This course supports the assessments for CSC1. The course covers 12 competencies and represents 3 competency units.

**Introduction**

**Overview**
Nurses are on the front line when it comes to assessing a patient's nutritional status, eating habits, and beliefs about food and diet. What people eat can help them recover from an illness, cope with a chronic illness, or simply improve the quality of their lives.

Nurses have the best opportunity to address misinformation, dietary fads, and poor eating habits while considering the cultural and emotional connection humans have to food and food consumption.

Those who study nutrition come prepared with a background in

- anatomy,
- physiology,
- an understanding of the digestive system,
- digestive hormones,
- cell metabolism, and
- the conversion of nutrients to energy.

Studying the basic principles of nutrition is an extension of studies in biology, chemistry, anatomy, and physiology. Humans need energy to survive, and food is energy. In addition, nursing students bring an appreciation of cultural, sociological, and traditional experiences that influence perceptions about diet and food.

This course of study will introduce important concepts related to nutrition;

- macronutrients,
- micronutrients,
- minerals,
- vitamins and minerals,
- basic nutrition assessment tools, and
- how certain diseases can affect digestion and nutrition.

**Competencies**
This course provides guidance to help you demonstrate the following 12 competencies:

- **Competency 746.1.1: Basic Nutrition**
  The graduate integrates national nutrition guidelines into the design of healthy diet plans.
- **Competency 746.1.2: Physiology of Food Digestion**
  The graduate analyzes the physiology of gastrointestinal tract.
• **Competency 746.1.3: Plant Derived Nutrients**
The graduate differentiates among the functions, sources, and definitions of simple and complex carbohydrates and their role in disease states.

• **Competency 746.1.4: Fats: Essential for Life**
The graduate analyzes the sources, digestion, and specific roles of fats in the human diet and their role in disease states.

• **Competency 746.1.5: Proteins**
The graduate analyzes the sources, digestions, and role of proteins in the human diet, including the physical properties and sources of proteins.

• **Competency 746.1.6: Vitamins**
The graduate analyzes the role of vitamins in the diet and their relationship to overall physiological functioning and bodily systems, including sources, application, over dosage, and regulation of vitamins in the human diet.

• **Competency 746.1.7: Minerals**
The graduate analyzes the role of minerals in the diet and their relationship to overall physiological functioning and bodily systems, including sources, application, over dosage, and regulation of minerals in the human diet.

• **Competency 746.1.8: Fluid Balance**
The graduate analyzes fluid balance in the human body and its relationship to overall physiological functioning and bodily systems, including sources, application, imbalance, and regulation of fluid in the human diet.

• **Competency 746.1.9: Healthy Bodily Weight**
The graduate analyzes the role of genetic control and influence in body weight and methods of treatment for body weight imbalances.

• **Competency 746.1.10: Nutrition and Physical Activity**
The graduate analyzes the balance of nutrition and physical activity in the human body and its relationship to overall physiological functioning and bodily systems.

• **Competency 746.1.11: Nutrition Through the Lifecycle**
The graduate analyzes the role of nutrition in an average human life-cycle from conception and pregnancy to older adulthood.

• **Competency 746.1.12: Nutrition Issues: Safety and Security of Food**
The graduate analyzes the role of food safety in nutrition and the factors contributing to world hunger.

**Nursing Dispositions Statement**
Please review the [Statement of Nursing Dispositions](#).

**Course Instructor Assistance**
As you prepare to successfully demonstrate competency in this subject, remember that course instructors stand ready to help you reach your educational goals. As subject matter experts, mentors enjoy and take pride in helping students become reflective learners, problem solvers, and critical thinkers. Course instructors are excited to hear from you and eager to work with you.

First, take a moment to find who your course instructor is by reading the assignment listed below.
Pre-licensure students ONLY:
Theresa-Anne Heyer-Schmidt
theresa.schmidt@wgu.edu  ext 6088

BSN/MSN Students - you will be assigned to one of the below listed CM’s:
*If you do not have a Nutrition for Contemporary Society CM listed in your course or you’re unsure who to contact - don’t worry at all! Please email our shared inbox: nsgnutrition@wgu.edu and one of us will be in touch!

Rebekka Matheson
rebekka.matheson@wgu.edu  ext 6164
Christy Golden
christina.golden@wgu.edu  ext 5263
Curtis Dush
curtis.dush@wgu.edu  ext 4018

We are here to help you!

