

**THE UNIVERSITY OF BRITISH COLUMBIA  
FNH 200 - EXPLORING OUR FOOD**

**January to April 2012, M-W-F 12:00-1:00 PM  
Room 166 - MacMillan Building**

**Dr. Judy C. K. Chan**

Phone: 604-822-5811

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Room 216, Irving K. Barber Learning Centre, 1961 East Mall

**Office Hours:** Please contact me by VISTA internal mail to make an appointment that best fits our schedule. There is no set office hour.

**E-mail Policy:** I aim to response to all Vista e-mails within 24-hour (one business day). I do not answer any assignment, quiz, mid-term, and/or final-exam related questions 24 hours before the scheduled due date and/or exam time.

**Electronic Devices:** Phones, laptops and other electronic devices are okay in class as long as they do not interrupt other students. No electronic devices (including calculators) will be allowed during mid-term and final exam.

**Note:** During the first week of classes, students will be charged a **non-refundable \$3.00** fee for the purchase of food samples/supplies that will be given out in class throughout the term. Paying this fee also does not guarantee those on the waiting list a spot in this class.

### **Course Description**

Students are introduced to chemical and physical properties of foods; issues pertaining to safety; nutritive value and consumer acceptability of food, food quality and additives; food preservation techniques and transformation of agricultural commodities into food products; foods of the future.

This course is required in the Food, Nutrition and Health Program and will also be of value to students in other programs in the Faculty of Land and Food Systems, or in other disciplines including those in the life sciences, health care professions, human kinetics or physical education, who wish to enhance their understanding of the science of food.

**Course Objectives** After completing this course, successful students will be able to:

- Describe tissue-based (both plant and animal) food systems, fluid food systems and various dispersions important to food quality
- Develop personal food selection and food handling habits that will minimize your risk of contracting food-borne or water-borne disease
- Illustrate the importance and role of chemical reactions, enzymes and micro-organisms in food spoilage, food preservation and food-borne disease
- Describe various types of food processing and packaging systems
- Understand the need for and appropriate applications of food processing
- Rationalize and articulate a personal set of values related to your decisions pertaining to selection of food products for your personal and/or your family's consumption

**Course Overview** There are 13 lessons in this course.

Lesson 01: Food Science & the Canadian Food System				
Lesson 02: Chemical and Physical Properties of Food				
Lesson 03: Fat & Sugar Substitutes				
Lesson 04: Food Standards, Regulations & Guides				
Lesson 05: Food Preservation				
Lesson 06: Thermal	Lesson 07: Low Temperature	Lesson 08: Dehydration	Lesson 09: Biotechnology	Lesson 10: Irradiation
Lesson 11: Effects of Food Processing on Nutrient Retention				
Lesson 12: Toxicants in Food & Foodborne Disease				
Lesson 13: Trends in Foods for Nutrition and Health				

Lessons are posted and synchronized in two places:

- [wiki.ubc.ca/Course:FNH200](http://wiki.ubc.ca/Course:FNH200)
- Blackboard Learning System **VISTA**. Once you are in our course, you can find the lessons by clicking on "Course Contents" from either the "Course Content" or the "Learning Modules" tab on the "Course Tools" Menu on the side bar

## Learning Resources

Computer and Internet access are required for this course, as VISTA is used to administrate quizzes, submit assignments and engage in online discussions. Please login at [www.vista.ubc.ca](http://www.vista.ubc.ca)

Please check the VISTA course site regularly and frequently for **updates regarding FNH 200**. If you are new to VISTA or have questions related to its use, please consult Student Resources at <http://www.elearning.ubc.ca/lms/student-resources/>. If you have any specific questions regarding login or access to FNH200 course material on VISTA, please contact our faculty's instructional support staff at [is@landfood.ubc.ca](mailto:is@landfood.ubc.ca)

## Evaluation

Assignment – 5%  
Quizzes (4) – 10%  
Midterm Exam – 30%  
Team Project – 20%  
Final Exam – 35%

## Team Placement

Please note that during the first two weeks of classes, students will be assigned into "VISTA" teams of 6 to 8 people. Members of each team will work together on a project to be presented near the end of the term. This team is also where you will be able to post/ask questions related to the course. Each team will be monitored and facilitated by a Teaching Assistant.

## Assignment (5%)

There will be one assignment for this course for 5% marks. Assignment details can be found in the Assignment Tool of Vista. Failure to comply with the assignment instructions will result in your assignment not being marked. The written assignments must be submitted using the **Assignment Tool** by Thursday, February 9 at 10:00 pm. Late assignments will receive a 25% mark deduction for each late day.

### Please proofread the assignment for spelling and grammar.

A wise word on plagiarism: Copying directly from the lessons, articles or websites is considered plagiarism and a mark of **zero** will be given. Please ensure that you understand what qualifies as plagiarism before you hand in your assignment. Never use another author's ideas or phrasing without indicating a source, and use quotation marks when quoting (Website for UBC Plagiarism Resource Centre: <http://learningcommons.ubc.ca/guide-to-academic-integrity/>). Even if you change a few words, this still may constitute plagiarism. Whenever you quote another source, you must properly specify/acknowledge the source (i.e. use quotation marks, provide the name of the author, year of publication, page number).

## Quizzes (Four, total 10%)

Each quiz will consist of 25 *multiple-choice* and/or *True or False* questions on the material covered over a 2-3 week period. Three quizzes will be conducted **on-line using VISTA** and one will be an in-class, team-based quiz.

