



**COWLEY COLLEGE
& Area Vocational Technical School**

COURSE PROCEDURE FOR

**Therapeutic Nutrition
HER5221 3 Credit Hours**

Student Level:

This course is open to students on the college level either the freshman or sophomore year.

Catalog Description:

HER5221 – THERAPEUTIC NUTRITION (3 hrs)

This course is designed to help the student increase their knowledge concerning the fundamentals of nutrition related to the promotion and maintenance of optimal health. Practical applications and treatments of pathologies with nutritional components are stressed. Basic scientific information is introduced to enable students to begin to understand nutritional issues reported in mass media.

Prerequisite:

None

Controlling Purpose:

This course is designed to help the student increase their knowledge concerning the fundamentals of nutrition related to the promotion and maintenance of optimal health. Practical applications and treatments of pathologies with nutritional components are stressed. Basic scientific information is introduced to enable students to begin to understand nutritional issues reported in mass media.

Learner Outcomes:

Upon completion of the course, the student will gain an understanding of the basic principles and concepts of good nutrition, to include: the relationship of nutrition and health; planning a healthy diet; changes in nutritional requirements across the lifespan; the effects of disease and surgery on nutrition; and appropriate uses of diet therapy in restoring and maintaining health.

Units Outcomes and Criterion Based Evaluation Key for Core Content:

The following defines the minimum core content not including the final examination period. Instructors may add other content as time allows.

Evaluation Key:

- A = All major and minor goals have been achieved and the achievement level is considerably above the minimum required for doing more advanced work in the same field.
- B = All major goals have been achieved, but the student has failed to achieve some of the less important goals. However, the student has progressed to the point where the goals

- of work at the next level can be easily achieved.
- C = All major goals have been achieved, but many of the minor goals have not been achieved. In this grade range, the minimum level of proficiency represents a person who has achieved the major goals to the minimum amount of preparation necessary for taking more advanced work in the same field, but without any major handicap of inadequacy in his background.
- D = A few of the major goals have been achieved, but the student's achievement is so limited that he is not well prepared to work at a more advanced level in the same field.
- F = Failing, will be computed in GPA and hours attempted.
- N = No instruction or training in this area.

UNIT 1: Introduction and Individualizing Client Care

Outcomes: The student will gain an understanding of the basic principles of nutrition and how these principles are applied to nutritional care.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						State the three functions of nutrients.
						Identify the six classes of nutrients.
						Define nutrigenomics.
						Describe the relationship between nutrition and health.
						Discuss the ways in which various health care providers contribute to excellent nutritional care.
						Discuss current Dietary Guidelines for Americans.
						Access www.choosemyplate.gov and create a personalized diet plan.
						Define the terminology used in nutrition assessment.
						Describe the methods of nutrition assessment.
						Demonstrate the use of three techniques to analyze dietary status.
						Describe the dietary exchange system and identify the exchange lists of foods.
						Identify the components of the health belief systems that affect the nutrition of large cultural groups.
						Explain the components of various religious customs that affect individual food intake.
						Discuss strategies to provide culturally competent nutritional care.

UNIT 2: Carbohydrates

Outcomes: The student will gain a basic understanding of carbohydrates and how this nutrient relates to overall health.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Describe the types of carbohydrates, identify food sources of each, and indicate their functions in the body.
						List the major functions of carbohydrates and methods by which the body stores them.
						Discuss dietary fiber and list its functions, identify dietary food sources.
						Describe the relationship between carbohydrates and dental health.
						List the carbohydrate (in grams) of each appropriate exchange list.
						Discuss dietary recommendations relating to fiber, added sugar, and total carbohydrate intake.

UNIT 3: Fats

Outcomes: The student will gain an understanding of fats and how this nutrient relates to overall health.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Identify how fats are classified and discuss their physical properties.
						List the major functions of fats both in the diet and in the body.
						Discuss the relationships to health of cholesterol, saturated fat, polyunsaturated fat, trans-fatty acids, and monounsaturated fat.
						List three current recommendations of the <i>Food and Nutrition Board of the National Research Council</i> that pertain to fat.
						Correctly read food labels and identify the amounts and kinds of fats in foods.

UNIT 4: Protein

Outcomes: The student will gain an understanding of protein and how this nutrient relates to overall health.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Discuss the functions of protein in human health and illness.
						Explain the difference between complete and incomplete protein.
						Define anabolism and catabolism and list possible anabolic and catabolic conditions.
						List the grams of protein in each exchange list containing significant amounts of protein.

						Design a daily meal plan with adequate protein intake for a healthy adult.
						Prepare an outline of topics to discuss with a client consuming a vegan diet.

UNIT 5: Energy Balance and Weight Management

Outcomes: The student will gain a basic understanding of the human body's energy balance system and how it relates to weight management.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Describe energy homeostasis. List two reasons the body needs energy.
						Describe how energy is measured both in foods and in the human body.
						Discuss the effect of body composition on energy output.
						Name the energy nutrient that has the highest kilocalorie density and identify two substances usually found in foods with low kilocalorie density.
						List basic principles of energy imbalance.
						Discuss the effects of weight loss on the body.
						Identify the medical, physiological, and social problems associated with too much and too little fat.
						Discuss the federal guidelines for the identification, evaluation, and treatment of overweight and obesity in adults.
						Describe the symptoms commonly exhibited by a client with anorexia nervosa and/or bulimia.
						Evaluate at least three fad diets used for weight reduction.

