

| Food Systems Courses Offered at UBC | | | | |
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| Course | Faculty | Credits | Description | Pre-requisites |
| 1. ANTH 210 – Eating Culture | Arts | 3 | An anthropological exploration of how the collection, cultivation and consumption of food shapes human society and culture. | |
| 2. APBI 200 – Introduction to Soil Science | LFS | 3 | Soil as the base of the Earth's ecosystem pyramid. Physical, chemical and biological properties of soils; soil formation, classification, use and conservation. | |
| 3. APBI 260 – Agroecology I | LFS | 6 | Introduction to the biophysical and socioeconomic factors affecting systems management and production in selected agroecosystems. | |
| 4. APBI 265 – Sustainable Agriculture and Food Systems | LFS | 3 | Principles and practices necessary to understand practical concerns of sustainable food systems. | |
| 5. APBI 314 – Animals and Society | LFS | 3 | Contemporary use of animals for food production, companionship, recreation and science; social and ethical issues concerning human impacts on animals; animals in human culture; protection of animals by society and the law. | 3rd yr standing |
| 6. APBI 315 – Animal Welfare and the Ethics of Animal Use | LFS | 3 | Scientific assessment of animal well-being, ethical concepts applied to animal use, and animal welfare issues arising in agriculture, biomedical research and other areas. | 3rd yr standing |
| 7. APBI 322 – Horticultural Techniques | LFS | 3 | An introduction to horticultural practice in an experiential learning format. Plant identification, seeding, propagation, pruning, cultivation media, pesticide application and safety are examined in the context of integrated crop management. | |
| 8. APBI 324 – Introduction to Seed Plant Taxonomy | LFS | 3 | Introduction to seed plant taxonomy emphasizing descriptive morphology and identification. | BIOL 121 |
| 9. APBI 360 – Agroecology II | LFS | 4 | Animals and Plants as Components of Agricultural Ecosystems. A systems approach is used to investigate the functions and interactions of plants and animals in agricultural systems. | APBI 260 or APBI 265 |
| 10. APBI 361 – Key Indicators of Agroecosystem Sustainability | LFS | 3 | A detailed exploration of biophysical, economic, and social ecosystem sustainability indicators for primary production subsystems. | |
| 11. APBI 402 – Sustainable Soil Management | LFS | 3 | Application of fundamental, unifying, soil science principles in sustainable ecosystem management. | APBI 200 |
| 12. APBI 413 – Stress and Coping in Animals | LFS | 3 | Understanding, assessing, and managing stress in farm, companion, captive wildlife, and research animals: sources of stress; behavioural, emotional, cognitive, and physiological responses; effects on growth, reproduction, health. | 3rd yr standing |
| 13. APBI 414 – Animals and Global Issues | LFS | 3 | Research seminar integrating diverse information to address global animal issues | APBI 314 OR APBI 315 |

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| | | | including: animal-source foods and human health, environmental impact of livestock production, trade in exotic animals. | |
| 14. APBI 417 – Production and Postharvest Physiology of Vegetable Crops | LFS | 4 | Morphology, growth and development, production, composition, quality, and postharvest physiology of vegetable crops. | |
| 15. APBI 428 – Integrated Pest Management | LFS | 3 | Development and implementation of multi-disciplinary pest management programs in agricultural crops. | BIOL 121 |
| 16. APBI 442 – Grapevine and Berry Crop Biology | LFS | 3 | Grapevine genetics, morphology, and physiology and major biological features of other important berry crops for British Columbia such as blueberry, cranberry, and raspberry. | BIOL 112, BIOL 121, ONE OF APBI 210 OR BIOL 210, BIOL 234 |
| 17. APBI 444 – Agroforestry | LFS | 3 | An introduction to the application of knowledge and principles of agroecology and forest ecology to global agroforestry systems. The course includes a one-weekend field trip that requires a supplemental fee. | |
| 18. APBI 460 – Advanced Agroecology | LFS | 3 | The relationship between biological diversity and sustainability for the management of agroecosystems; emphasis on ecological interactions between natural ecosystems and agroecosystems, including connections between agroecology and conservation biology. | APBI 360 |
| 19. APBI 465 Capstone in Sustainable Agriculture and Food Systems | LFS | | Integrates classroom and applied learning at the UBC Farm with design project. | |
| 20. APBI 490 Agricultural Ethics and Public Policy | LFS | 3 | As farming practices have changed to keep pace with increased demand of a growing population, many of the practices of modern farming have become the subjects of intense public debate. This course introduces students to debates about the direction of agriculture at the policy level and provide them with the tools needed to effectively engage in these ongoing debates. | 3rd yr standing |
| 21. APBI 495/CONS 495 – Principles of Wildlife Management in Forests and Agricultural Environments | LFS & Forestry | 3 | Impacts of wildlife on crop productivity in temperate and tropical environments, the resiliency of wildlife populations to conventional control methodology, adoption of innovative methods to reduce crop damage, and the impact of introduced species on native fauna. | |
| 22. BIOL 343 – Plants and Peoples | Science | | The interactions of plants and human societies: the role of people in the origin, evolution and dispersal of food, drug and economic plants, and the influences of plants on human societies. Suitable for upper-level Arts students. | 3RD OR 4TH YR STANDING |
| 23. COMM 306 – Urban Land Economics | Comm & Bus Admin | 3 | Examines economic factors affecting the urban land market, with an emphasis on determinants of urban land values, the housing market, urban transportation, and land use policies. | COMM 295 OR ECON 201 OR ECON 301 |

