



NUTR-101: INTRODUCTION TO NUTRITION SCIENCE

Also listed as: NUTR-101H

Effective Term

Fall 2024

BOT Approval Date

12/14/2023

Discipline

NUTR - Nutrition

Course Number

101

Course Title

Introduction to Nutrition Science

Short Title

Intro Nutrition Science

Credit Status (CB 04)

D - Credit - Degree applicable

Units

Lecture Units

3.00

Total Units

3.00

Hours

Lecture Contact Hours

48-54

Out of Class Hours Lecture

96-108

Total Contact Hours

48 - 54

Total Out of Class Hours

96 - 108

Total Student Learning Hours

144 - 162

Distance Education

Yes

Distance Education

Distance Education Type

Both Fully Online and Hybrid Online

Does the DE also apply to the Honors section?

Yes



Honors component will meet synchronously (face-to-face or moderated through online technology such as Zoom)

Fully Online Delivery Requirements:

- a. Students must be notified via the college schedule of classes and the syllabus for the class if proctored tests are required for this course
- b. Any planned face-to-face meetings, such as an orientation or study session, must be optional
- c. The MSJC curriculum committee requires the use of accessible, asynchronous discussion as a component of every fully online course

Are you using publisher content?

No

Regular Substantive Interaction

Instructor-to-student, student-to-student, and student-to-content contact shall be distributed in a manner that will ensure regular substantive interaction (RSI) is maintained not only weekly but also for the duration of the course. Instructor interactions should be equivalent in time, quality and consistency to the engagement students would receive in a face-to-face course—for example, through announcements, discussion participation, personalized feedback, video messages, or other instructional communications. Instructors are expected to be responsive to student inquiries within a 24-72 hour time frame excluding holidays. RSI will be maintained through a variety of methods:

- Orientation - Students must be oriented to the online and face-to-face portions at the start of the course.
- Announcements - Announcements using the course management system must be posted at least weekly to keep students current on course events, due dates, materials, etc.
- Discussion Forums - Content-related discussion forums within the designated CMS will include appropriate instructor participation and will be initiated and maintained, with timely feedback provided. Instructors are required to monitor the discussions and related activities to provide guidance and direction. Open-ended discussion boards may be used to further learning and interaction.
- MSJC Communication – Instructor will use MSJC-administered communication tools (such as email or the designated CMS communication tools) to regularly communicate with and provide ease of access to students.
- Timely Feedback - Timely feedback on student work will be provided by the instructor, which may include comments and/or rubrics, within the Grades area of the designated CMS.
- Scheduled Meetings – Hybrid and synchronous courses will meet at regularly scheduled times. ADA Compliance - All course interactions and content must be designed with accessibility in mind and meet ADA requirements.

Honors / Non-honors

NUTR-101H

C-ID (Admin Only)

CB 00

CCC000641410

Course Title

Honors Introduction to Nutrition Science

Approved Cal-GETC Area

Approved Second Cal-GETC Area

Approved Third Cal-GETC Area

C-ID (Admin Only)

C-ID NUTR 110

Catalog Description

This course examines the science of nutrition. The course develops the student's understanding of digestion, absorption, and metabolism of the macro and micro nutrients and the role they play in dietary intervention of various disease states. This course also explores the role of nutrition throughout the life span and the effects of exercise on overall wellness.

Requisites

Recommended Preparation

Recommended Preparation (note that students can enroll in the class even if they haven't take the recommended course)

ENGL-C1000.

Codes

TOP Code (CB 03)

1306.00* - *Nutrition, Foods, and Culinary Arts

CIP Code

19.0501 - Foods, Nutrition, and Wellness Studies, General.

Repeatability Code

No

Grading Option

Letter grade OR P/NP

GE Information

Check GE Types Requested

AA/AS A - Natural and Physical Sciences

AA/AS E - Lifelong Learning and Self-Development

Learning Objectives

Learning Objectives

Learning Objective
1. Evaluate cultural, economic, political, or historical nutrition information using scientific principles.
2. Compare and contrast various dietary guidelines to current recommendations.
3. Describe the various anatomical structures and physiological processes of the organ systems within the body.
4. Examine the body's metabolism of the macro and micro nutrients as they relate to optimal health.
5. Identify the nutritional needs of individuals from conception to old age, including barriers to health like food inequity.
6. Analyze the pathology of diseases caused by poor lifestyle and implement equitable nutrition intervention strategies to assist in improving the disease condition.
7. Identify the value and role physical activity and exercise play in metabolism, overall wellness, and disease prevention.
8. Analyze and evaluate personal dietary habits and develop an appropriate plan to improve dietary intake.
9. Explain basic concepts of food technology and organic standards and the impact of both on the global food supply.

