

ACKNOWLEDGEMENT

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the xwməθkwəy̓əm (Musqueam) people. The land, on which UBC is situated, 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
Nutrition Assessment Across the Lifespan	HUNU 510	3

Time: Tuesdays and Thursdays at 12:30am to 1:50pm

Class location: West Mall Swing Space, Room 108

PREREQUISITES

Completion of 3-credit

- Introductory Nutrition (e.g., FNH 250, or equivalent), and
- Introductory physiology (e.g., BIOL 155, 153, CAPS 301; or equivalent)

CONTACTS

Course Instructor(s)	Contact Details	Office Location	Office Hours
Yvonne Lamers	Canvas Email	FNH 245	Chat with me after class, or by appointment

COURSE INSTRUCTOR BIOGRAPHICAL STATEMENT

Dr Yvonne Lamers is an Associate Professor in Human Nutrition and an Investigator at the British Columbia Children's Hospital Research Institute. Her research addresses questions around vitamin adequacy across the lifespan with current projects focusing on the impact of early life nutrition on child neurodevelopment including the effect of maternal nutrient intake on brain outcomes in children and how the relationship may be mediated through epigenetic mechanisms, as well as the nutrition-gut microbiome-brain relationship in toddlers. Dr Lamers established and leads the UBC Nutritional Biomarker Laboratory that has attracted numerous local, national, and international collaborations.

Dr Lamers joined UBC after completing her postdoctoral training at the University of Florida in the area of nutritional biochemistry and stable isotope tracer kinetics. She holds a PhD in Human Nutrition and completed her undergraduate and MSc equivalent degrees in Human Nutrition and Home Economics, with training in Dietetics, Clinical Intervention Trials, and Food Chemistry, at the University of Bonn, Germany, and at the University of Otago, New Zealand.



(Photo: <https://www.darwindietitians.com.au/nutritional-assessment/>)

OTHER INSTRUCTIONAL STAFF

Teaching assistant: Adrianna Greco, RD, MSc, will serve as teaching assistant for this course. She is a PhD Student in the UBC Human Nutrition Program and working on the impact of early life nutrition on toddler neurodevelopment.

There will be guest lectures from experts in the field throughout the term.

LEARNING ACTIVITIES

The format of HUNU 510 will be a combination of:

- Class/guest lectures
- Small group discussions
- Hands-on practice with assessment tools
- Case studies in class and as assignment

LEARNING OUTCOMES

Overall learning objectives

- Compare, contrast, and choose appropriate nutrition assessment methods based on their strengths and limitations for various life stages and conditions of health and disease.
- Interpret and utilize results of anthropometric, biochemical, clinical, and dietary assessment (ABCD) tools to assess an individual's nutrition status.
- Discuss new or emerging indicators of nutrition assessment for individuals and populations.

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

1. Describe the Nutrition Care Process and relate how nutrition assessment parameters contribute to Medical Nutrition Therapy for individuals and populations. (ICDEP 1.06a/b/c/d)
2. Compare, contrast, and choose appropriate nutrition assessment methods based on their strengths and limitations for various life stages and conditions of health and disease. (ICDEP 1.04a/b/c/d/e, 5.01a/b/c/d/e/f/g/h/i/j/k)
3. Interpret and utilize results of anthropometric, biochemical, clinical, and dietary assessment tools to assess an individual's nutrition status. (ICDEP 1.06a/b/c/d, 1.07a, 5.01a/b/c/d/e/f/g/h/i/j/k, 5.02a/b)
4. Assess and evaluate the dietary intake of individuals at different life stages and recommend appropriate guidance on nutrition-related issues. (ICDEP 2.01a/b/c/d, 5.01b/c, 5.03a/b/c/d/e, 5.04b/c)
5. Discuss new or emerging indicators of nutrition assessment for individuals and populations. (ICDEP 4.03b/d, 4.04a/b)
6. Examine physiological and psychosocial changes over the life span with implications for nutrition, describe how dietary needs and behaviours are affected by these changes, and integrate these findings into nutrition recommendations. (ICDEP 1.04a/b/c/d/e, 1.05a/b/c/d/e/f/g, 1.06a/b/c/d)

