Planning, Preparation and Practice for Effective Lab Management

Statewide Instructional Resources Development Center
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Introductions
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Education and Training, Hospitality and Tourism, Human Services
Stephen F. Austin State University
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SIRDC provides FREE instructional resources for:

- Education and Training
- Hospitality and Tourism
- Human Services

http://cte.sfasu.edu/
Brief Overview of Educational Excellence Grant Goals

- Provide free instructional resources for Texas teachers
- Focus on the needs of new teachers
- Assist with resources that will meet the needs of special populations and non-traditional students
Today’s Session Topics

Participants will engage in the following:

• Applying effective planning strategies in cooking demonstrations/labs while introducing key nutrition information

• Identifying resources in choosing nutritious recipes and/or activities

• Providing tips and strategies for organizing the classroom and students for a successful lab experience

• Demonstrating various quick, easy and nutritious recipes

• Access and explore the Statewide Instructional Resources Development Center website for additional tools and strategies
Cross-Curricular Kitchen Lessons

Science  Safety  Nutrition

Sanitation  Math  Language Arts

HISTORY  GEOGRAPHY

Image: Teachbesideme.com
### Scope and Sequence

**Cluster:** Human Services

**Course Name:** §130.245 Lifetime Nutrition and Wellness (One-Half to One Credit)

**Course Description:**
1. This laboratory course allows students to use principles of lifetime wellness and nutrition to help them make informed choices that promote wellness as well as pursue careers related to hospitality and tourism, education and training, human services, and health sciences.
2. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

**Course Requirements:** This course is recommended for students in grades 10-12. Recommended prerequisite: Principles of Human Services, Principles of Hospitality and Tourism, Principles of Health Science, or Principles of Education and Training.

**Recommended Equipment**

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Kitchen Procedures

Establish good kitchen procedures

• How will your students know what the proper behavior during a lab should be?

• How will your students ask for additional items needed for the lab, ask to go to the restroom or where will they find extra aprons, kitchen towels or hair restraints?

• How will they turn in papers, work as a group, collect materials or rotate the duties in the kitchen?
Safety and Sanitation

Spend plenty of time teaching the importance of safety and sanitation in the kitchen.

• Proper hand washing techniques
• Food handling and preparation
• Cleaning versus sanitizing
Kitchen Lab Rules

- Absence from lab
- Appliances and other equipment
- Duties
- Food safety
- Garbage and waste
- Laundry
- Personal belongings
- Personal hygiene
- Teamwork
- Time
Guidelines for Choosing Foods

Recipes should be low-cost

• Choose ingredients in their most whole form
• Purchase store-brand equivalents
• Choose ingredients that can be used for more than one recipe
• Purchase bulk items when possible
• Choose dried spices instead of fresh
• Always consider whether a less expensive form of an ingredient can be used
Guidelines for Choosing Foods

• Recipes should be accessible to your students

• Recipes should be nutritious
  • Limit sodium
  • Minimize the use of added sugars
  • Use leaner cooking techniques and ingredients
  • Use multiple food groups
  • Vary the forms, types and colors of fruits and vegetables
Guidelines for Choosing Foods

- Recipes should limit the use of special equipment
- Recipes should be quick to prepare
- Recipes should be simple and explained clearly
ChooseMyPlate Lessons

- ChooseMyPlate – Dairy, Major Minerals and Electrolytes
- ChooseMyPlate – Fruits and Water-Soluble Vitamins
- ChooseMyPlate – Grains and Carbohydrates
- ChooseMyPlate – Oils and Fats
- ChooseMyPlate – Physical Activity and Sports Nutrition
- ChooseMyPlate – Protein Foods and Trace Minerals
- ChooseMyPlate – Vegetables and Fat-Soluble Vitamins
- ChooseMyPlate – Weight Management, Calories and Fad Diets
# Substitutions for Healthier Cooking and Baking