Honors Objectives

1. Students will examine the role of nutrients in disease prevention, progression, and treatment considering historical and current dietary trends.
2. Students will critically examine published, peer-reviewed research, academic papers, and investigative reports on diet and health.
3. Students will evaluate the impact of social issues such as politics in food production, food distribution, and food quality, and assess the impact on consumer choices and human health.
4. Students will develop a greater appreciation for the role food plays in human health, society, and the environment.

Learning Outcome Information

Course Learning Outcomes

Learning Outcome
1. Students will identify benefits of physical activity as it relates to mental and physical health conditions.
2. Students will evaluate sources of nutrition information based on authority and credibility.
3. Students will assess personal micronutrient intake and evaluate for deficiencies.

Program Learning Outcomes

Learning Outcome

1. Communicate clearly how modifiable and nonmodifiable risk factors influence the risks associated with disease development. (ILO Communication)
2. Demonstrate a scientific awareness of the impact of lifestyle choices on wellness. (ILO Scientific Awareness)
3. Develop a personal assessment and action plan that reflects personal responsibility, based on accepted practices in health and wellness management. (ILO Responsibility)

Institutional Learning Outcomes

Communication: The student will effectively express and exchange ideas through listening, speaking, reading, writing, visual works, and other modes of interpersonal expression.

Critical Thinking: The student will analyze problems, gather and synthesize relevant information, evaluate ideas, information, and evaluate alternative points of view to create, innovate and implement effective solutions.

Cultural Awareness and Humility: The student will demonstrate knowledge of and sensitivity toward individuals of diverse ethnicity, age, gender, sexual orientation, and religious affiliations, as well as toward those individuals with diverse abilities and socio-economic classes to respectfully interact with individuals of diverse perspectives, beliefs and values while being mindful of the limitation of their own cultural frameworks.

Scientific Awareness: The student will apply the scientific method of inquiry to assess potential solutions for real-life challenges by employing science-based knowledge and methodologies in daily life.

Social Awareness: The student will recognize and analyze the interconnectedness of global, national, and local concerns, analyzing cultural, political, social, and environmental issues from multiple perspectives and appreciate similarities and differences among cultures.

Civic

Personal

and Professional Responsibility

Content

Course Lecture Content

1. Nutrition Standards and Guidelines
 - a. Food Choice Motives (cultural, economical, political, personal)
 - i. Dietary Guidelines
 1. Scientific development of nutrient guidelines (RDA, EAR, AI, UL)
 2. USDA guidelines vs. global recommendations
 - ii. Label reading
2. Nutrition Research
 - a. Research methods
 - b. Experimental design
 - c. Reliability and validity
3. The Human Body
 - a. Digestive System
 - i. Anatomy of G.I Tract
 - ii. Physiology of G.I Tract (i.e. enzymatic activity)
 - iii. Digestive complications (i.e. heartburn, constipation, IBS)
 - iv. Nutritional intervention
 - b. Cardiovascular System
 - i. Anatomy and physiology
 - ii. Nutritional intervention
 - c. Excretory System
 - i. Anatomy and physiology
 - ii. Nutritional intervention
 - d. Storage Systems
 - i. Anatomy and physiology
 - ii. Nutritional intervention
4. Macro and Micro Nutrients

