

SAN DIEGO COMMUNITY COLLEGE DISTRICT
CONTINUING EDUCATION
COURSE OUTLINE

SECTION I

SUBJECT AREA AND COURSE NUMBER

FDNT 618

COURSE TITLE

NUTRITION ESSENTIALS

TYPE COURSE

NON-FEE

VOCATIONAL

CATALOG COURSE DESCRIPTION

This course provides an introduction to the basic scientific principles of nutrition and their relationship to human health. Topics will include essential nutrients and how they influence bodily processes, scientific concepts, national nutrition standards, food sources, food safety and sanitation, cooking principles for maximum nutrient retention, and cultural dietary habits. In addition, students will also learn to analyze dietary intake, and its relationship to client and personal wellness. (FT)

LECTURE/LABORATORY HOURS

54

ADVISORIES

FDNT 501 INTRO TO HOSPITALITY CAREERS

RECOMMENDED SKILL LEVEL

Eighth grade reading level; ability to communicate effectively in the English language, knowledge of general math; basic computation skills and basic computer skills.

INSTITUTIONAL STUDENT LEARNING OUTCOMES

1. Social Responsibility
SDCE students demonstrate interpersonal skills by learning and working cooperatively in a diverse environment.
2. Effective Communication
SDCE students demonstrate effective communication skills.

INSTITUTIONAL STUDENT LEARNING OUTCOMES (CONTINUED)

3. Critical Thinking
SDCE students critically process information, make decisions, and solve problems independently or cooperatively.
4. Personal and Professional Development
SDCE students pursue short term and life-long learning goals, mastering necessary skills and using resource management and self-advocacy skills to cope with changing situations in their lives.

COURSE GOALS

1. Students will gain knowledge of how essential nutrients influence body functions and cellular growth.
2. Students will gain awareness and skills in using national standards and guidelines to address personal dietary needs.
3. Students will learn food safety and sanitation principles.
4. Students will gain knowledge of cooking principles that will support optimal nutrition.
5. Students will learn how to analyze dietary intake, and its relationship to client and personal wellness.

COURSE OBJECTIVES

1. Identify and examine scientific knowledge of essential nutrients related to human nutrition.
2. Apply national health standards and principles to develop menus and recipes to enhance personal health and wellness.
3. Describe and demonstrate basic safety and sanitation principles in the food service industry.
4. Compose and prepare nutritionally rich recipes in the food production lab.
5. Analyze and assess personal consumption behaviors in relation to standard nutritional values.

SECTION II

COURSE CONTENT AND SCOPE

1. Safety and Sanitation
 - 1.1. Personal hygiene
 - 1.2. Food borne illness and pathogens
 - 1.2.1. Terminology relating to food borne illness
 - 1.2.2. Food protection, illness, and responsibility
 - 1.2.3. Causes of food borne illness
 - 1.2.4. Bacteria growth requirements
 - 1.2.5. Micro-organisms
 - 1.2.6. Spread of disease
 - 1.2.7. Symptoms, onset, source, and foods involved in the most common forms of food borne illness
2. Understanding the flow of foods
 - 2.1. Health and safety codes

COURSE CONTENT AND SCOPE (CONTINUED)

- 2.2. Receiving
 - 2.2.1. Inspection
 - 2.2.1.1. Approved sources
 - 2.2.1.2. Examples of food inspection
 - 2.2.1.3. Evaluation of food products by color, texture, odor, and temperature
- 2.3. Storage
 - 2.3.1. First-in First-out (FIFO) system
 - 2.3.2. Non-refrigerated food items
 - 2.3.3. Refrigerated food items
 - 2.3.4. Chemicals, pesticides, and non-food items
- 2.4. Preparation
 - 2.4.1. Basic preparation and practices
 - 2.4.1.1. Cross-contamination
 - 2.4.1.2. Small batch preparation practices
 - 2.4.1.3. Cooking
 - 2.4.1.3.1. Temperature effects
 - 2.4.1.3.2. Internal cooking temperatures
 - 2.4.1.4. Thawing practices
 - 2.4.1.5. Serving practices
 - 2.4.1.5.1. Holding temperatures
 - 2.4.1.5.2. Food and utensil contamination prevention
 - 2.4.1.6. Cooling, reheating, and labeling
 - 2.4.1.6.1. Cooling and heat transfer
 - 2.4.1.6.2. Reheating temperatures
 - 2.4.1.6.3. Labeling requirements
 - 2.4.1.7. Washing and drying guidelines
- 3. Safe and Sanitary Facilities
 - 3.1. Safe and unsafe work environments
 - 3.2. Inspection checklist
 - 3.3. Sanitation tools and equipment
 - 3.4. Pest control
 - 3.5. Accident and injury prevention
 - 3.5.1. Spills, exhaust, lighting, and fire prevention
 - 3.6. Emergency response procedures
 - 3.6.1. Fire extinguishers
 - 3.6.2. First Aid techniques
 - 3.6.3. Evacuation procedures
- 4. Kitchen Control Measures and Systems
 - 4.1. Safety management
 - 4.1.1. Bacterial growth curves and lag time
 - 4.1.2. Temperature danger zones
 - 4.1.3. Infection management (Apsesis standards and procedures)
 - 4.1.4. Kitchen reports
 - 4.1.5. Logs
 - 4.1.5.1. Temperature and labels
 - 4.1.5.2. Waste

