

CORE CURRICULUM COMPONENT APPLICATION
Texarkana College

Part I: Course Information

Course Type

- ☒ Existing/Restructured
☐ New Course

Course Prefix & Number: **BIOL 1322**

Texas Common Course Number (TCCN): **1322**

Course Title: **Nutrition and Diet Therapy I**

Course Catalog Description

Nutrition and Diet Therapy I (3,3,0). A detailed study of the science of food and its effect on human biology. The course is structured around the six major nutrient classes--carbohydrates, lipids, protein, vitamins, minerals, and water. The action and interaction of these substances are explored in relation to health and disease. In addition students examine the processing of these nutrients by the body including digestion, absorption, metabolic pathways, and excretion. Menu planning is also discussed as is weight control and fitness.

Course Prerequisites:

None

Available Online?

- ☒ Yes
☐ No

Part II: THECB Course Objectives

None listed

Part III: THECB Skill Objectives

- 1. Critical Thinking Skills:** to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- 2. Communication Skills:** to include effective development, interpretation and expression of ideas through written, oral and visual communication
- 3. Empirical and Quantitative Skills:** to include applications of scientific and mathematical concepts.
- 4. Teamwork:** to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

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Part IV: Course Student Learning Outcomes (SLO)

1. The student will demonstrate understanding of basic nutrition terminology and the basic concepts of dietetics. **Exam Question #1**
2. Analyze the fate of nutrient molecules from digestion and describe the major metabolic pathways for the catabolism of carbohydrates, lipids, and proteins, and the anabolic pathway for fat synthesis. **Exam Question #86**
3. Describe the nature, varieties, and functions, recommended intakes, role in health and disease, and homeostasis for carbohydrates, lipids, and proteins. **Exam Question # 22**
4. Compare and contrast the major categories, sources, uses, deficiencies, and toxicities of vitamins and minerals. **Assessment paper/Diet Dilemma Assignment**
5. Describe the mechanism, causes, diagnoses, treatments, and health consequences of overweight and underweight. **Exam Question #67**
6. Explain what fitness means, how it can be measured and achieved, and how it affects nutrient usage. **Exam Question #83**

[See Attached Syllabus.](#)

Skill Objective:	Critical Thinking Skills: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
THECB Course Objective	none
Course Student Learning Outcome	SLO #4) Compare and contrast the major categories, sources, uses, deficiencies, and toxicities of vitamins and minerals.
General Learning Activities	The student will be assigned a short research paper –a Diet Dilemma assignment. He or she will be asked to analyze vitamin supplements discussing the contents and various formulations and to use results of their own diet assessment to evaluate their own levels of these nutrients, health effects possible, and a plan for improvement. The assignment is attached. See attached activity.
Assessment <i>Must Include Assignment & Rubric</i>	The student will submit a paper for a grade. The attached rubric for critical thinking will be used. See attached rubric.

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Skill Objective:	Communication Skills: to include effective written, oral, and visual communication
THECB Course Objective	none
Course Student Learning Outcome	SLO #3) Describe the nature, varieties, functions, recommended intakes, role in health and disease, and homeostasis for carbohydrates, lipids, and proteins.
General Learning Activities	The student will be ask to do a complete assessment of their diets, body compositions, and fitness levels. Items from a 5-day food diary will be entered into a nutrition assessment program. The student will take the results of this program; calculate how high or low each nutrient is compared to optimal levels. Discuss health implications, and concrete steps that could be taken to improve. The assignment is attached. See attached activity.
Assessment <i>Must Include Assignment & Rubric</i>	The student will submit a paper for a grade. The attached rubric for communication skills will be used. See attached rubric.

Skill Objective:	Empirical and Quantitative Skills: to include applications of scientific and mathematical concepts.
THECB Course Objective	none
Course Student Learning Outcome	(SLO #3) Describe the nature, varieties, and functions, recommended intakes, role in health and disease, and homeostasis for carbohydrates, lipids, and proteins.
General Learning Activities	The student will be ask to do a complete assessment of their diets, body compositions, and fitness levels. Items from a 5-day food diary will be entered into a nutrition assessment program. The student will take the results of this program; calculate how high or low each nutrient is compared to optimal levels. Discuss health implications, and concrete steps that could be taken to improve. The assignment is attached. See attached activity.
Assessment <i>Must Include Assignment & Rubric</i>	The student will submit a paper and worksheet for a grade. The attached rubric for empirical and quantitative skills will be used. See attached rubric.

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Skill Objective:	Teamwork: to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
THECB Course Objective	none
Course Student Learning Outcome	(SLO #2) Analyze the fate of nutrient molecules from digestion and describe the major metabolic pathways for the catabolism of carbohydrates, lipids, and proteins, and the anabolic pathway for fat synthesis.
General Learning Activities	Students will be given a metabolism jigsaw puzzle. In groups the students will learn progressively, over a few class meetings, how to complete the puzzle. A photograph of the puzzle is included. See attached activity.
Assessment <i>Must Include Assignment & Rubric</i>	A participation grade will be given based on teamwork—using the teamwork rubric attached. The details of the pathway will be tested for on an individual basis on the final exam. See attached rubric.