

Wyoming Department of Education Required Virtual Education Course Syllabus

Niobrara County School District # 1

Program Name	Wyoming Virtual Academy	Content Area	PE
Course ID	D-OTH-080V2-AVT	Grade Level	9-12
Course Name	Nutrition and Wellness	# of Credits	0.5
SCED Code	08053G0.5011	Curriculum Type	K12 Inc

COURSE DESCRIPTION

This course introduces students to good nutrition principles needed for physical and mental wellness. Topics include good nutrition; food safety; digestion, absorption, and metabolism; how major nutrients are processed in the body; basic components of carbohydrates, proteins, and fats; the roles of vitamins, minerals, and fluids; physical fitness and athletic performance; stress; and wellness and nutrition principles throughout the human life cycle. Applications to today's food and eating trends plus learning to assess for reliable nutrition information are emphasized.

WYOMING CONTENT AND PERFORMANCE STANDARDS

STANDARD#	BENCHMARK (Standard/Indicator) Use the Standards and Benchmarks as Spreadsheets
HE12.1.1	Locate and evaluate appropriate resources at school, in the community and beyond that help to enhance health (e.g., human resources, printed and electronic resources, equipment and facilitates, etc.). PA, PH, ME
HE12.1.2	Locate and evaluate appropriate resources at school, in the community and beyond that help to reduce health risks. (e.g., human resources, printed and electronic resources, equipment and facilitates, etc.). ATOD, SEXUALITY, PH
HE12.1.3	Use criteria to evaluate the validity of health information from a variety of sources (e.g., written, verbal, visual, electronic, etc.). ATOD, SEXUALITY, NUT
HE12.1.4	Use criteria to evaluate products that can enhance health and reduce health risks (e.g., Examine carefully performance supplements and make a judgment about the short and long term impact on an adolescent's health.). NUT, PA, ATOD
HE12.2.1	Analyze the types of decisions that would be appropriate for a specific health related situation (e.g., 1-step/automatic process appropriate for emergency, 5- step process appropriate for long-term decision). ATOD, SEXAULTY, IP/S
HE12.2.4	Evaluate how peers, culture, media and technology influence decisions students make about health practices and risk behaviors. SEXUALITY, ATOD, ME
HE12.2.5	Apply a systematic process to evaluate the evidence, claims, beliefs and/or points of view about non-familiar health related issues or problems. ATOD, PA, NUT
HE12.3.7	Delineate a speaker's health argument and specific claims, distinguishing health claims that are supported by reasons and evidence from health claims that are not supported by reasons and evidence. ANY CONTENT AREA
HE12.4.3	Demonstrate an understanding of behaviors that prevent the spread of disease. SEXUALITY, ATOD, PCD
HE12.4.4	Explain signs of stress and how stress can affect health status. ME, ATOD
HE12.4.7	Evaluate the appropriateness of various strategies for managing stress and avoiding stress overload in specific situations (e.g. regular exercise to deal with divorce, regular sleep prior to testing, etc.). PA, NUT, PH
HE12.4.8	Use criteria to set a long-term personal health goal and make a plan for achieving it. ME, PA, NUT

HE12.4.9	Monitor progress toward achieving a long-term personal health goal and evaluate the effectiveness of the plan for meeting the goal (e.g., a plan to meet the goal of reducing body fat by the end of the semester was effective because it included a variety of activities that met scientific principles for fitness and weight loss (e.g., aerobic activity for 30-45 minutes daily, reducing sugar intake, increasing water intake, attending PE every day, etc.). ME, PA, NUT
HE12.4.10	Evaluate strategies for being respectful of others and opposing stereotyping and prejudice. VP/B, CEH, ME
HE12.4.11	Demonstrate the ability to advocate for the prevention of violence and bullying. VP/B, CEH, ME
HE12.4.12	Analyze the relationship between physical, social, and mental and emotional health. VP/B, CEH, ME

