Central Texas College
IFWA 1318
Nutrition for the Foodservice Professional

Semester Hours Credit: 3

INSTRUCTORS: __________________________
OFFICE HOURS: __________________________

I. INTRODUCTION

A. An introduction to nutrition including nutrients, digestion and metabolism, menu planning, recipe modification, dietary guidelines and restrictions, diet and disease, and healthy cooking techniques.

B. IFWA 1318, Nutrition for the Foodservice Professional, is a required course for an Associate in Applied Science Degree in Restaurant and Culinary Management. This course is also required for Certificates of Completion in Culinary Arts and Intuitional Food Service Operations.

C. Alphanumeric coding used throughout this syllabus denotes integration of the Secretary’s Commission on Achieving Necessary Skills (SCANS) occupational competencies (CA, C1, 2 B, etc.) and foundation skills (B, C1, 2 FA, etc.) for this course. The instructor will ensure the designated SCANS competencies and skills are addressed in this course. A detailed description of each competency/skill is contained in “A SCANS Report for America 2000,” Executive Summary, is furnished.

II. LEARNING OUTCOMES

Upon successful completion of this course, Nutrition for the Food Service Professional, the student will be able to:

A. Explain what nutrition is. (C1, C5, C9, C12, C14, F1, F2, F5, F6, F7)

B. Define the six classes of nutrients and their functions in the body. (C1, C5, C9, C12, C14, F1, F2, F5, F6, F7)

C. Explain what is meant by Recommended Dietary Allowance, Adequate Intake, and Tolerable Upper Intake Level of a nutrient. (C4, C5, C6, F1, F5, F6, F17)

D. Trace the digestion of the various foods through the digestive tract, outlining the changes of food composition that takes place at each stage of digestion. (C5, C9, C10, C11, C12, C14, C16, F5, F6, F8, F9, F13, F14, F15, F17)

E. Define metabolism. (C1, C5, C9, C12, C14, F1, F2, F5, F6, F7)
F. Use BMI to determine if someone is overweight or obese and explain how kcalorie imbalance can cause overweight and obesity. (C5, C9, C10, C11, C12, C14, C16, F5, F6, F8, F9, F13, F14, F15, F17)

G. Read and interpret information on a food label including the Nutrition Facts label, discuss the relationship between portion size on food labels and portions in MyPlate, and identify everyday objects that can help you visualize portion sizes. (C5, C9, C10, C11, C12, C14, C16, F5, F6, F8, F9, F13, F14, F15, F17)

H. Identify food sources of carbohydrates and distinguish between simple and complex carbohydrates. (C4, C5, C6, F1, F5, F6, F17)

I. Define lipids, triglycerides, fats, and oils, and describe the roles fat plays in food. (C1, C5, C9, C12, C14, F1, F2, F5, F6, F7)

J. Define protein and explain the difference between essential and nonessential amino acids. (C1, C5, C9, C12, C14, F1, F2, F5, F6, F7)

K. Compare and contrast the nutrients in animal and plant sources of protein. (C4, C5, C6, F1, F5, F6, F17)

L. State four characteristics of vitamins, and explain how water-soluble and fat-soluble vitamins are different. (C5, C9, C10, C11, C12, C14, C16, F5, F6, F8, F9, F13, F14, F15, F17)

M. Identify functions and food sources of each vitamin. (C4, C5, C6, F1, F5, F6, F17)

N. Identify the percentage of body weight made up of water, list the functions of water in the body and discuss the Adequate Intake for total water. (C4, C5, C6, F1, F5, F6, F17)

O. Explain the difference between a seasoning and a flavoring ingredient and give examples of each. (C5, C12, C13, C14, F1, F2, F5, F6, F7, F9, F13)

P. Identify at least three general ways to modify recipes to change the nutrient content. (C4, C5, C6, F1, F5, F6, F17)

Q. Explain what a balanced meal is in terms of nutrient content and eight ways to evaluate balanced menu items. (C5, C12, C13, C14, F1, F2, F5, F6, F7, F9, F13)