UNIT 6: Vitamins

Outcomes: The student will gain a basic understanding of vitamins and their role in metabolism and health.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Differentiate between fat-soluble and water-soluble vitamins.
						State the functions of each vitamin discussed in the chapter.
						Name three good food sources for each vitamin cited in the chapter.
						List diseases caused by specific vitamin deficiencies and identify associated signs and symptoms.
						Describe the prudent use of vitamin supplements.

UNIT 7: Minerals and Water and Diet in Renal Disease

Outcomes: The student will gain a basic understanding of minerals and water and their role in metabolism as well as an overview of the nutritional care of the client with renal disease.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Describe one or more functions of the main nutritive minerals.
						List at least two food sources for each mineral and identify nonfood sources.
						Identify individuals at increased risk for mineral deficiencies.
						Develop strategies to increase client's calcium intake from food.
						Devise a plan to increase client's intake of iron from food.
						Describe the locations and functions of water in the body.
						Discuss the body's control mechanism for maintaining fluid and electrolyte balance.
						Identify methods of assessing water balance in the body.
						Distinguish between heat exhaustion and heat stroke as to signs and symptoms and first aid treatment.
						Identify the major causes of acute and chronic kidney failure.
						List the goals of nutritional care for a client with kidney disease.
						List the nutrients commonly modified in the dietary treatment of chronic kidney disease (CKD).
						Discuss the relationship among kilocalorie intake, dietary protein utilization, and uremia.
						Discuss the nutritional care of clients with kidney disease in relation to their medical treatment.

UNIT 8: Digestion, Absorption, Metabolism and Excretion and Diet in Gastrointestinal Disease.

Outcomes: The student will gain a basic understanding of the metabolism of nutrients and the relationship between diet and gastrointestinal disease.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						List the anatomic structures that make up the gastrointestinal tract.
						Describe the processes of digestion, absorption, metabolism, and excretion.
						Discuss how cells use nutrients.

							Describe appropriate dietary treatments for lactose intolerance, lipid malabsorption, food allergies, and gluten-sensitive enteropathy.
							List the ways the body eliminates waste.
							Distinguish between the dietary preparation for gastrointestinal surgery and the dietary preparation for surgery on other body systems.
							Identify nutritional deficiencies that may accompany diseases or treatment of the gastrointestinal tract.
							Relate the pathophysiology of cirrhosis of the liver to the associated signs and symptoms.
							List several nutritional consequences of alcoholism.
							Discuss dietary modifications for common gastrointestinal diseases treated medically and surgically.

UNIT 9: Lifecycle Nutrition: Pregnancy and Lactation

Outcomes: The student will gain a basic understanding of the role of nutrition in pregnancy and lactation

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Compare the nutritional needs of a pregnant woman with those of a non-pregnant woman of the same age.
						Contrast the nutritional needs of a pregnant adolescent with those of a pregnant adult.
						Explain why folic acid intake is critical for women of childbearing age.
						Identify substances to be avoided by pregnant and breastfeeding women.
						Discuss the dietary treatment of common problems of pregnancy.
						List three advantages that breastfeeding confers on the mother.

UNIT 10: Lifecycle Nutrition: Infancy, Childhood, and Adolescence

Outcomes: The student will gain a basic understanding of the nutritional needs of the infant/toddler/adolescent.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Describe normal growth patterns and corresponding nutritional needs for a full-term infant, a toddler, a school-age child and an adolescent.
						Explain why breast milk is uniquely suited to the human infant's capabilities.
						Discuss the rationale for the sequence in which semisolid foods are introduced into an infant's diet.

						List causes and treatments of five common nutritional problems of infancy.
						Summarize common nutritional problems of the preschool child.
						Relate ways in which a child can be encouraged to establish good nutritional habits.
						Identify areas of concern regarding the typical adolescent's diet.
						Devise a comprehensive plan to prevent obesity in a target population of children or adolescents.

UNIT 11: Lifecycle Nutrition: The Mature Adult and Interactions: Food and Nutrients vs. Medications and Supplements.

Outcomes: The student will gain a basic understanding of the nutritional needs of the mature adult and a basic understanding of food/nutrient drug interactions.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Identify the foods and food groups most likely to be lacking or excessive in the diets of adults.
						Describe the changes in the older adult's body that affect nutritional status.
						Explain how a nutritional assessment of an older adult differs from that of a younger one.
						Illustrate ways in which food can be used to aid in the developmental tasks of adulthood.
						List several suggestions to improve food intake for older people in a variety of living situations.
						Explain the importance of proper scheduling of medications in relation to food intake.
						Identify two groups of clients likely to experience food-drug interactions
						Describe four ways in which foods, nutrients, drugs, and dietary supplements can interact and give an example of each.

