

NEW PROGRAM ALERT!

BSc Minor in Food & Nutrition



Did you know...?

- ✓ 80% of premature heart disease, stroke and diabetes are preventable⁽¹⁾
- ✓ Poor diet now causes more deaths than smoking ⁽²⁾
- ✓ More than half of Canadians are unsure where their food comes from⁽³⁾
- ✓ More than 20,000 new food products hit the market every year ⁽⁴⁾
- ✓ Food production creates more greenhouse gas than cars ⁽⁵⁾
- ✓ CDC estimates that 48 million people report getting sick from a foodborne illness every year and for every 1 case of food poisoning reported, 30 go unreported ⁽⁶⁾
- ✓ Canada's Food Guide is the 2nd most downloaded government document next to Tax forms ⁽⁷⁾

Expand the reach of your science degree

Eating well not only promotes health but also contributes to a vibrant economy and a sustainable planet. StFX nutrition grads are making a difference in communities, industries, and organizations across Canada and beyond. Complete the Nutrition Minor to learn how you can take part.



Making sure everyone can access and choose healthy food is a complex challenge that requires many kinds of expertise. Enrich your science degree by completing a minor in food & nutrition. Learn:

- ✓ why different dietary approaches work for different people based on genetic make up
- ✓ how diet can promote a healthy microbial ecosystem in the gut
- ✓ how nutrition enhances athletic performance
- ✓ how food is a powerful cultural symbol that connects people
- ✓ policies that improve healthy eating and access to food
- ✓ how food packaging influences what people eat
- ✓ how income, food and health are related
- ✓ how food practices impact the carbon footprint



How to get started

Degree Structure: BSc Minor in Food & Nutrition (24 credits)

The BSc Minor in Food & Nutrition is composed of 24 credits, to include 9 credits of required courses and 15 credits of HNU electives. **Enrol in HNU 142 to get started!** Register in HNU 261 and 262 while completing BIOL 251, 252 and CHEM 220/225, 255. Then complete your minor with any 15 credits of your choice.

Core required courses (9 credits):

HNU 142 Introduction to Food and Health* (*formerly HNU 161*)

HNU 261 Introduction Nutrition* (*transitioning to HNU 242 - Foundations of Nutrition Science in 2020*)

HNU 262 Principles of Nutrition in Human Metabolism

**HNU 161(142) and 261 are also available as Distance Education courses from StFX.*

HNU electives (choose any 15 credits from):

HNU 145 Introduction to Foods

HNU 146 Introduction to Food Science

HNU 351 Nutritional Assessment

HNU 352 Nutrition in Chronic Disease Prevention & Management

HNU 356 Introduction to Food Service & Quantity Food Production

HNU 365 Community Nutrition

HNU 366 Maternal and Child Nutrition

HNU 363 Sport Nutrition

HNU 405 Food Availability

HNU 421 Food and Nutrition for Global Health Equity

HNU 425 Nutrition in Aging

HNU 428 Functional Foods

HNU 433 Introduction to Policy for Health Interdisciplinary Strategies

HNU 445 Food Product Development

HNU 456 Food Service System Management

HNU 461 Nutrition in Metabolic Disease

HNU 471 Entrepreneurial Practices for Nutrition Professionals

Suggested areas of focus for the Food & Nutrition Minor may include:

Nutrition: 351, 352, 363, 366, 425, 461, 467

Population Health & Policy: 365, 405, 421, 433

Food & Industry: 145, 146, 356, 428, 445, 456, 471

For further information contact: hnu@stfx.ca or an Academic Advisor.

<http://www2.mystfx.ca/human-nutrition/>

Course Descriptions for the BSc Minor in Food & Nutrition are provided below.

Core Courses [Required]:

142 Introduction to Food and Health (formerly HNU 161)

This introductory course exposes students to the range of subject matter covered in the degree program and an introduction to the field of nutrition. The role of nutrients in a healthy diet is featured along with identifying the behavioural, social and political factors that impact food choice. Students will discuss nutrition in the media and will begin to work with food guidance tools to explore nutrition and health promotion. Three credits.

261 Introduction to Nutrition

Students will learn the fundamentals of the science of nutrition with an emphasis on energy, macronutrients, vitamins and minerals required by humans. The functions of these nutrients, their food sources and how the body handles them will be discussed within the framework of nutrition in the promotion of health and the prevention of chronic diseases. Credit will be granted for only one of HNU 261 or HNU 215. Prerequisites: HNU 161 (or concurrent), CHEM 101/102; BIOL 111. Three credits.

