

**THE UNIVERSITY OF BRITISH COLUMBIA  
FNH 200 102 - EXPLORING OUR FOOD**

**January to April 2014, M-W-F 12:00 NOON -1:00 PM  
Room 166 - MacMillan Building**

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

Phone: 604 822 5811  
Email: Connect internal messages  
Room 217, Irving K. Barber Learning Centre, 1961 East Mall

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

**Virtual Office Hours:** As an attempt to be connected with you, I will set up virtual office hours. Please follow this link: <<http://goo.gl/IUCRrA>> to access the virtual office on Thursday from 10 to 11 pm. Depending on your computer system and if you have the most updated Java, it may take you approximately 10 minutes to set up. However, once the system is set, subsequent access to the virtual office should be very straight forward. Additional virtual office hours may be added as needed.

**E-mail Policy:** I aim to response to all Connect e-mails within 24-hour (one business day). I do not check e-mail between Friday afternoons and Sunday evening. I am most active on e-mail between 10:00 and 11:30 am, and between 10:00 pm and 12:00 midnight.

I do not answer any assignment, mid-terms, project and/or final-exam related questions 24 hours before the scheduled due date and/or exam time. I encourage the use of Connect discussion board as a way to get clarification from your peers.

**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-terms and final exam.

**Note:** During the first week of classes, students will be charged a **non-refundable \$4.00** fee for the purchase of food samples/supplies that will be given out in classes and exams 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 Connect. 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

Rough notes from each 'lecture' will also be available on:  
[http://wiki.ubc.ca/Course:FNH200/2013w2/Lecture\\_Notes](http://wiki.ubc.ca/Course:FNH200/2013w2/Lecture_Notes)

## Team Work

Working in teams is a major component of this course. Teams will be assignment randomly (with a few exceptions, see details on page 5) by the third week of January. You will work with your team members to complete the team component of your assignment, author PeerWise questions, complete your team projects, and even components of your midterm and final examinations.

## Learning Resources

Computer and internet access are required for this course. You should get familiar with the following websites for various activities of this course:

Web Resources:	Class Activities:
<p><b>UBC Wiki</b></p> <ul style="list-style-type: none"> <li>• <a href="http://wiki.ubc.ca/Course:FNH200">http://wiki.ubc.ca/Course:FNH200</a></li> <li>• <a href="http://wiki.ubc.ca/Course:FNH200/Lesson_01">http://wiki.ubc.ca/Course:FNH200/Lesson_01</a> (etc.)</li> <li>• <a href="http://wiki.ubc.ca/Course:FNH200/2013w2/Lecture_Notes">http://wiki.ubc.ca/Course:FNH200/2013w2/Lecture_Notes</a></li> <li>• <a href="http://wiki.ubc.ca/Course:FNH200/2013w2/TeamProjects">http://wiki.ubc.ca/Course:FNH200/2013w2/TeamProjects</a></li> <li>• <a href="http://wiki.ubc.ca/Course:FNH200/TeamProjects">http://wiki.ubc.ca/Course:FNH200/TeamProjects</a></li> </ul>	<ul style="list-style-type: none"> <li>• To access course information</li> <li>• To access course content</li>   <li>• This contains a rough record of each class</li>   <li>• This is where you will post your team projects by end of March</li> <li>• This is where you can access past projects</li> </ul>
<p><b>UBC Connect</b></p> <p><a href="http://elearning.ubc.ca/connect/">http://elearning.ubc.ca/connect/</a></p> <ul style="list-style-type: none"> <li>• Course content</li> <li>• Discussion board</li>   <li>• Assignment</li> <li>• Grade Center</li>   <li>• iPeer</li> </ul>	<p>Log-in with your CWL</p> <ul style="list-style-type: none"> <li>• Same as those posted on UBC wiki</li> <li>• To seek clarification related to the course from either the instructor or your peers</li> <li>• To find our your team assignment and communicate with your teammates</li>   <li>• To submit the individual component of your team assignment in early February</li>   <li>• To find out your Peerwise Team ID and Individual ID</li> <li>• To access your grades</li>   <li>• To provide both formative and summative feedback to your team members.</li> </ul> <p>If you are new to Connect or have questions related to its use, please consult Student Resources at <a href="http://www.elearning.ubc.ca/lms/student-resources/">http://www.elearning.ubc.ca/lms/student-resources/</a>.</p>
<p><b>PeerWise</b></p> <p><a href="http://peerwise.cs.auckland.ac.nz/at/?ubc_ca">http://peerwise.cs.auckland.ac.nz/at/?ubc_ca</a></p>	<p>To create, answer, rate and discuss multiple-choice questions (that may also be on the exams) by students in FNH 200.</p> <p><b>FNH 200 Course ID = 8501</b></p> <p><b>Team Identifier</b> (for creating questions) and <b>Individual Identifier</b> (for answering questions) will be available in Connect Grade Center by the third week in January.</p>