R. Identify appropriate ingredients/menu items when customers request foods low in kcalories, cholesterol, sugar, or sodium. (C4, C5, C6, F1, F5, F6, F17)

S. Compare and contrast a food allergy with a food intolerance, and identify the most common food allergies. (C5, C12, C13, C14, F1, F2, F5, F6, F7, F9, F13)

T. Compare planning menus for adolescents, older adults and athletes. (C5, C12, C13, C14, F1, F2, F5, F6, F7, F9, F13)

III. INSTRUCTIONAL MATERIALS

The instructional materials identified for this course are viewable through www.ctcd.edu/books

IFWA 1318
IV. COURSE REQUIREMENTS

A. Reading Assignments: Read text assignments prior to class and be prepared to discuss the text material, answering instructor questions orally with well-organized thoughts and ideas.

B. Class Attendance: (Refer to CTC Catalog, Page 63, for detailed policy). You are expected to attend each class period, be on time and stay the full class period or be counted absent. You are responsible for all course material missed due to absence. The instructor does not provide class notes for classes missed.

V. Examinations

A. There will be two examinations
   Exam 1 (Mid-Term) Exam
   2 (Final)

B. A student must be present for all examinations. No makeup examinations will be given. Students who know in advance they will be absent from an examination due to valid reasons must arrange to take an early examination. Unexpected absences due to illness or extenuating circumstances will require the student to see the instructor about individual makeup work in lieu of the missed examination.

C. Students without excused absences will be given a zero for the examination missed.

D. This course is a work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and employer.

VI. Grade Computation

Total points earned will determine course grade:

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<thead>
<tr>
<th>Points</th>
<th>Grade</th>
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<tbody>
<tr>
<td>1000-900</td>
<td>A</td>
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<tr>
<td>899-800</td>
<td>B</td>
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<tr>
<td>799-700</td>
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<td>699-600</td>
<td>D Below</td>
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<tr>
<td>599</td>
<td>F</td>
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VII. Notes and Additional Instructions

A. Course Withdrawal: It is the student’s responsibility to officially withdraw from a class if circumstances prevent attendance. Any student who desires to, or must, officially withdraw from a course after the first scheduled class meeting must file a Central Texas College Application for Withdrawal (CTC Form 59). The withdrawal form must be signed by the student.
CTC Form 59 will be accepted at any time prior to Friday, the 12th week of classes during the 16-week fall and spring semesters. The deadline for sessions of other lengths is:

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<tr>
<th>Duration</th>
<th>Deadline</th>
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<tbody>
<tr>
<td>10-week</td>
<td>Friday of the 8th week</td>
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<tr>
<td>8-week</td>
<td>Friday of the 6th week</td>
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<td>5-week</td>
<td>Friday of the 4th week</td>
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The equivalent date (75% of the semester) will be used for sessions of other lengths. The specific last day to withdraw is published each semester in the Schedule Bulletin.

A student who officially withdraws will be awarded the grade of “W,” provided the student’s attendance and academic performance are satisfactory at the time of official withdrawal. Students must file a withdrawal application with the College before they may be considered for withdrawal.

A student may not withdraw from a class for which the instructor has previously issued the student a grade of “F” or “FN” for nonattendance.

B. Administrative Withdrawal: An administrative withdrawal may be initiated when the student fails to meet College attendance requirements. The Instructor will assign the appropriate grade on CTC Form 59 for submission to the registrar.

C. Incomplete Grade: The College catalog states, “An incomplete grade may be given in those cases where the student has completed the majority of the course work but, because of personal illness, death in the immediate family, or military orders, the student is unable to complete requirements for a course.”

Prior approval from the instructor is required before the grade of “I” is recorded. A student who merely fails for the final examination will receive a zero for the final and an “F” for the course.

D. Cellular Phones and Beepers: Cellular phones and beepers will be turned off while the student is in the classroom or laboratory.