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| 24. EDCP 329 – Agriculture in the Curriculum | Educational | 3 | Agricultural awareness, understanding the food system, and integration of food and agricultural literacy across the curriculum. | |
| 25. ENVR 430 – Ecological Dimensions of Sustainability | Science | 3 | Current issues. Application to agricultural, energy, and resource systems in terrestrial and aquatic contexts. Analysis of complex problems; incorporation of science into novel interdisciplinary solutions. | ENVR 300, BIOL 230 OR 4TH YR STANDING (with ecology background) |
| 26. EOSC 340 – Global Climate Change | Science | 3 | Mechanisms and processes of past and future global environmental and climate change. | A) SCIE 001 OR B) ONE OF CHEM 11/121/154 AND ONE OF MATH 101/103/121 AND ONE OF PHYS 101/107/117/153/157 |
| 27. FNH 200 - Exploring Our Food | LFS | 3 | Chemical and physical properties of foods; issues pertaining to safety, nutritive value and consumer acceptability; government regulations pertaining to food safety, quality and additives; preservation techniques and transformation of agricultural commodities to food products; foods of the future. | 2ND YR STANDING |
| 28. FNH 250 - Nutrition Concepts and Controversies | LFS | 3 | Fundamental concepts and principles of human nutrition applied to current nutrition issues. | ONE OF BIOL 111/112/153/155 OR KIN 190 AND KIN 191 |
| 29. FNH 300 - Principles of Food Engineering | LFS | 3 | Units and dimensions, mass balance, energy balance, steady state and transient heat flow, fluid handling and measurement. | PHYS 101 OR PHYS 107 |
| 30. FNH 301 - Food Chemistry 1 | LFS | 3 | Constituents of food and related chemical physical properties including water, carbohydrates, proteins, lipids, minerals, and vitamins. | ONE OF CHEM 201/205 AND ONE OF CHEM 203/233 |
| 31. FNH 302 - Food Analysis | LFS | 3 | Principles of and procedures for analysis of the chemical and physical properties of food; proximate analysis; introduction to instrumental analysis; reporting and analysis of data. | ONE OF CHEM 201/205 AND ONE OF CHEM 203/233 |
| 32. FNH 303 - Food Product Development | LFS | 3 | Introduction to and application of concepts involved in food product formulation and development. | ONE OF LFS 252, BIOL 300, EPSE 482, FRST 231, STAT 200 |
| 33. FNH 309 - Food Process Science | LFS | 3 | Preservation of tissue and fluid food systems by selected physical and chemical treatments with emphasis on product-process interactions. | |
| 34. FNH 313 - Microorganisms in Food Systems | LFS | 3 | Microorganisms of importance in safety, spoilage and preservation of foods; factors affecting growth, survival and inactivation of microorganisms in fermented food systems; food processing plant cleaning and sanitation. | BIOL 112 |
| 35. FNH 325 - Food Science Laboratory I | LFS | 3 | Integrated laboratory introducing techniques used in food processing and analysis. | FNH 300, FNH 301, FNH 302 |
| 36. FNH 326 - Food Science Laboratory II | LFS | 3 | Integrated laboratory encompassing the processing and analysis of foods. Enrolment restricted to Food Science students. | FNH 325 |

