



a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

# **UBC Vancouver**

# **ACADEMIC**

# **CALENDAR**

**2019/20**

[www.calendar.ubc.ca/vancouver](http://www.calendar.ubc.ca/vancouver)



## The Faculty of Land and Food Systems

[Introduction](#)

[Admission](#)

[Registration and Program Approval](#)

[Academic Regulations](#)

[Attendance and Examinations](#)

[Year Promotion and Academic Standing](#)

[Credit Load, Withdrawals and Academic Leave](#)

[Requirements to Graduate](#)

[Communication Requirement](#)

[Dean's Honour List](#)

[Honours Standing](#)

[Part-time Students](#)

[B.Sc. in Agroecology](#)

[Introduction](#)

[Advising Office](#)

[Admission](#)

[Degree Requirements](#)

[B.Sc. in Applied Biology \(APBI\)](#)

[Introduction](#)

[Advising Office](#)

[Admission](#)

[Academic Regulations](#)

[Applied Animal Biology Major](#)

[Applied Plant and Soil Science Major](#)

[Food and Environment Major](#)

[Sustainable Agriculture and Environment Major](#)

[B.Sc. in Food, Nutrition, and Health](#)

[Introduction](#)

[Advising Office](#)

[Admission](#)

[Academic Regulations](#)

[Dietetics Major](#)



Food Market Analysis Major

Food and Nutritional Sciences Double Major

Food Science Major

Food, Nutrition, and Health Major

International Nutrition Major

Nutritional Sciences Major

Dual Degree Program in Food, Nutrition and Health and Education

B.Sc. in Food and Resource Economics (FRE)

Introduction

Advising Office

Admission

Degree Requirements and Program Options

B.Sc. in Global Resource Systems

Introduction

Advising Office

Admission

Academic Regulations

Degree Requirements and Program Options

Credit/D/Fail

Dual Degree and Minor Options

First Year Options

Co-operative Education Program

Exchange Programs

BC Institute of Agrologists

Dr. and Mrs. A. S. Dekaban Foundation

Academic Staff

Applied Biology

Food, Nutrition, and Health

Food Resource Economics



## Introduction

### *Faculty of Land and Food Systems*

Dean's Office  
R. Y. Yada, Dean  
C. H. Scaman, Associate Dean, Academic  
Z. Xu, Associate Dean, Graduate Studies  
D. D. Kitts, Associate Dean, Research  
248-2357 Main Mall  
Vancouver, BC V6T 1Z4  
Telephone: 604.822.1219  
Fax: 604.822.6394  
Land and Food Systems Website (<http://www.landfood.ubc.ca>)

The Faculty of Land and Food Systems undergraduate program offerings include Applied Biology, Food, Nutrition and Health, Food and Resource Economics and Global Resource Systems. Graduate programs include Applied Animal Biology, Food Science, Human Nutrition, Integrated Studies in Land and Food Systems, Plant Science and Soil Science. The Faculty also offers three professional programs in Food and Resource Economics, Food Science, and Land and Water Systems.

The Faculty of Land and Food Systems is a world leader in integrated research, education and service that addresses critical global issues around sustainable agriculture, food safety and quality, and food, nutrition and health. To that end, the Faculty initiatives foster and support research excellence, innovative active learning environments to educate new generations of professionals, strong community connections, and global and local collaborations.

## Admission

Application for admission to the Faculty of Land and Food Systems must be made through Enrolment Services. Procedures, policies, and admission requirements for the University of British Columbia and the Faculty of Land and Food Systems are specified in the Admissions (Calendar page <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,27,0,0#151>) section of the UBC Academic Calendar.

### *Admission from Secondary School*

Admissibility is determined on the basis of a number of factors including performance in specific high school courses, the overall academic rigor of the program, evidence of relevant learning and achievements both in and out of school, and other indicators of suitability for the Bachelor of Science programs offered through the Faculty of Land and Food Systems at UBC.

### *Admission as a Post-Secondary Transfer Student or With a Previous Degree*

Students applying to the Faculty of Land and Food Systems by transfer from other post-secondary institutions or with a previous degree should note that, as per the University's policy on Requirements to Receive a Degree or Diploma (Calendar page <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,40,0,0#19>), they will be required to complete at least 50% of their program's required course load while registered in their LFS program.



No more than 60 credits of transfer credits will be applied to a student's UBC academic record, and credit will be assigned as follows:

- For post-secondary transfer students, transfer credit from other post-secondary institutions will be assessed by the UBC Undergraduate Admissions Office at the point of admission and in accordance with articulation agreements between UBC and other post-secondary institutions.

Please note, not all transfer credit is necessarily applicable to a students' degree program. As such, when students present in excess of 60 transfer credits, the Faculty will determine which 60 credits are most applicable to the degree program. Students can learn more at Maximum Allowable Transfer Credit (Calendar page <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,25,74,0#141>)<sup>1</sup>

Transfer applicants to the Faculty of Land and Food Systems must also present the required high school academic pre-requisites, as listed in Admissions (<http://www.calendar.ubc.ca/vancouver/proof/edit/index.cfm?tree=2,0,0,0>). In some cases, university transferable coursework may satisfy these pre-requisites. These courses are critical to degree progression within the Faculty.

Students admitted to the Faculty of Land and Food Systems by transfer from other post-secondary institutions must have met the [Communication Requirement](#) of the Faculty or be eligible to enrol in first-year English at the time of admission. Students who do not meet the Communication Requirement at the time of admission should be aware that their registration may be blocked or restricted and they will not be promoted to higher year levels until this requirement has been met. See the Faculty's promotion rules [here](#).

Students admitted by transfer will be admitted to the year level that is appropriate according to the Faculty's [Year Promotion Requirement](#). The Promotion Requirements are based on the number of credits completed, and the degree of completion of required courses of the student's program.

### ***UBC Langara Aboriginal Transfer Partnership***

To be eligible to transfer to UBC into the Faculty of Land Food Systems through this partnership (<http://transfer.aboriginal.ubc.ca/admissions/>), Aboriginal students must meet the general requirements for admission as a post-secondary transfer student (<http://you.ubc.ca/applying-ubc/university-college-transfer/>) as well as the following specific requirements:

- Successful completion of at least 48 (and no more than 60) credits (within the last four years). Students who present at least 54 credits, and have completed all first-year requirements (with the exception of LFS 100), may be eligible for third-year standing;
- An academic average of at least 2.67<sup>1</sup> or greater on the most recent 30 credits of transferable courses attempted, including failed and retaken courses;
- Completion of required high school academic pre-requisites. In some cases, university transferable coursework may satisfy these pre-requisites;
- Successful completion of the Transition Plan offered by Langara in collaboration with UBC;
- Consultation with the LFS Academic Advisor, Aboriginal Students (<http://www.landfood.ubc.ca/student-services/#team>) on course selection while at Langara.

Applicants who do not meet these requirements may be considered for admission as a transfer student (<http://you.ubc.ca/applying-ubc/university-college-transfer/>) and can be considered through UBC's Aboriginal Admissions Policy (<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,14,0,0#14261>)

For more information about the UBC Langara Aboriginal Transfer Partnership, please visit the website (<http://transfer.aboriginal.ubc.ca/admissions/>).

<sup>1</sup>If in a particular year the competitive admission criterion is lower than 2.67, then the applicants in that year will be evaluated against the lower admission criterion.



### *Langara Diploma in Food, Nutrition, and Health (FNH) Transfer*

Eligible graduates from the Langara Diploma in Food, Nutrition, and Health (FNH) Transfer are guaranteed admission to UBC into the non-competitive majors (<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,194,261,0>) in the Bachelor of Science in Food, Nutrition, and Health program in the Faculty of Land Food Systems. They are also eligible to apply to the competitive majors (<http://calendar.ubc.ca/vancouver/index.cfm?tree=12,194,261,0>), including the 3rd year of the Dietetics major, the Food Science major or the Food and Nutritional Sciences Double major. Admission to these competitive majors is not guaranteed.

To be eligible for this transfer program, students must have completed the Langara Diploma within 4 years and achieved a minimum Cumulative GPA of 3.0.

### *Students Applying to LFS from Another Program at UBC*

Students who are currently enrolled in another program at UBC and wish to transfer in to a program in the Faculty of Land and Food Systems must complete the 'Change of Degree Program/Campus' application available through their Student Service Centre (SSC). Students applying for admission from another UBC program are subject to the requirements noted above under "Admission as a Post-Secondary Transfer Student or With a Previous Degree."

Details can be found here (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,303,0,0#19133>). Applications must be received by May 15.

### *Students Applying for Readmission*

Students who have previously attended the Faculty of Land and Food Systems, left in good academic standing, have been away from their studies for more than one academic year and wish to return to their previous program of study should consult the Readmission (Calendar page <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,273,0,0#13984>) section of the UBC Academic Calendar for details.

Students who have previously attended the Faculty of Land and Food Systems, left in good academic standing and have been away for one academic year or less, and wish to return to their previous program of study may do so without re-application. Students should consult the Academic Leave (Calendar page <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,289,0,0#16993>) section of the UBC Academic Calendar.

Students who have previously attended the Faculty of Land and Food Systems, and were required to discontinue from the Faculty or withdraw from the University and wish to return to their previous program of study should consult the [Faculty's Guidelines for Readmission](#).

Students with questions about their status should consult with LFS Student Services (<http://www.landfood.ubc.ca/student-services/>), prior to submitting an application.

### *Advising Office*

The Faculty of Land and Food Systems Academic Advising Office (Student Services) is located in Room 344, HR MacMillan Building, 2357 Main Mall. The office can be reached by telephone at 604.822.2620 or by email at [students@landfood.ubc.ca](mailto:students@landfood.ubc.ca). For office hours, please visit us online (<http://www.landfood.ubc.ca/student-services/>).

Email is the preferred means for the Faculty of Land and Food Systems administration and faculty members to communicate



important messages to students. It is the responsibility of all LFS students to ensure their current email address is accurately recorded (<http://www.students.ubc.ca/enrolment/records/change-personal-information>), on the Student Service Centre (SSC) and to read emails sent to that account on a regular basis.

