

# HDFN 451R

# Sustainable Food Systems

Spring 2008

Department of Health and Human Development

Montana State University

[www.montana.edu/hhd/syllabi.htm](http://www.montana.edu/hhd/syllabi.htm)

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**Office Hours:** Wednesdays 8am-10am

**Mail Box:** HHD Advising Center, 121 PE Complex

**Course Meeting Times:** Tues/Thurs 2:10-3:25am

**Location:** 117 Herrick Hall

**Course Credits:** 3 LEC Credits

## Learning Goals

Students taking this course will learn, know, or understand...

- The food system conceptual framework and the sectors of the food system.
- Interconnections among food system sectors or components.
- How food choices are influenced by food system components and how food choices in turn have an impact on the food system.
- How to use the food system model to analyze current food and nutrition problems.
- The implications of the current U.S. food system for sustainability.

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## Course Description

In this course students will learn about the connections among food, agriculture, and the environment and understand the role of the food manufacturing industry in creating a food supply and influencing food choices. Students will gain a systems perspective on current problems related to food and health. Emphasis will be placed on the sustainability of the current system, the external costs of food choices, and the role of nutrition professionals and consumers in sustaining a healthful food supply.

**Prerequisite:** HDFN 221, 321, & 351 or consent of instructor

## Required Texts

There is no required text for this course. Assigned readings will be available on-line, on WebCT, or in the MSU library and Reserves.

## Conceptual Framework

The course will be organized around the various sectors of the Food System including natural and human resources, related influences, production, transformation, distribution, access, consumption, and system outcomes.

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## Grades

The following is a list of activities included in this course and the relative contributions each makes to a students' grade.

Food & Sustainability	10
Independent Research Proposal	50
Research Paper	100
Research Poster	50
Presentation of Research	50
Group Discussions, Current Events & Individual Responses	100
Quizzes (4 @ 50 points)	200
<u>Self Evaluation</u>	<u>10</u>
<b>TOTAL POINTS</b>	<b>570</b>

Final grades are assigned as follows:

100-93 =A (4.0)	73-76.9 =C (2.0)
92.9-90 =A- (3.7)	72.9-70 =C- (1.7)
89.9-87 =B+(3.3)	69.9-67 =D+(1.3)
86.9-83 =B (3.0)	66.9-63 =D (1.0)
82.9-80 =B- (2.7)	62.0-60 =D- (0.7)
79.9-77 =C+(2.3)	Below 60=F (0.0)

## Course Activities & Assignments

Below are brief descriptions of course activities and assignments. For most activities you will receive more detailed instructions in class.

**Food & Sustainability:** As an introduction to the course, reflect on your personal food system. Discuss your interests and concerns about food. What does sustainability mean to you? Write your thoughts in one page or less. If this is your first course with me, please incorporate a photo of yourself somewhere on the page. This will assist me in learning your name.

**Independent Research Proposal:** During the semester you will conduct independent research on a food system question. Approximately mid-way through the semester you will submit a proposal for your research that describes your intentions including: WHAT (your topic), WHY (a justification for why this topic is worthy of research), and HOW (a description of the methods, sources, and experiences you will use to explore your topic).

**Research Paper and Poster:** Discuss your research purpose, methodology and findings in a formal paper. Papers should be clear and concise (3000 words or 10-15 pages) and include correctly cited peer reviewed references. Develop your poster on PowerPoint slide and use it to present your research.

**Presentation of research:** Your research is not complete until you have communicated your findings. Several class periods will be devoted to 10 minute oral research presentations. Both your instructor and your audience will evaluate your presentation.

**Group Discussions, Current Events & Individual Responses:** Approximately once per week you will have the opportunity to participate in class discussions, individually or in groups. Come to class prepared by completing assigned readings or current events research ahead of time. Discussions will include short written responses for which you will receive between 5 and 10 points (70 points total will be offered in class). To earn points for current events, bring in a news piece from the internet related to the day's topic and provide a well-prepared 1 minute summary for the class. Each current events presentation will earn you 10 points.

**Quizzes:** There will be 4 announced quizzes on specific course topics. Quizzes will be completed outside of class and will test skills related to course content and inquiry.

**Self Evaluation:** You will reflect on course experiences, considering what you have learned and how you can apply it in the future. Questions will be posted WebCT at the end of the semester.