Preparing for Success

The information in this section is provided to detail the resources available for you to use as you complete this course.

Learning Resources
The learning resources listed in this section are required to complete the activities in this course. For many resources, WGU has provided automatic access through the course. However, you may need to manually enroll in or independently acquire other resources. Read the full instructions provided to ensure that you have access to all of your resources in a timely manner.

Automatically Enrolled Resources

You can access the learning resources listed in this section by clicking on the links provided throughout the course. You may be prompted to log in to the WGU student portal to access the resources.

VitalSource E-Texts
The following textbooks are available to you as e-texts within this course of study. You will be directly linked to the specific readings required within the activities that follow.


*Note: These e-texts are available to you as part of your program tuition and fees, but you may
purchase hard copies at your own expense through a retailer of your choice. If you choose to do so, please use the ISBN listed to ensure that you receive the correct edition.

Elsevier Evolve online course
Elsevier Evolve is the online companion site to the *Nutritional foundations and clinical applications: A nursing approach* textbook. This course of study will directly link you to specific activities within Evolve.

- Grodner, Roth, and Walkingham: Nutritional Foundations and Clinical Applications (5th ed.)

**Week 1 Part 1: Basic Nutrition & Physiology of Food Digestion**

Proper nutrition is one of the many factors impacting overall health. As you go through this subject, think about the obesity epidemic in this country.

**Nutrition Basics**
This topic addresses the following competency:

- **Competency 746.1.1: Basic Nutrition**
  The graduate integrates national nutrition guidelines into the design of healthy diet plans.

This topic highlights the following objectives:

- Explain what is meant by "nutrition" according to national standards.
- Analyze why nutrition is important to health.
- Identify the six classes of nutrients essential for health.
- Recognize the key energy nutrients essential for health.
- Classify the components of a healthy diet.
- Identify the standard dietary reference intakes (DRI) for nutrients.
- Analyze how the dietary guidelines for Americans can be used to design a healthy diet.
- Analyze how government health initiatives can be used to design a healthy diet.
- Recognize the ethnic variations of MyPyramid.
- Determine the nutritional adequacy of a given food using the nutrition facts panel and relate that to a healthy diet.
- Determine various sources of reliable and accurate nutrition information.
- Explain how to assess the validity of a research study.

**Wellness and the Nursing Role**

Read the following chapter in *Nutritional Foundations and Clinical Applications: A Nursing Approach*:

- [chapter 1 (“Wellness Nutrition”)]

**Dietary Guidelines**
Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Dietary Guidelines section:

- Lesson 1: Dietary Guidelines
- Dietary Guidelines Activities
- Lesson 1 Quiz: Dietary Guidelines

**Personal and Community Nutrition**

Read the following chapter in *Nutritional Foundations and Clinical Applications: A Nursing Approach*:

- chapter 2 (“Personal and Community Nutrition”)

**Choose My Plate**

Explore the following website for an example of one government initiative related to healthy diets:

- Choose My Plate

**Community Nutrition**

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Community Nutrition section:

- Lesson 1: Community Nutrition
- Community Nutrition Activities
- Lesson 1 Quiz: Community Nutrition

**Self-Check Quiz**

Access the Sizer text, *Nutrition: Concepts and controversies*, and complete the self-check quiz chapter 1 (“Food choices and human health”). Answers are found in Appendix G.

Access the Sizer text, *Nutrition: Concepts and controversies*, and complete the self-check quiz chapter 2 (“Nutritional Tools—Standards and Guidelines”). Answers are found in Appendix G.

**Week 1 Part 2: Physiology of Food Digestion**

Crohn's disease affects about 500,000 people in the United States and is a chronic disease that causes inflammation or swelling of the digestive tract. While this disease has recently received much publicity, it is just one of the many diseases of the gastrointestinal tract that affect digestion, metabolism, and absorption of nutrients. The next activities associated with this subject introduce the mechanisms associated with digestion and metabolism.

**Gastrointestinal Function of the Human Body**

This topic addresses the following competency:
- **Competency 746.1.2: Physiology of Food Digestion**
  The graduate analyzes the physiology of gastrointestinal tract.