<table>
<thead>
<tr>
<th>If the recipe calls for:</th>
<th>Substitute:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bread, white</td>
<td>Whole-grain bread</td>
</tr>
<tr>
<td>Bread crumbs, dry, 1 cup</td>
<td>1 cup rolled oats or crushed bran cereal</td>
</tr>
<tr>
<td>Butter, 1 cup</td>
<td>⅛ cup applesauce + ⅛ cup butter</td>
</tr>
<tr>
<td>Buttermilk, 1 cup</td>
<td>1 cup skim milk + 3 Tbsp. vinegar or lemon juice</td>
</tr>
<tr>
<td>Chicken, fried</td>
<td>Chicken, oven baked with cornflake crust</td>
</tr>
<tr>
<td>Cream, 1 cup</td>
<td>1 cup fat free half-and-half or 1 cup evaporated skim milk</td>
</tr>
<tr>
<td>Cream cheese, 8 ounces</td>
<td>8 ounces fat-free or low-fat cream cheese, Neufchatel, or 1 cup low fat</td>
</tr>
<tr>
<td></td>
<td>cottage cheese pureed until smooth</td>
</tr>
<tr>
<td>Eggs, whole, 1</td>
<td>2 egg whites or ½ cup egg substitute</td>
</tr>
<tr>
<td>Flour, all-purpose, 1 cup</td>
<td>⅛ cup whole-wheat flour + ⅛ cup all-purpose flour</td>
</tr>
<tr>
<td>Fruit, in heavy syrup</td>
<td>Fruit in its own juices, water, or fresh fruit</td>
</tr>
<tr>
<td>Ground beef, 1 lb</td>
<td>1 lb. of extra lean or lean ground beef, chicken, or turkey breast</td>
</tr>
<tr>
<td>Ground beef, 1 lb</td>
<td>1 lb. ground beef, cooked, drained, and rinsed in cold water</td>
</tr>
<tr>
<td>Mayonnaise, 1 cup</td>
<td>1 cup reduced-calorie mayonnaise</td>
</tr>
<tr>
<td>Milk, whole, 1 cup</td>
<td>1 cup skim or reduced fat milk</td>
</tr>
<tr>
<td>Pasta, enriched (white)</td>
<td>Whole-wheat pasta</td>
</tr>
<tr>
<td>Rice, white</td>
<td>Brown rice, wild rice, or bulgur</td>
</tr>
<tr>
<td>Salad dressing, 1 cup</td>
<td>1 cup fat-free or reduced-calorie salad dressing</td>
</tr>
<tr>
<td>Sour cream, 1 cup</td>
<td>1 cup cottage cheese, pureed smooth or 1 cup plain fat-free yogurt</td>
</tr>
<tr>
<td>Sugar, granulated, 1 cup</td>
<td>⅛ cup granulated sugar + 1 Tbsp. vanilla</td>
</tr>
<tr>
<td>Tuna, oil packed</td>
<td>Tuna, water packed</td>
</tr>
</tbody>
</table>

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Setting Up the Kitchen

• Color-code the kitchen lab areas
• Designate a supply table
• Label all drawers, cabinets and storage equipment
• Supply each kitchen lab with staples

http://www.facclassroomideas.com/2012/03/kitchen-color-coding.html?m=1
Preparation
## Sample Lab Plan

### Recipe

### Lab

### Group #

### Kitchen #

### Period

<table>
<thead>
<tr>
<th>Points</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Chef

1. Plans for lab and makes grocery list
2. Follows food safety guidelines
3. Gathers supplies and does major cooking
4. Creates a pleasing and flavorful product
5. Follows all lab rules

### Host/Hostess

1. Cleans and sets the dining table
2. Sets table appropriately according to meal served
3. Serves meal and sets example for good table manners
4. Cleans table when everyone has finished eating
5. Follows all lab rules

### Manager

1. Gathers utensils for chef
2. Prepares rules for dishwashing methods
3. Washes all dishes as needed
4. Wipes clean range, counter, and cabinets
5. Follows all lab rules

### Asst. Manager

1. Assists team members with lab preparation
2. Prepares nutritious drinks
3. Dries and stores dishes
4. Checks lab before group is excused
5. Follows all lab rules

### GROCERY LIST

1. 
2. 
3. 
4. 
5. 