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## Course Topics

The following is a list of potential topics for this course:

### Food and Natural Resources

An Introduction to the Food System  
Biodiversity: Meaning and Importance to the Food Supply  
Soil & Water: Critical Food System Inputs  
Energy Use and Exchange in the Food System  
Global Warming

### Food Production

American Agriculture: Historical Aspects  
Agricultural Literacy and Food Production Basics  
Freshwater and Ocean Fisheries and Aquaculture  
Labor in the US Food System  
Animal Welfare  
Synthetic Agrochemicals, IPM, and Organic Agriculture  
Land Use and Farmland Protection  
Genetic Engineering in Food Plants and Animals

### The Food Industry: Food Transformation, Distribution and Access

Food Processing and Manufacturing  
Food Irradiation  
Food Quality and HACCP  
Food Packaging and Nutrition Labeling  
Food Marketing and Advertising  
Food Retailing  
Evolution of the Modern Supermarket

### Food and Health:

Food Literacy: Preparation of Whole Foods  
Functional Foods  
Dietary Supplements & Herbal Remedies  
Food Additives

### Food System Sustainability:

Local Food Systems  
Food Economics: Food Choices and Food Costs  
Food and Nutrition Policies  
Citizenship and the Food System

## Research Component of Course

This course emphasizes independent research and creative activity. You will receive guidance on your research project throughout the semester and should seek additional help as needed. Early in the semester we will review and discuss the fundamentals of research methods. One class period will be held in the library so that all students will be confident in using library search engines to explore their research topics. One class period will be devoted to developing your specific research topic, how to write a proposal, and how to correctly cite sources of information. About one week before the proposal is due, you will bring a rough draft of your proposal to class for peer review in small groups. You may wish to revise your proposals to reflect comments provided by your peer reviewers. About three weeks before research projects are due you will be asked to provide a short progress report to a group of peers who will ask questions and offer suggestions as appropriate. Final class periods will be devoted to oral presentations of research. All presentations will be peer-reviewed, as well as evaluated by your professor and other invited guests.

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## Course Policies

### Assignments:

All assignments are due before the start of class on or before the day indicated by the class schedule. Please plan ahead. Late assignments will be accepted only if pre-arranged (before the due date).

### Communicating with your Professor:

When you need help in the course, please contact me. You are welcomed and encouraged to speak with me before or after class. I am also available during office hours, by appointment, by phone 8am-4pm Monday through Friday, and by e-mail 8am-4pm Monday through Friday. (Of course you are free to call or e-mail any time, but do not expect an answer during the evening or on weekends.) For the most rapid response, put HDFN 451 in the subject line of an e-mail. In a voicemail, clearly state your name, question, and return phone number.

### Written Assignments:

Assignments should be well-written with correct spelling and grammar. You are encouraged to get help with your writing before handing in an assignment. Poorly written

assignments will be returned to the student to be re-written. Writing tutors are available at the MSU Writing Center, 1-108 Wilson Hall, 994-5315, [wc@english.montana.edu](mailto:wc@english.montana.edu). Follow instructions provided on assignment sheets very carefully.

### Preparation for Class:

Due dates and reading assignments are on the class schedule. In-class discussions and activities will require that you have completed readings and answered the discussion questions posted on WebCT. Come to class prepared. Also, come to class with the intention of being present—both physically and mentally. This means that you should not be studying for another class, chatting with your neighbors about weekend plans, or text messaging.

### Academic Integrity:

“Montana State University believes that academic honesty and integrity are fundamental to the scholastic mission of higher education and have established standards to sustain them. Students who violate these standards will be subject to academic and/or disciplinary sanctions.”

According to MSU policy, “The integrity of the academic process requires that credit be given where credit is due. Accordingly, it is academic misconduct to present the ideas or works of another as one’s own work, or to permit another to present one’s work without customary and proper acknowledgment of authorship. Students may collaborate with other students only as expressly permitted by the instructor. Students are responsible for the honest completion and representation of their work, the appropriate citation of sources and the respect and recognition of others’ academic endeavors.” (Policy 340.00) Other Conduct Guidelines and Grievance Procedures for Students for 2004-2005 are available on the Web: at [http://www2.montana.edu/policy/student\\_conduct/](http://www2.montana.edu/policy/student_conduct/)

Students in this course are encouraged to discuss assignments and share ideas, but each must hand in his or her own original work to receive credit. Students must work independently and without aids on quizzes.

**Cheating or plagiarism will result in course failure.**

### Attendance:

Your attendance in class is desired. Class isn’t the same without you. When you are not in class, you miss important information and announcements. In addition you miss the opportunity to earn discussion points. There

are no “make-ups” for what happens in class. However, there will be circumstances where missing class is necessary. If you find yourself in one of the following situations, it will be your responsibility to communicate with a classmate for missed notes or with your professor to make any necessary arrangements regarding assignments. . . .

- 1) illness
- 2) serious illness or death in student’s immediate family
- 3) being away from campus with the sanction of the University or for a religious holiday
- 4) participation in legal proceedings or administrative procedures that require a student’s presence
- 5) required participation in military duties
- 6) mandatory admission interviews for professional or graduate school.

