavorings for a given recipe.</td>
<td>Practical Application Preparation of simple desserts to include, muffins, pate a choux, soufflés, crème brulee, cheesecakes. Preparation of frozen desserts: ice cream, bombes and sorbets. Mini Lessons: Fruit and Fruit Products Nut Tasting and Evaluation</td>
<td>Introduction to Baking and Ingredients Module. 2 Course 3, Institute of Culinary Education On Cooking, A Textbook of Culinary Fundamentals, Labensky,Sarah R., Hause, Alan M., Martell, Priscilla A.</td>
</tr>
<tr>
<td>Explore common hydrocolloids and their uses in baking.</td>
<td>✓ What are “hydrocolloids, “ and how do they affect the baking</td>
<td>Proficiency in “folding” eggs Maintaining volume</td>
<td>Practical Application Preparation of egg based custards, curds</td>
<td>Bakery Technology - Hydrocolloids - Classofoods <a href="http://www.classofoods.com/p">www.classofoods.com/p</a></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>
</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  
**CCTC**: HT-RFB.2, HT-RFB.2, HT-RFB.7, HT-RFB.8, HT-RFB.10  
**CCSS**: HSS. IC.B.3 | process?  
- 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.  
[PDF] Converting Recipe Quantities - Scaling Recipes  
culinaryarts.about.com/od/measurementsconversions/a/scaling.htm  
Baking Math: The Recipe Conversion Factor (RCF) | age1_9.html |
| Utilize conversion factors to calculate yield changes, gross weight, and the weight of one piece.  
**NJSLS**: 9.3 HT-RFB.10, 9.3 HT-TT.2  
**CCTC**: HT-RFB.10, HT-TT.2  
**CCSS**: 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 yield.  
Complete several mathematical exercises that calculate gross | Converting Recipe Quantities - Scaling Recipes  
culinaryarts.about.com/od/measurementsconversions/a/scaling.htm  
Baking Math: The Recipe Conversion Factor (RCF) |  
ModernDomestic  
www.moderndomestic.com/2011/01/baking- |
<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>Evaluate the various stages of sugar cookery</td>
<td>What is the difference between weight measurement and volume measurement?</td>
<td>Measure and Monitor temperature using a high-heat thermometer</td>
<td>Practical Applications</td>
<td>How sugar is made - manufacture, used, processing, parts ... <a href="http://www.madehow.com">www.madehow.com</a> › Volume 1</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.</td>
<td>What are the various stages and temperatures of sugar cookery?</td>
<td>Prepare dry caramel</td>
<td>Cook sugar to: thread, soft, firm, hard and caramel stages.</td>
<td>Making Pate de Fruit <a href="https://www.youtube.com/watch?v=oWOSQM2J4nM">https://www.youtube.com/watch?v=oWOSQM2J4nM</a></td>
</tr>
<tr>
<td>CCSS: HSS. IC.B.</td>
<td>How does sugar interact with yeast to create leavening?</td>
<td>Practical Applications</td>
<td>Prepare fruit-based confections: pate a fruit, dried and candied fruits</td>
<td></td>
</tr>
<tr>
<td>Utilize various mixing techniques to create</td>
<td>How does the mixing method</td>
<td>Perform Basic Cake Mixing Methods: • One- Step</td>
<td>Prepare, cake batters using weights, measures and related tools.</td>
<td>Professional Baking, Gisselen,Wayne-Sixth Edition</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>classic American cakes.</td>
<td>affect the finished product?</td>
<td>Method • Creaming Method • High Ratio Method Producing a uniform, emulsified batter</td>
<td>Prepare cake pans for baking</td>
<td>Cakes Fillings and Icings, Module 3, The Institute of Culinary Education</td>
</tr>
<tr>
<td><strong>CCTC</strong>: HT-RFB.2 HT-RFB.4, HT-RFB.7, HT-RFB.8, HT-RFB.10.</td>
<td>Ø What are the effects of under mixing a batter?</td>
<td></td>
<td></td>
<td><strong>CCSS</strong>: RL 11-12-1</td>
</tr>
<tr>
<td><strong>NJSLS</strong>: 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.</td>
<td>Ø How are flowers (roses) of varying sizes created?</td>
<td>Applying a variety of borders to cake finishes Incorporating decorative elements to embellish cupcakes</td>
<td>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.</td>
<td>Cake Decorating, Module 4, The Institute of Culinary Education</td>
</tr>
<tr>
<td><strong>CCTC</strong>: HT-RFB.2 HT-RFB.4, HT-RFB.7, HT-RFB.8, HT-RFB.10.</td>
<td>Ø What is the process for creating swags and overlapping border design?</td>
<td>Filling a pastry bag and inserting tips and a coupler.</td>
<td>Utilizing various</td>
<td>Making a Gumpaste Peony - YouTube <a href="https://www.youtube.com/watch?v=czY88teINQ">https://www.youtube.com/watch?v=czY88teINQ</a></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>
</tbody>
</table>
| Apply knowledge of working with yeast and fermentation, to create yeast dough. | • What factors assist/ inhibit the potency of yeast?  
• 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  
ProofingYeast and Kneading Dough [www.virtuousbread.com](http://www.virtuousbread.com)  
Dan Lepard's Australian Baking Bible: bread video recipe |
<table>
<thead>
<tr>
<th>Unit 1 Vocabulary</th>
</tr>
</thead>
<tbody>
<tr>
<td>bench scraper</td>
</tr>
<tr>
<td>bowl scraper</td>
</tr>
<tr>
<td>cornet</td>
</tr>
<tr>
<td>creaming method</td>
</tr>
<tr>
<td>dough hook</td>
</tr>
<tr>
<td>emulsify</td>
</tr>
<tr>
<td>gelatin</td>
</tr>
<tr>
<td>gelee</td>
</tr>
<tr>
<td>gluten</td>
</tr>
<tr>
<td>gram</td>
</tr>
<tr>
<td>high-ratio method</td>
</tr>
<tr>
<td>hydrocolloids</td>
</tr>
<tr>
<td>leavener</td>
</tr>
<tr>
<td>macerate</td>
</tr>
<tr>
<td>meringue</td>
</tr>
<tr>
<td>one-step method</td>
</tr>
<tr>
<td>pate- a-fruit</td>
</tr>
<tr>
<td>pectin</td>
</tr>
<tr>
<td>volume</td>
</tr>
<tr>
<td>weight</td>
</tr>
<tr>
<td>yeast</td>
</tr>
</tbody>
</table>
## Suggested Unit Projects

**Choose At Least One**

<table>
<thead>
<tr>
<th>Project</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>

## Suggested Structured Learning Experiences

<table>
<thead>
<tr>
<th>Location</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valley Shepherd Creamery – Tour</td>
<td>50 Fairmount Rd. Washington Township, NJ</td>
</tr>
<tr>
<td>Guest Chef demonstration with chefs</td>
<td></td>
</tr>
<tr>
<td>Balthazar Wholesale Bakery</td>
<td>214 South Dean Street, Englewood, NJ</td>
</tr>
</tbody>
</table>