

GENERAL EDUCATION COURSE PROPOSAL
WEBER STATE UNIVERSITY
LIFE SCIENCE EMPHASIS

Area: **LIFE SCIENCE**

Date: **1/15/2010**

College: **Jerry and Vickie Moyes College of Education**

Department: **Health Promotion and Human Performance**

Catalog Abbreviation: **NUTR & HLTH**

Catalog Title: **Foundations in Nutrition**

Course Number: **1020**

Credit Hours: **3**

Substantive: _____

New: _____

Revised: _____

Gen Ed Review: X

Course description as it appears in the catalog:

Basic principles of human nutrition are considered with respect to maintaining nutritional balance, as well as maintaining good health.

Justification:

The following justification of Nutr LS1020 at WSU provides compelling evidence that this course is a life science as WSU has approved in the past and major institutions in Utah and across the nation have recognized. Since January 2009, transfer students from over 50 different institutions of higher education (from New York to Alaska) have transferred their life science course general education nutrition course to WSU for equivalent general educational life science credit. A few of these institutions include: College of Southern Nevada, Daytona State College, Empire State College-SUNY, Idaho State University, Kettering College of Medical Arts, University of Alaska-Fairbanks, University of Nevada-Las Vegas, University of Detroit-Mercy, University of Florida, University of Illinois-Urbana, University of Missouri-St. Louis, University of Montana, University of the Pacific, and Washington State University.

The committee should note that the Nutrition 1020 course is articulated across the Utah System of Higher Education (USHE). All comparable institutions to WSU in the USHE offer Nutrition 1020 as general education science credit (USU, UVU, SUU, WSU,

Dixie State, UofU). Further, the Admissions, Standards, and Student Affairs faculty senate standing committee with the support of faculty senate (9/17/09) have made it policy beginning December 2009 to allow AA/AS degree transfer status within USHE and select colleges and universities in the surrounding states (See minutes <http://faculty.weber.edu/senate/FSCmt/ASSACmte.html>). Thus, if WSU removed Nutr LS1020 as a life science general education option, WSU students and WSU in general would be disadvantaged.

The nutrition faculty members at WSU are scientists: *Joan Thompson, Ph.D., R.D.* from the University of Arizona, College of Agriculture and Life Sciences, Department of Nutritional Sciences. *Jennifer Turley, Ph.D.* from the University of Texas, College of Natural Sciences, School of Human Ecology, Department of Nutritional Sciences. Post-doctoral research at the National Cancer Institute. *Rodney Hansen, Ph.D.*, from Colorado State University, College of Applied Human Sciences, Department of Food Science and Human Nutrition.

The nutrition faculty members design and teach the standardized Nutr LS1020 course using many 21st century tools for teaching and learning all the natural science and life science learning outcomes including: textbook written in 6 learning modules, five audio-streamed lectures and PowerPoints per module, weblinks, discussions, StudyMate activities, assessments, and exams. Other life science courses have been supported when there is no required textbook (BTNY 1403), optional textbooks (MICR 2054), and/or no review of the entire course teaching tools. An abundance of artifacts and support information are provided online at: <http://programs.weber.edu/nutrition/NutrLS1020.htm>

This proposal clearly demonstrates and provides ample evidence of how this rigorous life science course meets each of the four natural sciences (NS) and four life science (LS) learning outcomes. Compelling evidence permeates the entire course and is similar to portions of content taught in other approved life science courses at WSU. (*Recall the life science proposals for Human Biology/Zool1020, Elementary Public Health/Micro 1153, Environmental Appreciation/Btny1403, Plants in Human Affairs/BTNY1303, Biological Anthropology/ANTH1020, Principles of Microbiology/Micro2054, and Principles of Life Science/ BTNY/MICR/ZOOL1370*).

