Sci Found of Human Nutr (LS)

NUTR - 1020 001

Course Description

This course provides an overview of the science of human nutrition. Nutrition is an applied science integrating principles from branches of biology, physiology and chemistry. Students will explore nutritional balance and disease prevention in the context of the levels of organization, metabolism and homeostasis, genetics and evolution, and ecological interactions.

Semester(s): All

Course Student Learning Outcomes

- Acquire knowledge of the shared basic organizational principles of life (molecules, cells, organs, organ systems, and organisms) and relate the knowledge across several different scientific disciplines such as physiology, anatomy, biochemistry, biology, immunology, and microbiology.
- Distinguish scientific information from information that is not scientific by recognizing sound scientific methods.
- Identify human nutritional needs and the role of nutrition in improving individual health and the societal impact of food choices.
- Associate nutrition, genetics, metabolism, exercise and lifestyle with health promotion and disease prevention.
- Utilize dietary software to determine the nutritional adequacy of a provided food intake (case study) and make recommendations for improving the diet based on diet analytical results.

- Provide examples of positive and negative interactions of humankind with microorganisms regarding sickness, health and food production.
- Complete a 3-day, dietary software-aided analysis (nutrient intake and energy expenditure) on the students' individual diet, and base the conclusions and recommendations on data collected, analyzed and interpreted.
- Relate the ecological impact and the role for environmental responsibility pertaining to food choices and food system sustainability.

College Wide Student Learning Outcomes

- Student Code of Conduct: The student is expected to follow the SLCC Student Code of Conduct found at http://www.slcc.edu/policies/docs/Student_Code_of_Conduct.pdf Academic Honesty & Dishonesty See the Canvas Module: Institutional Syllabus for more info.

- ADA (Students with Disabilities): See the Canvas Module: Institutional Syllabus for more info.

Course Prerequisites

None

Engagement Plan

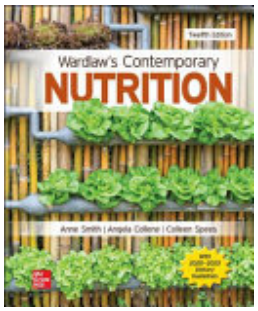
I will respond to email within 48 hours

I will offer feedback on major assignments within two weeks.

The best way to contact me is via the Canvas Inbox, as I will prioritize this email over other modes of communication.

Required Text or Materials

Title: Loose Leaf Wardlaw's Contemporary Nutrition



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Publication Date: 2021-03-24

For more information on textbook accessibility, contact Accessibility & Disability Services at ads@slcc.edu.

General Education Information

LS

This course fulfills the above requirement for the General Education Program at Salt Lake Community College. It is designed not only to teach the information and skills required by the discipline, but also to develop vital workplace skills and to teach strategies and skills that can be used for life-long learning.

General Education courses teach basic skills as well as broaden a student's knowledge of a wide range of subjects. Education is much more than the acquisition of facts; it is being able to use information in meaningful ways in order to enrich one's life.

While the subject of each course is important and useful, we become truly educated through making connections of such varied information with the different methods of organizing human experience that are practiced by different disciplines. Therefore, this course, when combined with other General Education courses, will enable you to develop broader perspectives and deeper understandings of your community and the world, as well as challenge previously held assumptions about the world and its inhabitants.

Assignment Schedule

Due Date	Assignment Name	Assignment Type	Points
	Citations & Formatting Review	Quiz	10

Due Date	Assignment Name	Assignment Type	Points
9/1/25	Ch 1 SmartBook	Assignment	10
9/1/25	NutritionCalc Plus Orientation	Assignment	10
9/1/25	SmartBook 2.0 - Student Orientation	Assignment	10
9/8/25	Ch 2 SmartBook	Assignment	10
9/8/25	Practice Submitting Assignment	Assignment	10
9/11/25	Assess My Diet: Dietary Guidance	Assignment	29
9/11/25	Assess My Diet: Tracking Food, Fluid and Physical Activity	Assignment	14
9/15/25	Assess My Diet: Carbohydrates (PLO-FTCH-02)	Assignment	19
9/15/25	Ch 3 SmartBook (PLO-FTCH-02)	Assignment	10
9/15/25	Ch 4 SmartBook	Assignment	10
9/15/25	Diet Analysis: Whole vs. Refined Grains	Assignment	10
9/22/25	Assess My Diet: Lipids (PLO-FTCH-02)	Assignment	19
9/22/25	Assess My Diet: Proteins (PLO-FTCH-02)	Assignment	16
9/22/25	Ch 5 SmartBook	Assignment	10

