

NUTR125 : Elements Of Nutrition

General Information

Author:	<ul style="list-style-type: none">Sona Donayan
Course Code (CB01) :	NUTR125
Course Title (CB02) :	Elements Of Nutrition
Department:	NUTR
Proposal Start:	Winter 2025
TOP Code (CB03) :	(1306.00) Nutrition, Foods, and Culinary Arts
CIP Code:	(19.0501) Foods, Nutrition, and Wellness Studies, General.
SAM Code (CB09) :	Possibly Occupational
Distance Education Approved:	No
Will this course be taught asynchronously?:	No
Course Control Number (CB00) :	CCC000318678
Curriculum Committee Approval Date:	03/27/2024
Board of Trustees Approval Date:	06/18/2024
Last Cyclical Review Date:	03/27/2024
Course Description and Course Note:	NUTR 125 presents an overview of the many aspects of nutrition, including current dietary trends and related food and nutrition controversies, the nutritive processes of the body, the functions, utilization, food sources, and recommended allowances of nutrients. It emphasizes the United States Department of Agriculture (USDA) Dietary Guidelines for Americans, as well as the general principles of eating for optimal health and disease prevention, supported by scientific research.
Justification:	Mandatory Revision
Academic Career:	<ul style="list-style-type: none">Credit
Author:	<ul style="list-style-type: none">Sona Donayan

Academic Senate Discipline

Primary Discipline:	<ul style="list-style-type: none">Nutritional Science/ Dietetics
Alternate Discipline:	No value
Alternate Discipline:	No value

Course Development

Basic Skill Status (CB08) Course is not a basic skills course. <input type="checkbox"/> Allow Students to Gain Credit by Exam/Challenge	Course Special Class Status (CB13) Course is not a special class. Pre-Collegiate Level (CB21) Not applicable.	Grading Basis <ul style="list-style-type: none">Grade with Pass / No-Pass Option Course Support Course Status (CB26) Course is not a support course
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Transferability & Gen. Ed. Options

General Education Status (CB25)

Not Applicable

Transferability

Transferable to both UC and CSU

Transferability Status

Approved

CSU GE-Breadth Area	Area	Status	Approval Date	Comparable Course
E-Lifelong Learning and Self-Development	Lifelong Learning and Self-Development	Approved	No value	No Comparable Course defined.

C-ID	Area	Status	Approval Date	Comparable Course
NUTR	Nutrition/Dietetics	Pending	No value	NUTR 110 - Introduction to Nutrition Science

Cal-GETC	Area	Status	Approval Date	Comparable Course
Area 5A: Physical Science	Physical Science	Pending	No value	No Comparable Course defined.
Area 5B: Biological Science	Biological Science	Pending	No value	

Units and Hours

Summary

Minimum Credit Units (CB07)	3
Maximum Credit Units (CB06)	3
Total Course In-Class (Contact) Hours	54
Total Course Out-of-Class Hours	108
Total Student Learning Hours	162

Credit / Non-Credit Options

Course Type (CB04)	Noncredit Course Category (CB22)	Noncredit Special Characteristics
Credit - Degree Applicable	Credit Course.	No Value

Course Classification Code (CB11)	Funding Agency Category (CB23)	<input type="checkbox"/> Cooperative Work Experience
Credit Course.	Not Applicable.	<input type="checkbox"/> Education Status (CB10)
<input type="checkbox"/> Variable Credit Course		

Weekly Student Hours

In Class

Out of Class

Course Student Hours

Course Duration (Weeks)

18

Lecture Hours	3	6
Laboratory Hours	0	0
Studio Hours	0	0

Hours per unit divisor	0
Course In-Class (Contact) Hours	
Lecture	54
Laboratory	0
Studio	0
Total	54

Course Out-of-Class Hours	
Lecture	108
Laboratory	0
Studio	0
Total	108

Time Commitment Notes for Students

No value

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

Pre-requisites, Co-requisites, Anti-requisites and Advisories

Advisory

ESL151 - Reading And Composition V

Objectives

- Read and critically analyze various academic readings.
- Summarize readings.
- Organize fully-developed essays in both expository and argumentative modes.
- Compose a 500 to 550-word essay which: summarizes and cites appropriately a reading passage; includes a clear thesis statement; uses evidence to support the thesis; shows clear organization into an introduction, body, and conclusion.
- Revise writing to eliminate errors in syntax, and grammatical constructions.
- Employ basic library research techniques.
- Compose one research paper (1,000 words) or two short research papers (500-700 words each) with citations.