NATURAL SCIENCES LEARNING OUTCOMES

1. *Nature of science. Scientific knowledge is based on evidence that is repeatedly examined, and can change with new information. Scientific explanations differ fundamentally from those that are not scientific.*

Justification: Nutrition is a multi-science discipline that draws upon the research across a diversity of scientific disciplines (biology, anatomy, physiology, microbiology, botany, agriculture, biochemistry, biotechnology, genetics, molecular biology, histology, biomedical sciences). The scientific method is taught and theories and hypothesis are explored especially in terms of life science learning outcomes such as evolution. In every learning module the current science that supports the content is emphasized. Nutr LS1020 students know the nature of science and are able to:

- a. Identify scientific experimental designs and understand that dietary recommendations are based on repeatedly examined data and are progressively updated and revised based on newly published scientific findings. *Module 4*
- b. Distinguish scientific information from information that is not scientific as well as the appropriate methods to seek scientifically sound information. *Module 6*
- c. Utilize scientific inquiry to test hypotheses by collecting and analyzing data, and drawing conclusions about their data in regards to the hypothesis tested. *Module 4*
- d. Apply dietary patterning techniques to determine the nutritional adequacy of diets and make recommendations for improving dietary intake based on diet analysis results. *Modules 2 and 4. (See Table 1)*

2. ***Integration of science.*** *All natural phenomena are interrelated and share basic organizational principles. Scientific explanations obtained from different disciplines should be cohesive and integrated.*

Justification: Recurring discussions regarding the basic molecules of life in the structure, metabolism and function of life forms in the plant and animal Kingdoms provide examples for the interrelated and share basic organizational principles of living systems. Scientific evidence is required before any dietary guideline, diagnostic criteria or other health related population based recommendation can be made. A few examples include; the understanding and management of obesity, Type 2 diabetes, cardiovascular disease, diet-related cancers, and microbial based food borne illnesses. Nutr LS1020 students know the integration of science with emphasis on human nutrition and are able to:

- a. Demonstrate their knowledge of the shared basic organizational principles of life (molecules, cells, organs, organ systems, and organisms) and relate their knowledge across several different scientific disciplines such as physiology, anatomy, biochemistry, biology, immunology, and microbiology. *Modules 1, 3, 4, 5, and 6*
- b. Obtain the chemical composition of food from the plant and animal kingdoms and explain how they meet the nutritional needs of humankind. *Modules 1, 2, and 5*
- c. Distinguish science from other views for understanding humanity. *Modules 4 and 6. (See Table 1)*

3. ***Science and society.*** *The study of science provides explanations that have significant impact on society, including technological advancements, improvement of human life, and better understanding of human and other influences on the earth's environment.*

Justification: The significant impact that scientific and technological advancements have on improving or deteriorating the health and quality of human life, the environment, and society is threaded throughout the course curriculum. The globalization of the food supply along with the epidemics of obesity and vitamin D deficiency contribute significantly to chronic diseases such as cardiovascular disease, cancer, type 2 Diabetes, hypertension, and auto-immunity. Chronic disease has a major socio-economic impact as evidenced by increasing health care insurance costs. Good nutrition maintains health and optimal body function while reducing chronic disease and societal burden. Technological advancements such as genetic engineering of plants, cloning

of animals, and the enrichment and fortification of foods significantly impacts the production and processing of foods and supplements. Environmental issues are addressed in food system sustainability, biotechnology and food safety. The activities of governmental regulatory agencies, such as the EPA, FDA, and WHO are used to bring environmental concerns and the shortfalls in the care of our Earth to students' attention. Other society content includes the dietary guidelines and recommendations (such as MyPyramid.gov) and dietary reference values established for the population by each essential vitamin and mineral. *Nutr LS1020 students know the role of science in society especially in regards to human health and are able to:*

- a. Demonstrate knowledge of human nutritional needs and the role of nutrition in improving individual life and the societal economic impact of good versus bad nutrition. *Modules 1, 3, 4, 5, and 6*
- b. Relate technological advancements in medicine and food production to the advancement of the science of human nutrition. *Modules 2, 3, 4, 5, and 6*
- c. Explain the impact that the food industry has on human food choices and the subsequent relationship to health and disease at the individual, society, and environmental level. *Module 6*
- d. Provide examples of past and present nutrient and diet trends in modern society and the positive and/or negative implications for human health and earth's resources. *Modules 2, 3, 4, 5, and 6*
- e. Utilize tools to determine nutrient values of foods consumed by diverse populations. *Modules 2, 4, and 5*
- f. Plan, evaluate, and manage diets to improve and support life-long health. *Modules 2 and 4. (See Table 1)*