SCOPE AND SEQUENCE

UNIT OUTLINE	STANDARD#	OUTCOMES OBJECTIVES/STUDENT CENTERED GOALS
Unit 1: Wellness and Food Choices in Today's Environment 1.01 Introduction	12.2.1, 12.4.1, 12.4.2	<ul style="list-style-type: none"> • Define Dimensions of Wellness & Health • Relate the role of Nutrition to human wellness and health • Compare personal lifestyle to current knowledge of wellness, health, and nutrition goals • Describe basic nutrients used in the human body
Unit 1: Wellness and Food Choices in Today's Environment 1.02 Influences in Food Habits and Consumption Trends	12.2.1, 12.2.4, 12.2.5	<ul style="list-style-type: none"> • List factors that influence personal food selections. • Identify community nutrition concerns in the past, present, and future. • Describe influences on consumer food buying decisions. • Discuss factors involved in personal food choices during particular life situations. • Define national health & wellness goals in the United States.
Unit 1: Wellness and Food Choices in Today's Environment 1.03 Food Selection Guides and Evaluations	12.2.1, 12.2.2, 12.4.1, 12.4.2	<ul style="list-style-type: none"> • Compute Nutrition components of personal food intake. • Compare your personal food intake record to the chosen Food Guide.

		<ul style="list-style-type: none"> • Recognize the basic principles behind dietary guidelines & food guides. • List criteria to evaluate dietary guidelines and recommendations. • Evaluate personal food intake and make self recommendations. • Describe the basics of performing nutrition evaluations.
<p>Unit 1: Wellness and Food Choices in Today's Environment 1.04 Reading Food Labels</p>	<p>12.2.1, 12.2.2, 12.4.1, 12.4.2</p>	<ul style="list-style-type: none"> • Describe the required information on a Food Label. • Explain uses of Daily Values on labels. • Apply knowledge of "Nutrition Facts" labels to sample products. • Compare food labels for nutrition quality. • State uniform definitions for food descriptions on labels. • Identify "Whole Grain" and "Organic" food standards and labels.
<p>Unit 1: Wellness and Food Choices in Today's Environment 1.05 Foodborne Illness and Safety of Food Supply</p>	<p>12.1.1, 12.1.2, 12.1.3, 12.1.4, 12.2.1,12.4.1, 12.4.2, 12.4.3</p>	<ul style="list-style-type: none"> • List major foodborne pathogens with food sources and symptoms. • Interpret properties of direct and indirect food additives. • Explain the benefits and risks of Biotechnology. • Define groups at increased risk for foodborne illnesses. • State food storage and preparation safety tips. • Identify common Food Safety mistakes in life situations.
<p>Unit 1: Wellness and Food Choices in Today's Environment 1.06 Community Sources of Nutrition and Wellness</p>	<p>12.1.1, 12.1.2, 12.1.3, 12.1.4, 12.2.1, 12.3.2,12.4.1.</p>	<ul style="list-style-type: none"> • Compare and Contrast various government programs associated with nutrition and wellness. • Critique media sources of nutrition. • Define terms and education requirements needed by a

		<p>competent Nutrition Professional.</p> <ul style="list-style-type: none"> • Give examples of various practice settings of qualified Nutrition Professional. • Describe the importance of cross-culture competence for Nutrition Profession.
<p>Unit 1: Wellness and Food Choices in Today's Environment 1.07 Exam Preparation</p>	<p>12.1.1, 12.1.2, 12.1.3, 12.1.4, 12.2.1, 12.2.4, 12.2.5, 12.3.2, 12.4.1, 12.4.2, 12.4.3</p>	<ul style="list-style-type: none"> • Review concepts taught this unit.
<p>Unit 2: Digestion and Major Nutrients 2.01 Introduction</p>	<p>12.2.1, 12.4.1</p>	<ul style="list-style-type: none"> • Learn about what are known as macronutrients: carbohydrates, fats and proteins. • Explore the world of the fundamental micronutrients: vitamins and minerals. • Learn about the significance of fluids in your diet and the process of hydration.
<p>Unit 2: Digestion and Major Nutrients 2.02 Digestion, Absorption, and Metabolism</p>	<p>12.2.1, 12.4.1</p>	<ul style="list-style-type: none"> • Identify the types of digestion and describe the pathway of food through the gastrointestinal tract. • Construct the function of the organs of digestion. • Compare the digestion and absorption of vitamins & minerals to that of Carbohydrates, Fat, & Protein. • Explain the relationship between common gastrointestinal illnesses and nutrition & lifestyle. • Define Metabolism and describe chemical changes that determine the final use of nutrients in the body.
<p>Unit 2: Digestion and Major Nutrients 2.03 Carbohydrates</p>	<p>12.1.1, 12.1.2, 12.1.3, 12.1.4, 12.2.1, 12.4.1</p>	<ul style="list-style-type: none"> • Describe the broad functions of carbohydrates in the body. • Evaluate your personal intake of carbohydrates. • Do a comparison of high carbohydrate products for nutritional quality. • Name the classification systems for carbohydrates and

