



## Applied Nutrition and Dietetics

PEIMS Code: N1302541

Abbreviation: APPNUTR

Grade Level(s): 10–12

Award of Credit: 1.0

### Approved Innovative Course

- Districts must have local board approval to implement innovative courses.
- In accordance with Texas Administrative Code (TAC) §74.27, school districts must provide instruction in all essential knowledge and skills identified in this innovative course.
- Innovative courses may only satisfy elective credit toward graduation requirements.
- Please refer to [TAC §74.13](#) for guidance on endorsements.

### Course Description:

The *Applied Nutrition and Dietetics* course builds on the fundamental nutritional knowledge gained from the Lifetime Nutrition and Wellness course by reinforcing professional standards, food safety and sanitation, food service and management, and nutrition care for individuals and groups at a deeper level. The course also introduces and applies career focused and real-world topics related to nutrition such as the nutrition care process, types of nutrition education and counseling, development of nutrition programs, and nutrition industry related research. Students will research requirements necessary to become a professional in the nutrition and dietetics field such as a registered dietitian, licensed nutritionist, or clinical dietitian.

### Essential Knowledge and Skills:

- (a) General requirements. This course is recommended for students in Grades 10-12. Recommended prerequisite: Principles of Human Services, Lifetime Nutrition and Wellness and/or Human Growth and Development. Students shall be awarded one credit for successful completion of this course.
- (b) Introduction.
  - (1) Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
  - (2) The Human Services Career Cluster focuses on preparing individuals for employment in career pathways that relate to families and human needs such as counseling and mental health services, family and community services, dietetics and nutrition.
  - (3) Applied Nutrition and Dietetics is a laboratory course designed to prepare high school students who may be interested in a career as a registered dietitian or other nutrition professional for undergraduate and graduate work in nutrition and dietetics. This course gives students the opportunity to investigate further into the

nutrition and dietetics field and provide them with real-world career focused knowledge of processes and systems related to the industry

- (4) Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
  - (5) Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.
- (c) Knowledge and Skills.
- (1) The student demonstrates professional standards/employability skills as required by the nutritional science industry. The student is expected to:
    - (A) explain and demonstrate the importance of collaboration with other professionals in an occupational setting;
    - (B) apply interpersonal communication skills in industry-related settings;
    - (C) apply client consultation skills related to diet and nutrition;
    - (D) express ideas in a clear, concise, effective manner;
    - (E) discuss the importance of identifying when a client or patient should be referred to a discipline that is out of one's scope of knowledge;
    - (F) practice time management skills needed to succeed in the workforce;
    - (G) develop problem solving, critical thinking, and deductive reasoning skills;
    - (H) explain the importance of maintaining updated client/patient records with plans, notes, appropriate forms, or related information;
    - (I) explain ethics surrounding client/patient information; and
    - (J) demonstrate public speaking skills required to provide nutritional training.
  - (2) The student demonstrates academic knowledge and skills required to pursue the full range of career and postsecondary education opportunities within the nutritional science industry. The student is expected to:
    - (A) describe connections and applications of academic knowledge and skills such as math, reading, writing, and various sciences, in nutritional science careers;
    - (B) discuss connections of nutrition and dietetics to the medical sciences/industry; and
    - (C) explain current and new technology advancements used in nutrition and dietetic professions including software, online platforms, and applications.
  - (3) The student is expected to apply nutritional food service and food management skills. The student is expected to:
    - (A) design and write a standard recipe to meet specific nutritional needs;
    - (B) demonstrate healthy food preparation techniques to meet specific nutritional goals;
    - (C) develop menus taking into consideration clientele, physical facility, budget, government regulations, aesthetics and external factors, and popular items;

- (D) design and write a restaurant/business menu to meet specified nutritional needs;
  - (E) demonstrate good etiquette, food presentation, and table service appropriate for specific situations;
  - (F) classify different food production and food service systems and the purpose of each;
  - (G) describe common food allergies and intolerances;
  - (H) classify nutrient knowledge including their sources, functions, and roles in the body;
  - (I) describe the role of the food service manager in a variety of settings; and
  - (J) distinguish between and compare different management styles.
- (4) The student demonstrates food safety and sanitation knowledge and skills. The student is expected to:
- (A) demonstrate safe and sanitary practices in food handling, such as food preparation, storage, and serving, and cleanup of food service areas and equipment;
  - (B) practice appropriate dress and personal hygiene in food preparation;
  - (C) differentiate between federal, state, and local food and safety regulating bodies; and
  - (D) identify and describe common food-borne illnesses related to food preparation, their causes, and prevention practices.
- (5) The student demonstrates an understanding of the nutritional care process for individuals and groups. The student is expected to:
- (A) identify and describe the nutrition care process;
  - (B) differentiate between the steps of the nutrition care process, including assess, diagnose, intervention, monitor and evaluation;
  - (C) describe tools, techniques, and subjective/objective information used to help nutritional and health professionals at each step in the nutrition care process for individuals and groups;
  - (D) interpret information from sample interviews, medical records, consultation information with other professionals, and diagnostic evaluations to determine how it can be used to benefit a patient/client;
  - (E) develop a dietary-care plan based on a case-study, family member, or friend using the nutrition care process;
  - (F) analyze patient data to determine patient needs or treatment goals; and
  - (G) recognize client/patient sensitivity in the care process.
- (6) The student demonstrates skills necessary to implement nutrition-based education to benefit the community. The student is expected to:
- (A) identify needs and readiness of the learners;
  - (B) evaluate the population's style of learning, considering their religious, cultural, and economic background;