E. Americans with Disabilities Act (ADA): Disability Support Services provides services to students who have appropriate documentation of a disability. Students requiring accommodations for class are responsible for contacting the Office of Disability Support Services (DSS) located on the central campus. This service is available to all students, regardless of location. Explore the website at www.ctcd.edu/disability-support for further information. Reasonable accommodations will be given in accordance with the federal and state laws through the DSS office.
F. **Instructor Discretion:** The instructor reserves the right of final decision in course requirements.

G. **Civility:** Individuals are expected to be cognizant of what a constructive educational experience is and respectful of those participating in a learning environment. Failure to do so can result in disciplinary action up to and including expulsion.

H. **Honesty and Integrity:** All students are required and expected to maintain the highest standards of scholastic honesty in the preparation of all course work and during examinations. The following will be considered examples of scholastic dishonesty:

1. **Plagiarism:** The taking of passages from writing of others without giving proper credit to the sources.
2. **Collusion:** Using another’s work as one’s own; or working together with another person in the preparation of work, unless joint preparation is specifically approved in advance by the instructor.
3. **Cheating:** Giving or receiving information on examinations.

Students guilty of scholastic dishonesty will be administratively dropped from the course with a grade of “F” and will be subject to disciplinary action.

I. **Feedback:**

1. **Instructor:** As your instructor I will organize and present the course material in a manner designed to facilitate the learning process. I will evaluate your progress periodically via writing assignments and exams and provide feedback on your performance via exam scores, exam critiques, and critique of your writing assignments, etc. I am also available before and after each class period and during office hours to discuss your performance and answer questions.

2. **Student:** As the student you are ultimately responsible for your success in this course. It is your responsibility to attend class regularly, prepare for class by reading assigned text material, participate in class discussions, ask questions when required to improve your understanding, prepare for and complete exams, and complete all other assignments.

VIII. **COURSE OUTLINE**

A. **Lesson One:** Chapter 1: Introduction to Nutrition

1) **Lesson One Objectives:** Upon successful completion of this unit, the student will be able to:
a. Explain what nutrition is and why it should be important to you on a personal level and as a culinary/foodservice professional.
b. Identify three food groups we don’t eat enough of and two food groups we eat too much of.
c. Define flavor and explain how it involves all five senses.
d. Discuss five factors that influence what you eat.
e. Define kilocalories, identify the three factors that influence the number of kcalories you use every day, and explain the effect of the following on basal metabolic rate: gender, age, exercise, and growth.
f. Name the six classes of nutrients and their characteristics.
g. Give two examples of foods that are nutrient dense and two that are empty kcalorie foods, and explain why you chose these foods.
h. Describe four characteristics of a nutritious diet.
i. Identify a given food as a whole food, processed food, enriched or fortified food, and/or organic food.
j. Explain what is meant by Recommended Dietary Allowance, Adequate Intake, and Tolerable Upper Intake Level of a nutrient.
k. Explain how food is digested and absorbed in the gastrointestinal tract.
l. To run a sustainable facility, list five things chefs are doing in the kitchen and five things managers are doing in the dining room and production areas.

2. Learning Activities:

Classroom lecture and discussion (C5, C6, C9, F1, F5, F6-8, F11, F12, F15)

3. Unit Outline:

Follow the sequence of the unit objectives.

B. Lesson Two: Chapter 2: Using Dietary Recommendations, Food Guides, and Food Labels to Plan Menus

1) Lesson Two Objectives: Upon successful completion of this unit, the student will be able to:

a. Distinguish between dietary recommendations and food guides and give an example of a food guide.
b. Discuss four nutrition messages that accompany MyPlate and identify how much food from each food group is allowed on a 2,000 kcalorie level using MyPlate.
c. Identify what counts as 1 cup of vegetables or 1 cup of fruit. Give two benefits of eating lots of vegetables and fruit, and three tips to help you eat more vegetables and fruit.
d. List serving sizes for grains, name 3 whole-grain foods, and explain the benefits of whole grains and how many you should eat daily.
e. Identify foods/beverages and serving sizes in the dairy group and give the number of cups of dairy adults need each day and the nutrients provided.
Identify foods and serving sizes for 1 ounce of protein foods including lean choices and choices high in saturated fat and cholesterol, and guidelines for eating seafood.