## Registration and Program Approval

### *First-Year Students*

Students are not required to select a program major until they register for their second year. Students planning to apply to second-year admission degree programs are still required to follow the course requirements for the program to which they were originally admitted. Students not meeting the minimum academic standing required for compulsory courses in a given program may be required to withdraw from that program.

### *Credit/D/Fail*

UBC permits students to take a limited number of percentage-graded electives as Credit/D/Fail (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,42,910,0#1878>). In the Faculty of Land and Food Systems, students are permitted to opt for Credit/D/Fail for only those courses designated as unrestricted electives. It is the students' responsibility to be mindful of their degree requirements and possible future implications before selecting this option for a course. Selecting Credit/D/Fail may impact students' eligibility for awards, scholarships or financial support. In addition, professional programs or graduate schools may not allow pre-requisites to be completed through Credit/D/Fail. Students wishing to complete a course through Credit/D/Fail are strongly encouraged to contact their Program Advisor or LFS Student Services prior to registration.

### *Taking Courses Outside of UBC*

As per Campus-wide Policies and Regulations (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,47,0,0#254>), students are not permitted to take courses for academic credit at other post-secondary institutions concurrently with their program in the Faculty without receiving prior consent from the Director, LFS Student Services. The Faculty is not obligated to grant transfer credit for students who do not receive permission in advance of attempting courses elsewhere.

## Academic Regulations

### Academic Regulations > Attendance and Examinations

#### *1. Attendance*

Regular attendance is expected of students in all their classes. Students who neglect their academic work and assignments may be excluded from the final examination. Students who are unavoidably absent because of illness, disability or unforeseen circumstances should report to their instructors or LFS Student Services as soon as possible. When appropriate, academic concession may be granted in accordance with the University's policy found here (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,48,0,0#255>)

#### *2. Examinations*

Students who are absent from examinations because of illness must submit a certificate obtained from a physician as soon as possible to the LFS Student Services Office. If injury or illness did not cause the absence, an explanation of the circumstances should be provided to the LFS Student Services Office. Requests for special consideration should be made in accordance with the



University guidelines (Calendar page <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,48,0,0#255>).

Formal written examinations are normally required at the end of all courses and also in December for full-year courses. These are scheduled during the official examination periods at the end of term. Enrolment Services schedules these examinations and makes the information available to students through the Student Services Website (<http://students.ubc.ca/enrolment/exams/exam-schedule>) part way through the term. Students are expected to make travel plans after their last scheduled examination. In some courses passing the final examination is a requirement for passing the course but may not in itself be sufficient to pass. Students may be denied a passing grade for unsatisfactory work during the session or if their essays, reports, or examinations are notably deficient in English. Also, in any course which involves both laboratory work and written examinations, students must complete and pass both parts to pass the course.

## Academic Regulations > Year Promotion and Academic Standing

### Year Promotion

Students will be promoted according to the following criteria:

- to second year: successful completion of 24 or more credits of prescribed first-year courses.
- to third year: successful completion of 54 or more credits, and all the required first-year courses. Students who do not meet this requirement will not normally be permitted to enrol in third-year or higher level courses in the Faculty.
- to fourth year: successful completion of a total of 89 or more credits, including completion of all first- and second-year courses.

At the end of the academic Winter Session, any student who has not followed the courses required for their program of study may be classified as being in Program Deficiency, and may be required to withdraw regardless of their Academic Standing, as described below.

### Academic Standing

There are three categories of Academic Standing: Good Academic Standing, Academic Probation, and Failed Year Standing. The criteria for Academic Standing depends on the number of credits that a student is registered in during the Winter Session (September to April). Academic standing evaluations are called "Sessional Evaluations," and are completed at the conclusion of each Winter Session.

#### A. Good Academic Standing

To achieve Good Academic Standing, students must meet one of the following:

- If registered in 15 or more credits: pass a minimum of 60% of credits attempted and have a sessional average of 60% or greater.
- If registered in fewer than 15 credits: pass a minimum of 50% of credits attempted and have a sessional average of 60% or greater.

#### B. Academic Probation

Students will be placed on Academic Probation when one of the following conditions is met:

- If registered in 15 or more credits: pass a minimum of 60% of credits attempted and have a sessional average between 50% and 59.9% or;





- If registered in 15 or more credits: pass a minimum of 60% of credits attempted and have failed more than 6 credits or;
- If registered in fewer than 15 credits: pass a minimum of 50% of credits attempted and have a sessional average between 50% and 59.9% or;
- If registered in fewer than 15 credits: pass a minimum of 50% of credits attempted and have failed more than 6 credits or;
- If re-admitted to the Faculty after having been required to withdraw.

### C. Failed Year

Students will be assigned Failed Year Standing when one of the following conditions is met:

- Their sessional average falls below 50% or;
- If registered in 15 or more credits: have not passed a minimum of 60% of attempted credits and have a sessional average between 50% and 59.9% or;
- If registered in fewer than 15 credits: have not passed a minimum of 50% of attempted credits and have a sessional average between 50% and 59.9%.

A student who is assigned Failed Year Standing may be required to discontinue from the Faculty for a period of at least one academic year, after which an application for readmission (Calendar page:<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,273,0,0#1398>) will be considered. See below for “LFS Guidelines for Readmission.”

If students present two or more years of Failed Year Standing, they may be required to permanently withdraw from the University.

#### LFS Guidelines for Readmission

Students who have been required to discontinue from the Faculty are permitted to apply for readmission only after successfully completing a minimum of 30 transferable credits in another program offering courses transferable to UBC. This program must be applicable to the student's degree program.

Readmission is not guaranteed, but students are advised to achieve at least 60% ("C") on these 30 credits with no failures to be competitive for readmission. Normally, a student with Failed Year Standing will not be eligible for direct admission to another UBC program, and will be required to complete these 30 credits at another post-secondary institution.

Students should also consult the communication they receive from the Faculty of Land and Food Systems for additional requirements, and familiarize themselves with the University's readmission (Calendar page:<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,273,0,0#1398>) guidelines.

## Academic Regulations > Credit Load, Withdrawals and Academic Leave

### 1. Credit Load

Students interested in taking more than the recommended credits (per term or per session) for their Major should consult with LFS Student Services; this is not normally permitted. First-year students especially should note that taking more than the recommended number of credits per term may make the transition to university studies more difficult than necessary.

### 2. Taking Courses Outside of UBC



As per Campus-wide Policies and Regulations (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,47,0,0#254> <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,47,0,0#254>) students are not permitted to take courses for academic credit at other post-secondary institutions concurrently with their program in the Faculty without receiving prior consent from the Director, LFS Student Services. The Faculty is not obligated to grant transfer credit for students who do not receive permission in advance of attempting courses elsewhere.

### 3. *Withdrawal*

A student who decides to withdraw from a course should refer to Change of Registration (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,45,98,0#240>).

A student who decides to withdraw from the University should refer to Withdrawal (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,46,102,0#251>).

### 4. *Academic Leave*

Students in good academic standing after a Winter Session (September - April) are normally eligible to register in the following Summer and Winter Sessions but may choose instead to take an Academic Leave (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,289,0,0#169>) of up to one academic year. In this case, students will retain eligibility to register in the next Winter Session. If away for more than one academic year, however, students must apply for readmission through Enrolment Services. Published deadlines (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,295,0,0#189>) will apply. Academic Leave is not an opportunity to take courses toward the students' UBC degree at another institution. A student who wishes to study at another institution must consult with LFS Student Services in advance to determine whether or not they are eligible for a Letter of Permission (see "Taking Courses Outside of UBC" above for more). Students with student loans or scholarships are advised to consult with an Enrolment Services Advisor (<http://www.students.ubc.ca/about-student-services/enrolment-services-advisors>) before taking a leave, as there may be financial implications.

## Academic Regulations > Requirements to Graduate

### *Requirements to Graduate from the Faculty of Land and Food Systems*

In addition to the Campus-Wide Policies and Regulations for Requirements to Receive a Degree or Diploma (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,40,0,0#191>) from UBC, LFS students must present a minimum of 45 upper-level (300- and/or 400-level) credits to meet graduation requirements. Most students will fulfill this requirement through the completion of their prescribed degree requirements, but it is the students' responsibility to ensure this minimum upper-level credit requirement is met.

## Academic Regulations > Communication Requirement

Graduates from the Faculty of Land and Food Systems are expected to collaborate and communicate effectively and professionally as members of diverse stakeholder teams. To develop this competency, students in the Faculty must complete LFS 150 or ENGL 112. SCIE 113, WRDS 150, ENGL 100, APSC 176, Science One, Arts One or Coordinated Arts can also be used to satisfy this requirement. These credits may not be earned through Credit/D/Fail standing. All students admitted to the Faculty of Land and Food Systems must take immediate steps to satisfy the Communication Requirement.

Satisfactory completion of the Language Proficiency Index Requirement for First-Year English (LPI) examination or exemption (<http://www.english.ubc.ca/ugrad/1styear/faq.htm#1>) is prerequisite to LFS 150 (score of 4 or greater on the LPI essay section required) and all first-year English courses at UBC (score of 5 or greater on the LPI essay section required). Students who have not



successfully completed the LPI Requirement by the time they have completed 30 credits will normally have access to registration for the following academic session blocked, and may be prevented from taking additional courses in their program until the LPI Requirement has been met. Students unable to enrol in a first-year ENGL course because of an unsatisfactory LPI score are advised to take a non-credit writing course through the UBC Writing Centre (<http://cstudies.ubc.ca/about-us/program-units/writing-centre>).

Students admitted to the Faculty of Land and Food Systems on transfer from another post-secondary institution and receiving 3 or 6 credits of first-year English at UBC, may be permitted to meet the Communication Requirement if a minimum grade of 70% is achieved. Students who complete the International Baccalaureate program or Advanced Placement courses and are awarded 6 credits of first-year English by UBC Undergraduate Admissions have met the Communication Requirement. Students with questions about the completion of this requirement are encouraged to contact LFS Student Services.

Students who have not completed the Communication Requirement by the time they have completed 54 credits will normally have access to registration for the following academic session blocked, and may be prevented from taking additional courses in their program until the Communication Requirement has been met.

Opportunities to engage in, and improve reading, writing and oral communication exist in all courses.

Student performance on written work in all courses within the Faculty of Land and Food Systems may be evaluated in part on grammar and syntax.

