

A. Course Proposal for GE Natural Science (HUMN NTR 2210, The Science of Human Nutrition)

**I. COURSE DESCRIPTION**

HUMN NTR 2210, The Science of Human Nutrition, is proposed as a 3 credit semester equivalent of the current HUMN NTR 210, a 5 credit course. HUMN NTR 210 is described in the current Course Bulletin as covering the principles of biological science involving interactions between nutrients and physiological processes with emphasis on implications for human health. This is an accurate description of the course as it was approved in 1991, as it is currently taught, and as it is being proposed for semesters. HUMN NTR 210 is currently approved as second course in the biological sciences section of the Natural Science GEC. HUMN NTR 2210 is proposed to be an approved Biological Science GE choice. As does HUMN NTR 210, it will provide instruction in how the scientific method is used to establish requirements for chemicals (nutrients) essential for physiological development and maintenance of physiological well being and conversely how physiological processes impact needs for nutrients. Key discoveries in the areas of nutrition, biochemistry, and physiology, particularly as they relate to nutrient function will continue to be emphasized. The impacts of technological developments within the context of health concerns will continue to be discussed. The learning outcomes call for an understanding of the principles of the natural sciences and methods used in scientific discovery including the interactions between environment, physiological development and maintenance of health.

Teaching methods include lectures, videos/animations, readings, online activities including the online diet and activity evaluation. All students are required to use the course management system, Carmen. Exams consist of multiple choice questions. Course material and subsequent test questions are revised frequently to reflect the nature of the changing concepts in human nutrition and science. The use of technology for delivery of course content has increased. In fact, at least one section of the course will continue to be taught entirely online. The outcomes of the online activities, including the entire online course will continue to be frequently compared with those of the traditional course sections.

**II. Statement identifying which of the general principles of the GEC will be addressed through the course:**

The following are the **GEC Expected Learning Outcomes for Natural Science**

Natural Science coursework fosters students' understanding of the principles, theories, and methods of modern science, the relationship between science and technology, the implications of the scientific discoveries and the potential of science and technology to address problems of the contemporary world.

1. Students understand the basic facts, principles, theories and methods of modern science.
2. Students learn key events in the history of science.

3. Students provide examples of the inter-dependence of scientific and technological developments.
4. Students discuss social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world.

**III. Rationale which answers the questions below with reference to the syllabus written for faculty review members who are not familiar with your discipline:**

**a) How do the course goals address the general and specific expected learning outcomes above?**

As per the report from the GEC Assessment Sub-Committee of the Arts and Sciences Committee on Curriculum and Instruction (ASC CCI) for the quarter equivalent course, HUMN NTR 210, in September 2008, the following similar HUMN NTR 2210 Objectives include acceptable objectives that overlap with the GEC Natural Science Learning Objectives.

The following is a list of the Natural Science GEC Objectives along with the parallel HUM NTR 2210 Learning Objectives that incorporate these objectives:

1. **GEC:** *Students understand the basic facts, principles, theories and methods of modern science.*  
**HUMN NTR 2210:** Understand basic biological aspects of nutrient requirements of humans and appreciate the complex interactions and synergism of nutrients upon physiological and cellular processes and recognize the linkages between nutrients and disease processes, body size, mental ability and performance.
2. **GEC:** *Students learn key events in the history of science.*  
**HUMN NTR 2210:** Understand key events in the history of nutritional science from the early discovery of the essential nutrients to the current discovery of the effects of nutrients on the human genome.
3. **GEC:** *Students provide examples of inter-dependence of scientific and technological developments.*  
**HUMN NTR 2210:** Determine how nutritional information is derived from the scientific method of investigation and understand how the methods of modern science are used in the assessment of nutritional status.
4. **GEC:** *Students discuss social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world.*  
**HUMN NTR 2210:** Understand the diverse social and cultural patterns that influence food preferences and their implications to nutrient status and understand the potential of modern science and technology to address nutritional problems of the contemporary world.