OR

Advisory

ENGL101 - Introduction to College Reading and Composition

Objectives

- Read, analyze, and evaluate a variety of primarily non-fiction readings for content, context, and rhetorical merit with consideration of tone, audience, and purpose.
- Apply a variety of rhetorical strategies in writing unified, well-organized essays directed by a well-reasoned thesis statement with persuasive support.
- Develop varied and flexible strategies for generating, drafting, and revising essays.
- Analyze stylistic choices in their own writing and the writing of others.
- Write timed, in-class essays exhibiting acceptable college-level control of mechanics, organization, development, and coherence.
- Integrate the ideas of others through paraphrasing, summarizing, and quoting without plagiarism.
- Find, evaluate, analyze, and interpret primary and secondary sources, incorporating them into written essays using appropriate documentation format.

- Proofread and edit essays for presentation so they exhibit no disruptive errors in English grammar, usage, or punctuation.

Entry Standards

Entry Standards

Course Limitations

Cross Listed or Equivalent Course

Specifications

Methods of Instruction

Methods of Instruction

Lecture

Methods of Instruction

Discussion

Methods of Instruction

Multimedia

Methods of Instruction

Collaborative Learning

Methods of Instruction

Field Activities (Trips)

Methods of Instruction

Presentations

Out of Class Assignments

- Summary of observations and learning experiences from a field trip
- Summary of key points of a guest speaker's nutrition talk
- Review of observations and findings from a visit to a food or health care industry convention/expo

Methods of Evaluation

Rationale

Project/Portfolio	Individual projects (e.g. using a computer database, complete a nutritional analysis of a 3-day dietary intake)
Exam/Quiz/Test	Midterm examination
Exam/Quiz/Test	Final examination
Activity (answering journal prompt, group activity)	Peer discussions
Writing Assignment	Self-reflection journal

Textbook Rationale

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
Sizer, F.	Nutrition Concepts and Controversies	Cengage	2023	978-0357727614
Whitney, E.	Understanding Nutrition 16th ed.	Cengage	2022	978-0357447512

Other Instructional Materials (i.e. OER, handouts)

No Value

Materials Fee

No value

Learning Outcomes and Objectives

Course Objectives

Recognize the role of foods and their nutrients, dietary patterns and nutrients in health maintenance, fitness promotion, and disease prevention.

Analyze and critique a dietary intake for nutrient and energy adequacy, deficiency or excess.

Discuss current popular dietary trends and their possible consequences.

Recognize and critique food and nutrition controversies.

Describe nutrient digestion, absorption, and metabolism.

SLOs

Identify the functions, utilization, food sources, and recommended allowances of nutrients.

Expected Outcome Performance: 70.0

<i>BIOL</i> Health Science - A.S. Degree Major	Be well-prepared for courses in the health science professions
<i>ILOs</i> Core ILOs	Communicate clearly, ethically, and creatively; listen actively and engage respectfully with others; consider situational, cultural, and personal contexts within or across multiple modes of communication. Demonstrate depth of knowledge in a course, discipline, or vocation by applying practical knowledge, skills, abilities, theories, or methodologies to solve unique problems.
<i>NUTR</i> Dietetic Services Supervisor	Evaluate patients' nutritional needs and formulate appropriate diets. Evaluate patients' nutritional needs and formulate appropriate diets.
<i>KIN</i> Sports Coaching - A.S. Degree Major	Evaluate, compare and examine skill development, different types of tactics and strategies, coaching philosophies, leadership styles, and practice organization to enhance the growth of student-athletes.
<i>KIN</i> Sports Coaching-- Certificate	Evaluate, compare and examine skill development, different types of tactics and strategies, coaching philosophies, leadership styles, and practice organization to enhance the growth of student-athletes.

Apply the Dietary Guidelines to diet planning for health maintenance and disease prevention.

Expected Outcome Performance: 70.0

<i>ILOs</i> Core ILOs	Analyze and solve problems using critical, logical, and creative thinking; ask questions, pursue a line of inquiry, and derive conclusions; cultivate creativity that leads to innovative ideas. Demonstrate depth of knowledge in a course, discipline, or vocation by applying practical knowledge, skills, abilities, theories, or methodologies to solve unique problems.
<i>BIOL</i> Health Science - A.S. Degree Major	Be well-prepared for courses in the health science professions
<i>NUTR</i> Dietetic Services Supervisor	Evaluate patients' nutritional needs and formulate appropriate diets. Evaluate patients' nutritional needs and formulate appropriate diets.