COURSE CONTENT AND SCOPE (CONTINUED)

- 4.1.5.3. Par stock
 - 4.1.5.4. Accident reports
 - 4.1.5.5. Material data sheets (MDS)
 - 4.2. Regulatory Agency Standards
 - 4.2.1. Hazard Analysis Critical Control Point (HACCP)
 - 4.2.1.1. Critical control points
 - 4.3. County and state cottage foods law and regulations
 - 4.4. Licensing
 - 4.5. Food handler's card
- 5. Kitchen Operations Management
 - 5.1. Restaurant history and perspective
 - 5.2. Modern kitchen brigade and food production stations
 - 5.3. Influences on current food service operations
 - 5.3.1. Standards of professionalism
 - 5.3.1.1. Communication
 - 5.3.1.2. Ethics
 - 5.3.1.3. Conduct
 - 5.4. Purchasing and product identification
 - 5.4.1. Product specification sheets
 - 5.5. Workplace preparation skills
 - 5.5.1. Professional image
 - 5.5.2. Effective communication skills
 - 5.5.3. Workplace standards
- 6. Culinary Tools and Equipment
 - 6.1. Quality food equipment
 - 6.2. Standards for tools and equipment
 - 6.3. Selecting equipment
 - 6.4. Maintenance and sanitation
 - 6.5. Cooking equipment
 - 6.6. Processing equipment
 - 6.7. Storage and holding equipment
 - 6.8. Pots, pans, and containers
 - 6.9. Measuring devices
 - 6.10. Small equipment
- 7. Knife Skills and Practices
 - 7.1. Knife Safety
 - 7.1.1. Proper sanitation
 - 7.1.2. Proper storage
 - 7.1.3. Correct hand position
 - 7.1.4. Honing and sharpening
 - 7.2. Knife Skills
 - 7.2.1. Classic knife cuts
 - 7.2.1.1. Brunoise
 - 7.2.1.2. Dice
 - 7.2.1.3. Julienne
 - 7.2.1.4. Tourne
 - 7.2.1.5. Oblique

COURSE CONTENT AND SCOPE (CONTINUED)

- 7.2.1.6. Mince
- 7.2.1.7. Chiffonade
- 7.2.1.8. Batonnet
- 8. Culinary Techniques
 - 8.1. Heat transfer (thermodynamics)
 - 8.2. Cooking principles
 - 8.2.1. Cooking methods
 - 8.2.1.1. Roast and bake
 - 8.2.1.2. Broil
 - 8.2.1.3. Poach, simmer, and boil
 - 8.2.1.4. Steaming
 - 8.2.1.5. Braise
 - 8.2.1.6. Grill and griddle
 - 8.2.1.7. Sauté
 - 8.2.1.8. Pan fry and deep fry
 - 8.2.1.9. Microwave cooking
 - 8.2.2. Seasoning and flavoring
 - 8.2.2.1. Product identification
 - 8.2.2.2. Rules and practices
 - 8.2.2.3. Herbs and spices
 - 8.2.3. Mise en place (everything put in place)
 - 8.2.3.1. Planning and organizing
 - 8.2.3.2. Preparation lists
 - 8.2.3.3. Preparation cooking
 - 8.2.3.4. Holding and reheating
- 9. Basic Elements of Nutrition
 - 9.1. Basic terminology
 - 9.2. Digestive process
 - 9.2.1. Role and functions of key organs
 - 9.2.2. Breakdown of nutrients
 - 9.2.2.1. Manual means
 - 9.2.2.2. Chemical means
 - 9.2.3. Points of nutrient absorption
 - 9.2.4. Management of nutrient excess and waste
 - 9.3. Nutrients
 - 9.3.1. Vitamins
 - 9.3.1.1. Fat soluble
 - 9.3.1.2. Water soluble
 - 9.3.2. Minerals
 - 9.3.2.1. Major minerals
 - 9.3.2.2. Trace minerals
 - 9.3.3. Proteins
 - 9.3.3.1. Amino acids
 - 9.3.3.1.1. Complete
 - 9.3.3.1.2. Incomplete
 - 9.3.4. Carbohydrates
 - 9.3.4.1. Simple carbohydrates