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- a. Carbohydrates
 - i. Chemical structure of mono- and disaccharides and complex carbs
 - ii. Cellular metabolism
 - iii. Glycemic index and glycemic load
 - b. Fats/Lipids
 - i. Chemical structure of triglycerides
 - 1. Storing and using fat
 - 2. Essential fatty acids
 - ii. Hydrogenation process
 - iii. Cholesterol (exogenous/endogenous)
 - c. Protein
 - i. Chemical structure of amino acids and protein
 - ii. Protein metabolism
 - iii. Global/cultural deficiency states (i.e. kwashiorkor, marasmus)
 - iv. Limiting amino acids
 - d. Vitamins
 - i. Fat soluble (function, sources, deficiency, toxicity)
 - ii. Water soluble (function, sources, deficiency, toxicity)
 - iii. Regulation guidelines for supplementation
 - e. Minerals
 - i. Major minerals (function, sources, deficiency, toxicity)
 - ii. Trace minerals (function, sources, deficiency, toxicity)
 - f. Water
 - i. Fluid balance in the body
 - ii. Drinking water (regulatory agencies and guidelines)
 - 5. Diet and Disease
 - a. Diabetes (Type 1 and Type 2)
 - i. Lifestyle causes and cultural predispositions
 - ii. Equitable nutritional prevention and intervention
 - b. Cardiovascular disease (atherosclerosis and hypertension)
 - i. Lifestyle causes and cultural predispositions
 - ii. Equitable and nutritional prevention and intervention
 - c. Cancer
 - i. Lifestyle causes and cultural predispositions
 - ii. Equitable nutritional prevention and intervention
 - 6. Weight Management
 - a. Metabolism
 - i. Basal metabolism and total energy expenditure
 - ii. Factors that influence metabolism physical activity/exercise fitness essentials (strength, endurance, cardiovascular, flexibility)
 - iii. Body's use of fuel sources (aerobic vs. anaerobic)
 - b. Contemporary Issues
 - i. Weight management theories
 - ii. Eating disorders
 - 7. Nutrition through the ages
 - a. Pregnancy and Lactation
 - i. Nutrient Needs
 - ii. Physical Changes
 - iii. Complications
 - 8. Infant, Child and Adolescent Nutrition
 - a. Growth and Development
 - b. Cultural and economic food issues for children and adolescents
 - c. Early, Middle and Late Adulthood Nutrition
 - i. Physiological Changes
 - ii. Government programs, food inequities
 - 9. Food Safety/Technology/Global Food Supply

- a. Microbes and Food Safety
 - i. Food safety in the marketplace
 - 1. Food safety in the kitchen
- b. Toxins in Foods
 - i. Environmental Contaminants (i.e. PCBs, BPA, mercury)
 - ii. Pesticides
- c. Hunger
 - i. Global Statistics
 - ii. Food Programs
- d. Poverty and Overpopulation
 - i. Sustainable development (organic, local, GMO)
 - ii. Environmental impact (organic, local, GMO)

Honors Content

Topics may include but are not limited to the following:

- 1. Diet and Disease
 - a. Macro and micronutrients in physical health
 - b. Initiation, progression, and treatment.
- 2. Contemporary Issues
 - a. Weight management theories
 - b. Microbiome health
 - c. Subsidized crops and food manufacturing
 - d. Dietary effects on behavior
 - e. Domestic and global dietary recommendations
 - f. Food politics on human health and the impact of food production on environmental health.

Methods of Instruction

Method

Group Projects

Integration

Instructors will incorporate collaborative learning groups to afford students an opportunity to share personal experiences related to the content area and cooperatively reach conclusions after encountering a case study. Group work will emphasize diverse case examples where students apply knowledge of essential nutrients and their role in disease prevention, development, and treatment.

DE Adaptations for MOI

Instructors may incorporate collaborative learning groups to afford students an opportunity to share personal experiences related to the content area and cooperatively reach conclusions after encountering a case study. Group work will emphasize essential nutrients and their role in disease prevention, development, and treatment. Collaboration will take place online through the course management system, specifically using small group discussion forums embedded within the weekly modules.

Method

Field Trips

Integration

Instructors are encouraged to organize field trips that enhance the specific unit of study. For example, olive oil tasting at a local venue, a visit to a local sustainable farm, or trip to the farmers market.

DE Adaptations for MOI

Instructors are encouraged to organize field trips that enhance the specific unit of study. Face to face meetings may be utilized for this or if fully online virtual field trips may be used. For example, a virtual tour of a sustainable farm, or at home tastings with household items can be linked within an e-lecture/discussion/page within a weekly module.

Method

Film/video Viewing and Discussion

Integration

Films and documentaries may be used to provide students with an opportunity to explore contemporary and/or controversial food related issues (historical, political, cultural). In class discussions of the film will be used to enhance student awareness and promote social relevancy of the topic.

DE Adaptations for MOI

Films will be linked and streamed using Kanopy or another similar database and discussions will be facilitated within the CMS using small group discussions.