4. Problem solving and data analysis. *Science relies on empirical data, and such data must be analyzed, interpreted, and generalized in a rigorous manner.*

Justification: Assessments 2 and 4 progress students' acquisition of skills, knowledge and competencies so Exam 4 is possible. Exam 4 is a computer-aided diet and energy expenditure analysis. Students collect, analyze, interpret their data, then communicate their recommendations based on empirical information. Additionally, students must utilize their data to test 14 different hypotheses. Their interpretations are generalized in written essay form and must include their numerical data, relationship to dietary standards, health impact, and must include a statement where they accept or reject the hypothesis. *Nutr LS1020 students know problem solving and data analysis and are able to:*

- a. Compute percentages, ratios, proportions, decimals, and fractions as applied to essential nutrients and calories for humans via dietary analysis and food package label interpretation. *Modules 2 and 4*
- b. Complete a computer-aided two-day average personal nutrient and energy analysis and base their conclusions and recommendations on their collected, analyzed and interpreted data. *Module 4*
- c. Utilize recently published nutrition standards based on empirical nutrition and related science data that has been rigorously analyzed, interpreted, and generalized for public recommendations. *Modules 2, 3, 4, 5, and 6*
- d. Evaluate and interpret laboratory and anthropometrical data and food package label information in relation to chronic disease risk. *Modules 2 and 4. (See Table 1)*

LIFE SCIENCE SPECIFIC LEARNING OUTCOMES

1. **Levels of organization:** *All life shares an organization that is based on molecules and cells and extends to organisms and ecosystems.*

Justification: Module 1 begins with the molecules of life, and how these molecules are metabolized within cells as well as make up cells and tissues within the body. In modules 3, 4, and 5, how cells build the many systems of the body, how the cells within systems are regulated, and the concert of these systems are studied in relation to health and disease. Several topics such as those in module 6 carry the concepts further into ecosystems by illustrating the interactions of man and the environment ranging from the microorganisms, to food technology and food system sustainability. *Nutr LS1020 students know levels of organization and are able to:*

- a. Demonstrate and apply knowledge on life concepts, from the genetic basis of life to cells, organs, organ systems, organisms and the ecosystem in which they interact. *Modules 1, 3, 4, and 6*
- b. Relate levels of organization to humans, plant and animal foods, and the environment. *Modules 1 and 6. (See Table 1)*

2. **Metabolism and homeostasis:** *Living things obtain and use energy, and maintain homeostasis via organized chemical reactions known as metabolism.*

Justification: Energy and nutrient metabolism which are fundamental for sustaining life and function are core principles integrated throughout modules 1-5. Vitamins and minerals are molecules of life that regulate metabolism, effect genetic expression, and support living organisms. The role of enzymes in metabolism is fundamental to explain how essential nutrients play their roles in biochemical processes and thus physiology. The role of hormones and phytochemicals in cellular metabolism also provides a fundamental basis to understand health and disease. The understanding of the role that anabolism and catabolism play in achieving homeostasis provides the foundation to address stress-related illnesses which is used to illustrate the biological damage that can occur if homeostasis is not maintained. *Nutr LS1020 students know metabolism and homeostasis and are able to:*

- a. 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. *Modules 1, 3, and 4*
- b. Provide specific roles of nutrition in metabolism and homeostasis in the human body. *Modules 1, 3, 4, and 5*
- c. Explain how the human body processes food and utilizes nutrients with additional reference to energy balance and weight control. *Modules 3 and 4*
- d. Associate nutrition, genetics, metabolism, exercise and lifestyle with health promotion and disease prevention. *Modules 1, 3, 4, and 5. (See Table 1)*

3. **Genetics and evolution:** *Shared genetic processes and evolution by natural selection are universal features of all life.*