262 Principles of Nutrition in Human Metabolism

Building on HNU 261, students will apply the principles of nutrition with an emphasis on nutrient functions and metabolism while drawing on foundational knowledge in biology and chemistry. Topics will include: energy metabolism, weight management, and nutritional concerns across the life course and the emerging role of nutritional genomics. Prerequisites: HNU 261; BIOL 251, 252, completed or concurrent; CHEM 225(or 220), 255, completed or concurrent. Three credits.

Elective Courses:

Nutrition Focus

351 Nutritional Assessment

This course addresses the principles and methods in nutritional assessment of individuals and populations with consideration for variations in health status and stages across the life course. It provides the theoretical foundation for nutritional assessment in the nutritional care process. Methods for dietary, anthropometric, biochemical, ecological and clinical evaluations of individuals and populations are examined, along with the development and appropriate use of the Dietary Reference Intakes. Prerequisites: HNU 262; CHEM 225 (or 220), 255; BIOL 251, 252. Three credits and a lab.

352 Nutrition in Chronic Disease Prevention & Management

This course provides a solid foundation to the nutrition care process as it relates to chronic disease prevention and management including a review of medical terminology, charting, nutrition counselling techniques, cultural competency, and ethics in nutrition practice. Application of nutrition care will be made in the context of the prevention and management of the chronic diseases of relevance in the Canadian context including, but not limited to, weight management, cardiovascular diseases, diabetes mellitus, and renal disease. Co-requisite: HNU 351. Three credits.

363 Sport Nutrition

This course involves identification of the specific nutrient needs of the individuals engaged in vigorous physical activity, with a focus on the role of nutrients in energy metabolism to support exercise performance. Students will demonstrate an understanding of energy, nutrient and fluid guidelines appropriate for power, endurance and team sports and apply the guidelines to food choices for training and competition. Skills in evaluating scientific evidence in the field of sports nutrition will be emphasized. Prerequisite: HNU 262. Three credits.

366 Maternal and Child Nutrition

This class takes a life-course approach to examine the role of nutrition within the context of normal human development from pre-conception to adolescence. Emphasis is placed on nutritional concerns and recommended dietary practices during pregnancy, lactation, and early childhood. The management of common childhood and adolescent dietary concerns is also discussed. Prerequisites: BIOL 252; HNU 262. Three credits.

425 Nutrition in Aging

A study of nutrition related to older adults. Emphasis is on nutritional concerns and dietary recommendations for the older adult population. Topics covered include healthy aging, attitudes and demographic trends around aging in Canada. Dietary management of common concerns in older adulthood (including dementia and osteoporosis) is discussed. Prerequisites: HNU 262; BIOL 252. Three credits.

461 Nutrition in Metabolic Disease

This course examines the etiology and pathophysiology of nutrition-related metabolic diseases, with a focus on the evidence leading to clinical practice guidelines for these disorders. Topics will include rheumatic disorders, autoimmune diseases and select inherited metabolic diseases in nutrient metabolism including phenylketonuria, hemochromatosis, glycogen storage diseases, and thalassemias. Skills in evaluating clinical research evidence will be emphasized. Prerequisite: HNU 351. Three credits.

Population Health & Policy Focus

365 Community Nutrition

An introduction to the field of community nutrition and its role in health and health care, which assumes students' familiarity with the theories and principles of normal nutrition. Students will explore the role of the community nutritionist in determining the needs of specific population groups; factors that influence eating behaviour; processes available for planning, delivering, and evaluating community nutrition services; and necessary tools, skills and techniques for practice. Prerequisite: HNU 262. Three credits.

405 Food Availability

An examination of the vital issues that surround our national and global food supply from production to consumption. The course will explore interdependency of the many factors underlying the science of food and feeding of people, including the relation of nutrition to health and social policy decisions, the food supply, and access to food, food security, food technology, and domestic and global food distribution. Open to students in all faculties. Three credits.

421 Food and Nutrition for Global Health Equity. This course focuses on nutrition in tackling global disease burdens and achieving global health equity. It explores concepts, actors, governance, interventions, Sustainable Development Goals, nutrition transition, and other nutrition-related risk factors. The knowledge-translation framework, together with assets-based and integrated “bottom-up” approaches to community development, permeates the course and gives basis to the major course assignment. Various local and international guest speakers broaden the understanding of lecture topics. Prerequisites: HNU 351. Three credits.