Method

Lecture

Integration

Lecture material will be used to instruct students in the basic terminology and concepts relevant to nutritional science. Lecture materials will emphasize the anatomy and physiology of body systems, functions and roles of essential nutrients, metabolism, exercise and weight management, lifecycle nutrition, and food safety. Multimedia presentations will be utilized to enhance student's comprehension of the material by using charts, diagrams, illustrations, pictures, and video materials that visually represent pathology of disease states, statistical data related to the material being studied within a specific unit of study, and current issues related to the contemporary food issues.

DE Adaptations for MOI

Lecture material provided by the instructor will instruct students in the basic terminology and concepts relevant to nutritional science. Lecture materials may be delivered in either a synchronous (face to face) format and given directly to the student in attendance during a class meeting or may be available online using a well developed page within the current course management system. Online adaptations will require lectures to be in a user friendly, interactive format. Interactive E-lectures may include links to outside resources, self check quizzes, and/or studio videos that are closed captioned and offer opportunities to ask questions/make comments.

Method

Online Activity/Discussion

Integration

Instructors may incorporate online activities and group discussions (including but not limited to, threaded discussions, chat, wikis, blogs, and other technologies) to supplement in class discussions. This will better enable students to evaluate the value of media claims related to nutrition and review current nutrition data and communicate and collaborate with classmates.

DE Adaptations for MOI

Instructors will incorporate online activities and group discussions (including but not limited to, threaded discussions, group work, closed captioned embedded videos, and other ADA compliant technologies) to supplement lecture material and face to face discussions. These activities will be linked/embedded within the weekly module.

Method

Projects

Integration

Projects will be assigned to allow students to apply nutrition concepts to real life scenarios. Projects will emphasize self evaluation of dietary habits, roles of essential nutrients and physical activity in overall health, and/or the role of nutrition intervention in disease progression.

DE Adaptations for MOI

Projects will be delivered and collected via the CMS.

Method

Reading

Integration

Readings from the required text, from open education resources, or supplemental resources (i.e academic journals, websites, position papers, etc), will be used to introduce students to basic nutrition concepts and may be used to supplement lecture material in an effort to expose students to current research, theories and historical and cultural trends.

DE Adaptations for MOI

Readings from the required text or linked OER in the CMS.

Additional Methods of Instruction for Honors

1. Student-instructor meetings: Regular meetings with the instructor (face to face or via Zoom) are required either individually or as an honors section, to discuss supplemental readings, work on honors assignments, or other course related topics. A minimum of three meetings will be held during the course.

2. Breaking Bread Together: During one of the small group meetings the students and instructor will have a meal together and discuss nutrition topics. This provides the student and instructor an experience of actual application and food enjoyment, which are critical components of appreciating nutrition concepts. This may also be used as an opportunity to explore mindful eating practices during a meal, preparation of budget friendly meals, organic foods, etc. This experience may be simply packing a lunch and eating together, reviewing a restaurant, or having a potluck meal during a book review session, etc. After this session, students will need to create a work product that analyzes and reflects on the experience.

3. Supplemental readings: Examining content beyond the textbook and engaging with academic resources is vital in advancing student understanding of current nutrition topics and issues.

4. Field experiences and/or Field Trips: Experiential learning elevates the nutrition topics covered in class and provides a more meaningful context for learning. This may include a visit to a local sustainable farm, farmer market, olive oil tasting, food bank, etc.

Methods of Evaluation**Method**

Class Participation

Integration

Class participation will be evaluated by the student's contributions to in class discussions, online discussions (if appropriate), and collaboration with classmates during group work. Instructors can roam the class and participate in each group discussion and/or ask for in class work to be submitted.

DE Adaptations for MOE

Class participation will be evaluated by the student's contributions to in class discussions (if hybrid), online discussions in small group forums, and collaboration with classmates during online group work with the current course management system. Grading rubrics will be used and shared with the student within the gradebook.

Method

Class Work

Integration

In class work will be evaluated on the students ability to collaborate with group members and accurately apply nutrition concepts to case study scenarios. This may include topics such nutritional intervention for gastrointestinal complications, diabetes, cardiovascular disease, and prenatal nutrition.

DE Adaptations for MOE

Class work will be linked within the weekly modules and in the form of small group discussion forums, assignments and group work. Class work will be evaluated on the student's ability to collaborate with group members and accurately apply nutrition concepts to case study scenarios. Feedback will be provided through guidance/redirection in the small group discussions and grading rubrics via the gradebook.

