Acknowledgement

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the xwməθkwəy̓əm (Musqueam) people. The land it is situated on has always been a place of learning for the Musqueam people, who for millennia have passed on their culture, history, and traditions from one generation to the next on this site.

Course Information

Course Title	Course Code Number	Credit Value
Exploring Our Food	FNH 200	3 credits

Students are introduced to the chemical and physical properties of foods, issues pertaining to safety, nutritive value and consumer acceptability of food, food quality, additives, food preservation techniques and transformation of agricultural commodities into food products, and 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, healthcare professions, human kinetics or physical education, who wish to enhance their understanding of the science of food.

This section of the course, FNH 200-105, is online distance education. This course will be completed asynchronously online (i.e., at your own pace, working through the modules on CANVAS).

Prerequisites

There is no prerequisite for this course. Second-year standing is required.

Co-requisites

There is no co-requisite for this course. If you are interested in taking additional courses through FNH, we suggest looking at FNH250 which focuses on nutrition.

Contacts

Course Instructor	Contact Details	Office Location	Office Hours
Derek Dee	derek.dee@ubc.ca	FNH 240	ZOOM Lounge Email to arrange a meeting.

Biographical Statement

I completed my BSc (Hons) in Food Science, and a minor in Chemistry, from the University of Saskatchewan. I did undergraduate research projects on flax oil, biodiesel, and plant phenolics. My main interest was enzymes, so I then did a MSc in Food Science and a PhD in Biophysics at the University of Guelph, studying the

biophysics of protein structure and stability. I went further into biophysics as a postdoctoral fellow at the University of Alberta, using optical tweezers to trap and study single molecules of protein (prion protein, related to Mad Cow disease). I then moved back to Food Science at the University of Georgia, studying food protein nanofibrils, and moved my lab to UBC in 2019. We study plant and animal proteins at the nanoscale to understand their properties for food and health applications.

Other Instructional Staff

Teaching Assistant	Contact Details	Office Location	Office Hours
Leslie Huynh	Please use Canvas Inbox	n/a	Meetings can be arranged.
Amalia Díaz de León Derby	Please use Canvas Inbox	n/a	Meetings can be arranged.

Course Structure

You are responsible to read the 13 lessons throughout the term. It is expected that you will spend about 10 hours on this course on average each week. To help you focus on important concepts in each lesson and to keep pace you will complete the lesson quizzes each week. For the majority of lessons, there are also journals which help you reflect on your learning. There is a term project, which is composed of several smaller assignments. The course material is examined through a midterm and final exam, both of which are administered online through Canvas. All assignments are completed online.

There is a general rhythm to this course and it is recommended that you keep the following schedule.

- Monday - New lesson is assigned. Read weekly summary to understand what is expected of you. Read this lesson throughout the week while making notes that relate to each of the lesson's objectives. Complete your reading by the weekend.
- Saturday/Sunday - Complete the journal and quiz that accompany the assigned lesson.
- If your week gets too busy to finish your readings by Friday take the weekend to read them. Make sure you do your journal by Monday.

Schedule of Topics

Weeks	Description	Assignments Due
Week 1	Course Orientation	Welcome Survey
Week 2	Lesson 1: Food Science & the Canadian Food System	Lockdown Browser Practice Exam
Week 3	Lesson 2: Chemical and Physical Properties of Food	Journal 1 & Quiz 1

Week 4	Lesson 3: Fat Substitutes & Alternative Sweeteners, Sensory Perception of Foods	Journal 2 & Quiz 2
Week 5	Lesson 4: Food Standards, Regulations, and Guides – Food Additives	Journal 3 & Quiz 3
Week 6	Lesson 5: Rationale for Food Preservation	Journal 4 & Quiz 4
Week 7	Lesson 6: Thermal Preservation of Foods	Course Feedback Survey Journal 5 & Quiz 5 Term Project 1
Week 8	Lesson 7: Preservation of Food by Low Temperatures Lesson 8: Dehydration as a Food Preservation Method	**Midterm (lessons 1-5)** Journal 6 & Quiz 6
Week 9	Lesson 9: Food Preservation with Biotechnology	Journal 7/8 Quiz 7 & Quiz 8
Week 10	Lesson 10: Preservation of Food with Ionizing Energy	Journal 9 & Quiz 9
Week 11	Lesson 11: Effects of Food Processing Operations on Nutrient Retention in Foods	Journal 10 & Quiz 10
Week 12	Lesson 12: Toxicants in Food and Foodborne Disease	Quiz 11
Week 13	Lesson 13: Trends in Foods for Nutrition and Health	Journal 12 & Quiz 12 Term Project 2
Week 14		Quiz 13
	Final exam (TBD)	

Learning Outcomes

Upon completion of this course, students will be able to:

1. Describe tissue-based (both plant and animal) food systems, fluid food systems and various dispersions important to food quality and sensory perception
2. Describe the role of chemical reactions, enzymes and microorganisms in food spoilage, food preservation and food-borne disease
3. Describe the regulations and agencies that are in place to ensure the quality and safety of the Canadian food supply

4. Describe food processing methods and their application in the conversion of raw materials into food products
5. Develop personal food selection and food handling habits that will minimize the risk of contracting a foodborne or waterborne disease
6. Describe various types of food processing and packaging systems
7. Articulate a personal set of values related to your decisions pertaining to the selection of food products for both your personal and your family's consumption
8. Demonstrate an ability to critically evaluate the validity of the information that commonly appears in newspapers, magazines, radio & television

Learning Materials

All required reading is presented in Lessons 1-13, and through the weekly summaries. There is no additional textbook for this course. Weekly summaries are found from the Home Page. They outline the material you are responsible for that week. Additionally, they provide links to additional required readings and optional material.