433 Introduction to Policy for Health-Interdisciplinary Strategies

Credit will be granted for only one of HNU 433 and NURS 495, HKIN 495, HNU 495. Cross-listed as NURS 433; see NURS 433. Three credits.

Food & Industry Focus

145 Introduction to Foods

This course will introduce the physical and chemical properties of the major food groups, the extent to which these properties are altered by various types of processing, as well as issues of food quality and safety and their implications for human health. Three credits and lab.

146 Introduction to Food Science

An introduction to scientific concepts as a basis for understanding foods as a complex chemical system. A study of the properties of food components as they are affected by chemical and physical changes in foods; the foundations of various food preservation methods; and the principles of food evaluation by sensory and objective methods. Three credits and lab.

356 Introduction to Food Service & Quantity Food Production

In this introduction to food service systems and quantity food production, principles, policies, and practices applied to the successful operation of quantity food service systems are examined. Topics include menu management; quantity recipe standardization and costing; procurement, production and service of quality food; marketing; quantity food service equipment; and environmental management. Prerequisites: HNU 262, 146. Three credits and lab.

428 Functional Foods

This course will introduce students to the growing global food industry trend of functional foods and their relationship to health and disease. Bioactive components of functional foods, their sources, chemistry, efficacy, safety, and metabolism will be examined. Evaluation of aspects of marketing and the regulatory environment related to health claims for functional foods will focus on consumer perceptions and roles of health professionals. Credit will be granted for only one of HNU 428 or HNU 496 (completed in 2015, 2016). Prerequisites: HNU 145, HNU 146, HNU 262 completed or concurrent. Three credits with lab.

445 Food Product Development

Building on the fundamental principles of food chemistry and food safety the emphasis of this course will be on food product development from concept to market place. In addition, students will apply principles of research methods and will use objective and subjective food evaluation methods in controlled laboratory experiments. Prerequisites: HNU 145, 146; CHEM 225(or 220), 255; STAT 101. Three credits and a lab.

456 Food Service System Management

Building on material introduced in HNU 356, this course focuses on managerial decision-making relevant to human resource and financial management of food service systems in a range of settings in the public and private sectors. Using a problem-based learning approach, students working in small groups on problems assigned by the professor will examine current issues in food service practice and learn to apply quality assurance mechanisms in their management. Prerequisites: HNU 356; BSAD 102. Three credits.

471 Entrepreneurial Practices for Nutrition Professionals

This course examines the relationship of a variety of factors for entrepreneurial behaviours both in the workplace and in new venture development. Creativity and self-awareness are emphasized while basic business skills and planning processes are developed as the necessary tools for bringing goals and ideas to reality. Guest speakers from nutrition-related enterprises and business support agencies will augment the learning and creative experience in the classroom. Prerequisites: BSAD 102; HNU 261, 262, completed or concurrent. Restricted to HNU students. Three credits.

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References

1. WHO Global Report. Preventing chronic diseases: a vital investment. https://www.who.int/chp/chronic_disease_report/part1/en/index11.html
2. Afshin, A., Sur, P. J., Fay, K. A., Cornaby, L., Ferrara, G., Salama, J. S., . . . (2019). Health effects of dietary risks in 195 countries, 1990–2017: A systematic analysis for the global burden of disease study 2017. *The Lancet*, 393(10184), 1958-1972. doi:10.1016/S0140-6736(19)30041-8
3. Sahota, R. 2019. <https://www.inhalton.com/survey-shows-many-canadians-do-not-know-where-their-food-comes-from>
4. Slater, J. (2017). Food literacy: A critical tool in a complex foodscape. *Journal of Family & Consumer Sciences*, 109(2), 14-20. doi: 10.14307/JFCS109.2.14
5. Cormier, J. (2016). Which is worse for the planet: Beef or cars? Retrieved from <https://www.ecowatch.com/which-is-worse-for-the-planet-beef-or-cars-1919932136.html>
6. Andrews, J. (2014). Outbreak case counts: Why official numbers fall far below estimates. Retrieved from <https://www.foodsafetynews.com/2014/04/outbreak-case-counts-why-official-numbers-fall-far-below-estimates/>
7. Maclean's. 2019. Canada's Food Guide: Ignoring it? Now's the time to follow the rules. <https://www.macleans.ca/society/canadas-food-guide-ignoring-it-nows-the-time-to-follow-the-rules/>