Method

Exams/Tests

Integration

Exams will be used to assess students understanding of the fundamentals of nutritional science and their ability to apply these concepts to specific scenarios. Exams may include both objective and subjective questions and can be in a variety of forms (i.e. essay, video, multiple choice, T/F, case study, etc).

DE Adaptations for MOE

Online exams will be accessed within the weekly modules and used to assess students understanding of the fundamentals of nutritional science and their ability to apply these concepts to specific scenarios. Exams may include both objective and subjective questions and will be facilitated through the course management system. An instructor may choose to proctor the final exam for a hybrid class. Exam feedback will be provided within the assessment immediately following the due date.

Method

Projects

Integration

Projects will be used to evaluate students ability to research and identify credible sources of nutrition information and the ability to apply course content to various situations. This may include applying concepts such essential nutrients, diet and disease, and exercise to self evaluate diet and exercise patterns and develop a wellness plan.

DE Adaptations for MOE

Projects will be linked within the weekly modules and completed using instructions provided in the course management system. Links for tools needed to complete the assignment(s) will be embedded within the actual assignment. Projects will be submitted through the assignment feature in the course management system. Feedback will be provided in a grading rubric via the gradebook and/or email.

Evaluation of Honors assignments

Honors students must complete regular section assignments in addition to the honors assignments to receive honors credit.

Dietary Analysis: Evaluated on the accuracy of the analysis of the macro/micronutrients, depth of thought on the assessment of personal dietary habits, and the accuracy and creativity of the dietary/exercise plan.

Nutrition Briefs: Evaluated on overall understanding of the article/literature, clarity of writing, and thoughtful application of nutrition concepts to the general population.

Book Discussions: Evaluated on overall understanding of the book, generated discussion questions, analytical thinking, ability to identify themes, and thoughtful understanding of its impact on nutrition.

Field Experience: Evaluated on quality of writing and the ability to relate nutrition concepts to real world application.

Research Project: Evaluated on originality, creativity, accurate application of nutrition concepts and recommendations, validity of resources, and appropriateness for "real world" situations. The in-class presentation will be evaluated on overall flow, clarity, and the ability to answer questions from classmates and/or the instructor.

Research Paper: Evaluated on originality/creativity of the topic, ability to analyze and interpret the current literature, connect findings to "real world" applications, and ability to provide insightful and meaningful suggestions for change. In addition, papers will be evaluated on quality of writing, validity of sources, and formatting. The in-class presentation will be evaluated on overall flow, clarity, and the ability to answer questions from classmates and/or the instructor.

Oral presentations: Evaluated on clarity of concepts, conciseness, engagement with the class, ability to utilize visual aids effectively, ability to answer questions thoughtfully.

Assignments

Assignment Type

Other

In-class and/or outside of class

In-class

Formative or Summative

Formative

Assignment

1. In a group of 2-3 students review the diabetes case study provided and discuss the following: Diabetes: A Case Study Sabrina is 27 years old, 5'3', weighs 165 pounds, and has just recently been diagnosed with Type 2 diabetes. Both her mother and father have Type 2 diabetes and were diagnosed 10 years ago. Sabrina's parents both depend on medications to lower their blood sugar. They eat a diet rich in fatty foods and baked goods. Meals almost always consist of high glycemic index carbohydrates and soda or juice as their beverage. For the past 10 years this is how Sabrina thought Type 2 diabetes was treated, with medication only. Since she has been diagnosed she has been speaking with her friends and family about her new medical issue. One of her closest friends has suggested that Type 2 diabetes can be managed with diet and exercise. She is curious how this is the case. She comes to you with questions knowing you are currently enrolled in a nutrition class. 1. Explain to Sabrina how weight affects risk levels and management of Type 2 diabetes. Are there any cultural predispositions that could contribute to her risk level? 2. Sabrina has been raised on soda and is curious whether or not it is beneficial for her to switch to diet soda. Please explain your reasoning with appropriate defense.

How assignment will be adapted in online format

The case example will be presented within a weekly module discussion and students assigned to small groups to discuss the case. A grading rubric will be used to evaluate and submitted to the student via the gradebook.

Assignment Type

Writing

In-class and/or outside of class

Outside of class

Formative or Summative

Summative

Assignment

2. Now that you have completed the diet analysis and a thorough assessment of your intake, take a moment to reflect on your findings. Please be as specific as possible in your reflections and goal setting. This ideally should be the most useful portion of this entire process. Type a 2 page response and attach it to this document. In your reflection please address the following questions.