		<p>give examples and food sources for each category.</p> <ul style="list-style-type: none"> • Analyze the benefits and risks associated with sugar, sugar alcohols and alternative sweeteners. • Explain the sources of and effects of fiber in the diet, as well as how to achieve suggested daily intake recommendations. • Critique health & disease claims associated with inadequate or excess carbohydrate intake.
<p>Unit 2: Digestion and Major Nutrients 2.04 Fats</p>	<p>12.2.1, 12.4.1</p>	<ul style="list-style-type: none"> • Apply knowledge of the health benefits vs. the problems of excess fat intake to personal intake of fat. • Appraise fat and nutrient intake in a fast food meal. • List the physiological functions and need for fat in the diet. • State differences among triglycerides, saturated fat, & mono- and poly-unsaturated fats and list food sources of these. • Describe the functions and sources of cholesterol in the body. • Relate the terms hydrogenation, emulsification, cis- & trans- fatty acids, and antioxidants to the preservation of fats and discuss the wellness implications therein.
<p>Unit 2: Digestion and Major Nutrients 2.05 Proteins</p>	<p>12.1.1, 12.1.2, 12.2.1, 12.2.5, 12.4.1</p>	<ul style="list-style-type: none"> • Identify the structure and function of protein in the body. • Differentiate between such terms as essential and non-essential proteins, and complete and incomplete proteins. • Summarize a day's personal intake of protein and connect

		<p>this to good nutrition principles.</p> <ul style="list-style-type: none"> Recall terminology and their meanings from the protein unit. Evaluate current trends in protein consumption in the US, and compare them to true nutritional needs.
<p>Unit 2: Digestion and Major Nutrients 2.06 Vitamins</p>	12.2.1, 12.4.1	<ul style="list-style-type: none"> Evaluate personal vitamin needs and typical daily personal intake from food sources. List the main functions and food sources of each major vitamin. Distinguish between fat soluble and water soluble vitamins. Explain the health risks of inadequate vitamin intake and population groups at high risk. Summarize the potential for toxicity regarding overuse of fat soluble vitamins and water soluble vitamins.
<p>Unit 2: Digestion and Major Nutrients 2.07 Minerals</p>	12.1.2, 12.2.1, 12.4.1	<ul style="list-style-type: none"> List common minerals and food sources Evaluate personal mineral intake and relate to nutritional needs for age and gender Identify the overall functions of minerals in human body systems Use a case study scenario to find problem areas in mineral intake and produce realistic recommendations for improvement Describe wellness aspects of under or excess intake of major and trace minerals in the body
<p>Unit 2: Digestion and Major Nutrients 2.08 Fluids and Hydration</p>	12.1.3, 12.1.4, 12.2.1, 12.4.1, 12.4.3	<ul style="list-style-type: none"> Do a written evaluation of various commercial fluid products (bottled water, sports drinks, soda pop, vitamin drinks) and their value in wellness.

		<ul style="list-style-type: none"> List the function and sources of water in the body and body water composition at various life stages. Identify the regulatory mechanism for fluid intake, excretion, and distribution in the human body. Distinguish between the symptoms and wellness risks of fluid volume deficit or excess <p>Fluids And Hydration: Objectives.</p>
Unit 2: Digestion and Major Nutrients 2.09 Exam Preparation	12.1.2, 12.1.3, 12.1.4, 12.2.1, 12.2.5, 12.4.1, 12.4.3	<ul style="list-style-type: none"> Review concepts taught this unit.
Unit 3: Body Size and Weight Management 3.01 Introduction	12.1.1, 12.1.2, 12.1.3, 12.1.4, 12.2.1, 12.4.1	<ul style="list-style-type: none"> Calculate and Interpret Body Measurements Describe the Function and Regulation of Body Fat Levels Understand the Influence of Culture and Genetics on Body Image Evaluate Diet Programs and Products Be knowledgeable about Eating Disorders Develop a Wellness Approach to Body Size
Unit 3: Body Size and Weight Management 3.02 Calculating and Interpreting Body Measure	12.2.1, 12.4.1	<ul style="list-style-type: none"> Compute personal total energy output per day. Define the various types of measurements used to determine energy needs and body weight. Demonstrate ability to calculate personal Body Mass Index (BMI) and use a "Weight for Height" table. Identify additional factors, discrepancies, and variables in the use of different weight measurements to determine body wellness.
Unit 3: Body Size and Weight Management 3.03 Function and Regulation of Body Fat Levels	12.2.1, 12.4.1	<ul style="list-style-type: none"> Describe the functions of healthy levels of fat in the human body.

