Ursuline College
The Breen School of Nursing
Nutrition 104

Study Guide or Test Out


Test is multiple choice with 100 questions. You will have two ours to complete it. You must score a 76% to be considered passing.

Chapter 1: An Overview of Nutrition

Define nutrition, foods and diet. Understand the influences that impact food choices. Be familiar with the six classes of nutrients. Understand the scientific method in relation to the publishing of research articles in professional scientific journals. Define the Dietary Reference Intakes. What is each value that makes up the populations? Understand the connection between diet and disease and the role of risk factors. How can you determine whether or not nutrition information is reliable?

Chapter 1: Planning a Healthy Diet

Identify and understand each of the diet-planning principles. Be familiar with the Dietary Guidelines for Americans. What are the major food groups specified by the “choosemyplate” meal planning tool. What is the role of a food label and the Daily Values on the food label? What nutrients are required on a food label? What is the difference between nutrient, health and structure function claims on food labels? Know the difference between the different types of vegetarians. What are the health benefits of following a vegetarian diet? What are the nutrients of concern for vegetarians?

Chapter 3: Digestion, Absorption, and Transport

Define and understand the process of digestion in relation to each organ of the GI tract. Be familiar with the hormones and enzymes that aid in the process of digestion. Be able to identify causes and treatment for common digestive problems.

Chapter 4: Carbohydrates: Sugars, Starches, and Fibers

Understand the difference between simple and complex carbohydrates. Know the role of glucose as the essential energy source of the body's activities. Define glycogen. Understand how carbohydrates (i.e. simple sugars, fibers and complex carbohydrates) can impact health and disease prevention/promotion. Know the recommended intake of all classes of carbohydrates.
Chapter 5: The Lipids: Triglycerides, Phospholipids, and Sterols

Know the chemical composition of fatty acids. Identify and understand the chemical composition triglycerides, fatty acids, phospholipids, and sterols. Give examples of sources of lipid in our food supply. Relate each category of fats to health and disease promotion/prevention. Understand how fats are digested and transported in the body. Be familiar with the terms HDL, LDL, VLDL in relation to cardiovascular disease risk. Know the recommendations for fat intake.

Chapter 6: Protein: Amino Acids

Understand the chemical structure of proteins and the role of amino acids. Know the difference between essential and non-essential amino acids and their availability in foods and impact on protein quality. Understand the varied roles of protein in the body, especially as they relate to proper body functions, malnutrition and chronic disease. Review protein and metabolism in relation to the body’s energy needs. Be able to calculate protein needs.

Chapter 7: Metabolism: Transformations and Interactions

Define and understand the terms, metabolism, catabolism and anabolism in relation to the macronutrients. Be familiar with the process of how the body breaks down energy from nutrients. Correlate how the body metabolizes food with energy balance. Review how alcohol is processed by and impacts the body. Know the recommendations for alcohol intake.

Chapter 8: Energy Balance and Body Composition

Understand how the energy value of food and the energy needs of humans are determined. Be able to define and understand the terms relating to energy expenditure (i.e. basal metabolic rate, lean body mass). What is the body mass index and what are the weight classifications associated with this tool? Review fat distribution in relation to waist circumference in relation to chronic disease. Know the health risks associated with both underweight and overweight. Understand the causes, treatments and prevention recommendations for the different eating disorders.

Chapter 9: Wight Management: Overweight, Obesity and Underweight

Understand the theories, causes and problems associated with overweight, obesity and underweight. What are aggressive treatments for obesity? Outline and understand healthy weight loss and weight gain strategies.

Know the major functions, DRI recommendations, foods sources of the vitamins. Be able to distinguish the difference between fat and water soluble vitamins. Understand the influence of vitamins on the risk for and prevention of disease and how disease can impact vitamin needs.

Chapter 12: Water and the Major Minerals and Chapter 13: The Trace Minerals

Review the roles of water and body fluids and know the recommended intakes for water. Know the major functions, DRI recommendations and food sources of the major and trace minerals. Understand the influence of minerals on the risk for and prevention of disease (i.e. osteoporosis, high blood pressure) and how disease can impact mineral needs. Be familiar with the contaminant minerals and their ill effects on human health. Understand the role of phytochemicals and functional foods on the disease prevention.

Chapter 14: Fitness: Physical Activity, Nutrients, and Body Adaptations

Define fitness, physical activity and exercise. Know the benefits of fitness and the recommendations for fitness including type of exercise, frequency and duration. Understand how the body fuels and supports physical activity with the use of glucose, fats and proteins. Identify the vitamins and minerals of concern for active people and athletes. Know the fluid and electrolyte recommendations for physically active individuals and the consequences of inadequate fluid.

Chapter 15: Life Cycle Nutrition: Pregnancy and Lactation

Understand the role of nutrition prior to conception and during pregnancy. Be familiar with the nutrition recommendations for macronutrients and micronutrients during pregnancy and lactation. Be familiar with the development of the fetus and the critical periods of growth. Identify the factors that influence pregnancy risk. Know the benefits of lactation.

Chapter 16: Life Cycle Nutrition: Infancy, Childhood, and Adolescence

Know the nutrition and feeding recommendations for infants, toddlers, children and adolescents. Be familiar with the nutrition and feeling challenges and the appropriate recommendations for each age group.

Chapter 17: Life Cycle Nutrition: Adulthood and Later Years

Understand the aging process and how it can impact nutrient intake and recommendations. What are the nutrient recommendations for older adults? What are the nutrition challenges and concerns for older adults and how can they be addressed or resolved? Be familiar with food assistant programs for the elderly. Review the impact of drugs on nutrient intake, metabolism and excretion and the impact of nutrients on various drugs.
Chapter 18: Diet and Health

Know the inter-relationships between nutrition and immunity and chronic disease. Understand how each chronic disease develops. Be familiar with the risk factors and complications of disease as well as the dietary recommendations to prevent or treat each disease. What role does complementary and alternative medicine play in the treatment of disease?

Chapter 19: Consumer Concerns about Foods and Water

Define foodborne illness and know the likely pathogens responsible for foodborne illness as well as the common symptoms associated with each. Be familiar with the food safety measures at each stage of food management including food safety in the kitchen. Review common environmental contaminants as well as natural toxicants in foods, pesticides and food additives. What are the major concerns with drinking water sources?

Chapter 20: Hunger and the Global Environment

What are the national international causes of hunger and how are these issues being addressed? What role does overpopulation play in poverty and food availability? What are some sustainable solutions to these issues?