## Evaluation

PeerWise – 6% (2% x 3)  
Assignments – 12% (2%, 8%, 2%)  
Team Project – 20%  
Midterm Exam, late January – 16%  
Midterm Exam, early March – 16%  
Final Exam, April – 30%

### PeerWise – Authoring and Answering Multiple-Choice Questions (6%)

PeerWise (PW) is a web-based system that allows students to do three things:

1. Author multiple choice questions, along with explanations for the answers
2. Answer the multiple choice questions posted by other students
3. Leave feedback about a question and rate it.

In FNH 200, you and your team will engage with PeerWise three times: before the first midterm, second midterm and final exam. For each assessment, your team and you can receive up to 2% (for a total of 6%) for completing the following:

1. 0.5%: Your team will create and author a minimum of 3 questions as well as their associated correct and fault answers and explanations together.
2. 0.5%: At least one of the three questions created earned an overall rating above the median class rating.
3. 0.5%: You, as an individual, will attempt answering at least 6 questions.
4. 0.5%: You, as an individual, will leave comments for at least 2 (of the 6) questions attempted.

More information on how to use PeerWise and how to write good multiple-choice questions will be provided on Connect and in class. You will have class time to create questions with your teammates.

### Assignments (12%)

There will be three assignments for a total of 12%.

Assignment #1, 2%	An introduction to UBC wiki; setting your learning expectations Students will receive a maximum of 1% when assignment is submitted after 5:00 pm on January 22
Assignment #2, 8%	Apply knowledge from Lessons 1 to 4; rationalize and articulate a personal set of values related to your food selection decisions Team component (4%); team will receive a maximum of 2% when submitted after 5:00 pm on February 22 Individual component (4%); students will receive a maximum of 2% when submitted after 5:00 pm on February 24
Assignment #3, 2%	A personal reflection on your learning in FNH 200 Due 120 hours (5 days) before the start time of the final exam

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).

## 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.

**Interdisciplinary Project Option** - Students enrolled in both FNH 200 102 and 250 002 or 003 in 2013 Winter term are encouraged to participate in an interdisciplinary option of this team project. Students choosing this option will self-select their teammates and select their own project topic according to guidelines outlined in both FNH 200 and FNH 250. The team stays the same for this FNH 200 project and investigate the same topic through a food science lens. For instance, the team may investigate the health impact of celiac diseases in FNH 250 and the chemistry of gluten and the challenges of making gluten-free bread in FNH 200. Aside from the team formation and topic selection, all other aspects of the interdisciplinary option such as due date, presentation format, peer evaluation and evaluation remain the same as all other teams.

Team formation of all other students (students not enrolled in both FNH 200 and FNH 250 and students choose not to participate in the interdisciplinary team project) will be carefully formed based on their declared major to ensure academic diversity. Each team will select a traditional food 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 Connect 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 early February, 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 three formats:

1. Wiki pages on <http://wiki.ubc.ca>, with supporting evidence, data, graphics and bibliography. It is recommended to aim for about 2000 to 3000 words in your main text body. Marks will not be deducted for not following the 'word limit'; however, projects that are too short are often lacking supporting evidence or missing well worded introduction and/or summary. Projects that are too long may be seen as not having a strong focus and missing key messages. The word limit is just a guideline.
2. A 5-minute educational video presentation, **highlighting** key, interesting, and/or controversial facts that will benefit other university students not enrolled in FNH 200. The video can be presented as live-action film, picture slide show, flash presentation, or other formats deemed appropriate for your topic and audience. Mark will be assigned based on its **clarity, educational value** and creativity.
3. A potential final exam question as well as your recommended answer based on information presented in your project. Your TAs and instructor will select and announce qualified questions which may be included in the final examination.

**All components must be completed by the last Wednesday in March** at 1:30 pm. Further additions and editions will be disregarded during evaluation.

**Evaluation** of the team project: There are TWO components in the evaluation of the project:

Quality of the Project [A]:

TA and instructor will evaluate each project based on content (75%), video presentation (20%), and a final exam question (5%).

Team Work [B]: Peer evaluations on iPeer.ubc.ca.