## Academic Regulations > Dean's Honour List

Students with a standing of A- or better in the previous Winter Session will receive the notation "Dean's Honour List" on their records. A program of at least 27 approved credits must have been completed during the session to receive this designation.

## Academic Regulations > Honours Standing

Upon graduation, Honours Standing will be granted to those students who have averaged A- or higher in the best 45 credits of courses, which are selected by the program concentration, and which meet the requirements of third and fourth years.

## Academic Regulations > Part-time Students

Students wishing to take less than a full course load should consult the appropriate Program Advisor or LFS Student Services before registering. Some evening and distance education classes are available.

## B.Sc. in Agroecology

### B.Sc. in Agroecology > Introduction

The Bachelor of Science in Agroecology is no longer offered. Students interested in these areas of study are referred to the [Bachelor of Science in Applied Biology](#) program.

Agroecology is the science of applying ecological concepts and principles to the design and management of sustainable agroecosystems. This discipline brings together the elements of agricultural sciences, ecology, and environmental thought and is influenced by the experiences of people who manage land and water to produce food and other products. The Agroecology program is committed to providing an agricultural education that integrates disciplinary knowledge within a framework of ecological principles.



It provides students with the flexibility to tailor their learning experiences to prepare for a wide range of careers with varying specializations, including animal studies, pre-veterinary medicine, horticulture, soils and environment, resource economics, and sustainable agriculture.

## B.Sc. in Agroecology > Advising Office

The Bachelor of Science in Agroecology is no longer offered. Students interested in these areas of study are referred to the [Bachelor of Science in Applied Biology](#) program.

See the [Advising Office](#).

## B.Sc. in Agroecology > Admission

The Bachelor of Science in Agroecology is no longer offered. Students interested in these areas of study are referred to the [Bachelor of Science in Applied Biology](#) program.

This program is no longer admitting new students. Please refer to the [B.Sc. in Applied Biology](#)

## B.Sc. in Agroecology > Degree Requirements

The Bachelor of Science in Agroecology is no longer offered. Students interested in these areas of study are referred to the [Bachelor of Science in Applied Biology](#) program.

A minimum of 121 credits is required for the B.Sc. Agroecology Program. All students are required to take the following common core of 64 credits of coursework. The remaining credits depend on the student's program option. In third and fourth years, students must complete at least 12 credits of Agroecology (AGRO) courses numbered 300 or higher, in addition to AGRO core courses.

### B.Sc. Agroecology

| First Year                              |           |
|---|-----------|
| AGSC 100                                | 1         |
| ENGL 112                                | 3         |
| BIOL 112/121                            | 6         |
| BIOL 140                                | 2         |
| CHEM 121/123 (111/113) <sup>1</sup>     | 8         |
| MATH 102/103 or equivalent <sup>2</sup> | 6         |
| Physics first year <sup>3,4</sup>       | 3         |
| Elective <sup>4</sup>                   | 3         |
| <b>Total Credits</b>                    | <b>32</b> |
| Second Year                             |           |
| AGSC 250                                | 6         |
| AGSC 252                                | 3         |
| AGRO 260                                | 6         |
| ECON 101 or 102 <sup>5</sup>            | 3         |



|   |            |
|---|------------|
| Concentration requirements and electives <sup>3,5,6</sup> | 12         |
| Total Credits   | 30         |
| <b>Third Year</b>   |            |
| AGSC 350  | 3          |
| AGRO 360  | 3          |
| AGRO 361  | 3          |
| Concentration requirements and electives <sup>3,6</sup>   | 21         |
| Total Credits   | 30         |
| <b>Fourth Year</b>  |            |
| AGSC 450  | 3          |
| AGRO 460  | 3          |
| AGRO 461  | 3          |
| Fourth Year Experience <sup>7</sup>                       | 6          |
| Concentration requirements and electives <sup>3,6</sup>   | 15         |
| Total Credits   | 30         |
| <b>Overall four-year total</b>                            | <b>122</b> |

<sup>1</sup> CHEM 111 is not for students with Chemistry 12.

<sup>2</sup> Students who have not completed Calculus 12 should take MATH 180 or 184 plus either MATH 103 or 105, to fulfil their first-year math requirement.

<sup>3</sup> Pre-veterinary students are required to take PHYS 101 and 102 or PHYS 107 and 108, and MICB 202. In third and fourth years, pre-veterinary students follow an Animal Studies program.

<sup>4</sup> Students in Resource Economics concentration take ECON 101 and ECON 102.

<sup>5</sup> Students in Resource Economics concentration take ECON 301 and ECON 302.

<sup>6</sup> Students in Agroecology may pursue their area of special interest in one of five options. The selection of all electives must be made in consultation with a Program Advisor.

<sup>7</sup> At the beginning of their third year, Agroecology students will choose one of the following courses for their Fourth Year Experience: AGRO 497 (2-6), AGRO 499 (6), AGSC 496 (3/6), GRS 497B (3-6). Students in the Resource Economics stream have the option to substitute 6 credits of concentration requirements and electives for the Fourth Year Experience.

## General Agroecology

Students taking this option select courses to meet their interests, in consultation with a Program Advisor.

## Animal Studies

In second year, students are required to take BIOL 200 and 201, CHEM 205, 233, and 235. In third and fourth year, students are required to take AGRO 311, 312, FNH 350.

## Horticulture

In second year, students are required to take BIOL 200 and 201, CHEM 205, 233, and 235. In third and fourth year, AGRO 322, 420, 421, and 423 are required, and one of AGRO 326, 327, 328.

## Resource Economics

In second year, students are required to take ECON 301 and 302, and one of FRE 302, 306, or 340. In third and fourth year, students are required to take ECON 371 and 472, FRE 302, and 374, and one of 306 or 340.



## *Soils and Environment*

In second year, students are required to take AGRO 244, GEOG 103, CHEM 205, and either PHYS 102 or 122. In third and fourth year, students are required to take AGRO 342, 401, 402, and 403 as restricted electives.

## *Pre-Veterinary Students*

The Western College of Veterinary Medicine (W.C.V.M.) was established at the University of Saskatchewan to serve the four western provinces. A pre-veterinary course of study is required in preparation for admission to the four-year veterinary program at the W.C.V.M., and may be completed at UBC in the Faculty of Land and Food Systems.

The course requirements for admission to W.C.V.M. are 6 credits each of English, biology, biochemistry, chemistry, physics, and mathematics; 3 credits each of genetics, organic chemistry, and introductory microbiology; and additional electives to complete 60 credits.

Applicants without significant animal and veterinary experience are rarely successful in being admitted to W.C.V.M. For information and program approval, contact the Academic Advising Office.

## **B.Sc. in Applied Biology (APBI)**

### **B.Sc. in Applied Biology (APBI) > Introduction**

Students in the Applied Biology<sup>1</sup> program explore the real-world application of the life sciences to the management of land, plants, animals and food production. The program emphasizes critical thinking, practical involvement, and a systems approach that integrates technical knowledge with sustainability and ethics. The program equips graduates with the skills and knowledge to become leaders in sustainable food production and the responsible use of natural resources.

<sup>1</sup>The *Bachelor of Science in Applied Biology* (offered by the Faculty of Land and Food Systems) is distinct from both the *Bachelor of Applied Science* and the *Bachelor of Science* degrees.

### **B.Sc. in Applied Biology (APBI) > Advising Office**

See the [Academic Advising Office](#).

### **B.Sc. in Applied Biology (APBI) > Admission**

Students may gain admission directly from secondary school or transfer from a recognized university or college with a minimum of 24 credits, or as mature students. For admission to the Bachelor of Science in Applied Biology, students should consult the Faculty's Admission section (<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,194,793,0>).

### **B.Sc. in Applied Biology (APBI) > Academic Regulations**

See Academic Regulations (<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,194,795,0>).



## B.Sc. in Applied Biology (APBI) > Applied Animal Biology Major

### Applied Animal Biology Major

Applied Animal Biology is intended for students who want to study and/or work with animals. It provides students with fundamentals of animal behaviour, animal physiology and related fields as applied to farm, companion and other animals. It also exposes students to the role of animals in human society and the ethical, environmental and other issues that arise. It offers training in research skills needed for graduate work, and (with appropriate selection of courses) prepares students for admission to veterinary and human medicine. Students have various options to gain practical experience on farms and in laboratories, animal shelters and wildlife rehabilitation centres.

### Degree Requirements

| First Year   |   |
|--|---|
| LFS 100  | 1 |
| LFS 150 or ENGL 112  | 3 |
| BIOL 112 & 121   | 6 |
| BIOL 140   | 2 |
| CHEM 121 (or 111) <sup>1</sup>   | 4 |
| CHEM 123 (or 113)  | 4 |
| MATH 102 or equivalent <sup>2</sup>  | 3 |
| PHYS 101, 107, or 117 <sup>3</sup>   | 3 |
| <b>Restricted electives</b>  |   |
| <sup>4</sup> Unrestricted electives  |   |
| <sup>3</sup> Total Credits 32 Second Year LFS 250 & LFS 252 (or FRST 231 or BIOL 300) <sup>3</sup> BIOL 200 & 201 6 CHEM 233 & 235 4 MICB 201 <sup>3</sup> Restricted electives <sup>4</sup> 9 Total Credits 31 Third Year Restricted electives <sup>4</sup> 24 Unrestricted electives <sup>4</sup> 6 Total Credits 30 Fourth Year Restricted electives <sup>4</sup> 15 18 Unrestricted electives <sup>4</sup> 12 15 Total Credits 30 Overall four-year total <sup>4</sup> 123 <sup>1</sup> CHEM 111 is not for students with Chemistry 12. <sup>2</sup> Students who have not completed Calculus 12 must take MATH 180 or 184 to fulfill their first year Math requirement. Students planning to study Veterinary Medicine must take MATH 103 or 105 as a restricted elective. <sup>3</sup> Students without credit for Physics 12 must take PHYS 100 before taking other 100-level PHYS courses. <sup>4</sup> To be selected in consultation with a program advisor. Typically includes courses in APBI, BIOL, and FNH. For suggested courses see Restricted Electives List ( <a href="http://www.landfood.ubc.ca/undergraduate/restricted-electives/">http://www.landfood.ubc.ca/undergraduate/restricted-electives/</a> ). <sup>5</sup> Third and fourth year unrestricted electives should be selected from either 300- or 400-level courses. <sup>6</sup> A minimum of 45 credits of the 123 credits required for the Major must be from courses numbered 300 or higher. Applied Animal Biology Honours Program The Applied Animal Biology Honours program is intended for exceptional students with an interest in research. Students interested in careers in research-intensive areas including veterinary medicine, biomedical science, animal welfare, animal nutrition, and wildlife conservation may especially benefit from this opportunity. Who Should Apply? This program will only accept students with both a strong academic record and an interest in research. Admission Successful applicants will have a cumulative average greater than 75%. Application Students apply near the end of their second year of study by contacting the Student Services Office ( <a href="http://www.landfood.ubc.ca/student-services/">http://www.landfood.ubc.ca/student-services/</a> ) at the Faculty of Land and Food Systems. The applicant must write a letter explaining why they wish to enrol, their career goals, and any past or current research experience they may have. Successful Applicants Successful applicants admitted into the Honours Program must complete a minimum of 132 credits rather than the 123 credits required to graduate with an Applied Animal Biology degree. Of these 132 credits, 48 must be chosen from the Applied Animal Biology Restricted Electives list. Students must complete their degree within a maximum of 5 calendar years. During the third and fourth years, Honours students must not fail any attempted courses, must complete a minimum of 30 credits per calendar year, and maintain a minimum of 70% in every 300- and 400-level course completed. Students who do not meet these requirements will move to the Applied Animal Biology Major and will no longer be eligible to stay in the Honours program. Required Courses |   |
| <ul style="list-style-type: none"> <li>• APBI 396 (3 credits) - Research Methods in Applied Animal Biology</li> <li>• APBI 499 (6 credits) - Thesis</li> </ul>   |   |