		<ul style="list-style-type: none"> • Comprehend the principles and effects of body fat distribution. • Recognize wellness risks in athletes and other people who strive for below normal body fat levels. • Explain body fat storage principles and changes throughout the human life cycle. • Describe effect on fat cells of weight loss and body response to “starvation threats”.
<p>Unit 3: Body Size and Weight Management 3.04 Culture, Body Image, and Genetics</p>	<p>12.1.1, 12.2.2 , 12.4.1, 12.4.10, 12.4.11, 12.4.12</p>	<ul style="list-style-type: none"> • Analyze factors in personal behaviors and thoughts that affect our perception and prejudice toward overweight individuals. • Relate body images presented in today’s media to wellness principles. • Describe genetic influences on body shape and size. • Comprehend principles of “set point” in body fatness and how it affects our ability to change body weight and size. • Explain emotional and social health effects on overweight people or those obsessed with thinness. • Conclude if obesity should be called a chronic disease or if wellness can be achieved at any body size • Know the effects of chronic dieting on human nutritional status and body metabolism.
<p>Unit 3: Body Size and Weight Management 3.05 Evaluating Diet Programs and Products</p>	<p>12.1.3, 12.1.4, 12.2.1, 12.2.4, 12.2.5, 12.4.1</p>	<ul style="list-style-type: none"> • Describe the success of attempts to lose weight and maintain the loss. • Comprehend the basics and risks of Bariatric surgery or prescription medications in weight loss. • Compile and compare several popular diet programs as to good nutrition and weight management principles.

		<ul style="list-style-type: none"> Analyze ingredients and use of several weight loss products (i.e. Slim Fast, Weight Watchers meals & desserts, over-the-counter pills, sauna suits) in healthy weight management. Select media advertisements for weight loss products and relate which psychological needs of humans that they are appealing to.
<p>Unit 3: Body Size and Weight Management 3.06 Eating Disorders</p>	<p>12.1.3, 12.1.4, 12.2.1, 12.4.1</p>	<ul style="list-style-type: none"> Define eating disorders as encompassing both obesity and emaciation. Define “Chronic Dieting” syndrome. Discuss different types of common eating disorders and produce a chart showing definitions, signs/symptoms, and medical/nutritional interventions. Give examples and provide appropriate intervention methods in eating disorders. Provide information and risk factors, so students can analyze for personal disordered eating patterns. Tell about several public figures/celebrities struggling with eating disorders.
<p>Unit 3: Body Size and Weight Management 3.07 Developing a Wellness Approach to Body Size</p>	<p>12.2.1, 12.4.1, 12.4.8, 12.4.9</p>	<ul style="list-style-type: none"> Describe a positive personal approach to weight management and an active lifestyle of wellness. Give examples of realistic weight goals and healthy attitudes toward enjoying food and eating. Identify hunger and satiety guidelines and methods of life long behavior changes. Show the relationship between food and using it to meet emotional needs.