- b) How do the assigned readings address the general and specific expected learning outcomes above? (Bibliographic information is sometimes not enough for faculty outside the discipline to determine the content and relevance of texts to a specific course)

Assigned readings come primarily from the textbook *Contemporary Nutrition*, 8<sup>th</sup> edition, by Gordon Wardlaw and Anne M. Smith (Department of Human Nutrition, The Ohio State University) McGraw-Hill. The following information illustrates how several chapters of required reading address the general and specific expected learning outcomes above.

1. *GEC: Students understand the basic facts, principles, theories and methods of modern science.*

Because the vast amount of published research is constantly reshaping our knowledge of nutritional science, the textbook is frequently updated and revised so that reliable, accurate up-to-date information is included. Most recent revision of the text was published in 2011. It emphasizes recommendations published by federal agencies such as the US Department of Agriculture and the Food and Drug Administration and professional organizations such as the American Heart Association. Each chapter contains an updated list of Further Readings as well as links to reputable nutrition and health information websites.

The basic facts, principles, theories and methods of modern science are found through the textbook. Chapter 2, “Guidelines for designing a healthy diet”, introduces many of the basic principles, theories and methods of modern science with the following chapter sections include:

- 2.3: How can your nutritional state be measured?
- 2.5: Specific nutrient standards and recommendations
- 2.6: Using the scientific method to determine nutrient needs
- 2.9: Evaluating nutrition claims and dietary supplements.

Subsequent chapters help students understand basic biological aspects of nutrient requirements of humans and appreciate the complex interactions and synergism of nutrients upon physiological and cellular processes. The chapter sections on Nutrition and Your Health help students recognize the linkages between nutrients and disease processes, body size, mental ability and performance.

2. *GEC: Students learn key events in the history of science.*

Many chapters highlight key events in the history of nutritional science including the early discovery of the essential nutrients.

3. *GEC: Students provide examples of inter-dependence of scientific and technological developments.*  
**HUMN NTR 2210:** Determine how nutritional information is derived from the scientific method of investigation and understand how the methods of modern science are used in the assessment of nutritional status.

Recent findings are emphasized throughout the text, including the current discovery of the effects of nutrients on the human genome. Chapter 3, “The Human Body: A nutrition perspective” includes an entire section titled, “A Closer Look at Genetics and Nutrition” which discusses The Emerging Field of Nutrigenomics, Nutritional Diseases with a Genetic Link, and Your Genetic Profile.

4. **GEC:** *Students discuss social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world.*  
**HUMN NTR 210:** Understand the diverse social and cultural patterns that influence food preferences and their implications to nutrient status and understand the potential of modern science and technology to address nutritional problems of the contemporary world.

The textbook's title, Contemporary Nutrition, reflects the fact that the course material is designed to accurately convey changing and seemingly conflicting messages to students in introductory nutrition. An objective approach to newly emerging or controversial topics is used so that students learn to carefully scrutinize the nutritional information they read and hear about. Several controversial topics are presented as "Making Decisions", "Critical Thinking", "Nutrition and Your Health", "Case Studies", and "Rate Your Plate" scenarios. After completing the assigned readings, students will be better equipped to understand how the nutrition information coming from all directions, whether on food packages, websites, or the evening news; in popular magazines and newspapers; or from government agencies-applies to them. The section "A Closer Look at Genetics and Nutrition includes new information on genetic testing and the new area of study called epigenetics.

- c) How do course topics address the general and specific expected learning outcomes above? The following is a list of several, but not all, course topics and examples of how they address the expected learning outcomes.
1. What you eat and why
    - Designed to allow students to describe how our food habits are affected by physiological processes, meal size and composition, early experiences, ethnic customs, health concerns, advertising, social class, and economics.
  2. Guidelines for designing a healthy diet
    - Designed to allow students to outline the measurements used in nutrition assessment; anthropometric, biochemical, clinical, dietary, and environmental status.
  3. The Human Body: A nutrition perspective
    - Designed to allow students to: identify the functions of common cellular components; list some basic characteristics of the 12 organ systems and outline a role for each related to nutrition; outline the overall processes of digestion and absorption; understand the role of genetic background in development of nutrition-related diseases.
  4. Carbohydrates
    - Designed to allow students to identify the basic structures and food sources of the major carbohydrates; list the functions of carbohydrate in the body; describe the regulation of blood glucose; identify the consequences of diabetes and explain appropriate dietary measures that will reduce the adverse effects of this health problem.
  5. Lipids
    - Designed to allow students to list the four classes of lipids; explain how lipids are digested and absorbed; name the classes of lipoproteins; list the functions of

lipids; discuss the implications of various fats; characterize symptoms of cardiovascular disease.