Justification: Nutr LS1020 teaches genetics and evolution throughout the course and by different examples. Students learn that a change in heritable genetic composition scientifically observed in a population, such as by gene mutation and as a result of natural selection, leads to adaptation over successive generations. Examples specifically tied to nutrition science include lactose intolerance of non-pastoral populations and lactase persistence of pastoral populations, vitamin D synthesis and the evolution of skin tone, folic acid status and the risk of neural tube birth defects such as spina bifida in relation to genetics and evolution, iron absorption and the evolution of hemochromatosis, and the evolution of microbes (such as *Escherichia coli* to the deadly O157:H7 strain) implicated in food borne illness. Numerous other inheritable genetic conditions that may be passed on generationally that relate to nutrition science are covered including diabetes, metabolic syndrome, hypertension, allergies, celiac disease, osteoporosis, and Wilson's disease. Furthermore, students learn that nutrients in food control gene expression which leads to the transcription of DNA, translation to RNA and then synthesis of proteins. They also study the diet, lifestyle, and environmental factors that can initiate and promote DNA damage leading to the uncontrolled cell proliferation (propagation) of cancer cells. The course covers technological advancements tied to genetics and evolution that have changed the food supply and led to increased antibiotic resistance. For example, the genetic modification of various plant food organisms by antisense and transgenic technologies and the sub-therapeutic use of antibiotics in conventional animal husbandry both permeate the US food supply. This type of food supply and system is vastly different and contrasted to the evolution of Paleolithic diets and dietary recommendations for Americans today. The Nutr LS1020 course clearly demonstrates how shared genetic processes and evolution by natural selection are universal features of all life and provides substantial course content related to this topic. *Nutr LS1020 students know genetics and evolution and are able to:*

- a. 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. *Modules 3, 5, and 6*
- b. Provide examples of shared genetic processes in regards to essential nutrients, function, health, and disease. *Modules 1, 3, and 5*
- c. Communicate the evolution of Paleolithic diets and dietary recommendations for Americans. *Module 2. (See Table 1)*

4. Ecological interactions: *All organisms, including humans, interact with their environment and other living organisms.*

Justification: The interaction of living organisms (including humans, plants, animals, and microbes) with each other and their environmental surroundings is at the core of Nutr LS1020. The interactions and comparisons between the plant and animal Kingdoms especially in regards to energy transfer, nutrient cycling, food webs, food chains, and the food system provide numerous examples for addressing ecological issues throughout the course content. The synthesis of vitamin D in humans as a result of ultraviolet B exposure from sunlight is a great example of an ecologic and metabolic concept taught that is tied to genetics, evolution, and society. Vitamin D synthesis is affected by geographical location, skin tone, pollution, cloud cover, sunscreen, clothing, and the function of multiple organs and their component cells. There are few natural or government mandated fortified food sources of vitamin D. All of these factors together have contributed to an epidemic of vitamin D deficiency and numerous negative health

outcomes including bone loss, multiple sclerosis, heart disease, cancer, depression, allergies, and inflammation. Carcinogenesis is taught along with potential environmental influencing factors in human cancers. Several examples of both positive and negative interactions of humankind with microorganisms regarding health and food production illustrate the interactions among the species of living organisms. The topic of how organic agricultural practices promote a sustainable food system and may improve climate change trends draws upon several ecological and environmental issues that serve to increase the student's personal roles for environmental responsibility. *Nutr LS1020 students know ecological interactions and are able to:*

- 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. *Module 5*
- Relate the ecological impact and their environmental responsibility pertaining to food choices and food system sustainability. *Module 6*
- Demonstrate knowledge of the plant and animal kingdoms in regards to the food system, food webs and chains, and human interaction with both. *Modules 1 and 6*
- Provide examples of positive and negative interactions of humankind with microorganisms regarding sickness, health and food production. *Module 6*
- Prevent food borne illness by adopting good food handling techniques. *Module 6*
- Address diet and nutrient issues and concerns for weight control, disease prevention, physical activity, food safety, and biotechnology. *Modules 3, 4, and 6*
- Consume a healthy diet composed of various plants, animals, and flora. *Modules 2 and 6.*
(See Table 1)

Table 1: Nutr LS1020 learning outcomes and course content cross-referenced.