APBI 499 Thesis Course By the end of their third year of study, students are expected to contact a prospective supervisor for the APBI 499 thesis course to discuss possible thesis topics. A thesis application/proposal form is expected to be filled out by the student and approved by the prospective supervisor prior to the term in which the thesis will begin. Benefits of a Thesis The APBI 499 thesis gives students an opportunity to work closely with a supervisor and work with material at an advanced level. This experience will give students an idea of what it is like to work at the graduate level, working on a single topic over many months. The thesis will also provide experience in academic writing and communications. Benefits of the Honours Program Graduates of the program will have:

1. demonstrated their ability to succeed in a challenging program of study
2. gained exposure to a wide variety of topics in applied animal biology
3. in-depth experience in one or more areas of research
4. worked closely with faculty members and other researchers
5. gained skills in independent research and oral and written communication useful for a wide range of professional careers in knowledge-intensive industries

### B.Sc. in Applied Biology (APBI) > Applied Plant and Soil Science Major

The Applied Plant and Soil Sciences Major is no longer accepting new students. Students who started the major prior to 2018 Winter session may complete their degree using the requirements listed below. Students who would like to switch to the Sustainable Agriculture and Environment major requirements should consult their program advisor. Applied Plant and Soil Sciences integrates diverse topics in soil-water-plant-atmosphere systems with a focus on the science underpinning ecosystem management and crop production. Students have the flexibility to emphasize a major area of interest such as climate change, pollution, food security, crop protection or land reclamation. Students develop basic scientific knowledge plus skills in critical thinking and effective communication. Degree Requirements

| First Year                          |    |
|-------------------------------------|----|
| LFS 100                             | 1  |
| LFS 150 or ENGL 112                 | 3  |
| BIOL 112 & 121                      | 6  |
| BIOL 140                            | 2  |
| CHEM 121 (or 111) <sup>1</sup>      | 4  |
| CHEM 123 (or 113)                   | 4  |
| MATH 102 or equivalent <sup>2</sup> | 3  |
| Restricted electives <sup>3</sup>   | 6  |
| Unrestricted elective               | 3  |
| Total Credits                       | 32 |
| Second Year                         |    |
| ECON 101 or 102                     | 3  |
| LFS 250                             | 6  |
| LFS 252 (or FRST 231 or BIOL 300)   | 3  |
| APBI 200                            | 3  |
| BIOL 210 or APBI 210                | 4  |
| Restricted electives <sup>3</sup>   | 9  |
| Unrestricted elective               | 3  |





|                                      |     |
|--------------------------------------|-----|
| Total Credits                        | 31  |
| <b>Third Year</b>                    |     |
| LFS 350                              | 3   |
| Restricted electives <sup>3</sup>    | 21  |
| Unrestricted electives               | 6   |
| Total Credits                        | 30  |
| <b>Fourth Year</b>                   |     |
| LFS 450                              | 3   |
| Restricted electives <sup>3</sup>    | 21  |
| Unrestricted electives               | 6   |
| Total Credits                        | 30  |
| Overall four-year total <sup>4</sup> | 123 |

<sup>1</sup> CHEM 111 is not for students with Chemistry 12.

<sup>2</sup> Students who have not completed Calculus 12 must take MATH 180 or 184 to fulfill their first year MATH requirement.

<sup>3</sup> To be selected in consultation with a program advisor. Typically includes courses in APBI, BIOL and FNH. Must include at least 9 credits of 400 level courses prior to graduation. For suggested courses see the list (<http://www.landfood.ubc.ca/academics/undergraduate/restricted-electives/>) posted on the Faculty website. Students interested in studying soils should take PHYS 101, 107 or 117. Students without credit for Physics 12 must take PHYS 100 before taking other 100-level PHYS courses.

<sup>4</sup> A minimum of 45 credits of the 123 credits required for the Major must be from courses numbered 300 or higher.

### B.Sc. in Applied Biology (APBI) > Food and Environment Major

The Food and Environment Major has been renamed the Sustainable Agriculture and Environment Major and will no longer be accepting new students under this name. Students who started the major prior to 2018 Winter Session may complete their degree using the requirements listed below. Students who would like to switch to the new major requirements should consult their program advisor. Food and Environment focuses on the application of agroecological concepts and principles to the design and management of food production systems. It brings together agricultural sciences, ecology, and environmental thought to provide the background to issues surrounding the management of land and water to produce food, other agricultural products, and ecological services. Students can tailor their learning experiences to specific interests including resource economics, conservation, integrated agro-ecosystem management, water pollution and self-directed areas of study. Students can gain hands-on experience at the Centre for Sustainable Food Systems at UBC Farm. Degree Requirements

|                                      |     |
|--------------------------------------|-----|
| <b>First Year</b>                    |     |
| LFS 100                              | 1   |
| LFS 150 or ENGL 112                  | 3   |
| BIOL 112 & 121                       | 6   |
| BIOL 140                             | 2   |
| MATH 102 or equivalent <sup>1</sup>  | 3   |
| Restricted electives <sup>2,3</sup>  | 14  |
| Unrestricted electives               | 3   |
| Total Credits                        | 32  |
| <b>Second Year</b>                   |     |
| ECON 101 or 102                      | 3   |
| LFS 250                              | 6   |
| LFS 252 (or FRST 231 or BIOL 300)    | 3   |
| APBI 200                             | 3   |
| APBI 260                             | 6   |
| Restricted electives <sup>3</sup>    | 6   |
| Unrestricted electives               | 3   |
| Total Credits                        | 30  |
| <b>Third Year</b>                    |     |
| LFS 350                              | 3   |
| APBI 360 & 361                       | 7   |
| Restricted electives <sup>3</sup>    | 18  |
| Unrestricted electives               | 3   |
| Total Credits                        | 31  |
| <b>Fourth Year</b>                   |     |
| LFS 450                              | 3   |
| APBI 460                             | 3   |
| Restricted electives <sup>3</sup>    | 21  |
| Unrestricted electives               | 3   |
| Total Credits                        | 30  |
| Overall four-year total <sup>4</sup> | 123 |

<sup>1</sup> Students who have not completed Calculus 12 must take MATH 180 or 184 to fulfill their first year MATH requirement.

<sup>2</sup> Some students may be advised to take first year Chemistry and/or Physics courses depending on their academic plans and interests. They should consult with an FENV advisor.

<sup>3</sup> To be selected in consultation with a program advisor. Typically includes courses in APBI, BIOL and FNH. For suggested courses see the Faculty (<http://www.landfood.ubc.ca/undergraduate/restricted-elective/>)

<sup>4</sup> A minimum of 45 credits of the 123 credits required for the Major must be from courses numbered 300 or higher.

### B.Sc. in Applied Biology (APBI) > Sustainable Agriculture and Environment Major

The Sustainable Agriculture and Environment major focuses on the application of soil, plant and agro-ecological sciences to enhance the sustainable production of food, and other agricultural products, while simultaneously conserving land and enhancing ecological services. Students can tailor their learning experiences to specific interests in agricultural production, integrated agro-ecosystem management, plant science, or soil science. A core resource of the program is the Centre for Sustainable Food Systems at the UBC Farm where students gain hands-on experience within a diverse managed landscape. Degree Requirements

|                                     |   |
|-------------------------------------|---|
| <b>First Year</b>                   |   |
| LFS 100                             | 1 |
| LFS 150 or ENGL 112                 | 3 |
| BIOL 112 & 121                      | 6 |
| BIOL 140                            | 2 |
| CHEM 121 (or 111) <sup>1</sup>      | 4 |
| CHEM 123                            | 4 |
| MATH 102 or equivalent <sup>2</sup> | 3 |
| PHYS 101, 107 or 117 <sup>3</sup>   | 3 |
| Restricted electives <sup>4</sup>   | 3 |





|   |                 |
|---|-----------------|
| Unrestricted elective                         | 3               |
| <b>Total Credits</b>                          | <b>32</b>       |
| <b>Second Year</b>                            |                 |
| LFS 250                                       | 6               |
| LFS 252 (or FRST 231 or BIOL 300 or STAT 200) | 3               |
| APBI 200                                      | 3               |
| APBI 210                                      | 4               |
| APBI 244                                      | 3               |
| APBI 280                                      | 6               |
| BIOL 200                                      | 3               |
| Restricted electives <sup>4</sup>             | 3               |
| <b>Total Credits</b>                          | <b>31</b>       |
| <b>Third Year</b>                             |                 |
| LFS 350                                       | 3               |
| APBI 327 or APBI 328                          | 3 or 4          |
| APBI 351                                      | 3               |
| APBI 380                                      | 3               |
| ECON 310 <sup>5</sup>                         | 3               |
| Restricted electives <sup>4</sup>             | 9               |
| Unrestricted elective                         | 3               |
| <b>Total Credits</b>                          | <b>30 or 31</b> |
| <b>Fourth Year</b>                            |                 |
| APBI 402                                      | 3               |
| APBI 460 or LFS 450                           | 3               |
| Restricted electives <sup>4</sup>             | 18              |
| Unrestricted elective                         | 6               |
| <b>Total Credits</b>                          | <b>30</b>       |
| Overall four-year total <sup>6,7</sup>        | 123 or 124      |

<sup>1</sup> Note CHEM 111 is not for students with Chemistry 12.