6. Proteins
    - Designed to allow students to describe how amino acids from proteins; list primary functions of protein; describe how protein-calorie malnutrition eventually can lead to disease.
  7. Energy balance and weight control
    - Designed to allow students to describe energy balance and the uses of energy by the body; outline the risks to health posed by overweight and obesity.
  8. Micronutrients
    - Designed to allow students to evaluate the use of vitamin supplements with respect to their potential benefits and hazards to the body
  9. Nutrients involved in fluid and electrolyte balance
    - Designed to allow students to explain the role of nutrition in maintaining a healthy blood pressure
- d) How do the written assignments address the general and specific expected learning outcomes above? Specifically explain:

Two of the written assignments for HUMN NTR 2210 are good examples of how students achieve the course of the learning outcomes. In Assignment 1 students keep a comprehensive record of their food intake for 24 hours. This record include the Food and Quantity but also the Minutes Eating, Other People Present, Degree of Hunger, Place of Eating, and Reason for Food Choice. Students also keep a separate record of all of their activity for the same day on which they record food intake. Their activity includes everything you do during the day including walking, studying, watching television, working out, etc. This Assignment 1 is graded, providing feedback on the accuracy of the records. In a follow-up Assignment, the Food and Activity Analysis, student's analyze the data they recorded in Assignment 1, Food and Activity Records. It is required that they use the same records along with any changes that were suggested as feedback when Assignment 1 was graded. In the Analysis assignment, students enter their personal profile information and then their activities and foods. Once they have completed entering the data, the program is ready to analysis the data and produce the needed reports (All Daily Reports). This report will be saved as a pdf document and submitted to the Carmen Dropbox labeled Analysis, along with your Food and Activity Records from Assignment 1. In this assignment students also will answer questions related to the analysis by answering questions. Example of the questions answered are: Do you meet those recommendations for the day you evaluated? Looking at your food and physical activity records, what behavior modifications could you make to enhance your health?

The assignments provide opportunities for feedback and revision and give students experience in nutrition assessment and evaluation, as well a professional writing experience involving effective written and oral communication.

Other assignments are designed to have students evaluate sources of nutrition information which encourages them to develop information literacy.

4) a course assessment plan that is designed to show how the course achieves its expected learning outcomes over time (rather than how individual student grades will be assessed.)

## **Assessment of GEC Learning Outcomes in Human Nutrition 2210**

### **I. ABSTRACT**

The assessment of HUMN NTR 2210 learning outcomes, including those related to the GEC, has been an ongoing process since the course's (HUMN NTR 210) first offering in 1992. The course learning outcomes are very closely aligned with those of the Natural Science GEC, so successful learning as assessed by exams and assignments has been assumed to be consistent with GEC objectives. In 2006, a more targeted assessment of GEC objectives was planned and implemented. Several test questions embedded in HUMN NTR 2210 exams were identified as good measures of Natural Science GEC learning outcomes. These questions have been assessed. In addition learning outcomes were assessed through student performance on the course's primary assignment which integrates several GEC objectives. Our targeted GEC assessment will now be implemented in all sections of HUMN NTR 2210. Course material and subsequent test questions are revised frequently to reflect the nature of the changing concepts in human nutrition and science.