Due Date	Assignment Name	Assignment Type	Points
9/22/25	Ch 6 SmartBook	Assignment	10
9/22/25	$10 Challenge	Assignment	30
9/29/25	Assess My Diet: Energy Balance (PLO-FTCH-02)	Assignment	17
9/29/25	Ch 7 SmartBook (PLO-FTCH-02)	Assignment	10
9/29/25	Exam 1	Assignment	50
10/6/25	Assess My Diet: Water (PLO-FTCH-02)	Assignment	14
10/6/25	Ch 8 SmartBook	Assignment	10
10/6/25	Ch 9 SmartBook	Assignment	10
10/6/25	Understanding Food Packaging: Nutrient Claims, Nutrition Facts & Ingredients	Assignment	35
10/13/25	Ch 10 SmartBook	Assignment	10
10/13/25	Analyze Your Food Environment	Assignment	25
10/27/25	Assess My Diet: Vitamins (PLO-FTCH-02)	Assignment	24.5
10/27/25	Ch 11 SmartBook	Assignment	10
11/3/25	Assess My Diet: Minerals (PLO-FTCH-02)	Assignment	18.5

Due Date	Assignment Name	Assignment Type	Points
11/3/25	Ch 12 SmartBook	Assignment	10
11/3/25	Ch 13 SmartBook	Assignment	10
11/10/25	Ch 14 SmartBook (PLO-FTCH-02)	Assignment	10
11/10/25	Exam 2	Assignment	50
11/17/25	Ch 15 SmartBook	Assignment	10
11/24/25	Ch 17 SmartBook	Assignment	10
12/8/25	Ch 16 SmartBook	Assignment	10
12/8/25	Ch 18 SmartBook	Assignment	10
12/8/25	Nutrition Perspectives (Research Paper)	Assignment	50
12/11/25	In Class Discussion	Assignment	40
12/15/25	Ch 19 SmartBook	Assignment	10
12/15/25	Ch 20 SmartBook	Assignment	10
12/15/25	Exam 3	Assignment	50
12/15/25	GE Signature Assignment	Assignment	50

Brief Description of Assignments/Exams

COURSE DIRECTION:

The course content is applied and reinforced through homework assessments, examinations, and learning activities. The progression of learning course content, to utilizing critical thinking skills to solve problems will be evident as the course continues.

The course content focuses on the scientific foundations of human nutrition in the modern environment.

Overarching course goals:

1. Provide students with critical human life and nutrition information that will expand their understanding of science and also be personally applicable to their daily function, life-long health and wellbeing in the modern environment through applied assessments, exams, discussions and learning activities.
2. Serve as the foundation course for subsequent course work in the area of nutrition.
3. Satisfies SLCC life science general education requirement.

OBJECTIVES/OUTCOMES:

Upon successful completion of this course, students will be able to demonstrate a reasonable understanding of:

The nature of science and be able to:

1.
    1. Identify scientific experimental designs and understand that dietary recommendations are based on repeatedly examined data, that are continually updated and revised based on newly published scientific findings.
    2. Distinguish scientific information from information that is not scientific by recognizing sound scientific methods.
    3. Utilize dietary software to determine the nutritional adequacy of food intake and make recommendations for improving the diet based on diet analytical results.

The integration of science with emphasis on human nutrition and be able to:

1. Demonstrate knowledge of the shared basic organizational principles of life (molecules, cells, organs, organ systems, and organisms) and relate the knowledge across several different scientific disciplines such as physiology, anatomy, biochemistry, biology, immunology, and microbiology.
2. Obtain the chemical composition of food from the plant and animal kingdoms and explain how they meet the nutritional needs of humankind.

The role of science in society in regard to human health and be able to:

1. Demonstrate knowledge of human nutritional needs and the role of nutrition in improving individual health and the societal economic impact of food choices.
2. Relate technological advancements in medicine and food production to the advancement of the science of human nutrition.
3. Explain the impact that the food industry has on human food choices and the subsequent relationship to health and disease at the individual, societal, and environmental level.
4. Provide examples of past and present nutrient and diet trends in modern society and the positive and/or negative implications on human health and the earth's resources.

