NUTR 1020 SCIENTIFIC FOUNDATIONS OF NUTRITION
DEPARTMENT OF EXERCISE SCIENCE
SCHOOL OF MATH, SCIENCE AND ENGINEERING
SALT LAKE COMMUNITY COLLEGE

Instructor:
E-Mail Address:
Office:
Consultation Hours:

COURSE DESCRIPTION:

This course is designed to provide a broad overview of the science of human nutrition. Nutrition is an applied life science that integrates scientific principles across a variety of disciplines and in society. Using applied problem solving and data analysis, 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.

PREREQUISITES: None
CREDIT HOURS: 3
REQUIRED TEXT: **eBook is included in the course fee**
    Wardlaw's Contemporary Nutrition. Smith, 12th ed. (eBook, loose leaf or hard copy)
REQUIRED REGISTRATION: McGraw-Hill-Connect is included in the course fee.

CANVAS LINK: https://slcc.instructure.com/
- All Canvas assignments may be completed prior to or on their due date.
- Due dates for assignments, assessments and discussions are viewable on the Canvas Calendar.

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:

1. 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.
2. Distinguish scientific information from information that is not scientific by recognizing sound scientific methods.
3. Identify human nutritional needs and the role of nutrition in improving individual health and the societal impact of food choices.
4. Associate nutrition, genetics, metabolism, exercise and lifestyle with health promotion and disease prevention.
5. 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.
6. Provide examples of positive and negative interactions of humankind with microorganisms regarding sickness, health and food production.
7. 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.
8. Relate the ecological impact and the role for environmental responsibility pertaining to food choices and food system sustainability.

Salt Lake Community College Statement & General Education Statement

Information regarding the College-wide Statement and the required ePortfolio Signature Assignment can be found in APPENDIX A and in the *Canvas Module: Institutional Syllabus*.

COURSE REQUIREMENTS:

The Scientific Foundations of Nutrition course provides three contact hours a week in traditional lecture classes. Additionally, at least six hours per week of study outside of class is expected. Online students should expect to devote at least nine hours each week to successfully accomplish the course requirements.

- ***ALL assignments will be submitted electronically***. Software programs may vary in the manner in which information is formatted. It is your responsibility to verify that your assignments are the proper length and format.
- ***It is assumed that if a student is taking an online course, they have access to a reliable, up-to-date computer that can handle the workload.*** "My computer didn't work" or "I could not get online" are not excuses for missing assignments, discussion posts, quizzes or exams. Have a backup computer arranged with a friend or family member in case of computer malfunctions. Computers are available at the public library and in Salt Lake Community College libraries. If there is a problem with the system, the instructor will be the first to know and will make due date adjustments if necessary. If you have difficulty accessing the course site, contact the Salt Lake Community College Help Desk at 801-957-5555.
- ***Communication:*** Weekly, messages will be posted on the course "Home" page or in the "Announcements" tab. Make sure you read these messages. If you have a question, email your instructor through the Canvas Inbox.

POLICIES

Grading Policies	**Exams:** No makeups will be arranged unless dire circumstances are present.
	Late assignments:
	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.
	Extra Credit: Extra credit may be given at the instructor's discretion.

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*
Practice Submitting Assignment	10
Connect Orientation Videos: Nutrition	10
SmartBook 2.0 Overview	10
Diet Analysis Case Study: Digestion	10
SmartBook chapter modules (16, 10 points each)	160
Assess My Diet Assignments (9 assignments)	223
Exams (3 x 50 points each)	150
$10 Challenge	30
Understanding Food Packaging	35
Analyze Your Food Environment	25
Citations & Formatting Review Quiz	10
Nutrition Perspectives Research Paper	75
Eportfolio	50
	Total 798

*See APPENDIX B for assignment details

A	95-100%		C	73-75
A-	90-94		C-	70-72
B+	86-89		D+	66-69
B	83-85		D	60-65
B-	80-82		D-	55-59
C+	76-79		E	Below 55%

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.

