



THE UNIVERSITY OF BRITISH COLUMBIA

**Faculty of Land & Food Systems: Food, Nutrition & Health**  
**FNH 477: NUTRITION & DISEASE PREVENTION**  
**January – April 2025**

**Acknowledgment:** 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 in their culture, history, and traditions from one generation to the next on this site.

**Instructor:** Dr. Barbara Stefanska (barbara.stefanska@ubc.ca)  
Food, Nutrition and Health (FNH) Program; Faculty of Land and Food Systems

**Office Hours:** Mondays, 10AM-1PM (in person FNH 248, directly after class, or Zoom by appointment).

E-mail: For confidential questions, you may contact Dr. Stefanska at barbara.stefanska@ubc.ca

For questions related to the course content, please contact Teaching Assistants and/or Dr. Stefanska

**Course Teaching Assistants:**

Cayla Boycott, PhD Candidate (Human Nutrition)  
cayla.boycott@ubc.ca

Jiaxi (Alice) Zhang, MSc Student (Human Nutrition)

Huiying (Amelie) Zhang, PhD Student (Human Nutrition)

**Class Time & Location:**

Monday, Wednesday, Friday from 10:00 AM to 10:50 AM,

- in person - Lectures in MacLeod (MCLD, 2356 Main Mall), Room 2002
- in person - Group work in MacLeod (MCLD, 2356 Main Mall), Room 3008/3014

**Course Description:** Evidence-based examination of the role of nutrition in the prevention of chronic disease.

**Learning Outcomes:**

Upon successful completion of this course, you should be able to:

1. Identify and evaluate the role of nutrition in certain chronic conditions (including but not limited to cardiovascular disease, hypertension, cancer, obesity, type 2 diabetes, and osteoporosis) and appropriately justify your evaluations.



2. Apply your understanding of nutrition, research methods, and statistics to i) critically examine and interpret research evidence published in the peer-reviewed literature, ii) deduce the role of nutrition in disease and disease prevention, and iii) explain whether causal relationships exist between diet and disease.
3. Work effectively and efficiently in groups to locate, examine, and critically evaluate research evidence for particular diet-disease relationships.
4. Effectively communicate your understanding of the evidence for particular diet-disease relationships and make and justify evidence-based recommendations (e.g., intervention, information dissemination, further study).
5. Engage in valuable self-evaluation, reflect on your learning, and provide effective, relevant, and constructive feedback to others.

**Class Format:** We will use a combination of lectures and small group work. Some classes will be lecture and some classes will be dedicated to group work. Please see the course schedule for dates that will have lecture format and dates that will have group work format.

**CANVAS and Course Notes:** The FNH 477 CANVAS site will be used as an important learning and communication resource. Lecture slides, course announcements, and assignment instructions will be posted on CANVAS. You will also have a group area with discussion board where you can communicate with your group members. You are strongly encouraged to check CANVAS on a regular basis.

**Required Readings:** There is no required textbook for FNH 477. Required readings are listed after the Class Schedule and are available under each Module on CANVAS. Discussion questions and what you need to know from each reading will be posted in the “Readings: What you need to know” Module on CANVAS.

**Additional Resources:** You may find it helpful to review information on study design from FNH 398: Research Methods in Human Nutrition or consult the textbook, *Foundations of Clinical Research: Applications to Practice*, 3<sup>rd</sup> or 4<sup>th</sup> ed by Portney & Watkins. This book is available on reserve in Woodward library.

**Evaluation:**

	Dates	Value (%)
Class participation (assessed by iclicker questions)	Throughout the term	2
Group work: Problem 1: Cancer Problem 2: TBD	1. <b>Feb 24</b> (Evidence Table; 10%) & <b>Feb 28</b> (Individual Report; 12%) 2. <b>Mar 23</b> (Presentation; 15%) & <b>Apr 7</b> (Summary; 7%)	44
Providing feedback	Due dates in Course Schedule: <b>Jan 31</b> & <b>Feb 24</b> for <b>Case 1</b> ; <b>Mar 7</b> & <b>Mar 24</b> for <b>Case 2</b>	2



Midterm	<b>Feb 12</b> – during class	20
Final Exam (Cumulative)	TBD- During formal exam period	32

**Class Participation (Clicker Questions):** Class participation is strongly encouraged. If you wish to do well in this course, it is important to attend all the lectures. If you miss a lecture, it is YOUR responsibility to obtain notes from another student in the class. During Lectures, Clicker questions will be presented and the iclicker application will be used to register students' responses (80% participation in lectures required for a full mark).