### **II. COURSE DESCRIPTION**

HUMN NTR 2210, The Science of Human Nutrition, is a 3 credit course described as covering the principles of biological science involving interactions between nutrients and physiological processes with emphasis on implications for human health. This is an accurate description of the course as it was approved in 1991 and as it is currently taught. As a second course in the biological sciences section of the Natural Science GEC, it provides instruction in how the scientific method is used to establish requirements for chemicals (nutrients) essential for physiological development and maintenance of physiological well being and conversely how physiological processes impact needs for nutrients. Key discoveries in the areas of nutrition, biochemistry, and physiology, particularly as they relate to nutrient function are emphasized. The impacts of technological developments within the context of health concerns are discussed. The learning outcomes call for an understanding of the principles of the natural sciences and methods used in scientific discovery including the interactions between environment, physiological development and maintenance of health.

Teaching methods include lectures, videos/animations, readings, online activities including the computerized diet and activity evaluation. All students are required to use the course management system, Carmen. Exams consist of multiple choice questions. Course material and subsequent test questions are revised frequently to reflect the nature of the changing concepts in human nutrition and science. The use of technology for delivery of course content has increased. In fact, every quarter, one section of the course (HUMN NTR 210D) has been taught entirely online. The outcomes of the online activities, including the entire online course are frequently compared with those of the traditional course sections.

### **III. LEARNING OUTCOMES ASSESSMENT PLAN:**

The Natural Science GEC goals are to “foster an understanding of the principles, theories and methods of modern science, the relationship between science and technology, and the effects of science and technology on the environment.”

The following is a list of the Natural Science GEC Objectives along with the parallel HUM NTR 2210 Learning Objectives that incorporate these objectives:

5. **GEC:** *Students understand the basic facts, principles, theories and methods of modern science.*  
**HUMN NTR 2210:** Understand basic biological aspects of nutrient requirements of humans and appreciate the complex interactions and synergism of nutrients upon physiological and cellular processes and recognize the linkages between nutrients and disease processes, body size, mental ability and performance.
6. **GEC:** *Students learn key events in the history of science.*  
**HUMN NTR 2210:** Understand key events in the history of nutritional science from the early discovery of the essential nutrients to the current discovery of the effects of nutrients on the human genome.
7. **GEC:** *Students provide examples of inter-dependence of scientific and technological developments.*  
**HUMN NTR 2210:** Determine how nutritional information is derived from the scientific method of investigation and understand how the methods of modern science are used in the assessment of nutritional status.
8. **GEC:** *Students discuss social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world.*  
**HUMN NTR 2210:** Understand the diverse social and cultural patterns that influence food preferences and their implications to nutrient status and understand the potential of modern science and technology to address nutritional problems of the contemporary world.

In HUMN NTR 2210, the assessment of learning outcomes, including those related to the GEC, has been an ongoing process since the course's (210) first offering in 1992. The course learning outcomes are very closely aligned with those of the Natural Science GEC, so successful learning as assessed by exams and assignments has been assumed to be consistent with GEC objectives. Student performance and achievement of learning outcomes has been assessed using the following activities and grading rubric:

**Exams:** Three (3) midterms @100 points each and cumulative make-up final (all exams consist of multiple choice questions).

**Assignments:** Food & Activity Record (30 pts); Dining out within the Dietary Guidelines (30 pts); Dietary & Activity Analysis (40 pts). The following scale is used in determining letter grades out of the total 400 possible points:

93-100 %	A	83-87% B	73-77% C	60-67% D
90-92	A-	80-82 B-	70-72 C-	
88-89	B+	78-79 C+	68-69 D+	

Since 2006, a more targeted assessment of GEC objectives has been implemented. Several test questions embedded in HUMN NTR 2210 exams were identified as good measures of Natural Science GEC learning outcomes. These questions have been assessed annually. In addition learning outcomes are assessed through student performance on the course's primary assignment which integrates several GEC objectives. Our targeted GEC assessment are now implemented in all sections of HUMN NTR 2210. Each section of HUMN NTR will include several of the designated questions in their exams.