<sup>2</sup> Students who have not completed Calculus 12 must take MATH 180 or 184 to fulfill their first year Math requirement.

<sup>3</sup> Students without credit for Physics 12 must take PHYS 100 before taking other 100-level PHYS courses.

<sup>4</sup> To be selected from Restricted Electives list in consultation with a program advisor.

<sup>5</sup> Credit will be given for only one of ECON 310, LFS 101, or ECON 101.

<sup>6</sup> A minimum of 45 credits of the 123 or 124 credits required for the Major must be for courses numbered 300 or higher.

<sup>7</sup> Students may present more than the required total credits depending on electives selected.

**Sustainable Agriculture and Environment Honours Option** The Sustainable Agriculture and Environment Honours option is intended for exceptional students with an interest in research. Students interested in careers in research-intensive areas or future graduate studies will benefit from this opportunity. Admission This option will only accept students with both a strong academic record during their first and second years of study, and an interest in research. A minimum cumulative average of 75% is required for admission to the Honours option. Application The applicant must write a letter explaining why they wish to enroll, their career goals, and any past or current research experience they may have. The applicant's request and Letter of Intent must be submitted to LFS Student Services by March 31 of their second year of study. Successful applications admitted into the Honours Option must complete a minimum of 132 credits rather than the 123 credits required to graduate with a Sustainable Agriculture and Environment degree. Of these 132 credits, 48 must be chosen from the Sustainable Agriculture and Environment restricted electives list in consultation with a program advisor. Students must complete their degree within a maximum of 5 calendar years. During the third and fourth years, Honours students must not fail any attempted courses, must complete a minimum of 30 credits per calendar year and maintain a minimum of 70% in every 300 and 400 level course completed. Students who do not meet these requirements will move to the Sustainable Agriculture and Environment Major, and will no longer be eligible to stay in the Honours option. Required courses:

- APBI 398 (3 credits) – Research Methods in Applied Biology
- APB 499 (6 credits) – Thesis

**APBI 499 Thesis Course** During the third year of study, students must contact a prospective supervisor for the APBI 499 thesis course to discuss possible thesis topics. A thesis application/proposal form must be filled out by the student and approved by the prospective supervisor before the end of the fall semester of the year prior to the year in which the thesis is to be completed. Completion of the 6-credit thesis course (APBI 499) will occur during the entire fourth year of study. Students will complete a research project and write up a thesis. At the end of the year, each student will present their work to other third and fourth year Honours students. **Benefits of a Thesis** The APBI 499 thesis course gives students an opportunity to work closely with a supervisor or faculty member and work with material at an advanced level. This experience gives students an idea of what it is like to work at the graduate level, working on a single topic over many months. The thesis will also provide experience in academic writing and communications. **Benefits of the Honours Option** Graduates of the option will have: 1. demonstrated their ability to succeed in a challenging program of study, 2. gained exposure to a wide variety of topics in sustainable agriculture and environment, 3. in-depth experience in one or more areas of research, 4. worked closely with faculty members and other researchers, 5. gained skills in independent research and oral and written communication useful for a wide range of professional careers.

## B.Sc. in Food, Nutrition, and Health

### B.Sc. in Food, Nutrition, and Health > Introduction

Food security and its impact on health is the focus of the academic theme in Food, Nutrition, and Health. New knowledge and advances in science and technology are integrated with socio-economic, cultural, ethical, and legal considerations in the provision of a safe, nutritious, and sustainable food supply. Our programs are designed to provide students with a broad education in food science and nutrition, as well as an academic background to pursue careers as professional dietitians, nutritionists, food scientists, and food market analysts. Research and teaching span the continuum from the production and processing of food to its marketing, consumption, and impact on public health and community.

### B.Sc. in Food, Nutrition, and Health > Advising Office

See the [Academic Advising Office](#).

### B.Sc. in Food, Nutrition, and Health > Admission

Students may gain admission directly from secondary school or transfer from a recognized university or college with a minimum of 24 credits, or as mature students. For admission to the Bachelor of Science in Food, Nutrition, and Health, students should consult the Faculty's Admission section (<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,194,793,0>). Admission to the majors in **Dietetics**, **Food Science**, **Food and Nutritional Sciences Double Major**, **International Nutrition** and to the **Kinesiology** (<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,194,909,0>) and **Commerce** (<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,194,909,0>) **Minors is restricted. See those sections for details.**

### B.Sc. in Food, Nutrition, and Health > Academic Regulations

Please see Academic Regulations (<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,194,795,0>).

### B.Sc. in Food, Nutrition, and Health > Dietetics Major

The Dietetics Major is a professional program planned to meet the accreditation standards for the dietetics profession in Canada. Graduates are eligible to write a national exam to qualify to register with a provincial dietetic regulatory body in order to use the designation Registered Dietitian and practice dietetics. The program involves five years of study: two prerequisite years and three program years (year five is spent in practice education placements across British Columbia). The curriculum includes general courses in both biological and social sciences, as well as courses more directly related to dietetics such as basic and applied human nutrition, food and food systems, management, and professional dietetic practice. The Dietetics Major differs from other nutrition-related majors offered by the Faculty, in that it is a regulated health profession training program. The Dietetics Major has specific applicant selection procedures and includes campus-based and practice education courses to assist students to develop knowledge and skills for dietetic practice. Admission to the Dietetics Major is to third-year and is based on: **1. Initial screening for:**

- **Prerequisite Requirements**
  - Admission to the Dietetics Major is limited to students who will have completed a minimum of 54 credits of university or college coursework by April 30 of the year in which they are applying for admission. This must include the following prerequisites (or their equivalents): LFS 150 or ENGL 112, BIOL 112, 121, 155<sup>2</sup> and 200, BIOL 201 (or BIOC 202); CHEM 121 (or 111), 123 (or 113), 205<sup>3</sup> and 233 (or 203 and 213); FNH 200<sup>4</sup> and 250<sup>4,5</sup>; LFS 250<sup>4</sup> and 252<sup>3,6</sup>; Social Science (3 credits<sup>7</sup>). These prerequisites can be met by following years one and two of the Food, Nutrition and Health Major, along with careful course planning (as some requirements are different)<sup>8</sup>.

<sup>1</sup> Transfer students unable to access an equivalent course may take a course equivalent to MCB 201. <sup>2</sup> BIOL 153 or CAPS 301 will also be accepted. <sup>3</sup> Note: This course has a first year math requirement. See UBC course guide (<http://www.calendar.ubc.ca/vancouver/courses.cfm>) for details. <sup>4</sup> These courses have online sections (students planning to transfer into third-year dietetics from other institutions may enroll via non-degree studies). <sup>5</sup> Several BC post-secondary institutions offer an equivalent course. <sup>6</sup> Equivalent courses include BIOL 300, EPSE 482, FRST 231 (available online), STAT 200. <sup>7</sup> Course that addresses normal human behaviour in a North American context. List of acceptable courses is posted on the Dietetics Major website (<http://dietetics.landfood.ubc.ca/prospective-students/admissions/>). <sup>8</sup> Math courses are not required prerequisites for Dietetics and are, therefore, not used towards admission GPA. However, math courses are required for year promotion within the Food Nutrition and Health Major, and to meet prerequisite requirements for some required courses.

- **Academic Performance**

Admission is based on a minimum academic standing of 70%, calculated as a cumulative average of grades from all prerequisite (years one and two) and any program courses (years three and four) taken. Elective courses are not included in this calculation. (NOTE: In alignment with academic performance standards in place for admitted students, applicants must achieve a minimum level of academic performance (68%) in any 300 and 400 level FNH course taken prior to admission that is included in the course requirements for the Dietetics Major.) Note that due to enrollment limitations, the academic standard required for admission is typically higher than the published minimum.

- **Non-academic Application Components (cover letter, resume, and references)**

These application components are used to assess an applicant's commitment to and suitability for the profession of dietetics. For more details, refer to the current Application Information Package (<http://dietetics.landfood.ubc.ca/prospective-students/how-to-apply/>).

Non-academic application components are assessed using the following indicators of commitment to and suitability for the profession of dietetics:



- commitment to the dietetics profession (demonstrated interest in and understanding of the profession; demonstrated effort to seek professionally-relevant experiences)
- critical thinking skills (ability to analyze and integrate information and apply knowledge to make sound judgements)
- decision-making skills (ability to make sound, timely decisions)
- dependability (ability to work with minimal supervision, be consistently dependable)
- initiative/self-directedness (ability to independently initiate activities, seek new opportunities)
- leadership skills (ability to gain support of and lead others)
- learning abilities (ability to learn quickly and independently, quest for knowledge)
- organizational/planning skills (ability to develop sound plans with attention to detail)
- perseverance (ability to function effectively despite discouragement and setbacks)
- response to feedback (ability to accept constructive feedback, develop plans for improvement and implement these plans)
- suitability for health care environment (potential to work in a fast-paced environment with diverse patients and clients who face health challenges)
- team skills (ability to work cooperatively and effectively with others)
- time management skills (ability to consistently manage time effectively and efficiently)
- written and oral communication skills (ability to communicate clearly, concisely, accurately)

**2. Interview (short-listed applicants only)** Short-listed candidates will be invited to participate in a brief (15 minute) personal interview at UBC with two registered dietitians. Interviews are scheduled on a designated interview day in late April or early May. Applicants who reside outside the Lower Mainland and are unable to come to UBC for an interview are interviewed using online technology or by telephone. The main purpose of the interview is to assess oral communication skills (ability to convey information clearly and effectively), as strong oral communication skills are essential for dietetic practice. The interview will also be used (in addition to the cover letter, resume, and references) to assess an applicant's commitment to and suitability for dietetics as a career choice. The interview guide varies each year. Questions are fairly broad, focusing on applicant attributes, skills, and commitment to dietetics as a profession. A criteria-based scoring form and a consensus process are used to assess interview performance. Admission Score Applicants are admitted on the basis of a final admissions score, as follows:

- Academic Performance: 40%
- Cover letter/resume: 25%
- References: 5%
- Interview: 30%

Each assessment component includes minimum acceptable criteria which must be met in order for the applicant to be considered (regardless of scores obtained in other components). Preparing to Apply: Dietetics is a professional program and it is essential that all prospective applicants take steps to consider whether this is an appropriate career choice for them, and obtain relevant skills and experience prior to applying. For further guidance, refer to the program website (<http://dietetics.landfood.ubc.ca/prospective-students/application-tips/>). Application The annual application deadline is January 31 for September admission. All application components must be received by this date. Application to the Dietetics Major has two components:

- Online application to enter the B.Sc. (FNH) program in the Faculty of Land and Food Systems (LFS) (not applicable to students already enrolled in this program)
- A Dietetics Major application package, to be submitted to the Faculty.