- You will have **25 minutes** to complete the quiz. Note: your completion time is measured from when you click "Begin Quiz" to when you click "Finish". Once time has expired, you will not be able to save or submit any more answers. You must save all your answers before submitting the quiz.
- Each quiz can only **be taken ONCE**.
- There will be **NO extensions** whatsoever after the quiz deadline. Therefore, prior to the date of the first on-line quiz, please ensure that you are able to login to the quiz on VISTA. Do not try to complete the quiz a few hours/minutes before the deadline!
  - You may want to try opening the "Sample quiz" first in order to make sure that your internet browser is able to open the quiz window (i.e. browser has the "pop-ups" function unblocked, enable javascript, etc). Please read the "Before you start the quiz" instructions before you proceed with the quiz.

## Team Project (20%)

The objectives of the team project are to enable students to delve deeper into a specific area of interest and to relate it to the topics explored in this course. Students will also gain experience working in an interdisciplinary team and examine the same topic from different perspectives.

Each team will select a food commodity or an aspect of food science and technology that is of interest to the team. Interactions among team members leading to selection of the topic and development of the project can be initiated by electronic communication through the Vista Discussion Tool. In this way, your teaching assistant and instructor may also monitor your progress and provide guidance to you.

You must have your project topic approved by **February 29, 2012**, but you are strongly encouraged to select a topic as soon as possible, since no more than two groups will be allowed to select the same topic for their project.

Each team project will be presented in two formats:

1. Wiki pages on <http://wiki.ubc.ca>, with supporting evidence, data and graphics
2. 4-Minute oral presentation in class, highlighting key, interesting, and /or controversial facts

**All Wiki editions must be completed by Friday, March 23, 2012** at 1:30 pm. Further additions and editions will be disregarded during evaluation.

On **March 26, 28, and 30**, each team will have 4 minutes to present highlights of their projects to the whole class. You may want to explore why you chose the selected topic, key research questions, approaches, and key findings.

**Evaluation:** There are THREE components in the evaluation of the project:

ONE - TA and instructor will evaluate each project based on content (70%), wiki presentation (15%), and oral presentation (15%)

TWO - Each student will provide peer evaluation to each of their peers based on his/her contribution to the team. Hence, each student will receive an average score. The average score will then be translated into a multiplying factor:

Average between 75% to 100% = 1.0

Average below 75% will earn 'face value'

Examples: A team project earned a mark of 85% from the TAs and instructor. Student A received 95% from the peer evaluation and Student B received 60%. Student A will get a score of 85% ( $85\% \times 1.0$ ) and Student B will get 51% ( $85\% \times 0.6$ ).

THREE - Bonus (upto 10%): Excellent projects will be invited to submit to [www.Wikipedia.org](http://www.Wikipedia.org). Students who volunteer extra time to make this happen can earn extra marks. More details will be provided later.

### **Midterm (30%) and Final (35%)**

The **Midterm** and **Final Examinations** will tentatively be a combination of short answer and essay type questions. Details about the examinations will be given in-class close to the exam date.

The **Midterm**, scheduled for Wednesday, **February 10**, will be 45 minutes in duration.

- Memory aid: **ONE 8.5 x 11" sheet SINGLE-sided**
- Midterm exam papers will not be returned to students. Detailed feedback on the midterm will be given in class. Students are welcome to view their midterms by scheduling an appointment during the time allocated for this purpose (TBA in class)

The **Final examination** (2.0 hours long) will be scheduled by the Registrar's office

- Memory aid: **ONE 8.5 x 11" sheet DOUBLE-sided**
- The final examination will cover the entire course, but with greater emphasis on subject matter covered between the mid-term exam and the end of the course.

## Course Schedule

Tentative Schedule for FNH200, January to April 2012. \*\* Please check the VISTA calendar for updates\*\*

Date	Activities	Lesson
Jan 4 to 9	Introduction; What is Food Science and The Canadian Food System	1
Jan 11 to 20	Chemical & Physical Properties of Foods	2
Jan 20 1:30 pm to Jan 22 10:00 pm	<b>Quiz #1 VISTA On-Line</b> Covering material from Jan 4 to Jan 18	
Jan 23 to 25	Fat and Sugar Substitutes / Sensory Perception	3
Jan 27 to Feb 3	Food Standards, Regulations & Guides; Food Additives	4
Feb 3	Team/TA Meeting Day	
Feb 3 1:30 pm to Feb 5 10:00 pm	<b>Quiz #2 VISTA On-Line</b> Covering material from Jan 21 to Feb 2	
Feb 6	Rationale for Food Preservation	5
Feb 8 and 10	Food Preservation – Thermal Processes	6
Feb 8 at 10:00 pm	<b>Assignment #1 Due</b>	
Feb 13	<b>MID-TERM EXAMINATION (45 Minutes)</b>	<b>1 to 5</b>
Feb 15 and 17	Food Preservation – Low Temperature	7
Feb 20 to 24	Mid-term (Reading Week) Break	
Feb 27 and 29	Food Preservation – Dehydration	8
Feb 29	<b>Team Project Topic Submission</b>	
March 2	Team/TA Meeting Day	
March 5 and 7	Food Preservation – Biotechnology	9
March 9 1:30 pm to March 11 10:00 pm	<b>Quiz #3 Team-based In-class</b> Covering material from Feb 4 to 29	
March 12 and 14	Food Preservation – Ionizing Energy	10
March 16 to 19	Effects of Food Processing on Nutrient Retention	11
March 21 to 23	Toxicants in Food and Foodborne Disease	12
March 23: 1:30 pm March 26 to 30	<b>Team Project: Final Edition</b> <b>Team Poster Oral Presentations</b>	
March 30 1:30 pm to April 1 10:00 pm	<b>Quiz #4 VISTA On-Line</b> Covering material from March 1 to 23	
April 2	Trends in Foods for Nutrition and Health	13
April 4	Course Overview/Review	1 to 13
	<b>FINAL EXAMINATION (2 Hours)</b>	<b>1 to 13</b>