

1867

Development and Implementation of Hybrid Format Food Labs for Dietetics Students during the COVID-19 Pandemic


Shelley DePinto, MS, RDN, LDN, and David Hersh, BS, Chef

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Shelley DePinto, MS, RDN, LDN
Director, Didactic Program in Dietetics, Cedar Crest College
Doctoral Candidate, Nova Southeastern University

David Hersh, BS, Chef
Adjunct Instructor, Cedar Crest College
Sanitarian, Allentown Health Bureau

Nothing to disclose




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Objective

Participants will be able to:


- Describe successful approaches in the hybrid delivery of dietetics food labs



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Lab Courses in the DPD Program

- Principles of Foods**
A study of the selection, preparation and storage of food. Techniques in food preparation are developed, food components and their specific nature and behavior during preparation are introduced, along with the recognition and evaluation of quality in food products. Kitchen utensils and equipment use, recipe conversion and standardization, and food preparation techniques to meet the needs of populations will be covered.
- Experimental Foods**
Controlled experimentation and evaluation of methods of preparation and scientific principles of foods. Students complete a research project based on an area of individual interest.



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Course Projects

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Primary Challenges

- Social distancing requirements/Safety
 - In the foods lab
 - Food tasting/taste panel
- Scheduling constraints
- Student quarantine
- Access to equipment
- HyFlex model
- Maintaining learning outcomes



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Addressing Challenges: Principles of Foods Course

- Social distancing requirements → Design modifications
- Safety → Specific tasting protocols
- Scheduling constraints → Additional lab sections
- Student quarantine → Contactless delivery
- Access to equipment → Confidential surveys and lab kits
- HyFlex model → Delivery modifications



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Design Modifications

- Plexiglass barriers
- Pantry carts
- Pre-portioned lab baskets



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Schedule and Delivery

- Two lab sections with modified schedule
- Condensed in lab format
 - Prelab online
 - Key learning activities completed in lab
 - Take-home assignments
- Discussion board sharing of results

| Lab Section and Time | Lab Schedule for NTR 220 | | | | | |
|--------------------------------------|---|---|---|--|---|---|
| | Student Days in Lab (one Total - 2 Student per Kitchen Station) | 1 | 2 | 3 | 4 | 5 |
| Lab Section A 5:00 pm, to 6:30 pm | | | | Vegan | | |
| Lab Section B 5:00 pm, to 6:30 pm | No Dairy (milk, not allergy) | | | Gluten, gluten-free, and no-bleh allergies | | |



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Prelabs and Discussion Boards



Validation: Golden pound cake w/ pantry flour, conventional mixing.
Texture: 4- soft, smooth mouth feel, slightly crumbly on outside, slightly dense on inside.
Appearance: 3- nice of even and larger cells, height is pretty even, no falling to center, no burnt. Good color.
Flavor: 5- slightly sweet, buttery
Topping: None
Cake height: 2.25"



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Lab Manual

Procedure 120
Unit Two Laboratory Experience
Food Composition, Sweeteners, Starches, Grains, & Cakes

LEARNING OBJECTIVES

1. Identify the role of carbohydrates in nutrition.
2. Explain the difference between simple and complex carbohydrates, and their role in nutrition.
3. Identify the types of sweeteners used in products of ingredients.
4. Identify the role of starches in products of ingredients.
5. Identify the role of grains in products of ingredients.
6. Identify the role of grains in products of ingredients.
7. Identify the role of grains in products of ingredients.
8. Identify the role of grains in products of ingredients.
9. Identify the role of grains in products of ingredients.
10. Identify the role of grains in products of ingredients.

SUMMARY OF LAB ACTIVITIES

1. Discuss with lab instructor (goals)
2. Preparation of lab materials (goals)
3. Preparation of lab materials (goals)
4. Preparation of lab materials (goals)
5. Preparation of lab materials (goals)
6. Preparation of lab materials (goals)
7. Preparation of lab materials (goals)
8. Preparation of lab materials (goals)
9. Preparation of lab materials (goals)
10. Preparation of lab materials (goals)



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Prelab Videos



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Final Project

- Completed at home
- Video equipment available for loan
- Additional skill development
 - Technology
 - Accessibility by all populations



Addressing Challenges: Experimental Foods Course

- Safety
 - Food tasting/taste panel
- Access to equipment → Purchase orders and lab kits
- HyFlex model
 - At-home completion with synchronous instructor access
- Maintaining learning outcomes
 - Mock IRB submissions
 - Family taste panel
 - Hyflex poster presentations



HyFlex Labs

Control



50% Substitution



75% Substitution



Learning Outcomes and Student Satisfaction

- No significant difference in learning outcomes compared to past course offerings
- Students highly appreciative of flexibility
- Enhanced student engagement
- Skill development: Planning, time management, and technology

Questions?

Sdepinto@cedarcrest.edu