Course Content

Lecture Content

Food Choices and Human Health (5 hours)

- Diet and health connection
- The human body, its food, and nutrients
- Research and science behind nutrition
- Reliable vs. unreliable nutrition information sources

Nutrition Tools, Standards and Guidelines (5 hours)

- Dietary Reference Intakes
- Dietary Guidelines for Americans
- USDA Food Guides
- Functional foods

Human Physiology from the Nutrition Perspective (4 hours)

- Cells and genes
- Cardiovascular system
- Hormonal and nervous systems
- Immune system
- Digestive system
- Excretory and storage systems
- Alcohol and nutrition

Carbohydrates (6 hours)

- Types and structure: sugars, starch, glycogen, fibers, others
- Functions: needs, recommendations, and intakes of carbohydrates
- Digestion, absorption, and metabolism
- The body's use of glucose
- Enriched vs. whole grains
- Diabetes: types, causes, consequences, etiology, diagnosis, and management
- Finding the carbohydrates in foods
- Alternative sweeteners

Lipids (6 hours)

- Types and structure: triglycerides, fatty acids, glycerol, phospholipids, and sterols
- Functions: needs, recommendations, and intakes
- Digestion, absorption, and metabolism
- Dietary fats: saturated, unsaturated, and cholesterol and health
- Essential polyunsaturated fatty acids
- Hydrogenated fats: trans fats and health
- Finding the fats in food
- Fats and defensive dining

Proteins and Amino Acids (6 hours)

- Structure and variety
- Functions: needs, recommendations, and intakes
- Consequences of protein deficiency and excess
- Nitrogen
- Balance
- Protein and amino acid supplements
- Digestion, absorption, and metabolism
- Protein quality and quantity in foods
- Vegetarian diets: benefits and pitfalls

Vitamins (6 hours)

- Definition and classification
- Fat soluble vitamins: functions, food sources, and deficiency and toxicity
- Vitamin A
- Vitamin D
- Vitamin E
- Vitamin K
- Water soluble vitamins: functions, food sources, and deficiency and toxicity
- Vitamin C
- The B complex vitamins
- Vitamin supplements: benefits vs. risks

Water (2 hours)

- Functions of water in the human body
- Thirst, dehydration and water balance
- Safety and sources of drinking water: bottled vs tap water
- Electrolyte and acid-base balance

Minerals (5 hours)

- Definition and classification
- Major minerals: functions, food sources, and deficiency and toxicity
- Calcium
- Phosphorus
- Magnesium
- Sodium
- Potassium
- Trace minerals: functions, food sources, deficiency and toxicity
- Iodine
- Iron
- Zinc
- Selenium
- Fluoride
- Osteoporosis: risk factors, etiology, and prevention

Energy Balance and Healthy Body Weight (6 hours)

- Problems of overweight and underweight
- The body's energy balance
- Body weight vs. body fatness
- Body Mass Index: classification of overweight and obese
- Body fat percentage and distribution
- Physiology of the eating cycle
- Hunger and appetite regulation

- Satiation and satiety
- Internal and external causes of obesity
- How the body gains and loses weight: popular diets
- Strategies for achieving and maintaining a healthy body weight
- Pros and cons of medical treatment of obesity
- Surgery Medications, herbal and other supplements
- Etiology, perils and management of eating disorders
- Anorexia and binge eating
- Bulimia

Performance Nutrition (3 hours)

- The benefits and guidelines for fitness and physical activity
- The body's energy systems and use of fuels
- Nutrient needs for physical activity

Total hours: 54

Additional Information

Is this course proposed for GCC Major or General Education Graduation requirement? If yes, indicate which requirement in the two areas provided below.

Yes

GCC Major Requirements

Health

GCC General Education Graduation Requirements

No Value

Repeatability

Not Repeatable

Justification (if repeatable was chosen above)

No Value

Resources

Did you contact your departmental library liaison?

No

If yes, who is your departmental library liason?

No Value

Did you contact the DEIA liaison?

No

Were there any DEIA changes made to this outline?

No

If yes, in what areas were these changes made:

No Value

Will any additional resources be needed for this course? (Click all that apply)

- No

If additional resources are needed, add a brief description and cost in the box provided.

No Value