We will use LockDown Browser for both the midterm and final exams. In order to use LockDown Browser you must have the following:

- You need to use a regular desktop or laptop computer (Windows/Mac), or iPad. You can view the minimum technical requirements on LockDown Browser's support site.
- You must use and download Respondus LockDown Browser Extension on your computer. For more instructions, you can visit Midterm and Final exam pages.

Learning Activities

Within this course, there are several different types of activities in which you will be engaged. All activities are completed online. All represent individual work, except for the Term Project. Details on each of the below can be found in the Assessment of Learning section.

- Lesson readings - This is done on your own and is not evaluated.
- Terminology sheets - Completing these sheets is optional but creates a good resource for the midterm and final exams.
- Journals - Reflections on your learnings from the lessons and how it connects with your everyday life. It is completed as a discussion post and contributes to your final course grade.
- Quizzes - Test your comprehension of the lessons and contributes to your final course grade.
- Midterm - is an online and limited-open-book exam, using Respondus LockDown Browser.
- Final Exam - is an online and limited-open-book exam, using Respondus LockDown Browser.
- Term Project - The term project is divided into two parts: Part 1 and Part 2, and is a group assignment.

Assessment of Learning

Assessment	Final Course Grade %
Journals	5
Quizzes	5
Term Project	25
Midterm	25
Final	40

All the journals, quizzes, midterm, and final must be completed by the indicated deadlines. The term project assignments alone are subject to the late work course policy (see below). Extensions are only granted for short-term illness, emotional/mental challenges, family emergencies, or specially approved UBC activities (as defined by UBC policy) with proper documentation. Extensions should be asked for in advance when possible. There are no additional assignments in this course that can be done in lieu of the assignments or in addition to the assignments.

An inability to sit the final exam due to illness or special circumstances must be taken up with the LFS Student Services Office (students@landfood.ubc.ca). More information can be found here.

Late course work policy. Below is a table indicating the percentage removed from the total of late Term Project assignments.

Hours late	> 0 - 24 hours	>24-48 hours	>48-72 hours	>72-96 hours	>96-120 hours	>120 hours
Amount of total mark reduced	5%	10%	20%	40%	80%	100%

Journal Discussions [firm deadlines: journals are due by the following Monday at 23:59 (unless otherwise noted)]

The purpose of the journals is to create awareness of your learning and connect the course material to your everyday world. Each journal should take about 30 mins to complete. There is a minimum of 200 words and a maximum of 500 words.

Your journal response should include a statement of opinion, which is explained in the context of personal experience and course content. It concludes with how your new knowledge could impact future actions or understanding.

The journals are graded for completeness as judged by the length (minimum 200 words and maximum 500 words), appropriate response to prompt, and punctuality. If the journal is complete, 1 mark is awarded. Late submission is **NOT** acceptable, even if a journal is as little as one minute late, automatically, a score of 0 is awarded.

You need to complete only 8 out of a total of 10 journals to receive full marks.

Quizzes [suggested deadlines: complete quizzes weekly by Monday at 23:59 (unless otherwise noted)]

The quizzes are graded and you have as many attempts as you like for each quiz until the last day of class. There are suggested deadlines for each quiz. The deadlines are to assist you in keeping pace with the course. If you don't get the quiz done before the suggested date, it will be marked as late but this does not affect your grade. All quizzes are due by the last day of class at 23:59. Afterwards, your marks will be calculated and the final grade will appear under the heading "Quizzes Grade Final."

Term Project

The goal of the term project is to find real-world examples of our lessons in Food Science and bring the course material to life. By completing this project, you can apply the concepts of the course to evaluate your understanding of the rationale and processes used for food preservation.

You will be assigned to groups of 4–6 to work on this project collaboratively. For more details, please go to the "**Term Project**" page in the "**Home**" section. The term project is composed of the following steps.

- Term Project part 1 (12.5%) → due by 23:59 Friday October 17
- Term Project part 2 (12.5%) → due by 23:59 Monday December 1

Once your Project marks are out, you can access your Project and review the comments provided by your TA along with the details of the points deducted. The grade and feedback on your project will appear under the "Term Project" in the "Grades" section.

Important Note: Please review the "**Project Format"** section prior to writing your Project. Correct citation and format compliance are necessary. Projects without citation will not be marked. Read through the "**citation**" section below and follow the guidelines.