**Group Work:** Working in small student learning groups, you will identify and provide evidence for two diet-disease relationships. For **Case 1**, you will submit two items: 1) an **Evidence Table** summarizing the key papers you critiqued in order to answer your PICO (Population-Intervention-Comparison-Outcome) question (one Evidence Table is submitted on behalf of the entire group), and 2) an **Individual Report** in which you communicate your individual response to the PICO question developed with your group and suggest the most appropriate next step, considering the evidence you evaluated (each student will prepare and submit their own Individual Report). For **Case 2**, you will submit two items: 1) a **Presentation slides (preferably in ppt)** summarizing three key papers that overarch the evidence referring to your PICO question; one Presentation file is submitted on behalf of the entire group by March 23 (final version, no changes allowed after this deadline) and the group presents on a scheduled date in front of the peers, and 2) a **Summary** in which you communicate your individual response to the PICO question developed by your group summarizing the existing evidence and providing a rationale for the selection of the three key papers, and suggesting the most appropriate future directions (each student will prepare and submit their own Summary).

Every student in the group will receive the same grade on the Evidence Table/Presentation, provided group members agree that each student participated and contributed appropriately to the group's work in developing the Evidence Table/Presentation. Assignments are to be submitted **on CANVAS by 11:59 pm on the day they are due**. [Please refer to the Instructions for Evidence Table/Presentation and Individual Report/Summary on CANVAS for more details on these assignments.](#)

**Providing Feedback:** To encourage communication within your group, you will be asked to evaluate and provide feedback for yourself, your group and your group members using the S (strength) – I (opportunity for improvement) – R (remedy) approach. Your feedback should be posted on your group's discussion board on CANVAS. Your TA will check to ensure that you have posted feedback, but will not comment on your discussion board. You will be asked to post feedback four times throughout the term. Each post will be worth 0.5% of your final grade for a total of 2%. Late or incomplete postings will not be counted.

**Midterm:** The midterm will be held in person during the class time on **Feb 12**. The midterm will include multiple-choice, true or false, and short answer questions. The emphasis will be on content from the lectures and assigned readings. The content of your small group sessions will not be examined directly, although you will be expected to apply the skills you develop through your group work (e.g., ability to form good research questions, plan literature search strategies, use evidence to make conclusions, rate



the quality of research evidence, etc.).

**Final exam:** The final exam will be cumulative and will be held in person during the formal examination period. It will include multiple-choice, true or false, and short answer questions. Like the midterm, the emphasis will be on content from the lectures and assigned readings, but you will be expected to apply skills you are developing through your group work (e.g., ability to form good research questions, plan literature search strategies, use evidence to make conclusions, rate quality of research evidence, etc.).

**Expectations of students in FNH 477:**

1. Be present and prepared for all classes and small group sessions. If you must miss a class or group meeting due to illness or other emergency, it is your responsibility to obtain notes for that day and complete any work you may have missed.
2. Actively participate in class and in your small group, ask if you have questions concerning the material.
3. Connect what you learn in this course to your existing and developing networks of knowledge and skills. Take the knowledge and skills gained as a result of this class forward with you to approach nutrition research with a critical and informed eye.
4. If you have a complaint about the course, PLEASE DISCUSS IT WITH ME. Constructive suggestions are welcome.
5. Please be on time for class and your small group meetings.

**Assistance Available to Students:** You are strongly encouraged to meet with the instructor if you have questions, comments, or suggestions for the course. You may also post questions about course material on the CANVAS discussion board for your fellow students; note that the instructor will not be available on the discussion board to answer your questions.

**Additional Policies:**

The final exam will be governed by the relevant university policies.

Exams will be re-marked upon receiving a written request. The outcome of the re-marking can go either way.

**POLICIES AND RESOURCES TO SUPPORT STUDENT SUCCESS:** 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 at the following link: <https://senate.ubc.ca/policies-resources-support-student-success>

**ACADEMIC INTEGRITY:** Academic honesty is a core value of scholarship. Students are reminded of the



importance of the University's regulations regarding academic misconduct and plagiarism (available at <https://vancouver.calendar.ubc.ca/campus-wide-policies-and-regulations>):

*Academic misconduct that is subject to disciplinary measures includes, but is not limited to, engaging in, attempting to engage in, or assisting others to engage, in any of the actions described below.*

1. ***Cheating***, which may include, but is not limited to:

- falsification of any material subject to academic evaluation, including research data;
- use of or participation in unauthorized collaborative work;
- use or possession in an examination of any materials (including devices) other than those permitted by the examiner;
- use, possession, or facilitation of unauthorized means to complete an examination (e.g., receiving unauthorized assistance from another person, or providing that assistance); and
- dishonest practices that breach rules governing examinations or submissions for academic evaluation (see the *Student Conduct during Examinations*).