**Application procedures:**

- Non-UBC students must apply online through Enrolment Services to enter the B.Sc. (FNH) program in UBC's Faculty of Land and Food Systems (LFS). External applicants are encouraged to contact LFS Student Services in advance of applying to ensure they have met prerequisite course requirements.
- Current UBC students who are not already enrolled in the B.Sc. (FNH) program must apply online through Enrolment Services to enter the program. In the event of an unsuccessful application, students in good standing have the ability to remain in their original program/faculty.
- All applicants must submit a Dietetics Major application package to the Faculty (prepared using forms and guidelines available online (<http://dietetics.landfood.ubc.ca/prospective-students/how-to-apply/>)). Each application package must include:
  - completed application form
  - transcripts (as required)
  - cover letter
  - resume
  - two completed reference forms
  - the Integrated Dietetics Program Application Fee (as listed here (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=14,297,0,0#18098>))

Short-listed candidates are identified for the interview component based on a preliminary applicant score which considers both academic and non-academic application components. Final applicant scores are computed once interviews are complete and final marks for the term are available (external applicants are required to submit final transcripts by the end of April). Applicants are typically informed about their admission status by late May. All admission offers are considered conditional pending receipt of a satisfactory criminal record check conducted according to Criminal Record Check Review Act procedures. Program Information All students accepted to the program are admitted to third year. Due to extra administrative costs associated with an integrated practice education program, an annual supplemental fee (as listed here, see Land and Food Systems section (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=14,296,0,0#18096>)) is applied to students in each year (years three, four, and five) of the program. Students in the program must also fulfill, and bear any costs associated with, any practice education program requirements mandated by UBC and/or placement agencies, including student accident insurance, immunizations, Food Safe certificates, and respiratory mask fitting (further details are provided on the program website (<http://dietetics.landfood.ubc.ca/current-students/additional-program-requirements/>)). Advancement Requirements Once admitted to the Dietetics Major, all students are required to abide by program-specific policies and maintain a good academic standing (<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,194,795,874>). Students must also meet the following program-specific advancement requirements: they must pass all courses, maintain an academic average at or above the minimum for entry into the program (70%) and achieve a minimum level of academic performance (68%) in each 300- and 400-level FNH course. The program reserves the right to require a student to change majors if they are not meeting these criteria. Dietetics Major

| Third Year                        |            |
|-----------------------------------|------------|
| BIOC 302                          | 3          |
| FNH 340                           | 3          |
| FNH 341                           | 3          |
| FNH 350                           | 3          |
| FNH 351                           | 3          |
| FNH 370                           | 3          |
| FNH 371                           | 3          |
| FNH 380                           | 3          |
| FNH 381 <sup>1</sup>              | 3          |
| FNH 398                           | 3          |
| LFS 350                           | 3          |
| Social Science <sup>2</sup>       | 3          |
| <b>Total Credits</b>              | <b>36</b>  |
| Fourth Year                       |            |
| FNH 415                           | 3          |
| FNH 440                           | 3          |
| FNH 470                           | 3          |
| FNH 473                           | 3          |
| FNH 475                           | 3          |
| FNH 480                           | 3          |
| Restricted electives <sup>3</sup> | 12         |
| <b>Total Credits</b>              | <b>30</b>  |
| Fifth Year                        |            |
| FNH 481 <sup>3</sup>              | 9          |
| FNH 482 <sup>3</sup>              | 9          |
| FNH 483 <sup>3</sup>              | 6          |
| <b>Total Credits</b>              | <b>24</b>  |
| Overall five-year total credits   |            |
|                                   | <b>144</b> |

<sup>1</sup> FNH 381 is offered in May.

<sup>2</sup> Course that addresses normal human behaviour in a North American context. List of acceptable courses is posted on the Dietetics Major website (<http://dietetics.landfood.ubc.ca/prospective-students/admissions/>)

<sup>3</sup> Restricted electives are to be chosen from a list of approved electives (<http://dietetics.landfood.ubc.ca/current-students/restricted-electives/>) posted on the Dietetics Major website (<http://dietetics.landfood.ubc.ca/>), or by consultation with a Program Advisor.



<sup>4</sup> FNH 481, 482, and 483 involve full-time practice education placements between September and June.

**B.Sc. in Food, Nutrition, and Health > Food Market Analysis Major**

Students enrolled in the Food Market Analysis Major will focus on the core of the Food Science Major, and on a core of Economics, Commerce, and Food Resource Economics courses. This will prepare graduates for employment in the food industry with special interest in market analysis aspects. Students wishing to concentrate on certain areas or who are interested in pursuing graduate studies should consult the program advisor. Food Market Analysis Major

| First Year  |            |
|---|------------|
| LFS 100   | 1          |
| LFS 150 or ENGL 112                                       | 3          |
| BIOL 112 & 121  | 6          |
| BIOL 140  | 2          |
| CHEM 121 (or 111) <sup>1</sup>                            | 4          |
| CHEM 123 (or 113)   | 4          |
| MATH 102 & 103 or equivalent <sup>2</sup>                 | 6          |
| ECON 101 or LFS 101                                       | 3          |
| ECON 102  | 3          |
| <b>Total Credits</b>                                      | <b>32</b>  |
| Second Year   |            |
| LFS 250   | 6          |
| LFS 252   | 3          |
| BIOL 200  | 3          |
| CHEM 233  | 3          |
| FNH 200   | 3          |
| FNH 250   | 3          |
| FRE 295 or ECON 301                                       | 3          |
| FRE 306   | 3          |
| Unrestricted elective <sup>3</sup>                        | 3          |
| <b>Total Credits</b>                                      | <b>30</b>  |
| Third Year  |            |
| LFS 350   | 3          |
| FNH electives <sup>4</sup>                                | 6          |
| FRE 374 or ECON 371                                       | 3          |
| One of FRE 302, FRE 340, FRE 385 or ECON 325 <sup>5</sup> | 3          |
| Economics or Commerce electives <sup>6</sup>              | 6          |
| Unrestricted electives                                    | 9          |
| <b>Total Credits</b>                                      | <b>30</b>  |
| Fourth Year   |            |
| FNH 403   | 3          |
| FNH electives <sup>4</sup>                                | 6          |
| One of FRE 402, 420, 460, 490                             | 3          |
| Concentration electives <sup>7</sup>                      | 6          |
| Economics or Commerce elective <sup>6</sup>               | 9          |
| Unrestricted Elective                                     | 3          |
| <b>Total Credits</b>                                      | <b>30</b>  |
| <b>Overall 4 year total credits</b>                       | <b>122</b> |

<sup>1</sup> CHEM 111 is not for students with Chemistry 12.

<sup>2</sup> Students who have not completed Calculus 12 should take MATH 180 or 184, plus either MATH 103 or 105, to fulfill their first-year mathematics requirement.

<sup>3</sup> Students should review prerequisites for third-year FNH courses listed in footnote 4 (e.g., PHYS 101 FNH 300). One of MATH 200, 217, or 226 is recommended for students contemplating graduate studies or with a special interest in quantitative/empirical analysis.

<sup>4</sup> Select from: FNH 300, FNH 301, FNH 302, FNH 303, FNH 309, FNH 313, FNH 330, FNH 335, FNH 340, FNH 342, FNH 355, FNH 402, FNH 413, FNH 415.

<sup>5</sup> Students contemplating graduate studies or with a special interest in quantitative/empirical analysis should select ECON 325.

<sup>6</sup> Choose from COMM/COMR 329, 398, 457, 458, 465, 473, 493 (Note: COMM/COMR 457 is prerequisite for COMM/COMR 458, 465, 473, 493); any other FRE courses; and any 300- or 400-level economics courses. Students contemplating graduate studies or with a special interest in quantitative/empirical analysis should select ECON 326.

<sup>7</sup> Select from: FRE 302, 340, 374, 385, 402, 420, 460, 490.

**B.Sc. in Food, Nutrition, and Health > Food and Nutritional Sciences Double Major**

The Food and Nutritional Sciences Double Major provides students with the opportunity to build a solid foundation in both Food Science and Nutritional Sciences. Integration of the knowledge in these two complementary areas allows students to develop a better understanding of the principles of food science with respect to the manufacture, preservation, and quality of food products and the role of food in human health. Graduates of the Double Major are uniquely positioned to contribute to the development of healthy foods for healthy living. Admission The first two years of the Double Major are comprised of the standard core of the FNH program. Students may apply after completing at least 24 credits of the listed first-year courses (or their equivalent). The annual application date is March 31 for September admission. Application information is available on-line (<http://www.landfood.ubc.ca/undergraduate/programs/fnh-food-science/>). To apply for admission after second year, the student should have completed at least 48 credits of listed first- and second-year courses (or their equivalent). Admission to the Food and Nutritional Sciences Double Major is based on two components:

- Academic performance (85% of Admission Score): Admission to the Food and Nutritional Sciences Double Major is based on a minimum academic standing of 70%, calculated based on the best 21 credits per year of post-secondary courses required in this program. The student must have completed ENGL 112 or equivalent. Elective courses and LFS 100, LFS 250, LFS 350, or LFS 450 are not included in this calculation.
- Letter of Intent (15% of Admission Score): The student must submit a 500 word (maximum) Letter of Intent which addresses the following: a) why the student wishes to enrol in the Food and Nutritional Sciences Double Major; b) the student's career aspirations; c) any personal, volunteer, or work experiences that demonstrates the student's interest in food and/or nutrition, and; d) for students who have taken less than 24 credits per year, a brief explanation of why.