Learning Outcome	<i>Nutr LS1020 Learning Modules 1-6</i>	<i>Nutr LS1020 Syllabus Outcome</i>	<i>Nutr LS1020 Assessment</i>	<i>Nutr LS1020 Examination</i>
Nature of science	2, 4, 6	1	2, 4, 6	2, 4, 6
Integration of science	1-6	2	1-6	1-6
Science and society	3, 4, 6	3	3, 4, 6	3, 6
Problem solving and data analysis	2, 4	4	2, 4	2, 3, 4, 5, 6
Levels of organization	1, 3, 4, 5, 6	5	1, 3, 4, 5, 6	1, 3, 4, 5, 6
Metabolism and homeostasis	1, 3, 4, 5	6	1, 3, 4, 5	1, 3, 4, 5
Genetics and evolution	2, 3, 5	7	3	3
Ecological interactions	1-5, especially 6	8	6	6

** This table demonstrates how natural science and life science learning outcomes are embedded consistently throughout the course content.*

NATURAL SCIENCES GENERAL EDUCATION MISSION STATEMENT

The mission of the natural sciences general education program is to provide students with an understanding and appreciation of the natural world from a scientific perspective.

Science is a way of knowing. Its purpose is to describe and explain the natural world, to investigate the mechanisms that govern nature, and to identify ways in which all natural phenomena are interrelated. Science produces knowledge that is based on evidence and that knowledge is repeatedly tested against observations of nature. The strength of science is that ideas and explanations that are inconsistent with evidence are refined or discarded and replaced by those that are more consistent.

Science provides personal fulfillment that comes from understanding the natural world. In addition, experience with the process of science develops skills that are increasingly important in the modern world. These include creativity, critical thinking, problem solving, and communication of ideas. A person who is scientifically literate is able to evaluate and propose explanations appropriately. The scientifically literate individual can assess whether or not a claim is scientific, and distinguish scientific explanations from those that are not scientific.

LIFE SCIENCE GENERAL EDUCATION COURSES

An approved life science general education course will prepare a student to **fulfill all** of the natural science and life science learning outcomes outlined below.

NATURAL SCIENCES LEARNING OUTCOMES

After completing the natural sciences general education requirements, students will demonstrate their understanding of general principles of science:

1. **Nature of science.** Scientific knowledge is based on evidence that is repeatedly examined, and can change with new information. Scientific explanations differ fundamentally from those that are not scientific.
2. **Integration of science.** All natural phenomena are interrelated and share basic organizational principles. Scientific explanations obtained from different disciplines should be cohesive and integrated.
3. **Science and society.** The study of science provides explanations that have significant impact on society, including technological advancements, improvement of human life, and better understanding of human and other influences on the earth's environment.
4. **Problem solving and data analysis.** Science relies on empirical data, and such data must be analyzed, interpreted, and generalized in a rigorous manner.

Course Title: Foundations in Nutrition

Department: Health Promotion and Human Performance

LIFE SCIENCE SPECIFIC LEARNING OUTCOMES

Students will demonstrate their understanding of the following characteristics of life science:

1. **Levels of organization:** All life shares an organization that is based on molecules and cells and extends to organisms and ecosystems.
2. **Metabolism and homeostasis:** Living things obtain and use energy, and maintain homeostasis via organized chemical reactions known as metabolism.
3. **Genetics and evolution:** Shared genetic processes and evolution by natural selection are universal features of all life.
4. **Ecological interactions:** All organisms, including humans, interact with their environment and other living organisms.

COMPLETE THE FOLLOWING

1. Has this proposal been discussed with and approved by the department?

Yes, unanimous support

2. List those general education courses in other departments with similar subject matter and explain how this course differs.

None, however the major themes and organizing principles of the life sciences are taught in many different life science courses including this course. The topic of nutrition is comprehensively taught in this course and not other life science courses on campus.

3. If the proposed new general education course affects course requirements or enrollments in other departments, list the departments and programs involved and attach comments from each.

This is not a new general education course proposal

4. Attach a topical outline of the course. Include the number of contact hours per week and the format of these hours (e.g., lecture, lab, field trip, etc.).

See page the table on the following page.