This topic highlights the following objectives:

- Analyze the physiologic stimuli and environmental triggers that cause us to eat.
- Identify all major and accessory organs of the gastrointestinal tract on a diagram.
- Analyze the path of food as it passes through the gastrointestinal tract to determine how organs and enzymes break down the food.
- Identify the causes, symptoms, and treatments of gastroesophageal reflux disease, ulcers, constipation, and diarrhea.
- Differentiate among various disorders related to specific foods.

**Digestion, Absorption, and Metabolism**

Read the following chapter in *Nutritional Foundations and Clinical Applications: A Nursing Approach*:

- chapter 3 ("Digestion, Absorption, and Metabolism")

**Digestion and Metabolism**

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Digestion and Metabolism section:

- Lesson 1: Digestion
- Lesson 2: Metabolism
- Digestion and Metabolism Activities
- Digestion and Metabolism Media
- Lesson 1 Quiz: Digestion
- Lesson 2 Quiz: Metabolism

**Nutrition for Disorders of the Gastrointestinal Tract**

Read the following chapter in *Nutritional Foundations and Clinical Applications: A Nursing Approach*:

- chapter 17 ("Nutrition for Disorders of the Gastrointestinal Tract")

**Gastrointestinal Disorders**

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Gastrointestinal Disorders section:

- Lesson 1: Gastrointestinal Disorders
- Gastrointestinal Disorders Activities
- Lesson 1 Quiz: Gastrointestinal Disorders

**Self-Check Quiz**

Access the Sizer text, *Nutrition: Concepts and controversies*, and complete the
self-check quiz chapter 3 ("The Remarkable Body"). Answers are found in Appendix G.

**Week 2 Part 1: Plant Derived Nutrients & Fats**

Carbohydrates are an important source of energy. Eating fiber-rich carbohydrates helps maintain a healthy weight and reduces the risk of some serious chronic diseases such as type II diabetes and heart disease. As you read chapter 3, think about the carbohydrates found in the typical American diet and the impact our eating habits have on our well-being.

**Carbohydrates**

This topic addresses the following competency:

- **Competency 746.1.3: Plant Derived Nutrients**
  The graduate differentiates among the functions, sources, and definitions of simple and complex carbohydrates and their role in disease states.

This topic highlights the following objectives:

- Compare and contrast simple and complex carbohydrates.
- Recognize a variety of foods that are good sources of carbohydrates.
- Identify the functions of carbohydrates in the human body.
- Summarize the acceptable micronutrient distribution range (AMDR) for carbohydrates, the adequate intake (AI) for fiber, and the recommended daily intake (RDI) of added sugars.
- Identify the potential health risks associated with diets high in simple sugars.
- Identify various foods that are good sources of carbohydrates.
- Differentiate between type 1 and type 2 diabetes, including etiology and treatment with a focus on diets.

**Carbohydrates**

Read the following chapter in *Nutritional Foundations and Clinical Applications: A Nursing Approach*:

- chapter 4 ("Carbohydrates")

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Carbohydrates section:

- Lesson 1: Carbohydrates
- Carbohydrates Activities
- Lesson 1 Quiz: Carbohydrates

**Diabetes Mellitus**

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Diabetes Mellitus section:

- Lesson 1: Diabetes Mellitus
Week 2 Part 2: Fats: Essential for Life

The consumption of fat is an essential part of a balanced diet. However, eating too much of the wrong kinds of fat can lead to the development of chronic disease, including cardiovascular disease and stroke.

Lipids

This topic addresses the following competency:

- **Competency 746.1.4: Fats: Essential for Life**
  The graduate analyzes the sources, digestion, and specific roles of fats in the human diet and their role in disease states.

This topic highlights the following objectives:

- Identify the three types of fats found in foods.
- Summarize the physical properties and sources of saturated, polyunsaturated, and monounsaturated fats.
- Identify the sources of trans fatty acids.
- Explain various functions of fat in the human body.
- Explain the steps involved in fat digestion.
- Identify the recommended daily intake (RDI) for total fat, saturated fat, and the two essential fatty acids.
- Identify various common food sources of beneficial fats.
- Analyze the role of dietary fat in the development of chronic disease.

Fats

Read the following chapter in *Nutritional Foundations and Clinical Applications: A Nursing Approach*:

- chapter 5 (“Fats”)

Lipids

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Lipids section:

- Lesson 1: Lipids
- Lipids Activities
- Lesson 1 Quiz: Lipids
Cardiovascular Disease

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Cardiovascular Disease section:

- Lesson 1: Cardiovascular Disease
- Cardiovascular Disease Activities
- Lesson 1 Quiz: Cardiovascular Disease

Self-Check Quiz

Access the Sizer text, *Nutrition: Concepts and controversies*, and complete the self-check quiz chapter 5 ("The Lipids: Fats, Oils, Phospholipids, and Sterols"). Answers are found in Appendix G.