7. Summarize why nutrition requirements change over life for key nutrients (e.g., protein, fat, iron, calcium, vitamin D). (ICDEP 1.04a/b/c/d/e)
8. Explain and justify current dietary guidance, especially for life stages when nutritional status is particularly important (e.g., pregnancy, infant and young child feeding, older adulthood). (ICDEP 1.04a/c, 5.01a)

SCHEDULE OF TOPICS

Overview of weekly topics

Week	Topic	Dates	Special Notes
1	Introduction; Nutrition Care Process; Dietary guidelines, food guide	Sep 2 Sept 4	
2	Anthropometric and Clinical assessment methods	Sep 9 Sep 11	
3	Biochemical assessment methods	Sep 16 Sep 18	
4	Dietary assessment methods	Sep 23 Sep 25	<i>Adrianna Greco, MSc, RD</i>
5	Pregnancy	Oct 2* Oct 7	
6	Lactation Infancy	Oct 9 Oct 14	
7	Toddlerhood Childhood	Oct 16 Oct 21	
8	School Nutrition Adolescence	Oct 23 Oct 28	<i>Dr Jennifer Black, PhD, RD</i>
9	Review Class	Oct 30	
10	Adulthood	Nov 4 Nov 6	
11/12	Aging and Palliation	Nov 13* Nov 18	
12	Special topic / lifespan	Nov 20	
13/14	Student-led Debates	Nov 25 Nov 27 Dec 2	
14	In-class activity to recap key aspects of Nutrition across the Lifespan	Dec 4	

*There are no classes on Tuesday, September 30, and Tuesday, November 11, 2025, given two statutory holidays National Day of Truth and Reconciliation and Remembrance Day, respectively.

If any changes are made to the course outline, content, or assessment activities, the students will be informed on time through Canvas and in class.

LEARNING MATERIALS

1. **Essential reading material** for each weekly topic will be posted on Canvas, about 2 weeks prior to the scheduled class.
2. **Recommended textbook:** Lee, R.D. and Nieman, D.C. 2019. *Nutritional Assessment*, 7th edition, McGraw-Hill Higher Education Ltd, New York. Available in Woodward Library stacks: Call Number: QU146.1.N671 2019. Approximately \$50 for text or e-book rental; \$100 for text or e-book purchase
3. **Dietary Assessment Software:**
 ESHA Food Processor (available through Dr Lamers' research team).
 For personal use/purchase (optional):
 The costs for ESHA software are \$26 US dollars per month.
<https://esha.com/products/food-processor-student-subscription/>
 Other options are: Diet & Wellness Plus – online access (www.cengage.com, approx. \$35), or other dietary assessment software (e.g., Keenoa).
4. **Dietitians of Canada Courses (optional):**
 - a. WHO Growth Chart Training (5 modules); \$35 student pricing
 - b. Nutrition Screening (4 modules); Non-Members: \$210; DC Students: \$52.50

ASSESSMENTS OF LEARNING

Students will be evaluated using the following assessment metrics:

Assessment Activities	Final Grade Contribution
Participation (self-assessed)	5%
Dietary Assessment Assignment (in teams of n=2 students) Evaluation of food records from toddlers (due on Oct 7)	10%
Case Study Assignments (online)	
1. Pregnancy (due Oct 17)	10%
2. Infancy/Toddlerhood (due Oct 28)	10%
3. Childhood/Adolescence (due Nov 7)	10%
4. Older Adults (due Nov 28)	10%
Paper Review/Summary of Readings One topic per student; topics/dates selected through Canvas	10%
Student-led Discussion/Presentation	
Abstract (due Nov 21)	10%
Presentation in class (slide upload due Nov 25)	10%
Written report (due Dec 11)	15%
TOTAL	100%

Participation:

Students will be expected to attend all classes and participate in all group activities, including small group discussions and hands-on practice using assessment tools.