Citation

Throughout the course assignments, even in the discussion board, you will be using different sources (lessons, lecture notes, reading materials, video clips, provided links, etc.) which need to be cited individually and correctly. In your assignment, you need to have a bibliography or list of references as well as in-text citation (listing all your resources at the end is not enough for meeting the requirements.)

Please use **APA style** for citation. Review the following links to learn about APA style.

https://help.library.ubc.ca/evaluating-and-citing-sources/how-to-cite/

https://owl.english.purdue.edu/owl/resource/949/01/

https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_style_introduction.html

Midterm

The midterm is a limited-open-book exam which will cover **lessons 1-5**. It will incorporate a variety of question formats (true/false, matching terms to definitions, multiple-choice, and short answer). The midterm will be conducted online using Canvas and Respondus LockDown Browser. You will be given a window of time on a specific day on which you can take the midterm. Once you begin the midterm there is a set time limit in which to complete it.

If you are unfamiliar with LockDown Browser, it is important that you try the practice exam prior to the midterm so that you ensure you meet the technical requirements. Please read all the instructions prior to the exam.

Final Exam

The final examination will cover material from **lesson 1-13**. The final exam will be a limited-open-book exam. You will not need to come to campus to take the final exam. Similar to the midterm, it will be conducted online using Canvas and Respondus LockDown Browser. The exam will consist of a combination of multiple-choice, fill in the blank, matching and short answer questions. The final examination will be scheduled by the Registrar's office and will be held during the final examination period.

University Policies

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions.

Details of the policies and how to access support are available on **the UBC Senate website.**

A condensed list of policies and support.

- **UBC Policies and Regulations**: Students are reminded that they are subject to the University's Policies and Regulations, and are directed especially to "Student Declaration and Responsibility", "Academic Honesty and Standards", and "Academic Freedom" sections.
- **Academic Concession:** Students facing any medical, emotional, or personal circumstances that may negatively impact academic attendance or performance are expected to notify their instructor as well as their home Faculty's Academic Advising Office. Instructors and Advisors can help by explaining your options and working with you to access supports or explore a form of academic concession.
- **Change of Registration:** Students are permitted to change their registration, by adding or dropping courses, but must be mindful of the deadlines, such as the last day to drop without a W standing through the student centre.
- **Personal Support:** Students experiencing personal challenges that are impacting their academics and well-being are strongly encouraged to learn more about the resources available on the Health and Wellness website.
- **Academic Support:** Please visit Academic Success to learn more about campus resources to support your success.

- **Accommodations for Students with Disabilities:** Students requiring accommodation in this course, or in need of support for an on-going medical condition please let me know as soon as possible and/or provide me with documentation and recommendations from Access & Diversity. You can find more information about the services provided by Access & Diversity

Academic Integrity

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred to the President's Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences.

A more detailed description of academic integrity, including the University's policies and procedures, may be found in the Academic Calendar at http://calendar.ubc.ca/vancouver/index.cfm?tree=3,54,111,0.

Learning Analytics

Learning analytics includes the collection and analysis of data about learners to improve teaching and learning. This course will be using the following learning technologies: Canvas and Respondus LockDown Browser. Many of these tools capture data about your activity and provide information that can be used to improve the quality of teaching and learning. In this course, I plan to use analytics data to:

- View overall class progress
- Track your progress in order to provide you with personalized feedback
- Review statistics on course content being accessed to support improvements in the course

Learning Resources

Faculty of Land and Food Systems - Student Services - provides you with help regarding registration in the course as well as degree requirements. You can contact them by email at: students@landfood.ubc.ca.

There are many other resources for you as a UBC student.

- UBC's Learning Commons: a web portal for academic support, developed with students, for students.

- Digital Tattoo: the goal of the Digital Tattoo project is to raise questions and provide resources encouraging you to think about your presence, identity, rights, and responsibilities as a digital citizen.

- Student Toolkits: how-to pages and other support for student projects using digital resources—blogs, wikis, audio, and video. Other resources on the UBC Wiki include pages on mind mapping, social web tools, professional networking, and online tutoring.

- Why Should You Care About Academic Integrity?: this page will answer that question, and many more.

There are also many student clubs which you may be interested in. Check them out here.

Reach Out for Success

University students often encounter setbacks from time to time that can impact academic performance. If you encounter difficulties and need assistance, I encourage you to contact me at any time by e-mail. We can also arrange a time to meet virtually. I will do my best to support your success during this term. This includes identifying concerns I may have about your academic progress or well-being through Early Alert. With Early Alert, faculty members can connect you with advisors who offer support and assistance to help students get back on track to success. Only specialized UBC advisors would be able to access any concerns I may identify, and Early Alert does not affect your academic record. For more information, visit the program website: www.earlyalert.ubc.ca. For information about addressing mental or physical health concerns, including seeing a UBC counsellor or doctor visit: http://students.ubc.ca/livewell.

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Version: Sep 2, 2025