ADDITIONAL VALUABLE INFORMATION

SLCC All Access	All Access is a free service available for SLCC students that allows you to use several college licensed applications from almost any type of personal device with an internet connection (PC, Mac, iPad/iPhone, Android). This service works both from both on and off campus. All Access includes apps like: • Microsoft Office 2007/2010 suites (Word/Excel/PowerPoint/Access/OneNote/Publisher) • MyMathLab • MyITLab • Autodesk Education Master Suite 2012 (AutoCad / Inventor/Revit/3D Studio Max Design/Civil 3D) • Gimp (image editing) • NetBeans (java development) • Ellis Applications • Vocabulary Super Stretch • Developing Critical Thinking Skills • And many more To login: https://allaccess.slcc.edu/vpn/index.html Instructions/Information: https://allaccess.slcc.edu/vpn/AllAccessOverview.htm
General Education	Regardless of your major, General Education courses build a foundation of broad knowledge and skills that help you in your further career and life. http://www.slcc.edu/gened See the *Canvas Module: Institutional Syllabus* for more info. **General Learning Support & Tutoring Services** provide support for SLCC students enrolled in any class at the College. All resources are provided free-of-charge. Ask your instructor about discipline-specific learning support and tutoring services. • The **Tutoring and Learning Centers** provide free assistance in Math, Science, Accounting, CSIS and Allied Health Classes at 6 campus locations. https://www.slcc.edu/tutoring • The **Student Writing Center** provides in-person and online feedback on all writing assignments. http://www.slcc.edu/swc • The **Academic Literacy Center** provides tutoring in reading and conversation. https://www.slcc.edu/english/academic-literacy-center.aspx • **Library Services** provides research help, print and online resources, computers and study space. libweb.slcc.edu • The **ePortfolio Lab** provides drop-in assistance for all ePortfolio questions. http://eportresource.weebly.com/

- **eLearning Support** provides support for navigating online and hybrid classes. https://slcc.instructure.com/courses/297606
- The **Business Resource and Innovation Center** provides tutors and a study space for students in Business and CSIS courses. Located in BB 226 on Taylorsville-Redwood Campus.

Advising and Counseling Support Services provide support for students enrolled in any class at the college.	• See the *Canvas Module: Institutional Syllabus* for more info. • The **Center for Health and Counseling** provides health care, mental health counseling, massage therapy services and healthy lifestyle programs. http://www.slcc.edu/chc/index.aspx • **Veterans' Services** assists hundreds of students in using their VA education benefits each semester. http://www.slcc.edu/veterans • **Academic and Career Advising** helps students plan, explore, make decisions, access resources and evaluate their academic and career goals. And the Academic Achievement Center helps students achieve GPA requirements for graduation. https://www.slcc.edu/academicadvising https://www.slcc.edu/academic-achievement-center/index.aspx

Title IX Information: See the *Canvas Module: Institutional Syllabus* for more info.

APPENDIX A: Signature assignment

The ePortfolio Signature assignment is comprised of the following 4 components:
Part 1: Title (Ex. NUTR 1020 Signature Assignment)
Part 2: Assignment (students will choose 1 of the following 2 options)
Part 3: Address Learning Outcomes
Part 4: Reflection

Part 2 - Assignment Titles, Description & Learning Outcomes: choose 1 of the following 2

1. **Nutrition Perspectives**: Discover different ways of approaching nutrition, how it impacts our daily lives and what choices we can make to improve our health and our world.
   a. Choose a book or documentary from the extensive, instructor provided list.
   b. Provide a summary of the book/documentary; discuss which book/documentary you choose and why;
   c. Discuss nutritional background of author(s)/producer(s);
   d. When was this book written/documentary produced and are the themes are still applicable today.
   e. Compare and contrast 3 topics in the book/documentary to your textbook.
   f. Discuss what you learned about nutrition from completing this assignment (What new idea/point of view did you learn?
   g. Will you incorporate the themes/ideas you learned about in your own life?).
   Part 3. Learning Outcomes:
   a. Demonstrate knowledge of human nutritional needs and the role of nutrition in improving individual health and the societal economic impact of food choices.
   b. Relate technological advancements in medicine and food production to the advancement of the science of human nutrition.
   c. 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.
   d. 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.
   e. Provide examples of positive and negative interactions of humankind with microorganisms regarding sickness, health and food production.
   f. Address diet and nutrient issues and concerns for weight control, disease prevention, physical activity, food availability, and biotechnology.