Page 1: What surprised you about your intake? What was not surprising? Provide specific examples from your macro and micronutrient journals.

Page 2: Is this analysis consistent with how you thought you ate? Are you in need of much change? What specific dietary habit are you willing to change? Write a goal, using the SMART goal guidelines from the Goal Setting Discussion. Be sure your goal is realistic and will improve your dietary intake.

How assignment will be adapted in online format

The assignment will be available within a module in the CMS and collected via an assignment submission. Feedback will be given via a grading rubric in the gradebook.

Assignment Type

Reading

In-class and/or outside of class

Outside of class

Formative or Summative

Formative

Assignment

3. Please read the following to better prepare yourself for the carbohydrate discussion in class. <https://msjc.instructure.com/courses/33289/files/9317786?wrap=1>

How assignment will be adapted in online format

The readings will be embedded within the weekly module for student's to read. No formal evaluation is needed for this task but instructors may choose to lock the remaining portions of the module until this task is completed since it informs future assessments.

Honors Assignments**Assignment**

Students will complete all regular course requirements for Nutr 101 and be graded to the standards used for the rest of the class. In addition, students will be expected to complete the book discussion (A) and field experience (B); choose between nutrition briefs (C) or an extended dietary analysis (D); choose between the research project (E) and research paper (F).

Assignment

A. Book Discussion: The group, with the guidance of the instructor, will select and read a nutrition related book. Students will participate in bi monthly or monthly discussions with the instructor. Students will generate a list of 3-4 discussion questions for each meeting. Examples of books may include The Omnivore's Dilemma, In Defense of Food, The China Study, etc. Discussion topics will focus on the main themes of the book and how they compare to traditional recommendations and their overall impact on human health.

Required or Optional

Required

Honors Core Values

Academic Rigor and Research

Positive Transgressive Behavior (as evidenced by creativity, innovation, risk taking, challenging norms and standard narratives)

Justify how the assignment reflects the Academic Rigor and Research Core Value

Students will be reading and discussing academic literature and data.

Justify how the assignment reflects the Positive Transgressive Behavior Core Value

Students will be engaging in content that they can analyze, agree or disagree with, challenge based on personal social experiences.

Assignment

B. Field Experience: Students, with the guidance and approval of the instructor, will select an out of the classroom experience and write a 2-3 page paper on how the experience relates to the themes discussed in class. Experiences will be determined based on the availability and scheduling of local events. Examples include, visits to farmers markets, restaurant review, film screenings, nutrition conferences, trips to local farms, etc.

Required or Optional

Required

Honors Core Values

Engagement

Justify how the assignment reflects the Engagement Core Value

Students are taking nutrition related topics and engaging with them in social settings.

Assignment

C. Nutrition Briefs: Using current nutrition research as a guide, students will select two nutrition topics of interest to study in greater detail. Students will analyze one current research article for each topic and write a nutrition brief for each. The nutrition brief is a 2 page document including a summary of the research and implications of the findings. Students will present their nutrition briefs to the entire class, or to the honors students, for further discussion.

Required or Optional

Optional

Honors Core Values

Academic Rigor and Research

Justify how the assignment reflects the Academic Rigor and Research Core Value

Students find, summarize, and present academic studies.

Assignment

D. Dietary Analysis: Each student will examine the macro and micronutrients more rigorously in the dietary analysis component of the course. This may include a more detailed analysis, a more critical examination of personal dietary intake, or the creation of a more detailed dietary/exercise plan.

Required or Optional

Optional

Honors Core Values

Holistic Well-being

Justify how the assignment reflects the Holistic Well-Being Core Value

Students are focusing on self reflection of personal habits and growth.

Assignment

E. Research Project: Students will select a topic of interest, approved by the instructor. Review the current research and develop a project appropriate to the topic. For example:

- Develop an outpatient nutrition class for individuals with a specific medical condition.
- Design a nutrition education tool for a chosen target population (to be selected and approved by the instructor).
- Develop a community action plan for sustainable food production.

The project should utilize a minimum of seven sources (academic and secondary) to inform and support the creation of the project. The project is detailed and summarized with a 5-7 page reflection paper, including references. Students will present their project to the entire class in a 10 minute oral presentation using two visual aids. A question and answer session will follow.