g. Explain the concept of empty kilocalorie foods as related to MyPlate, give five examples of foods containing solid fats and/or added sugar as well as healthier options, and explain how MyPlate treats oils.

h. Discuss the two overarching concepts of the *Dietary Guidelines for Americans, 2010*.

i. Use BMI to determine if someone is overweight or obese, explain how kilocalorie imbalance can cause overweight and obesity, and list five tips to help overweight/obese individuals manage their weight.

j. Identify foods and food components that are consumed in excessive amounts and foods/nutrients to increase.

k. Identify foods high in sodium, and explain how to reduce your consumption of sodium and why it is important.

l. Give examples of how you can replace foods high in saturated fat and/or trans fats with foods rich in monounsaturated and polyunsaturated fat and why it is important to do.

m. Define moderate alcohol consumption and give two examples of nutrients of concern in the American diet.

n. Plan and evaluate menus using MyPlate and the *Dietary Guidelines for Americans, 2010*.

o. Read and interpret information on a food label including the Nutrition Facts label, discuss the relationship between portion size on food labels and portions in MyPlate, and identify everyday objects that can help you visualize portion sizes.

2. **Learning Activities:**

   Classroom lecture and discussion (C5, C6, C9, F1, F5, F6-8, F11, F12, F15)

3. **Unit Outline:**

   Follow the sequence of the unit objectives.

C. **Lesson Three:** Chapter 3: Carbohydrates

1) **Lesson Three Objectives:** Upon successful completion of this unit, the student will be able to:

   a. Identify food sources of carbohydrates and distinguish between simple and complex carbohydrates.
   b. Compare and contrast glucose, fructose, sucrose, and lactose.
   c. Identify sugars on an ingredient label, foods high in added sugars, and the number of teaspoons of sugar in a food using a food label.
   d. Identify the simple sugar found in starch and fiber, list four foods rich in starch, and explain gelatinization and how starch is used in cooking.
e. Identify examples of high-fiber foods and explain the difference between soluble and insoluble fiber, and between dietary fiber and functional fiber.
f. Distinguish between a whole grain and a refined grain and explain why a whole grain is more nutritious.
g. Summarize the functions of carbohydrates and describe how glycogen functions in the body.
h. Describe how carbohydrates are digested and absorbed in the body, and explain how the body regulates the level of glucose in the blood.
i. Identify foods with low to medium glycemic loads and how a low glycemic diet might affect your health.
j. Discuss current recommendations for carbohydrate, sugar, fiber, and intake of fruits, vegetables, legumes, and whole grains.
k. Explain the health effects (if any) of added sugars on dental cavities, obesity, diabetes, heart disease, hypoglycemia, and hyperactivity in children.
l. Demonstrate how to select whole grains, and list two ways eating whole grains can improve your health.
m. List five ways that a high-fiber diet can improve your health.
n. Define lactose intolerance and describe three strategies to manage it.
o. Describe how to cook whole grains and legumes and use them on the menu.
p. Create an appetizer, entrée, side dish, salad, and snack using high-fiber carbohydrate foods.
q. Read food labels to identify foods using alternative sweeteners.

2. Learning Activities:

Classroom lecture and discussion (C5, C6, C9, F1, F5, F6-8, F11, F12, F15)

3. Unit Outline:

Follow the sequence of the unit objectives.