Week	Contact Hours	Nutr LS1020 Content Area/Lectures	Module
The format of all course content is mediated by lecture (face-to-face and virtual), discussion, chat, homework, exams, and learning tools that support cognitive learning, application, critical thinking, and problem solving such as clicker and StudyMate activities and credible websites.			
1-3	9	<i>Levels of Organization, Metabolism and Homeostasis, and The Integration of Science:</i> Nutrition Basics & Terminology Carbohydrate, Protein, Fat/Lipid and Energy/Calories Vitamins, Minerals, Water	Module 1
4-5	6	<i>Science and Society, Problem Solving and Data Analysis:</i> Food Labels Dietary Reference Intakes The MyPyramid Food Guidance System Dietary Guidelines & Recommendations Food Composition & The Exchange System	Module 2
6-8	9	<i>Genetics and Evolution, Levels of Organization, Metabolism and Homeostasis, and Science and Society:</i> The Gastrointestinal System Photosynthesis & Fiber Carbohydrate Storage & Disorders (<i>Lactose Intolerance, Allergy, Diabetes</i>) Lipids in Heart Disease & Cancer Proteins Inside the Body (<i>DNA, RNA, Protein</i>)	Module 3
9-10	6	<i>The Nature of Science in Society, Metabolism and Homeostasis, Problem Solving and Data Analysis:</i> Scientific Inquiry Obesity Epidemic, Energy Balance Body Composition & Weight Control Nutritional Adequacy	Module 4
11-12	6	<i>Genetics and Evolution, Metabolism and Homeostasis, Ecological Interactions, and Science and Society:</i> Fat Soluble Vitamins and Water Soluble Vitamins Water and Electrolytes Major Minerals in Bone & Protein Trace Minerals	Module 5
13-14	6	<i>Ecological Interactions and The Nature and Integration of Science:</i> Nutrition Information Credibility: Fact vs Fallacy Food, Drugs, and Supplements Food Safety: Microbes Food Issues: Consumer Awareness (<i>Food Webs and Bioaccumulation, Nutrient Cycles, Organic vs Conventional Food Production, Genetic Engineering</i>) Chemical Food Additives	Module 6

Course Title: Foundations in Nutrition

Department: Health Promotion and Human Performance

New Courses Only:

5. Discuss how you will assess student learning outcomes associated with this course

N/A

Current General Education Courses and Existing Courses Seeking General Education Status:

6. Discuss how you have assessed the applicable or identified student learning outcomes associated with this course.

Student learning outcomes are assessed through homework assessments and exams which are a part of every learning module. Additionally, the cumulative student learning outcomes are evaluated semi-annually by full-time, tenure-track nutrition faculty. Curricular changes are made and reassessed to insure that the student learning objectives are being met.

Additionally, a life science general education survey has been created to assess the WSU life science student learning outcomes. The survey was administered at the end of Fall 2009. See survey questions and results on the following page.

7. How has this assessment information been used to improve student learning?

Optional supportive learning activities have been created to reinforce learning and improve the retention of the information. Examples include: study mate activities, review games, clicker case studies, supplemental instruction and End of Module Proficiencies.

The course syllabus student learning outcomes have been revised to match the current criteria for life science general education credit at WSU. Some textbook excerpts, lectures, and questions within course assessments and exams have also been revised annually to more precisely measure the current direction and keep up with progression of the scientific literature.