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| 37. FNH 330 - Introduction to Wine Science I | LFS | 3 | Principles of viticulture, enology, and wine microbiology and chemistry; marketing, regulation and classification of wines from selected regions of the world; social, economic and health aspects of wine consumption; wine appreciation. | 2ND YR STANDING |
| 38. FNH 335 - Introduction to Wine Science II | LFS | 3 | Review of diverse styles of wine with consideration of classic wine-producing areas. Concepts in wine microbiology/chemistry; overview of steps in grape processing for diverse wine styles. Comparison of regulations for Canadian VQA systems with international systems. Wine sensory analysis. | FNH 330 |
| 39. FNH 340 - Food Theory | LFS | 3 | Principles of food preparation based on the physical and chemical properties of food. | FNH 200 AND ONE OF CHEM 111/113 OR CHEM 121/123 |
| 40. FNH 341 - Food Theory Applications | LFS | 3 | Experimental and practical application of scientific principles and theories to problems of food preparation. | FNH 340 |
| 41. FNH 342 - Critical Perspectives on Consumer Food Practices | LFS | 3 | Personal, collective, and policy factors affecting food choices, including perceptions of healthy eating, gender, identity, family structures, and economic, sociocultural, and political forces. | 3RD YR STANDING |
| 42. FNH 350 - Fundamentals of Nutrition | LFS | 3 | Fundamentals of energy and macronutrient metabolism. | FNH 250 AND ONE OF BIOL 201, BIOC 202) |
| 43. FNH 351 - Vitamins, Minerals, and Health | LFS | 3 | Vitamin and mineral nutrition and their role in maintaining and promoting health. | FNH 250 AND ONE OF BIOL 201, BIOC 202) |
| 44. FNH 355 - International Nutrition | LFS | 3 | Conceptualization and scientific analyses of global problems in food and nutrition; complexities of food habits and malnutrition in various cultures around the world. | |
| 45. FNH 370 - Nutrition Assessment | LFS | 3 | The use of dietary, anthropometric, biochemical, and related information for the assessment of nutritional status of individuals and populations. | FNH 250 |
| 46. FNH 371 - Human Nutrition Over The Life Span | LFS | 3 | Nutritional requirements and dietary patterns of healthy individuals throughout the life span. | FNH 250 |
| 47. FNH 380 - Professional Dietetic Practice I | LFS | 1 | Introduction to the profession of dietetics in Canada. | |
| 48. FNH 402 - Functional Foods and Nutraceuticals | LFS | 3 | Functional food and nutraceutical concepts related to ingredient safety and quality; examples of nutrient-disease relationships, requirements for standards of efficacy for health claims; market determinants of functional food and nutraceutical industries. | 3RD YR STANDING |
| 49. FNH 403 - Food Laws, Regulations and Quality Assurance | LFS | 3 | Canadian and international laws governing food composition, grading, quality and safety; hazard analysis critical control points; statistical quality assurance. | LFS 352 OR STATS |
| 50. FNH 413 - Food Safety | LFS | 3 | Microbial and chemical factors that underlie public health challenges in the food supply chain; prevalence and nature of organisms which cause foodborne diseases; approaches and technologies for improvement of food safety. | MICB 202, CHEM 233 |

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| 51. FNH 415 - Business Concepts in Food, Nutrition, and Health. | LFS | 3 | Introduction to and application of business activities in food, nutrition, and health settings. | 3RD YR STANDING |
| 52. FNH 425 - Food Science Laboratory III | LFS | 6 | Integrated course designed to illustrate principles of research and product development in the food industry. | FNH 325, FNH 326 |
| 53. FNH 430 - Enology and Wine Biotechnology | LFS | 3 | Yeasts and bacteria involved in wine making, metabolic pathways leading to the production of flavour and spoilage compounds, genetic improvement of wine yeasts, and red and white wine fermentations. Approaches and technologies for the improvement of wine safety. Sensory evaluation of wines. | |
| 54. FNH 440 - Food Service Systems Management | LFS | 3 | Management responsibilities in quantity food production with emphasis on menu planning, purchasing and service. Includes planning and equipping food services. | FNH 340 |
| 55. FNH 451 - Nutrient Metabolism and Implications for Health | LFS | 3 | Integration of nutrient and energy metabolism on a whole-body and individual tissue basis and the implication for health. Emphasis will be on regulation of nutrient metabolism. | FNH 350, CAPS 301, BIOC 302 |
| 56. FNH 455 - Applied International Nutrition | LFS | 3 | Applying nutrition concepts and principles in addressing problems of malnutrition and food insecurity in international settings. Basics of developing culturally acceptable, sustainable nutrition intervention programs. | FNH 355 |
| 57. FNH 470 - Foundations of Nutrition Care I | LFS | 3 | The role of nutrition and the application of therapeutic diets in the prevention, etiology, and treatment of gastrointestinal complications/disorders, cardiovascular disease, diabetes, and obesity. | FNH 350, FNH 370 |
| 58. FNH 472 - Maternal and Fetal Nutrition | LFS | 3 | Metabolic adaptations, nutrient metabolism, and special issues during pregnancy that may influence the maternal-fetal nutritional supply. | FNH 350, 3RD YR STANDING |
| 59. FNH 474 - Sport Nutrition | LFS | 3 | Theory and methods in nutrition education; factors affecting behaviour modification and health promotion. The practice of nutrition education through education, health care delivery or media systems. | |
| 60. FNH 475 - Foundations of Nutrition Care II | LFS | 3 | The role of nutrition and the application of therapeutic diets in the prevention, etiology and treatment of specialized areas of clinical nutrition. | |
| 61. FNH 477 - Nutrition and Disease Prevention | LFS | 3 | Evidence-based examination of the role of nutrition in the prevention of chronic disease. | FNH 398 |
| 62. FNH 490 - Topics in Food, Nutrition, and Health | LFS | 3 | Analysis and interpretation of current issues in food, nutrition and health. | |
| 63. FRE 302 - Small Business Management in Agri-food Industries | LFS | 3 | Emphasizes the building of a business plan by exploring topics such as the planning process and financing, marketing and human resource concepts, as applied to an agri-food business, domestically and internationally. | ECON 101 OR ECON 310, 2ND YEAR STANDING |
| 64. gradFRE 306 - Introduction to Global Food Markets | LFS | 3 | An overview of global food markets including recent trends (e.g., vertical coordination, strategic alliances, multinationals and small firms in niche markets), marketing and trade institutions such as state-trading enterprises | ECON 101 OR ECON 310, 2ND YR STANDING |

