

Virginia Western Community College
HRI 251
Food and Beverage Cost Control

Prerequisites

MTH 120

Course Description

Presents methods of pre-cost and pre-control as applied to the menu, purchasing, receiving, storing, issuing, production, sales and service which result in achievement of an operation's profit

potential. Emphasizes both manual and computerized approaches.

Semester Credits: 3 Lecture Hours: 3 Lab/Clinical/Internship Hours: 0

Required Materials**Textbook:**

Culinary Math Principles and Applications Course book: 9780826942371

Other Required Materials:

None

Course Outcomes

At the completion of this course, the student should be able to:

- Describe how math is used every day in a foodservice operation both inside and outside of the kitchen.
- 1-2 Explain why the success of a foodservice operation depends on the use of math skills.
- 1-3 Explain how to add and subtract whole numbers.
- 1-4 Explain how to multiply and divide whole numbers.

Chapter 2 - Measuring in the Professional Kitchen

- 2-1 Explain the role of standardized measures in the success of foodservice operations.
- 2-2 Identify the two systems of measurement used by foodservice operations.
- 2-3 List the common units of measure for volume and for weight that are used in the professional kitchen.
- 2-4 Define measurement equivalents and explain how they are used in a professional kitchen.
- 2-5 Change a measurement given in one unit of measure to an equivalent measurement in another unit of measure.
- 2-6 Explain how to use professional kitchen tools to measure volume and weight.
- 2-7 Explain how time, temperature, and distance are measured in a foodservice operation.

Chapter 3 - Calculating Measurements

- 3-1 Add, subtract, multiply, and divide measurements involving whole numbers.
- 3-2 Convert between improper fractions and mixed numbers.
- 3-3 Add, subtract, multiply, and divide fractions.
- 3-4 Add, subtract, multiply, and divide decimals.
- 3-5 Convert between fractions and decimals.
- 3-6 Calculate the area of a rectangular surface and a circular surface.
- 3-7 Calculate the volume of a rectangular solid and a cylinder.
- 3-8 Explain how angles are used in food service.
- 3-9 Calculate the average (mean), median, and mode from a range of numbers.
- 3-10 Generate a data table and a graph.

Chapter 4 - Converting Measurements and Scaling Recipes

- 4-1 Convert measurements within the customary or metric measurement system.
- 4-2 Convert measurements between the customary and metric measurement systems.
- 4-3 Convert between volume and weight measurements.
- 4-4 Identify the most common elements of a standardized recipe.
- 4-5 Calculate scaling factors based on recipe yield.
- 4-6 Calculate scaling factors based on product availability.
- 4-7 Explain how other elements of a recipe are affected when the yield is changed.

Chapter 5 - Calculating Percentages and Ratios

- 5-1 Calculate percentages using a percentage circle.
- 5-2 Calculate yield percentages.
- 5-3 Explain how to conduct yield tests.
- 5-4 Calculate as-purchased quantities.
- 5-5 Calculate edible-portion quantities.
- 5-6 Calculate baker's percentages.
- 5-7 Create a formula from a recipe.
- 5-8 Explain how ratios are used in the professional kitchen.

Chapter 6 - Calculating Food Costs and Menu Prices

- 6-1 Identify as-purchased costs on invoices.
- 6-2 Calculate as-purchased unit costs.
- 6-3 Calculate edible-portion unit costs.
- 6-4 Calculate as-served costs of menu items.
- 6-5 Calculate food cost percentages of menu items.
- 6-6 Calculate overall food cost percentages of foodservice operations.
- 6-7 Calculate menu prices using the food cost percentage pricing method.
- 6-8 Explain perceived value pricing.
- 6-9 Calculate menu prices based on the contribution margin pricing method.
- 6-10 Use pricing forms to help establish menu prices.

Chapter 7 - Calculating Revenue and Expenses

- 7-1 Explain how a guest check is processed.
- 7-2 Calculate discounts, sales taxes, guest check totals, and gratuities.
- 7-3 Explain the purpose of a point-of-sale (POS) device.
- 7-4 Demonstrate how to return change to a customer who pays with cash.
- 7-5 Explain how daily sales revenue is calculated and recorded.
- 7-6 Describe the different expense categories of a foodservice operation.
- 7-7 Calculate the value of inventory.
- 7-8 Calculate the cost of goods sold.
- 7-9 Explain how payroll expenses are calculated.
- 7-10 Explain the difference between variable and fixed expenses.

Chapter 8 - Analyzing Profit and Loss

- 8-1 Explain the difference between profit and loss.
- 8-2 Calculate percent increase of revenue and percent decrease of revenue.
- 8-3 List the ways a foodservice operation can minimize expenses.
- 8-4 Explain the purpose of a purchase specification.
- 8-5 Calculate gross profit and net profit.
- 8-6 Interpret a standard profit and loss statement.
- 8-7 Interpret a pie chart.
- 8-8 Calculate expenses and net profit as a percent of revenue.
- 8-9 Estimate the break-even point for a foodservice operation.
- 8-10 List topics that are discussed with a customer when estimating the cost of a special event.
- 8-11 Use the food cost percentage and contribution margin pricing methods to price special events.

Topical Description

- **Chapter 1 Using math in foodservice operations**
 - How math is used in food service
 - Performing basic math calculations
- **Chapter 2 Measuring in the professional kitchen**
 - 2.1 Using standardized measures
 - 2.2 Measuring Volume
 - 2.3 Measuring weight
 - 2.4 Measuring time and temperature
 - 2.5 Measuring distance
- **Chapter 3 Calculating measurements**
 - 3.1 Whole numbers measurements
 - 3.2 Fraction measurements
 - 3.3 Decimal measurements
 - 3.4 Calculating area, volume, and angles

- 3.5 Basic statistics
- **Chapter 4 Converting measurements and scaling recipes**
 - 4.1 Converting measurement s
 - 4.2 Scaling recipes
- **Chapter 5 Calculating percentages and ratios**
 - 5.1 Calculation percentages
 - 5.2 Using yield percentages
 - 5.3 Using baker's percentages
 - 5.4 Calculating ratios
 - 5.5 Using ratios
- **Chapter 6 Calculating food cost and menu prices**
 - 6.1 Identifying as-purchased cost
 - 6.2 Calculating unit cost
 - 6.3 Calculation as served cost
 - 6.4 Calculation menu prices
 - 6.6 Using pricing forms
- **Chapter 7 Calculating revenue and expenses**
 - 7.1 Calculating revenue
 - 7.2 Calculating expenses
- **Chapter 8 Analyzing profit and loss**
 - 8.1 Making profit
 - 8.2 Standard profit and loss
 - 8.3 Special events profit and loss

Notes to Instructors

- None