D. Lesson Four: Chapter 4 & 5: Fats and Oils; and Protein

1) Lesson Four Objectives: Upon successful completion of this unit, the student will be able to:

a. Define lipids, triglycerides, fats, and oils, and describe the roles fat plays in food.
b. Identify foods high and low in fat, and define saturated, monounsaturated, and polyunsaturated fats and list foods in which each one is found.
c. Describe trans fatty acids and give examples of foods in which they are found.
d. Identify the two essential fatty acids, list their functions in the body, and give examples of foods in which they are found.
e. Explain what EPA and DHA do in the body, and what foods they are found in.
f. Define cholesterol, list three of its functions in the body, and give examples of foods in which it is found.
g. List four functions of fat.
h. Discuss fat digestion, define lipoprotein, and distinguish between chylomicron, low-density lipoprotein, and high-density lipoprotein.

i. State recommendations for dietary intake of fat, saturated fat, trans fat, monounsaturated fat, polyunsaturated fat, and cholesterol.

j. Distinguish between the percentage of fat by weight and the percentage of kcalories from fat.

k. Discuss the relationship between fat intake and heart disease and cancer.

l. Discuss the nutrition and uses of milk, dairy products, and eggs on the menu.

m. Select fats and oils appropriately for cooking and baking.

n. Define protein and explain the difference between essential and nonessential amino acids.

o. Compare and contrast the nutrients in animal and plant sources of protein.

p. Distinguish between complete and incomplete protein and give two examples of how to complement proteins.

q. List five functions of protein in the body.

r. Explain how protein is digested, absorbed, and metabolized.

s. State the dietary recommendations for protein and explain the potential consequences of eating too much or too little protein.

t. Explain the concept of denaturation, or what happens to protein when it is cooked.

u. Identify six examples of meat, poultry, and fish that are moderate in fat and saturated fat, and describe three preparation techniques for balanced meat, poultry, and fish menu items.

v. Give two examples of how to menu and/or present balanced meat, poultry, and fish items.

w. List three benefits of vegetarian diets, use a vegetarian food guide to plan a balanced meal, and list nutrients (and their sources) that may be low in some vegetarian diets.

2. Learning Activities:

   Classroom lecture and discussion (C5, C6, C9, F1, F5, F6-8, F11, F12, F15)

3. Unit Outline:

   Follow the sequence of the unit objectives.

E. Lesson Five: Chapter 6 & 7: Vitamins; and Water and Minerals

1) Lesson Five Objectives: Upon successful completion of this unit, the student will be able to:

   a. State four general characteristics of vitamins, and explain how water-soluble and fat-soluble vitamins are different.
   
   b. Identify which vitamin is deficient in the American diet and two vitamins that are toxic when taken in excess.
   
   c. Identify functions and food sources of each vitamin presented.
d. List benefits of eating fruits and vegetables.
e. Discuss the use of fruits and vegetables on the menu, and describe ways to conserve vitamins when handling and cooking fruits and vegetables.
f. Define phytochemicals and give examples of foods in which they are found.
g. Identify the percentage of body weight made up of water, list the functions of water in the body, and discuss the Adequate Intake for total water.
h. Identify possible causes of dehydration and symptoms.
i. Distinguish between different types of bottled waters.
j. Distinguish between different types of functional beverages, and list three considerations in choosing a functional beverage.
k. Explain why drinking alcohol with energy drinks is dangerous.
l. Discuss what caffeine does, where it is found, and its side effects.
m. State the general characteristics of minerals, and identify which minerals are most likely to be deficient in the American diet.
n. Identify functions and food sources of each mineral presented.
o. Discuss the nutrient content, preparation, and use of nuts and seeds on the menu.
p. Explain how dietary supplements are regulated and labeled, and identify instances when supplements may be necessary.

2. Learning Activities:

Classroom lecture and discussion (C5, C6, C9, F1, F5, F6-8, F11, F12, F15)

3. Unit Outline:

Follow the sequence of the unit objectives.