Admission after third year or a subsequent year will be considered on a case-by-case basis. Meeting the minimum requirements for application to the major does not guarantee admission. Students admitted to the Major will be required to maintain an average of at least 70% in required courses in each year, to remain in the program. Students who are not accepted into the major or do not maintain the required average would be eligible to complete the FNH general major, or select another program if appropriate. Food and Nutritional Sciences Double Major

| First Year                                |           |
|---|-----------|
| LFS 100                                   | 1         |
| LFS 150 or ENGL 112                       | 3         |
| BIOL 112 & 121                            | 6         |
| BIOL 155 <sup>1</sup>                     | 6         |
| CHEM 121 (or 111) <sup>2</sup>            | 4         |
| CHEM 123 (or 113)                         | 4         |
| MATH 102 & 103 or equivalent <sup>3</sup> | 6         |
| PHYS 101 or equivalent <sup>4</sup>       | 3         |
| <b>Total Credits</b>                      | <b>33</b> |



| Second Year   |     |
|---|-----|
| LFS 250   | 6   |
| LFS 252 or equivalent <sup>5</sup>                          | 3   |
| FNH 200   | 3   |
| FNH 250   | 3   |
| CHEM 205 & 233  | 6   |
| CHEM 235  | 1   |
| BIOL 200 & 201 <sup>6</sup>                                 | 6   |
| BIOL 234  | 3   |
| Total Credits   | 31  |
| Third Year  |     |
| LFS 350   | 3   |
| BIOC 302  | 3   |
| FNH 300   | 3   |
| FNH 301   | 3   |
| FNH 302   | 3   |
| FNH 303   | 3   |
| MICB 202  | 3   |
| FNH 313   | 3   |
| MICB 353  | 1   |
| FNH 325   | 3   |
| FNH 326   | 3   |
| Total Credits   | 31  |
| Fourth Year   |     |
| FNH 398   | 3   |
| FNH 350   | 3   |
| FNH 351   | 3   |
| FNH 413   | 3   |
| FNH 425 or 497 or 499                                       | 6   |
| FNH 309   | 3   |
| FNH 371   | 3   |
| FNH 477   | 3   |
| Unrestricted elective                                       | 3   |
| Total Credits   | 30  |
| Fifth Year  |     |
| FNH 403   | 3   |
| FNH 451   | 3   |
| FNH 370   | 3   |
| One of ECON 310, LFS 101, FNH 415, or 300 or 400 level COMM | 3   |
| Restricted elective <sup>7</sup>                            | 3   |
| Total Credits   | 15  |
| Overall five-year total credits                             |     |
|   | 140 |

<sup>1</sup> Equivalent courses include BIOL 153, CAPS 301

<sup>2</sup> CHEM 111 is not for students with Chemistry 12.

<sup>3</sup> Students who have not completed Calculus 12 should take MATH 180 or 184, plus either MATH 103 or 105 to fulfill their first-year mathematics requirement.

<sup>4</sup> Equivalent courses include PHYS 107 or 117. Students without credit for Physics 12 must take PHYS 100 before taking other 100-level PHYS courses.

<sup>5</sup> Equivalent courses include BIOL 300, EPSE 482, FRST 231, STAT 200.

<sup>6</sup> Equivalent courses include BIOL 201, BIOC 202, BIOC 203

<sup>7</sup> To be selected in consultation with a program advisor. For suggested courses see the list (<http://www.landfood.ubc.ca/academics/undergraduate/restricted-electives/>) posted to the Faculty website.

### B.Sc. in Food, Nutrition, and Health > Food Science Major

Food Science is a discipline encompassing food chemistry, food microbiology, physical, sensory, and nutritional properties of food, and food process science with respect to the manufacture, preservation, quality assurance, and development of food products. Students wishing to specialize in or concentrate on certain areas should consult the program advisor. Admission to the first two years of the Food Science major are comprised of the standard core of the FNH program. Students may apply after completing at least 24 credits of the listed first-year courses (or their equivalent). The annual application date is March 31 for September admission. Application information is available on-line (<http://www.landfood.ubc.ca/undergraduate/programs/fnh/food-science>). To apply for admission after second year, the student should have completed at least 48 credits of listed first- and second-year courses (or their equivalent). Admission to the Food Science major is based on two components:

- Academic Performance (85% of Admission Score): Admission to the Food Science major is based on a minimum academic standing of 70%, calculated based on the best 21 credits per year of post-secondary courses required in this program. The student must have completed ENGL 112 or equivalent. Elective courses and LFS 100, LFS 250, LFS 350, or LFS 450 are not included in this calculation.
- Letter of Intent (15% of Admission Score): The student must submit a 500 word (maximum) Letter of Intent which addresses the following: a) why the student wishes to enrol in the Food Science major; b) the student's career aspirations; c) any personal, volunteer, or work experiences that demonstrate the student's interest in food and/or nutrition, and; d) for students who have taken less than 24 credits per year, a brief explanation of why.

Admission after third year or a subsequent year will be considered on a case-by-case basis. Meeting the minimum requirements for application to the major does not guarantee admission. Students admitted to the Major will be required to maintain an average of at least 70% in required courses in each year, to remain in the program. Students who are not accepted into the major or do not maintain the required average would be eligible to complete the FNH general major, or select another program if appropriate. Food Science Major

| First Year                                |    |
|---|----|
| LFS 100                                   | 1  |
| LFS 150 or ENGL 112                       | 3  |
| BIOL 112 & 121                            | 6  |
| BIOL 155 <sup>1</sup>                     | 6  |
| CHEM 121 (or 111) <sup>2</sup>            | 4  |
| CHEM 123 (or 113)                         | 4  |
| MATH 102 & 103 or equivalent <sup>3</sup> | 6  |
| PHYS 101 or equivalent <sup>4</sup>       | 3  |
| Total Credits                             | 33 |
| Second Year                               |    |
| LFS 250                                   | 6  |



|   |            |
|---|------------|
| LFS 252 or equivalent <sup>5</sup>                          | 3          |
| FNH 200   | 3          |
| FNH 250   | 3          |
| CHEM 205 & 233  | 6          |
| CHEM 235  | 1          |
| BIOL 200 & 201 <sup>6</sup>                                 | 6          |
| MICB 202  | 3          |
| Total Credits   | 31         |
| <b>Third Year</b>   |            |
| LFS 350   | 3          |
| BIOC 302  | 3          |
| FNH 300   | 3          |
| FNH 301   | 3          |
| FNH 302   | 3          |
| FNH 303   | 3          |
| FNH 309   | 3          |
| FNH 313   | 3          |
| MICB 353  | 1          |
| FNH 325   | 3          |
| FNH 326   | 3          |
| Total Credits   | 31         |
| <b>Fourth Year</b>  |            |
| FNH 403   | 3          |
| FNH 413   | 3          |
| FNH 425 or FNH 497 or FNH 499                               | 6          |
| One of ECON 310, LFS 101, FNH 415, or 300 or 400 level COMM | 3          |
| Restricted electives <sup>7</sup>                           | 9          |
| Unrestricted electives                                      | 6          |
| Total Credits   | 30         |
| <b>Overall four-year total credits</b>                      | <b>125</b> |

<sup>1</sup> Equivalent courses include BIOL 153, CAPS 301

<sup>2</sup> CHEM 111 is not for students with Chemistry 12.

<sup>3</sup> Students who have not completed Calculus 12 should take MATH 180 or 184, plus either MATH 103 or 105 to fulfill their first year Math requirement.

<sup>4</sup> Equivalent courses include PHYS 107 or 117. Students without credit for Physics 12 must take PHYS 100 before taking other 100-level PHYS courses.

<sup>5</sup> Equivalent courses include BIOL 300, EPSE 482, FRST 231, STAT 200.

<sup>6</sup> Equivalent courses include BIOL 201, BIOC 202, BIOC 203

<sup>7</sup> To be selected in consultation with a program advisor. For suggested courses see the list (<http://www.landfood.ubc.ca/undergraduate/restricted-elective/>) posted to the Faculty website.

### B.Sc. in Food, Nutrition, and Health > Food, Nutrition, and Health Major

The Food, Nutrition, and Health (FNH) Major offers to students the flexibility to tailor the program to reflect specific interests in food, nutrition, and health without the specialization depth afforded by the other majors. With suitable course selections, students may be prepared to enter the Home Economics Teacher Education Program at UBC once they have completed this major, a program that prepares graduates for employment opportunities in secondary schools as Home Economics teachers. Food, Nutrition, and Health Major

|   |    |
|---|----|
| <b>First Year</b>                         |    |
| LFS 100                                   | 1  |
| LFS 150 or ENGL 112                       | 3  |
| BIOL 112 & 121                            | 6  |
| BIOL 155 <sup>1</sup>                     | 6  |
| CHEM 121 (or 111) <sup>2</sup>            | 4  |
| CHEM 123 (or 113)                         | 4  |
| MATH 102 & 103 or equivalent <sup>3</sup> | 6  |
| Non-science electives <sup>4</sup>        | 3  |
| Total Credits                             | 33 |
| <b>Second Year</b>                        |    |
| LFS 250                                   | 6  |
| LFS 252 or equivalent <sup>5</sup>        | 3  |
| FNH 200                                   | 3  |
| FNH 250                                   | 3  |
| CHEM 233                                  | 3  |
| CHEM 235                                  | 1  |
| BIOL 200                                  | 3  |
| BIOL 201 <sup>6</sup>                     | 3  |
| Restricted electives <sup>7</sup>         | 6  |
| Total Credits                             | 31 |
| <b>Third Year</b>                         |    |
| LFS 350                                   | 3  |
| FNH 313                                   | 3  |
| FNH 350                                   | 3  |
| FNH 351                                   | 3  |
| Health Elective <sup>7</sup>              | 3  |
| Restricted electives <sup>7</sup>         | 9  |
| Unrestricted electives                    | 6  |



|  |            |
|--|------------|
| Total Credits                                      | 30         |
| <b>Fourth Year</b>                                 |            |
| FNH courses  | 6          |
| FNH 403  | 3          |
| Health Elective <sup>7</sup>                       | 3          |
| Restricted electives <sup>7</sup>                  | 12         |
| Unrestricted electives                             | 6          |
| Total Credits                                      | 30         |
| <b>Overall four-year total credits<sup>8</sup></b> | <b>124</b> |

<sup>1</sup> Equivalent courses include BIOL 153, CAPS 301

<sup>2</sup> CHEM 111 is not for students with Chemistry 12.