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| | | | and WTO regulations, issues specific to developing nations, and case studies. | |
| 65. FRE 340 - International Agricultural Development | LFS | 3 | Characteristics, processes and sources of economic growth, role of agricultural and resource sectors in economic growth, analysis of output and input markets in those sectors, policy failures, tools for empirical analysis of rural markets, growth, and the environment. | ECON 100 OR ECON 101, 2ND YR STANDING |
| 66. FRE 374 - Land and Resource Economics | LFS | 3 | Willingness to pay, opportunity costs, externalities, and market failures in natural resource markets; dynamic efficiency; economic applications including mineral, marine, forest, land, water, and biodiversity. | ECON 101 OR ECON 310 |
| 67. FRE 460 - Economics of Food Consumption | LFS | 3 | Microeconomics of consumer decisions and public policy in food contexts; foodborne illness; economic causes and consequences of obesity; sin taxes and prohibitions; information campaigns and advertising; labeling; food waste and ethics. | ECON 101 OR ECON 301 |
| 68. FRE 490 - Current Issues in Food and Resource Economics | LFS | 3 | Analysis and interpretation of current issues in food and resource economics. | ECON 101 OR ECON 310 |
| 69. LFS 100 - Introduction to Land, Food and Community | LFS | 1 | Orientation to the programs, learning environment and core values of the Faculty of Land and Food Systems; career programs; survey of professional opportunities and requirements. | |
| 70. LFS 250 - Land, Food and Community I | LFS | 6 | Introduction to managed systems and concepts of sustainability; economic, ecological and social components; managed landscapes, agri-food systems, and communities; urban and rural systems; the land, food, nutrition and human health continuum. | |
| 71. LFS 340 - First Nations Health and the Traditional Role of Plants | LFS | 3 | This Interprofessional Health and Human Service (IHHS) course covers the First Nations medical systems and medicinal plants. Bridging the traditional with modern sciences. | |
| 72. LFS 350 - Land, Food, and Community II | LFS | 3 | Introduction to tools and skills required to assess the economic, ecological, social, and technological components of managed landscapes, agrifood systems and communities comprising the land, food, nutrition and health continuum. | LFS 250 |
| 73. LFS 450 - Land, Food, and Community III: Food System Sustainability | LFS | 3 | Problem-based analysis of complex case studies aimed at increasing the sustainability of the UBC Vancouver campus food system. The main activities are integrated into the ongoing UBC Food System Project. | LFS 350 |
| 74. SOCI 342 - Consumers and Consumption | Arts | 3 | The structure and culture of consuming and consumption. | SOCI 100 OR SOCI 101 OR SOCI 102 |
| 75. SOCI 360A - Sociology and Natural Resources | Arts | 3 | Sociological perspectives on property, resource industries (such as agriculture, fishing, forestry and mining), resource development, and resource communities. May also include examination of social aspects of resource development in the Third World. | SOCI 100 OR SOCI 101 OR SOCI 102 |

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| 76. SOCI 423 – Sociology of Food | Arts | 3 | Cultural, economic, and political aspects of food production and consumption, including connections to class, ethnicity, and gender. Food-related social movements will be included. | SOCI 100 OR SOCI 101 OR SOCI 102 |
| 77. SOCI 479A - Social Determinants of Health | Arts | 3 | Relationships between social phenomena (e.g., personal beliefs, lifestyle practices, social support, socio-economic status, social class, gender, and ethnicity) and the health of human populations. | SOCI 100 OR SOCI 101 OR SOCI 102 |