UNIT 12: Food Management and Nutrient Delivery

Outcomes: The student will gain a basic understanding of food safety and the various methods of nutrient delivery in the clinical setting.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Describe the conditions under which microbiologic food illnesses can occur.
						Identify foods that are likely to harbor disease-producing microorganisms.
						Teach clients how to prevent foodborne illnesses.

						Discuss the information on food labels.
						Identify three routes used to deliver nutrients to clients and potential complications with two of these routes.
						Discuss the kinds of commercial formulas available for oral and tube feedings.
						Discuss why it is important to carefully control the concentration, rate of delivery, and volume of formula delivered to a client.
						List at least five reasons for the high incidence of malnutrition in institutionalized clients and the interventions nurses can perform to combat malnutrition.
						Describe suggested procedures for administering medications through feeding tubes.

UNIT 13: Diet In Diabetes Mellitus and Hypoglycemia

Outcomes: The student will gain a basic understanding of the diagnosis, treatment and management of diabetes mellitus and hypoglycemia.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Define and classify diabetes mellitus and describe the treatment of each type.
						Discuss the goals of nutritional care for persons with diabetes mellitus.
						List the nutritional guidelines for people with diabetes for illness, exercise, delayed meals, alcohol, hypoglycemic episodes, vitamin and mineral supplementation and eating out.
						Describe dietary treatment for reactive hypoglycemia as compared to diabetes mellitus.

UNIT 14: Diet In Cardiovascular Disease

Outcomes: The student will gain a basic understanding of the development, types of cardiovascular disease and the role of nutrition in the etiology and treatment.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Discuss the relationship between diet and the development of cardiovascular disease.
						Distinguish between type II and type IV hyperlipoproteinemias as to aggravating factors and the focus of dietary modifications.
						Identify strategies that are most likely to reduce the risk of cardiovascular disease.

						Compare and contrast dietary modifications for clients with myocardial infarction, heart failure, and stroke.
						Describe the 2-gram sodium diet.
						List several flavorings and seasonings that can be substituted for salt on a sodium-restricted diet.

UNIT 15: Diet In Cancer, HIV, and AIDS

Outcomes: The student will gain a basic understanding of the role of nutrition in the development and management of cancer and the role of nutrition in the medical management of HIV/AIDS.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						List several correlations between dietary intake and cancers of specific sites.
						Interpret dietary guidelines for the prevention of cancer.
						Identify reasons that population correlations may not apply to subgroups or to individuals.
						Discuss measures to increase oral intake for clients with cancer.
						Describe cachexia and the challenges of managing the condition.
						Define AIDS and HIV and list transmission routes for the virus.
						List nutrition-related complications seen in clients affected with HIV and, for each complication, describe interventions to improve nutritional status.
						Discuss why malnutrition is commonly seen in clients with HIV or AIDS.
						Describe why each client with AIDS needs an individualized nutritional assessment.

UNIT 16: Nutrition In Critical Care and Nutritional Care of the Terminally Ill.

Outcomes: The student will gain an understanding of the role of nutrition in the management of the critical care client and nutritional issues in terminal illness.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						List four hypermetabolic conditions that increase resting energy expenditure and hence kilocaloric requirements.
						Describe how metabolism differs in starvation and hypermetabolism.
						Discuss the effects of impaired respiratory function on nutritional status and appropriate nutritional therapy.
						List six recommendations for the safe re-feeding of malnourished clients.

						Differentiate between palliative and curative nutritional care.
						State appropriate nutritional screening questions for the terminally ill client.
						List at least two appropriate dietary management techniques for symptom control for each of the following : anemia, anorexia, bowel obstruction, cachexia, constipation, cough, dehydration, diarrhea, dysgeusia, esophageal reflux, fever, fluid accumulation, hiccups, incontinence, jaundice, and hepatic encephalopathy, migraine headache, nausea and vomiting, pruritus, stomatitis, weakness, wounds and pressure sores, and xerostomia.
						Discuss the ethical and legal considerations for feeding a terminally ill client.

Projects Required:

Projects vary according to the instructor.

Textbook:

Contact the Cowley Bookstore for the current textbook.

Materials/Equipment Required:

None.

Attendance Policy:

Students should adhere to the attendance policy outlined by the instructor in the course syllabus.

Grading Policy:

The grading policy will be outlined by the instructor in the course syllabus.

Maximum class size:

Based on classroom occupancy

Course Timeframe:

The U.S. Department of Education, Higher Learning Commission and the Kansas Board of Regents define credit hour and have specific regulations that the college must follow when developing, teaching and assessing the educational aspects of the college. A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally-established equivalency that reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work for approximately fifteen weeks for one semester hour of credit or an equivalent amount of work over a different amount of time. The number of semester hours of credit allowed for each distance education or blended hybrid courses shall be assigned by the college based on the amount of time needed to achieve the same course outcomes in a purely face-to-face format.

Refer to the following policies:

[402.00 Academic Code of Conduct](#)

263.00 Student Appeal of Course Grades

403.00 Student Code of Conduct

Disability Services Program:

Cowley College, in recognition of state and federal laws, will accommodate a student with a documented disability. If a student has a disability, which may impact work in this class which requires accommodations, contact the Disability Services Coordinator.