Week 3 Part 1: Proteins & Vitamins

Every cell in the human body contains protein. Protein consumption is vital to a healthy diet. But how much protein should we consume? In the United States it is estimated that we consume, on average, 50% more protein than we need. As you read this chapter you will discover the various sources of dietary protein.

Proteins

This topic addresses the following competency:

- Competency 746.1.5: Proteins
  The graduate analyzes the sources, digestions, and role of proteins in the human diet, including the physical properties and sources of proteins.

This topic highlights the following objectives:

- Recognize how proteins differ from carbohydrates and fat.
- Identify non-meat food combinations that are complete protein sources.
- Generate a list of foods that are good sources of protein.
- Explain the functions of proteins in our bodies.
- Analyze how proteins are digested and absorbed by our bodies.
- Calculate individual recommended daily allowance (RDA) for protein.
- Identify the potential health risks associated with high-protein diets.
- Analyze the benefits and risks of vegetarianism.

Protein

Read the following chapter in *Nutritional Foundations and Clinical Applications: A Nursing Approach*:

- chapter 6 ("Protein")

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Protein section:
Week 3 Part 2: Vitamins

Vitamins are compounds that contain carbon and are essential in regulating our bodies’ processes. Classified as either water or fat soluble, vitamins are found in a variety of foods. Our diets must be the primary source of vitamins as our bodies cannot synthesize a sufficient quantity of most vitamins to maintain proper health.

Vitamins

This topic addresses the following competency:

- **Competency 746.1.6: Vitamins**
  The graduate analyzes the role of vitamins in the diet and their relationship to overall physiological functioning and bodily systems, including sources, application, over dosage, and regulation of vitamins in the human diet.

This topic highlights the following objectives:

- Compare the differences between fat-soluble and water-soluble vitamins.
- List the vitamins that have antioxidant properties.
- Classify a variety of food sources that are good sources of vitamins.
- Recognize the functions of the fat-soluble vitamins.
- Explain how coenzymes enhance the activities of enzymes.
- Identify the deficiency disorders of the water-soluble vitamins.
- Analyze the relationship between antioxidant nutrients and risk for cancer.
- Analyze phytochemicals and their relationship with risk for cancer.

Vitamins

Read the following chapter in *Nutritional Foundations and Clinical Applications: A Nursing Approach*:

- chapter 7 (“Vitamins”)

Review the following table:

- Vitamin Table

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Vitamins section:
Minerals are nutrients whose structure does not include the major organic elements (carbon, oxygen, nitrogen, and hydrogen), and are divided into two groups; major and trace. They are not broken down during digestion and absorption, nor are they destroyed by heat or light. Minerals, like vitamins, assist in the regulation of many body processes.

**Sources of Minerals**
This topic addresses the following competency:

- **Competency 746.1.7: Minerals**
  The graduate analyzes the role of minerals in the diet and their relationship to overall physiological functioning and bodily systems, including sources, application, over dosage, and regulation of minerals in the human diet.

This topic highlights the following objectives:

- Determine what a mineral is and how it is classified.
- Explain how the four electrolytes function.
- Explain the functions of the mineral power plants.

**Minerals**

Read the following chapter in *Nutritional Foundations and Clinical Applications: A Nursing Approach*:

- chapter 8 ("Water and Minerals")

Read the following chapter in *Nutrition: Concepts and Controversies*:

- chapter 8 ("Water and Minerals")

**The Role of Minerals in the Human Body**
This topic addresses the following competency:

- **Competency 746.1.7: Minerals**
  The graduate analyzes the role of minerals in the diet and their relationship to overall
physiological functioning and bodily systems, including sources, application, over dosage, and regulation of minerals in the human diet.

This topic highlights the following objectives:

- Recognize the components of blood.
- Determine appropriate methods to increase the amount of iron or iron absorption in the diet.
- Explain the process involved in the remodeling of bones.
- Identify good sources of calcium in food.
- List the minerals that play important roles in maintaining bone health.