COURSE CONTENT AND SCOPE (CONTINUED)

- 9.3.4.1.1. Monosaccharides
 - 9.3.4.1.1.1. Glucose
 - 9.3.4.1.1.2. Fructose
 - 9.3.4.1.1.3. Galactose
- 9.3.4.1.2. Disaccharides
 - 9.3.4.1.2.1. Lactose
 - 9.3.4.1.2.2. Maltose
 - 9.3.4.1.2.3. Sucrose
- 9.3.4.2. Complex carbohydrates
 - 9.3.4.2.1. Starch
 - 9.3.4.2.2. Fiber
 - 9.3.4.2.2.1. Soluble
 - 9.3.4.2.2.2. Insoluble
- 9.3.5. Lipids
 - 9.3.5.1. Cholesterol
 - 9.3.5.2. Saturated fats
 - 9.3.5.3. Unsaturated fats
 - 9.3.5.3.1. Monounsaturated fats
 - 9.3.5.3.2. Polyunsaturated fats
 - 9.3.5.4. Hydrogenated fats
 - 9.3.5.4.1. Trans fats
- 9.3.6. Water
- 9.3.7. Essential nutrient energy (calorie) contributions
 - 9.3.7.1. Macronutrients vs. Micronutrients
 - 9.3.7.2. Calorie sources
- 10. Essential Nutrient Intake's Relationship to Human Health
 - 10.1. Relationship to body processes
 - 10.1.1. Normal processing
 - 10.1.1.1. Nutrition consumption patterns
 - 10.1.1.1.1. Reliable and quality information sources
 - 10.2. The challenges of deficiencies or excesses
 - 10.3. Means of supporting optimal health
 - 10.3.1. Absorption strategies
 - 10.3.2. Food sources and seasonality for optimal sourcing
 - 10.3.3. Cooking methods that retain nutrient availability
 - 10.3.3.1. Vegetables and legume cookery
 - 10.3.3.2. Protein and meat cookery
 - 10.3.3.3. Carbohydrate and starch cookery
 - 10.3.3.4. Fats and oil cookery
 - 10.4. Role of supplementation
 - 10.4.1. Benefits
 - 10.4.2. Concerns
 - 10.4.3. Strategies to implement
 - 10.4.4. Ethical and reliable information sources
 - 10.5. Strategies for supporting optimal human health
 - 10.5.1. Healthy food consumption behaviors
 - 10.5.1.1. Physical

COURSE CONTENT AND SCOPE (CONTINUED)

- 10.5.1.2. Psychological
- 10.5.2. Popular diets and their claims
 - 10.5.2.1. Vegetarianism
 - 10.5.2.1.1. Vegan
 - 10.5.2.1.2. Lacto-vegetarian
 - 10.5.2.1.3. Ovo-vegetarian
 - 10.5.2.1.4. Lacto-Ovo vegetarian
 - 10.5.2.1.5. Pescatarian
 - 10.5.2.1.6. Fruitarian
 - 10.5.2.1.7. Raw Foodist
 - 10.5.2.2. Paleo
 - 10.5.2.3. Mediterranean
 - 10.5.2.4. Gluten free
 - 10.5.2.5. Ketogenic
 - 10.5.2.6. Dietary Approaches to Stop Hypertension (DASH)
- 11. Medical Dietary Restrictions
 - 11.1. Food allergies and intolerances
 - 11.1.1. Food allergies vs. intolerances
 - 11.1.2. Common food allergies and causes
 - 11.1.3. Common food intolerances and causes
 - 11.2. Nutrient needs for optimal healing
 - 11.2.1. Nutrient needs related to trauma
 - 11.2.2. Nutrient needs related to surgery
 - 11.2.3. Healing foods
 - 11.2.4. Body healing diet plans
 - 11.3. Medical restrictions
 - 11.3.1. Cardiovascular health
 - 11.3.1.1. Stroke
 - 11.3.1.2. High blood pressure
 - 11.3.2. Inflammatory issues
 - 11.3.2.1. Intestinal tract health
 - 11.3.3. Autoimmune health
 - 11.3.3.1. Diabetes
 - 11.3.3.2. Kidney disease
 - 11.3.3.3. Celiacs Disease
 - 11.3.3.4. Graves Disease
 - 11.3.4. Immunocompromised health
 - 11.3.4.1. Cancer
 - 11.3.4.1.1. Free radicals
 - 11.3.4.1.2. Antioxidants
 - 11.3.5. Osteoporosis
- 12. National Nutrition Standards
 - 12.1. Food guides and national standards
 - 12.1.1. U.S. history and development
 - 12.1.2. Standards, Recommended Dietary Allowances (RDA's)
 - 12.1.3. Guidelines
 - 12.1.4. Pyramids