### TEACHER COMMENTS:
Sample of Duty Schedule

Note to teacher: You may opt to have the members of each group, create a duty schedule. Require the students to post a duty schedule on a cabinet door in their kitchen prior to each lab.

<table>
<thead>
<tr>
<th>Duties</th>
<th>Lab 1</th>
<th>Lab 2</th>
<th>Lab 3</th>
<th>Lab 4</th>
<th>Lab 5</th>
<th>Lab 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chef</td>
<td>Mary</td>
<td>Bonnie</td>
<td>LeAnn</td>
<td>Joe</td>
<td>Mary</td>
<td>Bonnie</td>
</tr>
<tr>
<td>Host/Hostess</td>
<td>Joe</td>
<td>Mary</td>
<td>Bonnie</td>
<td>LeAnn</td>
<td>Joe</td>
<td>Mary</td>
</tr>
<tr>
<td>Manager</td>
<td>LeAnn</td>
<td>Joe</td>
<td>Mary</td>
<td>Bonnie</td>
<td>LeAnn</td>
<td>Joe</td>
</tr>
<tr>
<td>Assistant Manager</td>
<td>Bonnie</td>
<td>LeAnn</td>
<td>Joe</td>
<td>Mary</td>
<td>Bonnie</td>
<td>LeAnn</td>
</tr>
</tbody>
</table>
Sample Lab Prep Sheet

<table>
<thead>
<tr>
<th>Dry ingredients to be measured:</th>
<th>Liquid ingredients to be measured:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient</td>
<td>Amount</td>
</tr>
<tr>
<td>Knife cuts:</td>
<td></td>
</tr>
<tr>
<td>Grocery list:</td>
<td></td>
</tr>
</tbody>
</table>
## Rubric for Laboratory Experience

**Task Description:** Students will prepare a nutritious recipe:
- correctly using standard measuring techniques and equipment
- demonstrating correct food preparation techniques, including nutrient retention
- using food buying strategies such as calculating food costs, planning food budgets, and creating grocery lists
- demonstrating food preparation techniques to reduce overall fat and calories
- practicing etiquette, food presentation, and table service appropriate for specific situations
- applying food storage principles

<table>
<thead>
<tr>
<th>Criteria</th>
<th>weight</th>
<th>Professional 4</th>
<th>Practitioner 3</th>
<th>Novice 2</th>
<th>Beginner 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Safety/ Sanitation</strong></td>
<td>15%</td>
<td>☐ Always observes safety and sanitation rules</td>
<td>☐ Observes safety and sanitation rules with few lapses</td>
<td>☐ Occasionally follows safety and sanitation rules</td>
<td>☐ Almost never follows safety and sanitation rules</td>
</tr>
<tr>
<td><strong>Use of Equipment</strong></td>
<td>15%</td>
<td>☐ Efficiently manages equipment</td>
<td>☐ Selects appropriate equipment for task</td>
<td>☐ Manages equipment competently</td>
<td>☐ Attempts to manage equipment properly</td>
</tr>
<tr>
<td><strong>Maintenance of Work Space</strong></td>
<td>15%</td>
<td>☐ Methodically makes use of a well-planned work space</td>
<td>☐ Carefully maintains an organized work space</td>
<td>☐ Intermittently maintains an organized work space</td>
<td>☐ Seldom maintains an organized work space</td>
</tr>
<tr>
<td><strong>Time Management</strong></td>
<td>15%</td>
<td>☐ Expertly develops and implements an organized plan</td>
<td>☐ Develops and implements an organized plan</td>
<td>☐ Attempts to develop and implement an organized plan</td>
<td>☐ No apparent plan of action</td>
</tr>
<tr>
<td><strong>Resource Management</strong></td>
<td>15%</td>
<td>☐ Masterfully manages resources</td>
<td>☐ Manages resources properly</td>
<td>☐ Works to properly manage resources</td>
<td>☐ Mismanagement of resources</td>
</tr>
<tr>
<td><strong>Food Presentation</strong></td>
<td>15%</td>
<td>☐ Practices etiquette, food presentation, and table service masterfully</td>
<td>☐ Practices etiquette, food presentation, and table service adequately</td>
<td>☐ Attempts to practice etiquette, food presentation, and table service</td>
<td>☐ Little or no practice of etiquette, food presentation, and table service</td>
</tr>
<tr>
<td><strong>Food Storage Principles</strong></td>
<td>10%</td>
<td>☐ Applies food storage principles masterfully</td>
<td>☐ Applies food storage principles adequately</td>
<td>☐ Food storage principles attempted</td>
<td>☐ Little or no attempt at food storage</td>
</tr>
</tbody>
</table>