**Minerals**

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Minerals section:

- Lesson 1: Major Minerals
- Lesson 2: Trace Minerals
- Major Minerals and Trace Minerals Activities
- Lesson 1 Quiz: Major Minerals
- Lesson 2 Quiz: Trace Minerals

**Week 4 Part 2: Fluid Balance**

Fluids and their balance are critical to the body’s ability to function within our cells and tissues. The main component of all body fluids is water. Our body is composed of both extracellular (outside the cell) and intracellular (inside the cell) fluids. The balance of these fluids is crucial to life.

**Fluid Balance**

This topic addresses the following competency:

- **Competency 746.1.8: Fluid Balance**
  
  The graduate analyzes fluid balance in the human body and its relationship to overall physiological functioning and bodily systems, including sources, application, imbalance, and regulation of fluid in the human diet.

This topic highlights the following objectives:

- List the functions of fluids in the human body.
- Identify sources of fluid intake.
- Identify various problems with fluid imbalances.
- Analyze the physical changes that occur to trigger the thirst mechanism.
- Recognize concepts that contribute to how the body maintains fluid balance.

**Water**

Review the following pages in *Nutritional Foundations and Clinical Applications: A Nursing*
Approach:

- pages 150–156 of chapter 8 (“Water and Minerals”)

Alcohol
This topic addresses the following competency:

- Competency 746.1.8: Fluid Balance
  The graduate analyzes fluid balance in the human body and its relationship to overall physiological functioning and bodily systems, including sources, application, imbalance, and regulation of fluid in the human diet.

This topic highlights the following objectives:

- Analyze the beneficial and detrimental effects of alcohol.
- Explain fetal alcohol syndrome.

Disorders of the Accessory Organs

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Disorders of the Accessory Organs section:

- Lesson 1: Disorders of the Accessory Organs
- Disorders of the Accessory Organs Activities
- Lesson 1 Quiz: Disorders of the Accessory Organs

Fetal Alcohol Syndrome

Read the following chapter in Nutritional Foundations and Clinical Applications: A Nursing Approach:

- chapter 11 (“Life Span Health Promotion: Pregnancy, Lactation, and Infancy”)

Read the following chapter in Nutrition: Concepts and Controversies:

- chapter 13 (“Life Cycle Nutrition: Mother and Infant”)

Self-Check Quiz

Access the Sizer text, Nutrition: Concepts and controversies, and complete the self-check quiz chapter 8 (“Water and Minerals”). Answers are found in Appendix G.

Week 4 Part 3: Healthy Body Weight

A healthful body weight has many components. It can be defined as what is appropriate for your age and physical development, but also must include genetic background and family history. Additionally, this healthful body weight should be able to be maintained promoting good eating habits and regular exercise without dieting. There are many different body types and one is not
more healthful than another. Fads and societal expectations should not dictate what is meant by a healthful body weight.

**Weight**

This topic addresses the following competency:

- **Competency 746.1.9: Healthy Body Weight**
  The graduate analyzes the role of genetic control and influence in body weight and methods of treatment for body weight imbalances.

This topic highlights the following objectives:

- Recognize what is meant by a healthful weight.
- Differentiate between underweight, overweight, obesity, and morbid obesity and the health risks of each of these conditions.
- Determine various methods that can be used to assess body composition or risk for overweight.
- Explain the three components of energy expenditure.
- Analyze the role of genetic influences in the control of body weight.
- Analyze how childhood experiences influence adult weight and the risk for obesity in adulthood.
- Identify various treatment options for obesity.
- Recognize societal factors that influence our body weight.
- Classify the types of eating disorders.
- Explain how the components of the female athlete triad are interconnected.

**Weight Management**

Read the following chapter in *Nutritional Foundations and Clinical Applications: A Nursing Approach*:

- chapter 9 ("Energy Supply and Fitness")
- chapter 10 ("Management of Body Composition")
- chapter 12 ("Life Span Health Promotion: Childhood and Adolescence")

**Body Composition**

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Body Composition section:

- Lesson 1: Body Composition
- Body Composition Activities
- Lesson 1 Quiz: Body Composition

**Self-Check Quiz**

Access the Sizer text, *Nutrition: Concepts and controversies*, and complete the self-check quiz chapter 9 ("Energy Balance and Healthy Body Weight"). Answers are found in Appendix G.
Week 5 Part 1: Nutrition and Physical Activity, and Nutrition through the Life Cycle

Nutrition and physical activity have a symbiotic relationship. Optimal physiological functioning must include proper physical activity. Being physically fit helps to prevent disease, illness and improves overall well-being. As lifestyles have changed to become more sedentary so have dietary needs. One must understand how activity is related to caloric expenditure.