                                                    OR

2. **$10 Challenge**: Extension of the $10 Challenge assignment (see above) where students will donate the food they purchased to the Bruin Cupboard, the SLCC food pantry (South City Room 2-152 and Taylorsville campuses) **Online students may donate their food to a local food pantry**. The Bruin Cupboard is a food pantry for SLCC students in need. Email the Food Pantry Coordinator at bruincampuscupboard@gmail.com for hours of operation. On your eportfolio: (1) provide the all the required assignment documents, along with (2) documentation of your donation (photo of you donating the food at the Bruin Cupboard

and a signature from the Food Pantry Coordinator) and (3) reflection of your experience and the impact your food donation has for fellow SLCC students and the broader community.

Part 3. Learning Outcomes:

    a. The interactions and inter-dependency of organisms upon each other and their environment.

    b. Demonstrate knowledge of human nutritional needs and the role of nutrition in improving individual health and the societal economic impact of food choices.

    c. 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.

College-wide learning outcomes:

- Substantive content
- Communication literacy
- Critical thinking

Submission Description: Research paper and Reflection

Resources, research and other materials needed: Reliable internet sources (see assignment for instructions on how to find reliable sources of health information); course textbook, documentary or book chosen from list provided by instructor.

Part 4. Reflection:

1. Make connections between what you studied in this nutrition course with what you've learned in other courses at SLCC or before. Make specific references to your work in this class and in the other courses. How did what you learn in the other courses enhance what you learned in nutrition, and vice versa?

2. Reflect on how you thought about nutrition before you took this course and how you think about it now that the course is over. Have any of your assumptions or understandings changed? Why? What assignments/activities/readings were influential in this process? How will you approach (course topic) differently in the future?

Salt Lake Community College

Signature Assignment Rubric Template for NUTR 1020 Scientific Foundations of Human Nutrition

Criteria	Well Below Expectations 1	Below Expectations 2	Meets Expectations 3	Exceeds Expectations 4
Interpretation				
Clarifying Understanding: Describe and examine key issues	Does not raise key issues.	Mentions key issues.	Describes key issues.	Examines / explains key issues.
Finding Relationships and Patterns: Summarize and explore patterns running throughout the information	Does not identify any patterns in the information.	Mentions a potential main pattern running through the information.	Summarizes the main pattern running through the information.	Explores patterns running through the information by explaining the patterns and/or sub-patterns.
Finding Significance: Describes and scrutinizes the meaning of the information	Ignores or misrepresents the meaning of the information.	Identifies potential meanings of the information.	Describes the meaning of the information.	Scrutinizes the meaning of the information.
Analysis				
Consider Diverse Perspectives	Does not identify various perspectives.	Identifies various perspectives	Describes various perspectives.	Scrutinizes various perspectives.
Consider Conflicting Opinions and Points of View: Explain and impartially explore the issue.	Does not identify conflicting opinions about the issue.	Identifies conflicting opinions about the issue.	Explains both sides of the issue.	Impartially explores the issue.
Points of View: Neutrally and objectively identify and examine pro and con viewpoints.	Expresses personal bias in presentation of viewpoints.	Presents one viewpoint in support of own position.	Uses a neutral approach to identify pro and con viewpoints.	Objectively examines each stakeholder's viewpoint focusing especially on own biases.
Comparison and Contrast: Compare, contrast and interpret meaning of critical points.	Identifies some points for comparison.	Compares OR contrasts common or basic points /issues / etc.	Compares AND Contrasts meaningful points /issues /etc.	Interprets the meaning of critical points / issues / etc. for comparison and contrast.
Evaluation				
Rigor: Identifies important, non-trivial facts in source material.	Lists some of the facts /issues /ideas.	Defines the facts /issues /ideas.	Checks /Verifies / Corroborates the facts /issues /ideas.	Validates / Defends / Argues /Debunks the facts /issues /ideas.
Inference				
Conjecturing Alternatives: Consider valid alternatives and discover unique alternatives.	Does not list any valid alternatives.	Lists some alternatives but some may not be valid.	Considers valid alternatives.	Discovers unique alternatives