Problem solving and data analysis and be able to:

1. Compute percentages, ratios, proportions, decimals, and fractions as applied to essential nutrients and energy for humans via dietary analysis and food package label interpretation.
2. Complete a 3-day, computer-aided, analysis (nutrient intake and energy expenditure), and base the conclusions and recommendations on data collected, analyzed and interpreted.
3. Evaluate and interpret laboratory and anthropometrical data in relation to chronic disease risk.

Levels of organization and be able to:

1. Demonstrate and apply knowledge on life concepts, from the genetic basis of life to cells, tissues, organs, organ systems, organisms and the ecosystem in which they interact.
2. Relate levels of organization to humans, plant and animal foods, and the environment.

Metabolism and homeostasis and be able to:

1. Identify essential nutrients for humans, how humans obtain and use energy, and how they maintain or disrupt homeostasis through sustained or altered

metabolisms affected by their cumulative dietary food choices and lifestyle.

2. Explain how the human body processes food and utilizes nutrients with additional reference to energy balance and weight control.
3. Associate nutrition, genetics, metabolism, exercise and lifestyle with health promotion and disease prevention.

Genetics and evolution and be able to:

1. Provide examples of shared genetic processes in regard to essential nutrients, function, health, and disease.
2. Technological advancements tied to genetics and evolution that have changed the food supply.
3. Relate diet to examples of evolved genetic mutations in inborn errors of metabolism and disease that are reinforced by diet composition, preserved by natural selection, and passed on generationally.

Ecological interactions and be able to:

1. Describe the interaction of the human with the environment for vitamin D synthesis and the current environmental and societal issues hindering adequate synthesis and the resulting disease complications.
2. Relate the ecological impact and the role for environmental responsibility pertaining to food choices and food system sustainability.
3. Demonstrate knowledge of the plant and animal kingdoms in regard to the food system, food chains, and human interaction.
4. Provide examples of positive and negative interactions of humankind with microorganisms regarding sickness, health and food production.
5. Prevent food borne illness by adopting good food handling techniques which inhibit growth or prevent survival of microorganisms.
6. Address diet and nutrient issues and concerns for weight control, disease prevention, physical activity, food availability, and biotechnology.
7. Consume a healthy diet composed of more sustainably produced plant and animal foods.

Grading Scale

Grading Policies Exams: No makeups will be arranged unless dire circumstances are present.

Quizzes: No makeups will be allowed.

Late assignments: All assignments must be turned in on time. NO LATE WORK WILL BE ACCEPTED.

Grades: Student performance is based on a percentage of the possible points. Students can check their scores on the Canvas gradebook. Students should discuss grade concerns with their instructor throughout the semester. Graded work is not on file indefinitely.

Incompletes: An incomplete is a conditional grade given only in extraordinary cases where a student has completed a major portion of the class but is unable to complete course work due to circumstance beyond their control such as major illness/injury or a death in the family. Written documentation from your physician will be required.

Grade Scale

Grades are based on a percentage of the total possible points earned in the class. The final grade for this course will be computed as follows:

Points Possible* Total 700

*See APPENDIX B for assignment details

A 95-100%

A- 90-94

B+ 86-89

B 83-85

B- 80-82

C+ 76-79

C 73-75

C- 70-72

D+ 66-69

D 60-65

D- 55-59

E Below 55%

How to Navigate to Canvas

Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

For more information, navigate to the Institutional Policies tab on the Institutional Syllabus page.

Learning Support and Tutoring Services

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, visit the Institutional Syllabus page under the Tutoring and Learning Support tab. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any

questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

Advising and Counseling Support Services

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, visit the Institutional Syllabus page under the Advising and Counseling Support Services tab. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

Student Academic Calendar

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

SLCC Student Academic Calendar

Additional Policies

Use of artificial intelligence (AI) in this course: "Generative artificial intelligence (AI) software is a rapidly emerging tool that students may be interested in using. If doing so, SLCC students are expected to adhere to the same standards as the Code of Student Rights and Responsibilities statement on plagiarism. Presenting generative AI software content as your own is a violation of academic integrity. If you use generative AI in your work, you must indicate that you have done so." -SLCC Dean of Students Generative AI can be an excellent resource, but your own thoughts and words must be used on all assignments and discussion posts. If any sources are used, including generative AI, they must be properly cited.