Dietary Assessment Assignment:

Students will be assigned into groups of 2-3 students to practice assessing dietary parameters and to evaluate the data based on dietary and anthropometric information provided from real-life examples. (1) Students will receive instructions on the use of the dietary assessment software ESHA Food Processor on-site in Dr Lamers' laboratory. Students will enter food records on site, with assistance of team members, and receive results and report cards for their home assignment (i.e., writing of assignment report). (2) Students will evaluate in detail the dietary information they obtained. Assignment reports should include the dietary intake and anthropometric data of the assigned case, a summary of interpretation of the data and implications for dietetic practice, and a discussion of the dietary intake method tool used (e.g., 24h food recall, FFQ, 3-day food record, etc.) including its strengths and limitations, and what the clinician could do to address the tool's limitations. Each team will submit their report on Canvas by the due date specified in the syllabus and on Canvas.

Case Study Assignments: Throughout the term, students will be provided with 4 case studies from different life stages. The case studies will include the case's presentation, anthropometric measures, biochemical, clinical, and dietary information, based on a real scenario a dietitian may encounter in practice. Students will analyze and evaluate the nutritional status and needs of their case patient/client. Students may also be asked to discuss the strengths and limitations of the assessment methods used for this case report. Students will explain what other information they may need to know to fully assess the case. Students should provide evidence-based guidance on (1) dietary recommendation for their case and (2) suggested next steps for the complete nutritional assessment of the case. Case studies are to be completed online by the due date specified in the syllabus and on Canvas.

Paper Review/Summary of Readings: Students will be asked to select a topic and date from the weekly schedule, with a maximum of 2 students per topic. While all students are asked to read the list of references (provided by the instructor) for the various classes and topics, the student(s) in charge of the topic will provide a 3-min in-class summary of their selected reference (ad-hoc or supported by slides) and facilitate the in-class discussion about the reference/journal article.

Student-led Debates: Students are invited to reflect upon the diverse range of questions they may have related to nutrition assessment at various stages of life. Students will select one of their questions or a current 'hot topic' or debate in the field and define a clear and specific question based on the PICO(T) principles (P=population of interest, I=intervention/issue, C=comparison, O=outcome(s), and T=timeframe, if applicable). Students will be asked to prepare a concise, evidence-based response to their question based on appropriate papers from the peer-reviewed literature. This response in form of a written report should be drafted and submitted on Canvas by the due date. Detailed instructions can be found on Canvas. Students are also asked to share their response in an engaging 7-minute presentation in class, in a mini-conference format. Slide decks are due for upload on Canvas; presentations will be peer- and instructor-evaluated.

EQUITY, DIVERSITY, INCLUSION

UBC provides resources to support student learning and to maintain healthy lifestyles.

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](#).

OTHER COURSE POLICIES

Students are expected to attend all lectures and participate in all learning activities in class as they relate to practical assessment methods for dietitians (e.g. dietary assessment activities).

Absentee Policy: We expect you to be present and prepared for all class meetings. In the event that you are unable to attend a scheduled class because of illness or emergency, you are responsible for any material presented in class. See [UBC's policy](#) regarding illness and accommodations. You are expected to contact the instructor and submit a medical note/certificate of illness or appropriate documentation for any absence that requires accommodation.

This course, like all required courses in the MND program, contributes to coverage of the Integrated Competencies for Dietetic Education and Practice (ICDEP). All students in the Dietetics Major should refer to the Mapping of Curriculum to ICDEP page on the dietetics website to familiarize themselves with the requirements.

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Students are not permitted to record class lectures.

Version 2-5: amendments/updates by Dr Yvonne Lamers, August 2025, 2024, 2023, 2022

Version 1: original syllabus prepared by Dr Tamara Cohen and Gilbert Lee