**Physical Activity**

This topic addresses the following competency:

- **Competency 746.1.10: Nutrition and Physical Activity**
  The graduate analyzes the balance of nutrition and physical activity in the human body and its relationship to overall physiological functioning and bodily systems.

This topic highlights the following objectives:

- Compare and contrast the concepts of physical activity, exercise, and physical fitness.
- Summarize the health benefits of being physically active on a regular basis.
- Explain the FITT principle.
- Determine appropriate sources of energy for physical activity.

**Energy Supply and Fitness**

Read the following chapter in *Nutritional Foundations and Clinical Applications: A Nursing Approach*:

- chapter 9 (“Energy Supply and Fitness”)

Read the following in *Nutrition: Concepts and Controversies*:

- page 380 in chapter 10 ("Nutrients, Physical Activity, and the Body's Responses")
- appendix H ("Physical Activity and Energy Requirements")

**FITT Principle**

Read the following article:

- Physical Fitness FITT Principle

Visit the following web page from Sports Fitness Advisor to get a quick look at what FITT is all about:

- The FITT Principle of Training

**Physical Activity in the Human Body**

This topic addresses the following competency:
Competency 746.1.10: Nutrition and Physical Activity
The graduate analyzes the balance of nutrition and physical activity in the human body and its relationship to overall physiological functioning and bodily systems.

This topic highlights the following objectives:

- Analyze changes in nutrient needs that can occur in response to an increase in physical activity or vigorous exercise training.
- Explain the heat illnesses, including heat syncope, heat cramps, heat exhaustion, and heatstroke.
- Explain the term ergogenic aids.

Physical Fitness and Exercise

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Physical Fitness Exercise section:

- Lesson 1: Physical Fitness and Exercise
- Physical Fitness and Exercise Activities
- Lesson 1 Quiz: Physical Fitness and Exercise

Self-Check Quiz

Access the Sizer text, *Nutrition: Concepts and controversies*, and complete the self-check quiz chapter 10 ("Nutrients, Physical Activity, and the Body’s Responses"). Answers are found in Appendix G.

Week 5 Part 2: Nutrition Through the Lifecycle

As individuals age, nutritional needs change. The body's absorption of many nutrients changes as well. For example, because the stomach secretes less hydrochloric acid, many elderly people absorb less calcium. This may require that the individual needs to take increased amounts of some nutrients.

Pregnancy
This topic addresses the following competency:

Competency 746.1.11: Nutrition Through the Lifecycle
The graduate analyzes the role of nutrition in an average human life-cycle from conception and pregnancy to older adulthood.

This topic highlights the following objectives:

- Explain why maintaining a nutritious diet is important for prospective parents even before conception.
- Identify the range of optimal weight gain for a pregnant woman in the first, second, and third trimesters.
- Compare and contrast the nutrient requirements of pregnant and lactating women.
- Identify the primary advantages of breastfeeding.
Life Span Health Promotion: Pregnancy, Lactation, and Infancy

Read the following chapter in *Nutritional Foundations and Clinical Applications: A Nursing Approach*:

- chapter 11 ("Life Span Health Promotion: Pregnancy, Lactation, and Infancy")

Read the following chapter in *Nutrition: Concepts and Controversies*:

- chapter 13 ("Life Cycle Nutrition: Mother and Infant")

Nutrition during Pregnancy and Lactation

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Nutrition during Pregnancy and Lactation section:

- Lesson 1: Nutrition During Pregnancy
- Lesson 2: Nutrition During Lactation
- Pregnancy and Lactation Activities
- Lesson 1 Quiz: Nutrition During Pregnancy
- Lesson 2 Quiz: Nutrition During Lactation

Self-Check Quiz

Access the Sizer text, *Nutrition: Concepts and controversies*, and complete the self-check quiz chapter 13 ("Life Cycle Nutrition: Mother and Infant"). Answers are found in Appendix G.

Childhood

This topic addresses the following competency:

- Competency 746.1.11: Nutrition Through the Lifecycle
  The graduate analyzes the role of nutrition in an average human life-cycle from conception and pregnancy to older adulthood.