The learning outcome results are collected and shared among all HUMN NTR 2210 instructors and the Human Nutrition Undergraduate Studies Committee on an annual basis. If results for any question area fall below a 70%, the delivery of the content area will be assessed for improvement. Assessment of the online section of this course (HUMN NTR 210D) compared to the traditional lecture sections is also done to insure that both types of course delivery are effective at achieving the desired learning outcomes. Course material and subsequent test questions are revised frequently to reflect the nature of the changing concepts in human nutrition and science.

#### IV. LEARNING OUTCOMES ASSESSMENT REPORT:

The following table includes the assessment results of test questions that specifically address the Natural Science GEC Learning Objectives that are met in HUMN NTR 2210 and that are embedded in mid-term and final examinations in HUMN NTR 2210. Typical results, ranging from 65 to 96% correct, indicate that the majority of students are demonstrating the knowledge and desired learning outcomes related to these objectives.

Learning Objective	% Correct
<b>1. GEC Objective:</b> <i>Students understand the basic facts, principles, theories and methods of modern science.</i>	
<b>HUMN NTR 2210 Objective:</b> Understand basic biological aspects of nutrient requirements of humans and appreciate the complex interactions and synergism of nutrients upon physiological and cellular processes and recognize the linkages between nutrients and disease processes, body size, mental ability and performance.	
<i>Multiple choice test items that demonstrate competence:</i>	
A. A hereditary condition caused by an incorrect amino acid in the amino acid sequence of a protein chain is [sickle cell anemia].	<b>87%</b>
B. Mucus-forming cells in the body deteriorate and can no longer form mucus when there is a deficiency of [vitamin A].	<b>65%</b>
C. The cells most sensitive to a deficiency of dietary folate are cells that [have a short life span and rapid turnover rate].	<b>80%</b>
<b>2. GEC Objective:</b> <i>Students learn key events in the history of science.</i>	
<b>HUMN NTR 2210 Objective:</b> Understand key events in the history of nutritional science from the early discovery of the essential nutrients to the current discovery of the effects of nutrients on the human genome.	
<i>Multiple choice test items that demonstrate competence:</i>	
A. According to the Center for Disease Control (CDC) the incidence of diabetes has increased dramatically since 1991 along with an increase in [obesity].	<b>84%</b>
B. Most of what we know about vitamins resulted from research that occurred [during the early 1900's]	<b>71%</b>
C. "Enrichment" of grain products began in the 1940s but does NOT include the adding back of which of the following substances: [fiber]	<b>75%</b>
D. A deficient intake of _____ has recently been shown to increase the risk of having a baby with a neural tube defect such as spina bifida, especially if there is a genetic mutation involved. [folic acid]	<b>73%</b>
<b>3. GEC Objective:</b> <i>Students provide examples of inter-dependence of scientific and technological developments.</i>	
<b>HUMN NTR 2210 Objective:</b> Determine how nutritional information is derived from the scientific method of investigation and understand how the methods of modern science are used in the assessment of nutritional status.	
<i>Multiple choice test items that demonstrate competence:</i>	
A. Which of the following testing methods is considered the most accurate way of measuring percent body fat? [Underwater weighing]	<b>84%</b>
B. Anthropometric measurements include [height, weight, skinfolds, and body circumferences].	<b>79%</b>
C. The study of disease patterns within populations is called [epidemiology].	<b>76%</b>



<b>4. GEC Objective:</b> <i>Students discuss social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world.</i>	
<b>HUMN NTR 2210 Objective:</b> Understand diverse social and cultural patterns that influence food preferences and their implications to nutrient status and understand the potential of modern science and technology to address nutritional problems of the contemporary world.	
<i>Multiple choice test items that demonstrate competence:</i>	
A. Causes of death related to diet, such as heart disease, cancer, strokes & diabetes account for [~2/3 or 62% of all deaths].	<b>84%</b>
B. A well-designed weight loss program and diet should include [all of the above (an increase in physical activity, change in problem behaviors, reduction in energy intake)]	<b>96%</b>
C. The most common deficiency disease in the world is [iron deficiency anemia].	<b>80%</b>

The following table illustrates the results (copied from Carmen webpage) of the Dietary and Activity Analysis project completed by students in HUMN NTR 2210. The average score of 92.5 indicates that students are achieving the desired outcome of utilizing computer technology to assess dietary intakes and activity levels compared to national recommendations.