		<ul style="list-style-type: none"> • Evaluate current personal lifestyle with regular and nutritional balanced meals. • Recognize and define terminology of body size and weight management.
Unit 3: Body Size and Weight Management 3.08 Exam Preparation	12.1.1, 12.1.2, 12.1.3, 12.1.4, 12.2.1, 12.2.4, 12.2.5, 12.4.1, 12.4.8, 12.4.9, 12.4.10, 12.4.11, 12.4.12	<ul style="list-style-type: none"> • Review concepts taught this unit.
Unit 4: Physical Fitness, Sports Nutrition, and Stress 4.01 Introduction	12.2.1, 12.4.1, 12.4.12	<ul style="list-style-type: none"> • Discuss how to incorporate physical fitness into your overall wellness. • Tie together physical fitness and how it influences your nutritional needs. • Describe sports nutrition, supplements, and the nutritional needs of an athlete for optimal performance.
Unit 4: Physical Fitness, Sports Nutrition, and Stress 4.02 Nutrition and Energy Pathways	12.2.1, 12.4.1	<ul style="list-style-type: none"> • Define forms of energy and calories as a measurement of energy. • Discern energy pathways in the body. • Understand the role of carbohydrates, fats, and protein (the “macronutrients”) as sources of energy and the need for energy balance in personal daily diet. • Distinguish between key terms used in physical fitness. • Describe the role of vitamins and minerals in physical activity and if supplementation might be beneficial.
Unit 4: Physical Fitness, Sports Nutrition, and Stress 4.03 Fitness and Physical Activity in Wellness	12.2.1, 12.2.2, 12.2.4	<ul style="list-style-type: none"> • Describe how the three types of activity (strength, aerobic, and anaerobic) affects physical needs, especially considering intensity, frequency, and duration. • Explain the health benefits in relation to chronic diseases, weight management and mental health.

		<ul style="list-style-type: none"> • Compute daily personal energy expenditure and compare to energy intake in previous dietary analysis (Unit 2 Section 3). • Compare how physical activity relates to: appetite regulation, body's "set point" weight, and changes in protein to carbohydrate ratio. • Define flexibility, muscular strength, and endurance as it relates to physical fitness.
<p>Unit 4: Physical Fitness, Sports Nutrition, and Stress</p> <p>4.04 Athletic Performance and Nutrition Needs</p>	<p>12.1.3, 12.1.4, 12.2.1, 12.4.1</p>	<ul style="list-style-type: none"> • Define reasons for susceptibility of athletes and coaches to nutrition misinformation and compulsive behaviors. • Analyze common athlete myths and relate to sound nutritional knowledge. • Explain "carbohydrate loading" and ideal pre-game and training food intake meals. • Relate weight control measures in athletes (like gymnasts and wrestlers) to disordered eating effects on the human body. • Use principle of water and hydration needs in athletic competition. • Recognize nutrition risks specific to female athletes and outline the female athlete triad.
<p>Unit 4: Physical Fitness, Sports Nutrition, and Stress</p> <p>4.05 Use of Diet Supplements and Ergogenic Aids in Sports</p>	<p>12.1.3, 12.1.4, 12.2.1, 12.4.1</p>	<ul style="list-style-type: none"> • Describe ergogenic aids and drugs used in athletics and how they may be of risk to your health. • Analyze common dietary practices of body builders and weight lifters. • Identify at least three dietary supplements used in sports and relate their use to sound nutrition principles. • Define the importance of protein, vitamin, and mineral

		<p>supplements in sports nutrition and if they are needed.</p> <ul style="list-style-type: none"> • Comprehend the role of body fat in athletes and recommended levels.
<p>Unit 4: Physical Fitness, Sports Nutrition, and Stress 4.06 Body Response and Nutrition Changes in Stress</p>	12.2.1, 12.4.1, 12.4.4, 12.4.5, 12.4.7	<ul style="list-style-type: none"> • Describe the effects of stress on carbohydrate, protein, and fat metabolism, hydration and vitamin / mineral needs. • Construct the three stages of neuroendocrine response to stress. • Define perceptions of stress and common life stresses. • Relate personal life stresses to body stress response and its effects on your own nutrition and wellness status. • Evaluate current physical and mental coping processes to stress and make wellness recommendations.
<p>Unit 4: Physical Fitness, Sports Nutrition, and Stress 4.07 Exam Preparation</p>	12.1.3, 12.1.4, 12.2.1, 12.2.2, 12.2.4, 12.4.1, 12.4.4, 12.4.5, 12.4.7, 12.4.12	<ul style="list-style-type: none"> • Review concepts taught this unit.
<p>Unit 5: Life Cycle Nutrition 5.01 Introduction</p>	12.2.1, 12.4.1	<ul style="list-style-type: none"> • Apply the concepts we have learned throughout this course. • Apply the principles of nutrition and wellness throughout your life is one of the most important things you can do. • Explore nutrition and wellness concepts for each of the major cycles of life; including pregnancy, infancy, childhood, adolescence, adulthood and the frail elderly.
<p>Unit 5: Life Cycle Nutrition 5.02 Pregnancy and Breastfeeding</p>	12.1.3, 12.1.4, 12.2.1, 12.2.4, 12.3.7, 12.4.1	<ul style="list-style-type: none"> • Critique a current article or website on pregnancy and compare to good nutrition practice. • Use a case study format to create nutrition recommendations for a breast feeding mother. • Describe the physiological changes, energy needs, and