This topic highlights the following objectives:

- Relate the growth and activity patterns of infants to their nutrient needs.
- Identify common nutrition-related concerns for infants.
- List various nutrients of concern when feeding a vegan diet to young children.
- Analyze how micronutrient needs change as a child matures from school-aged years to adolescence.
- List various factors that can result in obesity during childhood and adolescence.

Nutrition during Infancy, Childhood, and Adolescence

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Nutrition during Infancy, Childhood, and Adolescence section:
Lesson 1: Nutrition during Infancy, Childhood, and Adolescence
Nutrition during Infancy, Childhood, and Adolescence Activities
Lesson 1 Quiz: Nutrition during Infancy Childhood and Adolescence

Life Span Health Promotion: Childhood and Adolescence

Read the following chapter in *Nutritional Foundations and Clinical Applications: A Nursing Approach*:

- chapter 12 ("Life Span Health Promotion: Childhood and Adolescence")

Older Adulthood

This topic addresses the following competency:

- Competency 746.1.11: Nutrition Through the Lifecycle
  The graduate analyzes the role of nutrition in an average human life-cycle from conception and pregnancy to older adulthood.

This topic highlights the following objectives:

- Identify various physiological changes that occur with aging and their effect on the nutrient needs of older adults.
- Recognize appropriate programs that provide food assistance to older adults.

Life Span Health Promotion: Adulthood

Read the following chapter in *Nutritional Foundations and Clinical Applications: A Nursing Approach*:

- chapter 13 ("Life Span Health Promotion: Adulthood")

Nutrition in Adulthood

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Nutrition in Adulthood section:

- Lesson 1: Nutrition in Adulthood
- Nutrition in Adulthood Activities
- Lesson 1 Quiz: Nutrition in Adulthood

Self-Check Quiz

Access the Sizer text, *Nutrition: Concepts and controversies*, and complete the self-check quiz chapter 14 ("Child, Teen and Older Adult"). Answers are found in Appendix G.

Week 6: Nutrition Issues: Safety and Security of Food & Final Steps

The way in which food is consumed and purchased has changed. A modern American consumer eats more processed, prepackaged and ready to consume foods than in previous
decades. Transportation allows for fruits and vegetables to be eaten year round.

Farms have become large conglomerates. Food is grown or manufactured in large plants or processing centers, then travels for miles or days. To preserve freshness on its journey, numerous additives placed in that food. And in such a complicated system, there is more opportunity for contamination.

With all these changes to the way we get our food sources, the safety and security of our food has come into question. It is important to understand and take precautions to carefully understand food safety.

**Food Safety**

This topic addresses the following competency:

- **Competency 746.1.12: Nutrition Issues: Safety and Security of Food**
  The graduate analyzes the role of food safety in nutrition and the factors contributing to world hunger.

This topic highlights the following objectives:

- Determine key points of possible food contamination as food travels from farm to table.
- Recognize the types of microorganisms involved in foodborne illness.
- Summarize strategies for preventing foodborne illness at home, while eating out, and when traveling to other countries.
- Explain the advantages and disadvantages of canning, pasteurization, use of preservatives, aseptic packaging, and irradiation to preserve foods.
- Explain why various food additives are used.
- Analyze the benefits and safety concerns related to food additives, including the role of the generally regarded as safe (GRAS) list.
- Analyze the benefits and safety concerns related to pesticides.

**Nutrition and Food Safety**

Review the following chapter in *Nutritional Foundations and Clinical Applications*:

- chapter 2 (“Personal and Community Nutrition”)

**Foodborne Illness**

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Foodborne Illness section:

- Lesson 1: Foodborne Illness
- Foodborne Illness Activities
- Lesson 1 Quiz: Foodborne Illness

**World Issues**

This topic addresses the following competency:
Competency 746.1.12: Nutrition Issues: Safety and Security of Food
The graduate analyzes the role of food safety in nutrition and the factors contributing to world hunger.

This topic highlights the following objectives:

- Explain the current system of labeling for organic foods.
- Analyze various factors that contribute to world hunger.
- Identify various disorders that result from malnutrition.

Malnutrition

Access the Evolve Nutritional Foundations and Clinical Applications online course and complete the following in the Malnutrition section:

- Lesson 1: Malnutrition
- Malnutrition Activities
- Lesson 1 Quiz: Malnutrition