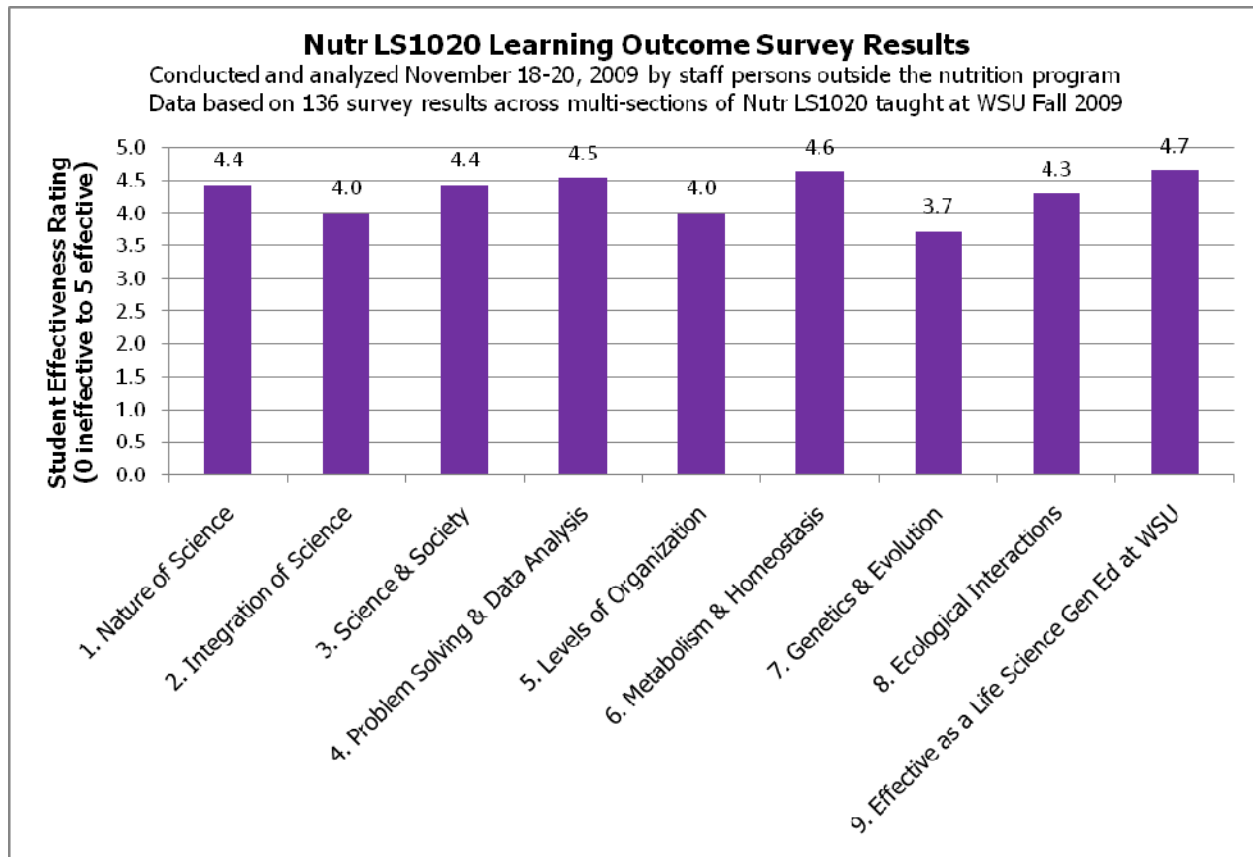
It is important to note that this course is standardized across multi-sections, multi-instructors, and multi-delivery modes. An annual retreat is held prior to the beginning of school for the nutrition faculty to discuss changes made to curriculum to better meet the learning outcomes and uphold high rigorous teaching and learning standards.

Nutrition LS1020 Natural Science and Life Science Learning Outcome Survey

Answer questions 1-9 using the ineffective-effective rating scale below.

Ineffective		Effective		
A	B	C	D	E
1	2	3	4	5

1. This class was _____ in teaching me that scientific knowledge is based on evidence that is repeatedly examined, and can change with new information and scientific explanations differ fundamentally from those that are not scientific.
2. This class was _____ in teaching me that all natural phenomena are interrelated and share basic organizational principles and scientific explanations obtained from different disciplines should be cohesive and integrated.
3. This class was _____ in teaching me that the study of science provides explanations that have significant impact on society, including technological advancements, improvement of human life, and better understanding of human and other influences on the earth's environment.
4. This class was _____ in teaching me that science relies on experimental data, and such data must be analyzed, interpreted, and generalized in a rigorous manner.
5. This class was _____ in teaching me that all life is organized from molecules and cells to organisms within the environment.
6. This class was _____ in teaching me that living things like humans obtain and use energy, and maintain homeostasis through chemical reactions known as metabolism.
7. This class was _____ in teaching me that shared genetic processes and evolution by natural selection are universal features of all life.
8. This class was _____ in teaching me that all organisms, including humans, interact with their environment and other living organisms.
9. This class was _____ in fulfilling life science general education at Weber State University.



GENERAL EDUCATION COURSE APPROVAL PAGE

Approval Sequence:

Department Chair/Date

College Curriculum Committee/Date

Dean of College/Date

University Curriculum Committee/Date

Passed by Faculty Senate _____ Date