#### **HUMN NTR 210:**

##### **Statistics for Nutritional Analysis**

**Number of Submitted Grades: 281**

**Average:**



92.5%

**Minimum:**



63.8%

**Maximum:**



100%

**Standard Deviation: 6.3%**

**Median: 93.8%**

**Mode: 95%**

These learning outcomes results will be collected and shared among all HUMN NTR 2210 instructors and the Human Nutrition Undergraduate Studies Committee on an annual basis. If results for any question area fall below a 70%, the delivery of the content area will be assessed for improvement.

5) a course syllabus (please see ASC Syllabus Template requirements)

The Ohio State University  
College of Human Ecology  
Department of Human Nutrition  
**2210 The Science of Human Nutrition**

<b>Instructor</b>	<b>TAs</b>
<b>Office</b>	
<b>Office Hrs</b>	<b>TA Office</b>
<b>Phone</b>	<b>TA Office Hr</b>
<b>E-mail</b>	
<b>Class time</b>	
<b>Classroom</b>	<b>Carmen:</b> <a href="http://carmen.osu.edu">http://carmen.osu.edu</a>

**TEXTBOOK:**      Wardlaw, Gordon M & Smith Anne M. Contemporary Nutrition, 8th ed. McGraw-Hill, 2011.  
Online Learning Center to accompany Contemporary Nutrition, 8th ed.

*General Education Curriculum (GEC) Objectives: This course meets the goals of the Natural Science component of the GEC. Courses in natural sciences foster an understanding of the principles, theories and methods of modern science, the relationship between science and technology, and the effects of science and technology on the environment. The specific learning objectives below that stem from the Natural Science Learning Objectives.*

**COURSE DESCRIPTION & LEARNING OBJECTIVES:** The course will address the basic principles of biological science, emphasizing the interaction between chemicals (nutrients) and physiological (including cellular) processes. Upon completion of this course the student will be able to:

1. Understand basic biological aspects of nutrient requirements of humans and appreciate the complex interactions and synergism of nutrients upon physiological and cellular processes and recognize the linkages between nutrients and disease processes, body size, mental ability and performance.
2. Understand key events in the history of nutritional science from the early discovery of the essential nutrients to the current discovery of the effects of nutrients on the human genome.
3. Determine how nutritional information is derived from the scientific method of investigation, evaluate reputable versus non-reputable sources of nutrition information. and understand how the methods of modern science are used in the assessment of nutritional status.
4. Understand the diverse social and cultural patterns that influence food preferences and their implications to nutrient status and understand the potential of modern science and technology to address nutritional problems of the contemporary world.
5. Utilize computer technology to assess dietary intakes and activity levels compared to national recommendations.

**TEACHING METHODS:** Lectures, videotapes, readings, computerized diet and activity evaluation.

**Email/Internet:** All students must have an active OSU email account. We expect all students to know how to use the Internet. If you do not know how to use the Internet, take the tutorial at the following address:  
<http://gateway.lib.ohio-state.edu/csc>.

**CARMEN** All students are required to use the course management system, Carmen. Course announcements including grades will be posted on our course web site. To gain access to this information, go to the following website, <http://carmen.osu.edu> If your OSU username is not activated, go to the following website and activate it: <https://acctmgt.service.ohio-state.edu/>

**EVALUATION:** The following are required assignments that will be used to determine your grade in this class. Details for assignments will be provided throughout the quarter. Assignments will be posted on Carmen.

**Attendance:** It is the student's responsibility to attend class.  
It is difficult to pass without regular attendance.