COURSE CONTENT AND SCOPE (CONTINUED)

- 12.1.5. MyPlate initiative
- 12.1.6. Portion recommendations
- 12.1.7. Dietary and cultural food pyramids or guides
- 12.2. Nutrition labeling
 - 12.2.1. Government agency regulations
 - 12.2.1.1. Food and Drug Administration (FDA)
 - 12.2.2. Nutritional facts panel
 - 12.2.3. Nutritional food claims
 - 12.2.3.1. Low fat
 - 12.2.3.2. Reduced fat
 - 12.2.3.3. Fat free
 - 12.2.3.4. Low calorie
 - 12.2.3.5. Sugar free

APPROPRIATE READINGS

Reading assignments may include, but are not limited to, various articles, videos, and peer reviewed journals provided by instructor and information obtained on the Internet.

Recommended readings:

The Complete Book of Food Counts, Corinne T. Netzer, Dell Publishing, New York, current edition

American Dietetic Association: Complete Food and Nutrition Guide, Roberta L. Duyff, Wiley Publishing, New Jersey, current edition

The Nutritionist, Food, Nutrition, and Optimal Health, Robert Wildman, Routledge Publishing, United Kingdom, current edition

Techniques of Healthy Cooking, Van Nostrand Reinhold, The Culinary Institute of America, International Thomson Publishing, Connecticut, current edition

WRITING ASSIGNMENTS

Writing assignments may include, but are not limited to, the following:

1. Create a culinary lab experience binder, complete with menus, recipe cards, production plans, plate diagrams, shopping lists, student resume enrichment, and class materials.
2. Create a single-meal menu that utilizes current national standards and dietary guidelines.

OUTSIDE ASSIGNMENTS

Outside assignments may include, but are not limited to, the following:

1. Collect menu examples from a variety of different organizations.
2. Interview an industry professional.

APPROPRIATE ASSIGNMENTS THAT DEMONSTRATE CRITICAL THINKING

Critical thinking assignments may include but are not limited to the following:

APPROPRIATE ASSIGNMENTS THAT DEMONSTRATE CRITICAL THINKING (CONTINUED)

1. Culinary Lab Experience
 - a. Weekly recipe interpretation, organization, execution, and modification as required.
 - b. Weekly analysis and evaluation of culinary lab recipe production and outcome.
2. Develop a Personal Nutritional Profile
 - a. Includes the following components:
 - i. Food diary
 - ii. Food diary record analysis (online or paper-based)
 - iii. Personal nutritional profile report summary
 - iv. Nutritional goal development
 - v. Single meal menu plan based on personal nutritional need
 - b. Requires the following activities:
 - i. Application of national dietary standards and guidelines to a single-meal plan creation.
 - ii. Compare and contrast of actual personal food intake data results with national dietary standards and guidelines recommendations.
 - iii. Synthesis of essential nutritional knowledge with personal food intake data results in the development of realistic and achievable personal nutritional goals.

EVALUATION

Evaluation methods may include but are not limited to:

1. Attendance
2. Class participation
3. Lab Projects and demonstrations
4. Quizzes and exams
5. Project papers
6. Term projects

METHOD OF INSTRUCTION

Instruction will include lecture, laboratory, demonstrations, and student-centered approach that utilizes a variety of strategies that may include research projects, group discussions, peer instructions, audiovisual presentations, computer assisted instruction, textbooks, speakers, and field trips.

This course, or sections, of this course may be offered through distance education.

TEXTS AND SUPPLIES

Culinary Nutrition: Principles and Applications, Linda Trakselis and Eric M. Stein, American Technical Publishers, Illinois, current edition

PREPARED BY: Megan Leppert, Elizabeth Trevino DATE March 4, 2020

REVISED BY: _____ DATE: _____

Instructors must meet all requirements stated in Policy 3100 (Student Rights, Responsibilities and Administrative Due Process), and the Attendance Policy set forth in the Continuing Education Catalog.

REFERENCES:

San Diego Community College District Policy 3100
California Community Colleges, Title 5, Section 55002
Continuing Education Catalog