- (C) develop goals and objectives based on assessment of clients' nutritional knowledge and develop educational plans/design;
  - (D) illustrate to the community group how to realistically incorporate changes in their eating patterns and behaviors in order to lead a more healthful lifestyle and increase their quality of life;
  - (E) modify and evaluate education plans to comply with changes in clients' status;
  - (F) explain to mock community groups in the classroom the relationship between good eating habits and preventing or managing specific diseases and overall better quality of life;
  - (G) identify community programs that provide nutrition and wellness services;
  - (H) explain community programs services and benefits; and
  - (I) discuss with mock clients or community groups in the classroom topics related to nutrition and general health, such as exercise, sleep, drug/alcohol use, self-care, mental/emotional health, and social skills.
- (7) The student demonstrates the skills necessary to evaluate and make recommendations effective in nutritional counseling services. The student is expected to:
- (A) describe different counseling strategies catered to gender, age group, social/economic status, attitude, behavior, and intellectual level;
  - (B) infer and deduce if a client or patient has environmental, social, or mental issues that impede their ability to make healthy nutrition choices; and
  - (C) describe unhealthy and disordered eating patterns.
- (8) The student demonstrates knowledge required to develop nutrition programs for individuals and special populations. The student is expected to:
- (A) implement personalized, age-specific, and culturally appropriate nutrition strategies for unique populations such as nutrition for pregnancy and breastfeeding, pediatric nutrition, geriatric nutrition, oncology nutrition, sports nutrition, and nutrition related to various diseased states; and
  - (B) describe and evaluate innovative and trending nutritional plans and diets, such as plant-based diets, high-protein diets, herbs and botanicals, and supplements.
- (9) The student demonstrates the process of conducting industry-based research. The student is expected to:
- (A) plan, conduct, and evaluate dietary, nutritional, and epidemiological research;
  - (B) compare different methods of research;
  - (C) describe effects of research on the industry and nutritional practices;
  - (D) interpret behavioral research;
  - (E) explain the history of nutrition and how the field has evolved; and
  - (F) describe current industry trends, growth, projections, and specialties related to the nutritional industry.

- (10) The student demonstrates occupational knowledge required to create a postsecondary career plan aligned with their choice of occupation. The student is expected to:
- (A) identify and describe the mission of professional organizations related to nutrition and dietetics;
  - (B) describe licensure/certification levels and qualifications required for various industry occupations;
  - (C) connect careers associated with different levels of post-secondary education and training, certifications, such as a registered dietitian, nutritionist, health and wellness educator, food service manager, executive chef, researcher, and public health worker; and
  - (D) describe industry work settings such as schools, clinics, hospitals, corporations, community organizations, long term care facilities, community/public health facilities, corporate nutrition programs, restaurants/cafeterias/food establishments, sports nutrition, business, and research.

#### Recommended Resources and Materials:

Modern Nutrition in Health and Disease, Eleventh Edition. A Catharine Ross.

Nutrition Counseling and Education Skills: A Guide for Professionals, Seventh Edition. Betsy Holli & Judith A. Beto.

Krause's Food and Nutrition Care Process, 14th Edition. L Kathleen Mahan & Janice L. Raymond.

Texas Food Handler Course

#### Recommended Course Activities:

- Nutrition industry guest speakers
- Field trips to health food retailers, hospitals, and dietitian offices
- Nutrition case studies
- Create an individualized nutritional care plan for a client
- Create marketing materials for health promotion
- Present health promotion presentations to school and community members
- Practice nutritional food preparation skills in a lab setting
- Participate in Family, Career and Community Leaders of America (FCCLA) nutrition related competitive events
- Partner with community health organization on a community service project
- Select a nutrition related argument that is currently being debated, find credible scientific research to support or negate, and then present findings to the class for open discussion
- Investigate in detail a career or occupation in the nutrition and dietetics field (education and professional work and experience required, work environment, salary, pros, cons, and how the career or occupation impacts society). Collect and present findings with a visual aid to peers.
- Identify an industry mentor to interview

**Suggested methods for evaluating student outcomes:**

- Tests/Quizzes
- Research Paper
- Projects
- Lab participation
- Class participation
- Self-Assessment (critical thinking questions beginning middle and end of the year)

**Teacher qualifications:**

An assignment for Applied Nutrition and Dietetics is allowed with one of the following certificates.

- Any home economics or homemaking certificate.
- Family and Consumer Sciences, Composite: Grades 6-12.
- Human Development and Family Studies: Grades 8-12.

**Additional information:**

Additional required trainings and costs:

ServSafe Manager Certification. Costs for the online course and exam are listed as: Food Handler—\$15; Manager—\$152.95, plus a \$36 exam voucher; Alcohol Safety—\$30; and Allergens—\$22. Retests have additional costs. For more details, see the ServSafe website.