		<p>nutritional recommendations during pregnancy.</p> <ul style="list-style-type: none"> List and compare nutrition-related pregnancy concerns such as substance abuse, exercise, maternal age, diabetes, preeclampsia, and common discomforts. Define anatomy, physiology, and nutrition needs during breast feeding. Explain benefits of and need for promotion of breast feeding in today's world.
<p>Unit 5: Life Cycle Nutrition 5.03 Infants</p>	<p>12.1.3, 12.1.4, 12.2.1, 12.3.7, 12.4.1</p>	<ul style="list-style-type: none"> Explain progression of types of food and fluids appropriate for infants in the first years of life. Design nutrition recommendations using a case study about a six-month-old infant. Describe energy and nutrient needs during infancy. Compare and contrast formula feeding vs. breast feeding of infants. Identify Infants with special nutrient needs.
<p>Unit 5: Life Cycle Nutrition 5.04 Childhood</p>	<p>12.2.1, 12.2.4, 12.4.1</p>	<ul style="list-style-type: none"> Describe the role of wellness and nutrition in developing a good feeding relationship within a family. Summarize the differences in growth, nutrient requirement and eating habits of three stages of childhood (age one to three, age four to six, & age seven to twelve). List food safety concerns for children. Appraise media influences and quality of nutrition information presented to children. Explain various community/school/government support systems for good nutrition promotion for children.

		<ul style="list-style-type: none"> • Compare the nutrition strategies used with special needs children.
<p>Unit 5: Life Cycle Nutrition 5.05 Adolescent</p>	<p>12.1.3, 12.1.4, 12.2.1, 12.4.1</p>	<ul style="list-style-type: none"> • Define the physical and psychological and social changes in adolescents (thirteen to nineteen years-old) and relationship to eating habits. • Explain the increased need for energy and nutrients with the rapid growth of adolescents. • Using a case study format, evaluate the nutritional quality of an adolescent's food choices and make recommendations. • List and analyze current personal diet choices (adolescent) and discuss various influences in making these choices. • Summarize awareness of various techniques and community support for good adolescent nutrition & their effectiveness. • Describe various health conditions that are present in youth that affect nutrition intake (diabetes, anemia, food allergies/intolerances, etc.). • Demonstrate ability to recognize various nutrition terminology and principles in adolescent wellness.
<p>Unit 5: Life Cycle Nutrition 5.06 Adulthood</p>	<p>12.2.1, 12.4.1</p>	<ul style="list-style-type: none"> • Define the role of Nutrition & Wellness in productive aging and body changes. • Discover the nutritional needs of the three stages of adulthood (Early years- twenty's to thirty's, Middle years- forty's to fifty's, Older Years- sixties to seventies). • Comprehend the influences on Wellness & Nutrition status in older Americans. • Describe the physical characteristics and

		<p>psychosocial development in adult years and compare them to nutrition needs.</p>
<p>Unit 5: Life Cycle Nutrition 5.07 Frail Elderly</p>	<p>12.1.3, 12.1.4, 12.2.1, 12.3.7, 12.4.1</p>	<ul style="list-style-type: none"> • Use a case study format to analyze the physical, social, mental, and nutrition needs of an elderly person, plus how they are related. • Define nutrition needs of elderly and their significant risk factors for malnutrition & dehydration. • Comprehend the changes in weight and dietary management of the elderly. • Recognize community supports & various living arrangements that improve nutrition status for the elderly. • Explain nutrition related health issues for adult men and women (cancer, menopause, alcohol, etc.).
<p>Unit 5: Life Cycle Nutrition 5.08 Exam Preparation</p>	<p>12.1.3, 12.1.4, 12.2.1, 12.2.4, 12.3.7, 12.4.1</p>	<ul style="list-style-type: none"> • Review concepts taught this unit.