Required or Optional

Required

Honors Core Values

Leadership



Justify how the assignment reflects the Leadership Core Value

Students create community content and plans, which demonstrate leadership ideas on how nutrition intervention can help improve community health.

Assignment

F. Research Paper: Students will select a topic of interest, approved by the instructor. Topics will vary as new nutrition research emerges, however, the following may be used as examples.

-Research and write an analytical paper on any aspect of food politics and human health. This should include suggestions for new policy that would improve public health.

-Research and examine the recommendations of dairy consumption over the past two decades and the implications this has on human health. This should include suggestions on how dairy can be raised differently or how humans can incorporate dairy into their diet in more healthful ways.

-Research current articles on the human microbiome, dietary interventions, and the implications for human health and wellness. This should include suggestions on how individuals can apply habits to optimize gut health.

The paper should be 7-9 pages in length with a minimum of seven sources (academic and secondary). Students will be asked to present their findings in a 10 minute oral presentation to the class, utilizing two visual aids. A Q and A session will follow.

Required or Optional

Required

Honors Core Values

Academic Rigor and Research

Justify how the assignment reflects the Academic Rigor and Research Core Value

Students are reviewing academic research and considering the health implications of these findings both historically and now.

Course Materials

Textbooks

Sizer, F., Whitney, E. (2020). Nutrition Concepts & Controversies Cengage. ISBN: 978-1-337-90637-1

Open Educational Resources

Nutrition Science and Everyday Application (Callahan, Leonard, and Powell). LibreTexts. CC BY-NC-SA

Class Size Information

Class Size

40

Class Size Category

A - Lecture/discussion 40

Diversity and Inclusion

Explain how diversity and inclusion(e.g., gender, culture/race, sexuality, etc.) is infused into the course.

In this course, students are consistently asked to view food, food choices and the health implications through a scientific and social lens. Food touches everyone from those eating out of wealth and suffering from diseases of affluence to those who experience food insecurity for economic reasons. The wide range of food and health topics in this course are considered both personally and globally. Students will participate in multicultural case studies to examine varying health risks as well as view documentaries and engage in group discussions that focus on economic and cultural access to healthy food.

Describe how assignments, instruction, evaluation, course content, and interactions are contextualized for diverse learners promoting an equitable course.

Culture and race play a profound role in personal dietary choices. Cultural food and beliefs are discussed in this course when students examine personal food choice motives and risks for future disease. Social inequities of food are also discussed in the context of local and global food supply and hunger. Social issues such as the economic, political, and cultural aspects of food are infused into the course content, collaborative case studies, personal reflections, and documentaries. Students will be given opportunities to choose assignments and case examples that most resonate to them.

Interactions**Explain how the course will incorporate student-to-student interaction.**

This course encourages collaborative group work for students to construct knowledge socially. This can take place inside and outside the classroom. For example, students will participate in small group discussions after viewing a documentary and work collaboratively on case studies. In online classes, students have access to content related small group discussions, assigned group work, and additional discussions to promote community that are not related to course content.

Explain how the course will incorporate instructor-to-student interaction.

Lecture material will be presented to teach foundational nutrition concepts. However, this should be done so in a way where students can ask questions immediately for clarification. For example, instructors can choose a reflective question about food choice motives that students consider individually/collaboratively and share out with the class. Instructors will communicate with students as well as via email and through the CMS gradebook with feedback on assignments. In online classes, instructors will initiate interaction by posting regular announcements (including announcements that recap/summarize class thoughts from the previous week), contact via the gradebook and email, posting additional prompts to student work in discussions.

Explain how the course will incorporate student-to-content interaction.

Students are given regular reading assignments to prepare for class, encouraged to engage in class and in group discussions, are given various resources (links, articles, charts, videos, etc.) to work with in class and on specific assignments. Students are expected to work on case examples as well as work on a project examining their own dietary choices and goals. In online classes, content can be designed and accessed via discussion tools so students have links to readings and the opportunity to post directly within interactive e-lectures to ask questions and make comments about the content. Students also have forums for questions about calculations and assignments.

Explain how the course will incorporate student-to-self interaction (metacognitive).

Students complete assignments that consistently ask to reflect on personal food choices, dietary and fitness goals, and risk for future disease. Most of the work in this class is self reflective and requires students to examine personal habits consider stages of change. In online classes, students have access to individual and group assignments where they can document findings and reflection.