Each student will provide a formative (mid-term, not for grading, in mid-February) and a summative (final, for grading, in late March) peer evaluation to each of their peers based on his/her contribution to the team. Your contributions as well as the mark you receive on the summative evaluation will be used to determine a multiplying factor that will be used to calculate your final project mark.

Determination of Your Own Multiplying Factor:

<b>Contribution to iPeer</b>	<b>Summative Score Received from Peers</b>	<b>Multiplying Factor</b>
Contributed to <b>BOTH</b> formative and summative peer evaluation	<b>More than 75%</b>	<b>= 1.0</b>
	Example 1: 76% Example 2: 90%	= 1.0 = 1.0
	<b>Less than 75%</b>	<b>= 'Face Value'</b>
	Example 3: 68% Example 4: 35%	= 0.68 = 0.35
Contributed to <b>only one or none</b> of the peer evaluation component		<b>= 'Face Value'</b>
	Example 5: 95% Example 6: 80% Example 7: 40%	= 0.95 = 0.80 = 0.40

Calculation of Final Grade:

Overall Quality of the Project x Individual Multiplying Factor = [A] x [B]

Examples:

A team project earned a mark of 85% from the TAs and instructor.

Student A received 95% from the peer evaluation and completed both formative and summative evaluation. Student A will get a score of 85% (85% x 1.0).

Student B also received 95% from the peer evaluation, but forgot to contribute to the summative evaluation. Student B will get a score of 81% (85% x 0.95).

Student C received a score of 60% from the peers. Student C will get 51% (85% x 0.6).

Please note that, though rarely happened, a score of ZERO will be considered when the average peer evaluation score is less than 25%.

## Midterms (32%; 16% x 2) and Final (30%)

There will be two midterms; each has an individual component as well as a team component.

First midterm: End of January, covering Lessons 1 to 3  
Second midterm: Beginning of March, covering Lessons 4 to 9  
Final exam: April, covering Lessons 1 to 13, with an emphasis on Lessons 10 to 13

Your grade for each of the above exam will be =  $(0.85) \times [\text{individual score}] + (0.15) \times [\text{team score}]$ .

In all cases, if your individual score is higher than your team score, only your individual score will be counted. However, you **MUST** complete both the individual and team components of every exam.

The **Midterms** will be composed of mainly multiple-choice questions and possibly some short-answer questions. The **Final Examinations** will tentatively be a combination of multiple-choice question and essay type questions. Details about the examinations will be given in-class close to the exam date.

The **Midterms**, scheduled for end of January and beginning of March, 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 after the second mid-term exam and the end of the course.

## Course Schedule

Tentative Schedule for FNH200, January to April 2014. \*\* Please check lecture notes on course wiki for updates\*\*

### January 2014

Monday	Wednesday	Friday
6 Introduction and Lesson 1	8 Lesson 1	10 Lesson 1
13 Lesson 2	15 Lesson 2	17 Lesson 2
20 Lesson 2 Last day to withdraw Without 'W'	22 Lesson 3 Team Formed Assignment #1 Due 5:00 pm	24 Team Meeting PeerWise Authoring Questions (in team)
27 Lesson 3	29 Mid-term #1 Individual and Team PeerWise Answering Questions (individually)	31 Lesson 4

### February 2014

Monday	Wednesday	Friday
3 Lesson 4	5 Lesson 4 Team Project Topic Selection	7 Lesson 5
10 No Class Family Day	12 Lesson 6 Assignment #2 Team Component 5:00 pm	14 Team Meeting Assignment #2 Individual Component 5:00 pm  iPeer Formative Peer Evaluation
17 Reading Break No Class	19 Reading Break No Class	21 Reading Break No Class
24 Lesson 7	26 Lesson 8	28 Lesson 8



**March and April 2014**

<b>Monday</b>	<b>Wednesday</b>	<b>Friday</b>
3 Lesson 9	5 Lesson 9	7 Team Day PeerWise Authoring Questions (in team)
10 Lesson 10 PeerWise Answering Question (individually)	12 Midterm #2 Individual and Team	14 Team Day Project Production
17 Lesson 10	19 Lesson 11	21 Team Day Project Production
24 Lesson 12	26 Lesson 12 Team Project Due at 5:00 pm	28 Lesson 12
31 Lesson 12	April 2 Lesson 13 Team Project Due Date	April 4 Lesson 13 PeerWise Authoring Questions (in team)  iPeer Evaluation Summative
April 6 Lesson 13 Final Review Assignment #3 Due (TBD)		