**Exams:** Exams will consist of multiple choice questions.

Three (3) midterms @100 points each = 300 pts  
Cumulative Make-up Final (= 100 pts)

**Assignments:** **Food & Activity Record** = 30 pts  
**Dining out within the Dietary Guidelines** = 30 pts  
**Food & Activity Analysis** = 40 pts

**TOTAL POINTS** = **400 pts**

**COURSE GRADING SCALE:** The following scale will be used in determining letter grades out of the total 400 possible points:

93-100 %	A	83-87% B	73-77% C		
90-92	A-	80-82	B-	70-72	C-
88-89	B+	78-79	C+	68-69	D+
				60-67% D	

**MAKE-UP EXAM POLICY:**

There will be no makeup exams. If you miss a midterm exam you must take the optional final. If you miss two midterm exams, there is no procedure in place to make up the second exam. Any late assignments are penalized 10% during the first week. No late assignments will be accepted that are more than one week late.

**STUDENTS WITH DISABILITIES:**

We welcome the opportunity to discuss privately the specific needs of any student who feels he or she may need an accommodation based on the impact of a disability. Please contact the Office for Disability Services at 614-292-3307, or visit 150 Pomerene Hall, to coordinate reasonable accommodations for documented disabilities.

**ACADEMIC MISCONDUCT:**

The guidelines set forth in the most recent version of the OSU student handbook concerning the OSU Student Code of Conduct will be observed. It can be found at: [http://studentaffairs.osu.edu/resource\\_csc.asp](http://studentaffairs.osu.edu/resource_csc.asp). Academic Misconduct is defined as any activity which tends to compromise the academic integrity of the institution, or subvert the educational process. Suspected cases of academic misconduct will be reported to the Committee on Academic Misconduct.

**SCHEDULE:**

<i>Week</i>	<i>Topic</i>	<i>Readings</i>
1	Introduction: What You Eat and Why Nutrition and Health/Nutrients Using Scientific Research to Determine Nutrient Needs	Chapter 1
2	Guidelines for Designing a Healthy Diet Methods of Nutritional Assessment; Dietary Guidelines, MyPyramid , DRIs, Food Labels; Healthy Web sites	Chapter 2
3	<b>The Human Body:</b> A Nutrition Perspective Human Physiology: Digestive System	Chapter 3
4	<b>NUTRIENTS: Carbohydrates</b> Simple, Complex Carbohydrates/Fiber Digestion, Absorption, Energy Use Lactose Intolerance, Diabetes	Chapter 4
5	<b>NUTRIENTS: Lipids (Fat)</b> Digestion, Absorption, Function	Chapter 5
	<b>EXAM I (Chapters 1-5)</b>	
6	<b>NUTRIENTS: Lipids (Fat),</b> Heart Disease Fat Intake & Replacement Strategies	Chapter 5
7	<b>NUTRIENTS: Protein</b> Amino Acids; Putting proteins to work; Vegetarianism	Chapter 6
8	<b>ENERGY: Energy Balance:</b> Intake vs. Use <b>Weight Control:</b> Healthy Weight/Obesity	Chapter 7
9	<b>Energy Balance:</b> Obesity Treatment Controlling Energy Intake/Physical Activity Medications to Aid Weight Loss/Fad Diets	Chapter 7
10	<b>NUTRIENTS: Fat Soluble Vitamins, A, D, E, K</b> Vitamin Supplements: Who Needs Them?	Chapter 8
11	<b>NUTRIENTS: Water Soluble Vitamins</b> Thiamin, Riboflavin, Niacin, B-6, Folate, B-12, C	Chapter 8
	<b>EXAM II [Chapters 5, 6, 7, 8]</b>	
12	<b>NUTRIENTS: Water</b>	Chapter 9
13	<b>NUTRIENTS: Major Minerals</b> Water, Sodium, Potassium, Chloride, Fluoride High Blood Pressure	Chapter 9
	<b>NUTRIENTS: Major Minerals</b> Calcium, Phosphorus/Osteoporosis	Chapter 9
	<b>NUTRIENTS: Trace Minerals</b>	Chapter 9
14	<b>Fitness and Sports</b> Energy Sources, Fluids/Ergogenic Aids? <b>Eating Disorders,</b> Anorexia Nervosa & Bulimia Nervosa <b>Alcohol</b>	Chapter 10 Chapter 11 Chapter 16
	<b>Exam III (Chapters 9, 10, 11, 16)</b>	