Assignment Score __________ + Beyond/Bonus __________ = Final Score __________

Successful Lab Management Guidelines
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Teaching Measurements
Recipe Breakdown

<table>
<thead>
<tr>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredients</td>
</tr>
<tr>
<td>Yield</td>
</tr>
<tr>
<td>Cooking method</td>
</tr>
<tr>
<td>Temperature</td>
</tr>
<tr>
<td>Time</td>
</tr>
<tr>
<td>Equipment needed</td>
</tr>
<tr>
<td>Directions</td>
</tr>
<tr>
<td>Nutrition Analysis</td>
</tr>
</tbody>
</table>
Nutrition Activity

Filmstrip Sequencing Activity

Instructions: You will create a comic strip depicting nutrients. Choose one of the six nutrients. Plan a comic strip, explaining the benefits or purposes of that nutrient based off of the information given in class. Design your own comic storyline including pictures and speech bubbles.
Sandwich Chart

Write the main idea on the top bun. Add the supporting details in the middle sections and the conclusion on the bottom bun. Complete the document with a summary sentence.
Practice
Tips for Doing a Food Demonstration

• Select a good recipe
• Write a list of everything you need for the demonstration
• Write notes on the main points you want to cover
• Keep it interesting and keep good eye contact with the audience
• Practice, practice, practice
Explore the Food

• What is it called? How is it available? Frozen, canned or dried?
• Ask for a show of hands, thumbs if students have tried it.
• Check to see if students know what food group each item comes from.
• What are the nutrients and what do those nutrients do for us?
Evaluating Your Demonstration

- Was the information appropriate for the students? If not, why?
- Did the students seem engaged during the demonstration? If not, why?
- What types of questions did the students ask?
- Did the students demonstrate understanding of the concepts taught? How do you know?
- Did the students enjoy the recipes? Which ones were favorites? Which ones were less successful?
Being Prepared is the Key to Success!

• Don’t get overwhelmed.

• Never underestimate how little your students might know about the food they eat.

• Understand that many times students are unfamiliar with different, seemingly common foods.

• Remember that you are competing with brightly colored packaged foods and snacks.

• Students make food choices based on what they are familiar with. Don’t be condescending.
Demonstration

- Muffin Tin Meat Loaves
- Peanut Butter Banana Breakfast Shake
- Crunchy Hawaiian Chicken Wrap
Your turn!
Questions?
References and Resources

Images:
Microsoft Clip Art: Used with permission from Microsoft.

Textbooks:


References and Resources

**Websites:**
- Statewide Instructional Resources Development Center (SIRDC)
  SIRDC provides FREE instructional resources for Education and Training, Hospitality and Tourism and Human Services.
  [www.cte.sfasu.edu](http://www.cte.sfasu.edu)

- United States Department of Agriculture
  Build a cookbook with the Recipe Finder database.

* 60 Healthier Toast Oven Recipes
  Recipes for breakfast, lunch, supper and snacks.

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Questions Regarding Education Laws and Rules

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