Use of Alternatives: Describe and explore alternatives.	Does not mention alternatives.	Identifies alternatives.	Describes alternatives.	Explores alternatives.
Reasoning for or against a position: Defend/challenge a position with reasoning and refute a position.	States a position.	Advocates /argues one side of a position.	Defends /challenges a position with reasoning.	Substantiates / refutes a position with overwhelming reasoning. (Normally using both sides of the position).
Drawing Conclusions: Support and explain the conclusions.	States conclusions.	Describes conclusions.	Supports conclusions.	Explains the merits of conclusions.
Explanation (Optional Row)				
Summarize and synthesize information from various sources	Does not use external information.	Cites or lists information without synthesis.	Summarizes information from various sources.	Synthesizes information to support the story / thesis / work.
Metacognition				
Reflection: Describes and examines the quality of own thinking.	Overlooks or does not state own thinking.	Mentions thoughts and beliefs	Describes own thinking	Examines the quality of own thinking.

APPENDIX B:

Nutrition Science Learning Outcomes for Statewide Articulation (USHE)

A. Perform a diet and energy expenditure analysis utilizing computer software, analyze and interpret the results for dietary adequacy, health and risk for nutrition-related chronic diseases, as well as make recommendations for improving nutritional health.

B. Integrate the scientific knowledge of nutrition, genetics, chemistry, metabolism, exercise and lifestyle while utilizing several standards/guidelines/guidance systems to plan, evaluate, and manage diets to support life-long health.

C. Describe how the human body digests food, metabolizes and utilizes the nutrients and Calories/energy in health or disease; and identify risks factors for developing chronic disease including the interpretation of biochemical, clinical and anthropometrical laboratory measures.

D. Utilize basic nutritional scientific terminology; describe the essential nutrients and their role in normal metabolism; and identify good dietary sources of nutrients.

E. Evaluate food package label information - analytically and critically knowing the basis of the specific standards used for providing nutrition information; and understand the responsibility of the FDA to ensure the safety of processed foods in order to make healthy food choices.

F. Identify scientific methods used; discern the reliability of nutrition information based on scientific evidence, source and professional credentials; in addition to describing the federal agencies and their responsibilities to insure public food safety, sustainable food production; and personal food handling skills to avoid food borne illness from a variety of microorganisms.

APPENDIX C:

Degrees at Utah Colleges and Universities that require NUTR 1020

Brigham Young University: Dietetics (BS), Food Science BS), Nutritional Science (BS), Nutrition minor, Nutritional Science and Dietetics (MS), Food Science (MS); Exercise Science (BS), Exercise and Wellness (BS), Athletic Training (BS), Public Health, Health Promotion Emphasis (BS), Health Education minor

Dixie State: Dental Hygiene (AAS), Early Childhood Education (AA, AS, AAS)

Southern Utah University: Human Nutrition/Allied Health (BS), Human Nutrition/Pre-Dietetics (BS) Human Nutrition Minor; Athletic Training (BS), Exercise Science (BS), Early Childhood Development (AAS), Early Childhood Development Minor, Health Education Minor, Family Life and Human Development/Early Childhood Development (BA & BS) Family Life and Human Development/Family Services (BA & BS) Hotel, Resort & Hospitality Management (BA & BS), Nursing/Pre-Licensure Emphasis (BS)

University of Utah: Nutrition (Coordinated MS in Nutrition and Dietetics), Nutrition and Integrative Physiology (PhD), Nutrition Emphasis in Nutrition and Integrative Physiology (MS), Nutrition Minor; Athletic Training,
Physical Education Teacher Education (BS), Exercise and Sport Science (BS)

Utah State University: Nutrition, Dietetics, and Food Sciences (BS), Nutrition & Food Science (MS), Food Safety & Quality (MS), Dietetics Administration (MS), Nutrition & Food Science (PhD), Food Science minor; Family and Consumer Sciences Education (BA, BS)

Utah Valley University: Community Health - Community Health Education Emphasis (BS), Dental Hygiene (BS), Nursing (AS, BS), School Health Education (BS)

Weber State University: Human Performance Management (BS), Health Promotion (BS) or minor, Physical Education (BS) or minor, Athletic Training (MS) and Athletic Therapy (BS), Nutrition Education minor & Recreation minor, Bachelor of Integrated Studies (BS), Dental hygiene (AS, BS), Gerontology (BS), Dance (BA)