### **Students with Disabilities:**

If you have a documented disability for which you are or may be requesting accommodation(s), you are encouraged to contact your professor and Disabled Student Services as soon as possible. Their office is located in the Strand Union Building Room 155, phone 994-2824.

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## **Course Objectives**

In this course we will address the following objectives, all of which are based on the knowledge and skills required for the academic component of dietitian education programs.

### **Communications**

- Demonstrate knowledge of lay and technical writing
- Demonstrate knowledge of media presentations
- Demonstrate knowledge of interpersonal communication skills
- Demonstrate knowledge of public speaking
- Demonstrate knowledge of educational materials development
- Demonstrate ability to use current information technologies
- Demonstrated ability to use oral and written communications in presenting an educational session for a group
- Demonstrated ability to appropriately document a variety of activities
- Demonstrated ability to work effectively as a team member

### **Social Studies**

- Demonstrate knowledge of public policy development
- Demonstrate knowledge of economics and nutrition

### **Food**

- Demonstrate knowledge of sociocultural and ethnic food consumption issues and trends
- Demonstrate knowledge of availability of food and nutrition programs in the community
- Demonstrate knowledge of local, state, and national food security policy
- Demonstrate knowledge of the role of food in promotion of a healthy lifestyle

### **Nutrition**

- Demonstrate knowledge of health promotion and disease prevention theories and guidelines
- Demonstrate knowledge of the influence of socioeconomic, cultural, and physiological factors on food and nutrition behavior
- Demonstrated ability to translate nutrition needs into food choices and menus for people of diverse cultures and religions

### **Management**

- Demonstrate knowledge of program planning, monitoring, and evaluation

### **Health Care**

- Demonstrate knowledge of health care policy and administration

## COURSE SCHEDULE

#	DATE	Topic	Assignments Etc. Readings & Resources
1	Thursday Jan 17	Introduction to Course Introduction to the Food System	
2	Tuesday Jan 22	Biodiversity	
3	Thursday Jan 24	Soil & Water	Current Issues: natural resources, biodiversity DUE: Food Perspectives
4	Tuesday Jan 29	Energy	
5	Thursday Jan 31	Food vs Fuel	Current Issues: energy consumption, ethanol
6	Tuesday Feb 5	Global Warming	Quiz 1: Natural Resources
7	Thursday Feb 7	Research Methods Review	Current Issues: Global Warming
8	Tuesday Feb 12	Developing Research Topics and Writing a proposal	
9	Thursday Feb 14	Using Library Search Engines (Class held in MSU Library)	
10	Tuesday Feb 19	American Agriculture: Historical Aspects	
11	Thursday Feb 21	Agricultural Literacy: Food Production Basics	Current Issues: US Food Supply, Agricultural Policy, Subsidies, Industrial Food Production
12	Tuesday Feb 26	Fisheries and Aquaculture	Quiz 2: Food Production
13	Thursday Feb 28	Research proposals: Peer Review	DUE: Proposal Draft (oral) Current Issues: Aquaculture and the environment, Ocean Fish Stocks
14	Tuesday Mar 4	Social Justice and Animal Welfare	Complete Mid-semester Evaluation on WebCT
15	Thursday Mar 6	Synthetic Agrochemicals, IPM, Organic Agriculture	Current Issues: Farm Labor, Animal Welfare, Pesticides, Organic production
	<b>MARCH 10-14</b>	<b>SPRING BREAK</b>	

16	Tuesday Mar 18	Land Use and Farmland Protection	DUE: Research Proposal Final Draft
17	Thursday Mar 20	Genetic Engineering of Food Plants and Animals	Current Issues: Loss of Farmland, Genetically Modified Foods Quiz 3: Agricultural Issues
18	Tuesday Mar 25	Writing and Presenting Research	
19	Thursday Mar 27	Industrial Food	Current Issues: Food Processing & Packaging, Food Safety, Irradiation
20	Tuesday April 1	Food Labeling and Sustainable Consumption	
21	Thursday April 3	Food Marketing & Advertising	Current Issues: Labeling, Marketing, Advertising
22	Tuesday April 8	Food Retailing	Quiz 4: The Food Industry
23	Thursday April 10	Food Costs and Health	Current Issues: Hypermarkets, Functional Foods, Supplements, Additives, Herbs, Raw Milk, Food Costs
24	Tuesday April 15	Whole Foods	
25	Thursday April 17	Sustainability and the Future	Current Issues: Food System Sustainability DUE: Research Papers DUE: Research Posters
26	Tuesday April 22	Research Presentations	
27	Thursday April 24	Research Presentations	
28	Tuesday April 29	No Class	
29	Thursday May 1	Research Presentations	
30	May 7 4-5:50pm	<b>FINAL EXAM:</b> Research Presentations	DUE: Self Evaluation on WebCT