2. ***Plagiarism***, which is intellectual theft, occurs where an individual submits or presents the oral or written work of another person as his or her own. Scholarship quite properly rests upon examining and referring to the thoughts and writings of others. However, when another person's words (i.e. phrases, sentences, or paragraphs), ideas, or entire works are used, the author must be acknowledged in the text, in footnotes, in endnotes, or in another accepted form of academic citation. Where direct quotations are made, they must be clearly delineated (for example, within quotation marks or separately indented). Failure to provide proper attribution is plagiarism because it represents someone else's work as one's own. Plagiarism should not occur in submitted drafts or final works. A student who seeks assistance from a tutor or other scholastic aids must ensure that the work submitted is the student's own. Students are responsible for ensuring that any work submitted does not constitute plagiarism. Students who are in any doubt as to what constitutes plagiarism should consult their instructor before handing in any assignments.

3. ***Submitting the same, or substantially the same***, essay, presentation, or assignment more than once (whether the earlier submission was at this or another institution) unless prior approval has been obtained from the instructor(s) to whom the assignment is to be submitted.

***In other words:*** Be sure to do your work with honesty and integrity. Appropriately acknowledge sources of information. Discuss course work with classmates and learn from each other as you complete your work on the cases. You are welcome to discuss your Individual Reports/Summaries with your classmates, but please ensure that you write the text independently.

**COPYRIGHT:** All materials of this course, including course handouts, lecture slides, assessments, course readings, etc., are the intellectual property of the Course Instructor or licensed to be used in this course by the copyright owner. Redistribution of these materials by any means without permission of the copyright holder(s) constitutes a breach of copyright and may lead to academic discipline.

## FNH 477: Nutrition and Disease Prevention Course Schedule (Term 2, Winter 2024/25)

#	Date	Topic	Reading	Format
1	Jan 6	Introduction and expectations	Review syllabus and Canvas site	Lecture
2	Jan 8	Evaluating evidence		Lecture
3	Jan 10	Evaluating evidence		Lecture
4	Jan 13	Cancer	Ch 86: Epidemiology of Diet & Cancer Risk	Lecture
5	Jan 15	Cancer		Lecture
6	Jan 17	Cancer/ Introduction to Problem 1		Lecture
A	Jan 20	Problem set: Cancer		Group work
B	Jan 22	Problem set: Cancer		Group work
7	Jan 24	Cardiovascular disease	Hu, 2009; Mente, 2009	Lecture
8	Jan 27	Cardiovascular disease		Lecture
9	Jan 29	Hypertension	Ch 66: Diet & Blood Pressure	Lecture
C	Jan 31	Problem set: Cancer <b>SIR feedback due (Case 1)</b>		Group work
D	Feb 3	Problem set: Cancer		Group work
10	Feb 5	Hypertension		Lecture
11	Feb 7	Review for midterm exam		Lecture
E	Feb 10	Problem set: <b>Case 2</b>		Group work
	<b>Feb 12</b>	<b>Midterm exam</b>		
12	Feb 14	Obesity	Ch 58: Obesity: Epidemiology, Etiology, and Prevention	Lecture
	<b>Feb 17-21</b>	<b>Midterm break</b>		
13	<b>Feb 24</b>	Obesity <b>Evidence table due</b> <b>SIR feedback due (Case 1)</b>		Lecture
F	Feb 26	Problem set: <b>Case 2</b>		Group work

14	Feb 28	Type II diabetes <b>Individual report due</b>	<b>Watch:</b> Peter Attia: What if we are wrong about diabetes? <b>Read:</b> Ley, 2014	<a href="#">Lecture</a>
G	Mar 3	Problem set: <b>Case 2</b>		Group work
H	Mar 5	Problem set: <b>Case 2</b>		Group work
I	Mar 7	Problem set: <b>Case 2</b> <b>SIR feedback due (Case 2)</b>		Group work
15	Mar 10	Type II diabetes		<a href="#">Lecture</a>
16	Mar 12	Osteoporosis	Ch 90: Prevention and Management of Osteoporosis	<a href="#">Lecture</a>
17	Mar 14	Fetal origins of adult disease	Calkins & Devaskar, 2011	<a href="#">Lecture</a>
18	Mar 17	Fetal origins of adult disease		<a href="#">Lecture</a>
19	Mar 19	Fetal origins of adult disease		<a href="#">Lecture</a>
20	Mar 21	Gut microbiota	van de Wouw, 2017	<a href="#">Lecture</a>
	Mar 23	<b>Sunday deadline:</b> <b>Presentations in ppt due for all groups – Final versions (no changes allowed after the deadline)</b>		
P1	Mar 24	Problem set: Presentations Part I <b>SIR feedback due (Case 2)</b>		Group Presentations
P2	Mar 26	Problem set: Presentations Part II		Group Presentations
P3	Mar 28	Problem set: Presentations Part III		Group Presentations
P4	Mar 31	Problem set: Presentations Part IV		Group Presentations
P5	Apr 2	Problem set: Presentations Part V		Group Presentations
21	Apr 4	Dementia		<a href="#">Lecture</a>
22	Apr 7	Review_Cumulative Final <b>Summary due</b>		<a href="#">Lecture</a>
	<b>Apr 12- 27</b>	<b>Final exam (cumulative)</b>		

