

Course Code: BIOL 104
Course Title (credits): Health, Nutrition and Sustainability (3)
Term and Year: Fall 2013
Course Ref. No. (CRN): 80184

Instructor: Sean Ryland
Email: smryland.chem@gmail.com
Office: TCES 2nd Floor
Office hours can be arranged by appointment

Lecture Meeting Time: M 5:30-8:15 PM
Lecture Location: TCES 202

Course Description:

Students are introduced to health and nutrition issues from an individual perspective to a public health perspective. This course explores the contribution of and impacts on the environment, genetics and behavior on health issues. It provides an introduction to nutrition, physical fitness and health behavior by reviewing health appraisal, fitness and nutrition analysis. It includes the foundations for program development, communication and administration of health programs.

Student Outcomes:

Students successfully completing these courses will demonstrate the following:

- Understanding of nutritional requirements of humans as individuals and as a community.
- Ability to argue the merits of both small scale and industrial scale farming techniques.
- Formulation of a coherent “food philosophy,” which takes into account ecological, nutritional and regional considerations.

Methods for Assessing Student Outcomes:

Students will be evaluated based on papers, projects and participation in classroom discussions. The book we will be reading for this class will be discussed during lectures, and participation will be graded on contributions to the discussion that demonstrate knowledge of the material (i.e. did you read the material?) and insight (i.e. have you thought about what you read?).

Learning Strategies:

Nutrition and Sustainability will read portions of *Food, Inc.: A Participant's Guide*, which presents an numerous arguments against the current practices of industrial farming. Being successful in this course will require both reading the book and researching the claims made by the book in order to determine whether the claims made are legitimate. By immersing yourself in the material by thinking about the issues at hand during your everyday routine, you will find yourself “studying” at every meal.

Instructional Texts:

1. *Food, Inc.: A Participant's Guide*, edited by Karl Weber (ISBN: 1586486942)

Attendance:

Attendance will be taken at each lecture in the form of a short written response to various articles regarding current events and nutrition topics. Missing a class will result in a zero for all discussions and classwork for that lecture. In the event of an excused absence, a student can meet with the instructor during office hours to conduct an informal one-on-one discussion about what he or she missed. Acceptable excuses include, but are not limited to, illness (of the student or a dependent) with a physician's note, military duty or family bereavement. Oversleeping or conflicting employment schedules are NOT acceptable excuses.

Sanctions for Academic Dishonesty:

For a comprehensive definition of what is considered cheating or plagiarism, please refer to the Sierra Nevada College Course Catalog. In short, academic dishonesty is representing another's work or thoughts as your own or fabricating results. For the first offense, the student receives a zero for assignment/exam and/or a determination by the faculty if the student should fail the course is made. Counseling with faculty on the honor code, consequences for violating the honor code, and the value of academic honesty in learning are provided. In the event of a second offense, the student will be expelled.

Special Accommodations (ADA) Statement:

"In accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, students with a documented disability are eligible for support services and accommodations. If a student wishes to request an accommodation, contact the Director of Student Services (Prim Library room 323) at (775) 831-7799 x7534 within the first week of the semester."

Grading Policy:

Letter grades will be awarded in BIOL104 according to standard grading conventions as follows. A: >90%, B: 80-90%, C: 70-80%, D: 60-70%, F: <60%. Plus and minus grades will awarded accordingly. Grades will be determined as follows:

Research Paper:	30%	
Choose a subject and discuss in class:		September 8
Bring a formatted list of at least ten sources:		September 22
Rough outline:		October 20
Rough draft:		November 17
Final Draft:		December 10
Informational Presentation:	20%	
Nutrition Unit:	20%	
Attendance/In Class Writing:	20%	
Food Log:	10%	

Persuasive Research Paper: The research paper will be written over the course of the semester with input from the instructor at various deadlines. The subject of the research paper can be any controversial topic relevant to either agriculture or nutrition. The student must present both sides of the controversy, supporting or refuting all claims with reputable sources, and make clear in the final paragraph(s) which side the student favors and why. More information will be provided closer to the date of each deadline.

Deadlines:

Choose a subject and discuss in class:	September 8 (10%)
Bring a formatted list of at least ten sources:	September 22 (10%)
Rough outline:	October 20 (15%)
Rough draft:	November 17 (15%)
Final Draft:	December 10 (50%)

Informative Presentation (October 13): Each student will be responsible for teaching the rest of the class about a skill or topic relevant to health, nutrition or sustainability. The presentation should be on a different topic from the topic of the student's research paper. The presentation should be 7-10 minutes long and should use appropriate visual aids (PowerPoint, poster, etc.). More information will be provided closer to the date of the presentation.

Nutrition Unit: The nutrition component to BIOL104 will be taught and assessed in 5 segments. One or more lectures will be dedicated to each of the following basic nutritional requirements: carbohydrates, lipids, protein, vitamins and minerals, and water. During the lecture following each section, a short quiz will be given.

Attendance/In Class Writing: The attendance portion of the final grade will consist of two components. First, attendance and participation in the discussions during each lecture will be tabulated and graded over the course of the semester. Second, during or before every lecture, each student will be provided with a short informative reading assignment (i.e. an article), which will be analyzed in class. The analysis should consider the biases of the author and reader, any relevant logical fallacies and any material covered in class, and will address a question posed by the instructor.

Food Log: During the second half of the semester, students will prioritize the most important aspects of their food consumption (health, sustainability, weight loss, etc.) and track their consumption of food, noting the type and amount of calories consumed, the source of the food and whether the food had any particular identifiers (organic, local, sustainable, etc). At the beginning of each lecture period, the students will turn in the previous week's log with a short summary assessing how well the student fulfilled their goals.

Due Dates and Late Work: Assignments are due at the beginning of class the day they are due. Once class has started, assignments are docked 10% of the total points possible. Every day following, the assignments lose an additional 10%. Assignments more than 5 days late will receive a maximum of 50% credit.

Acknowledgements:

Thanks to Dr. Tom Clarke for the use of his syllabi in crafting this syllabus.

Tentative Course Schedule

Week	Date	Topics and Assignments	Deadlines
1	8/18	Introduction and Course Description	
2	8/25	Basic Nutrition and History of Agriculture	
3	09/1	Carbohydrates and the “Green Revolution”	
4	9/8	Research Paper Topics and Carbohydrate Quiz	Research Paper Topic Carbohydrate Quiz
5	9/15	Food, Inc. Screening and Discussion	
6	9/22	Lipids and New Agricultural Trends Food, Inc Ch. 3 “Organics: Healthy Food and More”	
7	9/29	Protein and “Genetically Modified Organisms” (GMO's) Food, Inc Ch. 4 “Food, Science and World Hunger”	Bring 10 Sources to Class Lipid Quiz
8	10/6	Gluten and The Effects of Diet on Climate Change Food, Inc Ch. 6 “Climate Crisis at the End of Our Fork”	Protein Quiz
9	10/13	Informational Presentations (MIDTERM GRADES DUE)	Informational Presentations
10	10/20	Vitamins / Minerals and Research Paper Discussion	Research Paper Outline
11	10/27	Maximizing Nutrition and Responsible Agriculture Food, Inc Ch. 11 “Eating Made Simple”	Vitamins and Minerals Quiz
12	11/3	Nutrition of Water and Sustainable Water Production	
13	11/10	Vegetarianism and the Body's Response to Nutrition	Water Quiz
14	11/17	Workshop Rough Drafts	Research Paper Rough Draft
	11/24	Thanksgiving Break	
15	12/1	Diet-caused Diseases and Public Health Concerns	
Final	12/10	Research Paper Due	Research Paper Due