F. Lesson Six: Chapter 8 & 9: Balanced Cooking Methods and Techniques; and Recipe Makeovers

1) Lesson Six Objectives: Upon successful completion of this unit, the student will be able to:

a. Explain the difference between a seasoning and a flavoring ingredient and give examples of each.
b. Identify appropriate times for adding seasoning and flavoring ingredients to the cooking process for best flavor.
c. Identify common herbs, spices, and blends used in the kitchen and be familiar with each one’s aroma, flavor, and effect on food.
d. Discuss how to develop a flavor profile for a menu item, including five examples of flavor builders you could use.
e. Explain how to use the following techniques to add flavor: reduction, searing, deglazing, sweating, pureeing, rubs, and marinades.
f. Describe how to use the following cooking methods in balanced cooking: sauté and dry sauté, stir-fry, roast, broil, grill, steam, poach, and braise.
g. Explain the functions of basic baking ingredients and techniques to make healthier baked goods.
h. Explain at least three general ways to modify recipes to change the nutrient content.

i. Discuss three considerations to keep in mind when you modify a recipe.

j. Given a recipe that was modified to make it more balanced, identify, and explain modifications that were made.

k. Given a recipe, modify it on paper to meet a stated nutrition goal, and test the recipe.

2. **Learning Activities:**

Classroom lecture and discussion (C5, C6, C9, F1, F5, F6-8, F11, F12, F15)

3. **Unit Outline:**

Follow the sequence of the unit objectives.

G. **Lesson Seven:** Chapter 10 & 11: Balanced Menus; and Handling Customers’ Special Requests

1) **Lesson Seven Objectives:** Upon successful completion of this unit, the student will be able to:

   a. Explain what a balanced meal is in terms of nutrient content and eight ways to evaluate balanced menu items.
   b. Describe appropriate ingredients, preparation/cooking methods, and several menu items including presentation ideas for each section of the menu: appetizers, soups, salads and dressings, entrées, sauces, side dishes, desserts, and breakfast.
   c. Describe five balanced menu items for morning or afternoon breaks and how you would present them.
   d. List five basic principles of presentation and five simple garnishes.
   e. Identify appropriate ingredients/menu items when customers request foods low in kcalorie, fat and cholesterol, sugar, or sodium.
   f. Compare and contrast a food allergy with a food intolerance, and identify the most common food allergies.
   g. Describe how to set up a food allergy management plan in a restaurant, and identify foods to avoid for the most common food allergies.
   h. Give three examples of gluten-free foods from each food group, explain cross-contact, and give five examples of how to avoid cross-contact when preparing gluten-free menu items.
   i. Identify appropriate ingredients/menu items for a customer who is lactose intolerant.
   j. Identify complementary protein combinations, and use them along with vegetarian menu planning guidelines to plan a vegetarian menu that includes vegan options.

2. **Learning Activities:**

Classroom lecture and discussion (C5, C6, C9, F1, F5, F6-8, F11, F12, F15)
3. **Unit Outline:**

Follow the sequence of the unit objectives.

H. **Lesson Eight:** Chapter 12 & 13: Weight Management and Nutrition for all Ages

1. **Lesson Eight Objectives:** Upon successful completion of this unit, the student will be able to:

   a. Explain how you gain or lose weight, and discuss at least two factors that play a role in the development of obesity.
   b. Define overweight and obesity, and determine how much you should weigh.
   c. Recognize risks of being obese.
   d. Describe how to use the following components of a weight loss program to lose weight: eating plan, exercise, behavior and attitude modification, and support.
   e. Describe how to ensure enjoyable mealtimes with young children and teach them good eating habits.
   f. Plan menus for preschool and school-age children and identify the nutrients that children are most likely to be lacking, their food sources, and why they are important.
   g. Identify three nutrients that are very important for adolescents and why they are important.
   h. Plan menus for adolescents.
   i. Describe factors that influence the nutritional status of older adults, and identify nutrients of concern for older adults, their food sources, and why they are important.
   j. Plan menus for healthy older adults.
   k. Describe signs and treatment of eating disorders and who is most likely to have an eating disorder.
   l. Plan nutritious menus for athletes.

2. **Learning Activities:**

Classroom lecture and discussion (C5, C6, C9, F1, F5, F6-8, F11, F12, F15)

3. **Unit Outline:**

Follow the sequence of the unit objectives.