## Reading List:

### 1. Introduction

**Ch 104: Foundations of a Healthy Diet** (PDF available through Library on-line reserves)

Book Chapter from “Modern Nutrition in Health and Disease” by A. Catharine Ross, Benjamin Caballero, Katherine L. Tucker, Thomas R. Ziegler (11<sup>th</sup> Edition)

**Ch 63: Nutrition and Inflammatory Processes** (PDF available through Library on-line reserves)

Book Chapter from “Modern Nutrition in Health and Disease” by A. Catharine Ross, Benjamin Caballero, Katherine L. Tucker, Thomas R. Ziegler (11<sup>th</sup> Edition)

### 2. Cancer

**Ch 86: Epidemiology of Diet & Cancer Risk** (PDF available through Library on-line reserves)

Book Chapter from “Modern Nutrition in Health and Disease” by A. Catharine Ross, Benjamin Caballero, Katherine L. Tucker, Thomas R. Ziegler (11<sup>th</sup> Edition)

### 3. Cardiovascular Disease (CVD)

Hu FB. **Diet and lifestyle influences on risk of coronary heart disease.** Curr Atheroscler Rep. 2009 Jul;11(4):257-63. (PDF posted on CANVAS)

Mente A1, de Koning L, Shannon HS, Anand SS. **A systematic review of the evidence supporting a causal link between dietary factors and coronary heart disease.** Arch Intern Med. 2009 Apr 13;169(7):659-69. doi: 10.1001/archinternmed.2009.38. (PDF posted on CANVAS)

### 4. Hypertension

**Ch 66: Diet & Blood Pressure** (PDF available through Library on-line reserves)

Book Chapter from “Modern Nutrition in Health and Disease” by A. Catharine Ross, Benjamin Caballero, Katherine L. Tucker, Thomas R. Ziegler (11<sup>th</sup> Edition)

### 5. Obesity

**Ch 58: Obesity: Epidemiology, Etiology, and Prevention** (PDF available through Library on-line reserves)

Book Chapter from “Modern Nutrition in Health and Disease” by A. Catharine Ross, Benjamin Caballero, Katherine L. Tucker, Thomas R. Ziegler (11<sup>th</sup> Edition)

### 6. Type 2 Diabetes (T2D)

Ley SH, Hamdy O, Mohan V3, Hu FB. **Prevention and management of type 2 diabetes: dietary components and nutritional strategies.** Lancet. 2014 Jun 7;383(9933):1999-2007. doi: 10.1016/S0140-6736(14)60613-9. (PDF posted on CANVAS)

Video (TED MED talk): Dr. Peter Attia: What if we are wrong about diabetes?

<https://www.youtube.com/watch?v=UMhLBPPtlrY>

## 7. Osteoporosis

**Ch 90: Prevention and Management of Osteoporosis** (PDF available through Library on-line reserves)  
Book Chapter from “Modern Nutrition in Health and Disease” by A. Catharine Ross, Benjamin Caballero, Katherine L. Tucker, Thomas R. Ziegler (11<sup>th</sup> Edition)

## 8. Fetal origins of adult disease

Calkins K1, Devaskar SU. **Fetal origins of adult disease.** Curr Probl Pediatr Adolesc Health Care 2011 Jul;41(6):158-76. doi: 10.1016/j.cppeds.2011.01.001. (PDF posted on CANVAS)

## 9. Gut microbiome

van de Wouw M, Schellekens H, Dinan TG, Cryan JF. **Microbiota-Gut-Brain Axis: Modulator of Host Metabolism and Appetite.** J Nutr. 2017 May;147(5):727-745. doi: 10.3945/jn.116.240481. Epub 2017 Mar 29. (PDF posted on CANVAS)