<sup>3</sup> Students who have not completed Calculus 12 should take MATH 180 or 184, plus either MATH 103 or 105 to fulfill their first year Math requirement.

<sup>4</sup> Students wishing to take FRE courses should select one of ECON 101 or LFS 101, and ECON 102 as their non-science and unrestricted electives. Students considering a transfer to another FNH major should take the required electives for that major.

<sup>5</sup> Equivalent courses include BIOL 300, EPSE 482, FRST 231, STAT 200.

<sup>6</sup> Equivalent courses include BIOL 201, BIOC 202, BIOC 203

<sup>7</sup> To be selected in consultation with a program advisor. For suggested courses see the list (<http://www.landfood.ubc.ca/undergraduate/restricted-elective/>) posted on the Faculty website.

<sup>8</sup> A minimum of 45 credits of the 123 credits required for the Major must be for courses numbered 300 or higher.

### B.Sc. in Food, Nutrition, and Health > International Nutrition Major

**Important Note:** The Food, Nutrition and Health program is no longer accepting applications for admission to the International Nutrition Major. The information below is for the benefit of students currently in the Major. The International Nutrition Major is focused on human nutrition, with an emphasis on application in international settings. Core and specialized Food, Nutrition and Health courses are complemented by a unique international field studies course, which allows students to integrate theory and practice. Students also benefit from an interdisciplinary education by completing elective coursework in health and human services, political science, economics, anthropology, sociology, geography, or other approved selections. The Major prepares students for employment in a range of fields, including development, health, and education, and also provides the background to pursue graduate or professional studies. Admission to the International Nutrition Major is to third-year and based on: **1. Initial screening for: a) Prerequisite Requirements** To be eligible for the Major, students must have completed at least 60 credits by April 30 of the year in which they are applying. This must include the following pre-requisites (or their equivalent): LFS 100 (1), LFS 150 (3) or ENGL 112 (3), BIOL 112/121 (6), BIOL 140 (2), CHEM 121/123 (11/11/13) (8), MATH 102/103 or equivalent (6)<sup>1</sup>, non-science electives (3)<sup>2</sup>, LFS 250 (6), LFS 252 or equivalent (3)<sup>3</sup>, FNH 200 (3), FNH 250 (3), CHEM 233 (3), CHEM 235 (1), BIOL 200 (3), BIOL 201 (3), restricted electives (6)<sup>4,5,6</sup>. CHEM 111/113 are not for students with Chemistry 12.

<sup>2</sup> Students who have not completed Calculus 12 should take MATH 180 or 184, plus either MATH 103 or 105 to fulfill their first year math requirement.

<sup>3</sup> Students wishing to take FRE courses, ECON 234, 255, 317, or 335 should take ECON 101 and ECON 102 as their non-science or restricted electives.

<sup>4</sup> Students wishing to take SOCI 301A, 302A, 360B, 361A, 430, or 383B should take SOCI 100 as their non-science or restricted electives. Students wishing to take ANTH 330, 360, 407, 429 or 425 should take ANTH 100 as their non-science or restricted electives.

<sup>5</sup> Equivalent courses include BIOL 300, EPSE 482, FRST 231, and STAT 200.

<sup>6</sup> Students may consult the academic advisor for the International Nutrition Major to propose other restricted electives. For list of restricted electives, see the Faculty website (<http://www.landfood.ubc.ca/undergraduate/restricted-electives/>). Students are responsible for ensuring that they have met all pre-requisites for desired restricted electives. **b) Academic Performance**

A minimum academic standing of 70% is required for eligibility to the Major. Achieving this minimum, however, does not guarantee admission. **c) Non-academic Component**

Students must submit a written application package, following the guidelines specified by the International Nutrition Major admission requirements (<http://inmajor.landfood.ubc.ca/admissions/>). **2. Interview (short-listed candidates only)** The International Nutrition Major admissions committee will conduct interviews with short-listed candidates at UBC. Telephone or Skype interviews will be arranged with candidates who are unable to come to UBC. The objective of the interview is to assess communication skills, qualifications, and preparedness for the Major. The admissions committee will particularly consider student suitability for placements with current partner organizations associated with the international nutrition field studies course. Application The annual application date is January 31 for September admission. Application to the International Nutrition Major has three components:

Online application to enter the B.Sc. (FNH) Program in the Faculty of Land and Food Systems (LFS).

An International Nutrition application package available online (<http://inmajor.landfood.ubc.ca/admissions/>).

An interview to determine suitability for the Major, particularly for the international nutrition field studies component.

#### Application Procedures

Non-UBC students must apply online by January 31 through Enrolment Services to enter the B.Sc. (FNH) Program in UBC's Faculty of Land and Food Systems (LFS). External applicants are encouraged to contact LFS Student Services (<http://www.landfood.ubc.ca/undergraduate/info>) in advance of applying to ensure they have met prerequisite course requirements.

Current UBC students who are not already enrolled in the B.Sc. (FNH) Program must apply online through Enrolment Services to enter the Program. In the event of an unsuccessful application, students in good standing have the ability to remain in their original program/faculty.

All applicants must submit the International Nutrition Major application package to the Faculty (forms and guidelines available online (<http://inmajor.landfood.ubc.ca/admissions/>)). Each application package must include:

- Completed application form, resume, and personal statement
- Transcripts (as required)
- Application fee (<http://inmajor.landfood.ubc.ca/admissions/>)

Short-listed candidates are identified for an interview based on initial screening, which considers both academic and non-academic application components.

Final decisions about applications are made once interviews are complete and final marks for the term are available. Applicants are informed about their admission status by early June.

#### Program Information

Students are admitted to the Major in Year Three. The Major involves two full-time years of study, including an international nutrition field studies course (FNH 460) that requires students to relocate for a minimum of 12 weeks.

To cover administrative costs of the Major, advising, pre-departure workshops, and post-departure debriefing sessions, a one-time administrative fee, listed under Program and Course Fees (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=14,296,0,0#18096>), is applied to students upon acceptance into the Major. In addition to UBC tuition and course fees, students incur travel expenses and associated costs of the international nutrition field studies course. Expenses vary between projects depending on funding availability; consult the Program Coordinator of International Nutrition and UBC Enrolment Services for information regarding potential funding.

#### Program Requirements

|                                   |     |
|-----------------------------------|-----|
| <b>Third Year</b>                 |     |
| LFS 350                           | 3   |
| BIOC 302                          | 3   |
| FNH 350                           | 3   |
| FNH 351                           | 3   |
| FNH 355                           | 3   |
| FNH 370                           | 3   |
| FNH 398                           | 3   |
| CAPS 301                          | 6   |
| Restricted elective <sup>1</sup>  | 3   |
| Total Credits                     | 30  |
| <b>Fourth Year</b>                |     |
| FNH 455                           | 3   |
| FNH 473                           | 3   |
| FNH 460 <sup>2</sup>              | 6   |
| FNH electives <sup>3</sup>        | 6   |
| Restricted electives <sup>1</sup> | 6   |
| Unrestricted electives            | 6   |
| Total Credits                     | 30  |
| Overall 4 years total credit      | 120 |

<sup>1</sup> A list of restricted electives is available on the Faculty website (<http://www.landfood.ubc.ca/undergraduate/restricted-electives/>). Students may consult the Program Coordinator for International Nutrition to propose other restricted electives.

<sup>2</sup> FNH 460 involves a minimum 12-week international nutrition field studies placement. Placements are selected in consultation with the Program Coordinator for the International Nutrition Major.



<sup>3</sup> FNH electives (6 credits from FNH 301, 302, 309, 313, 471, 402, 451, 454, 477, 490, 497, 499).

### B.Sc. in Food, Nutrition, and Health > Nutritional Sciences Major

The Nutritional Sciences Major provides a strong foundation in human nutrition. All students take the same core, but students may use their elective courses to focus on an area of interest such as basic nutritional sciences, population and public health nutrition, and international nutrition. Graduates of the Nutritional Sciences Major can pursue advanced degrees or work in research related to health sciences, nutrition, and in public and private organizations related to health promotion.

#### Nutritional Sciences Major

| First Year   |            |
|--|------------|
| LFS 100  | 1          |
| LFS 150 or ENGL 112                                | 3          |
| BIOL 112   | 3          |
| BIOL 121   | 3          |
| BIOL 155 <sup>1</sup>                              | 6          |
| CHEM 121 (or 111) <sup>2</sup>                     | 4          |
| CHEM 123 (or 113)                                  | 4          |
| MATH 102 or equivalent <sup>3</sup>                | 3          |
| MATH 103   | 3          |
| PHYS 101 <sup>4</sup>                              | 3          |
| <b>Total Credits</b>                               | <b>33</b>  |
| Second Year  |            |
| LFS 250  | 6          |
| LFS 252 <sup>5</sup>                               | 3          |
| FNH 200  | 3          |
| FNH 250  | 3          |
| CHEM 233   | 3          |
| CHEM 235   | 1          |
| CHEM 205   | 3          |
| BIOL 200   | 3          |
| BIOL 201 <sup>6</sup>                              | 3          |
| BIOL 234   | 3          |
| <b>Total Credits</b>                               | <b>31</b>  |
| Third Year   |            |
| LFS 350  | 3          |
| BIOC 302   | 3          |
| FNH 350  | 3          |
| FNH 351  | 3          |
| FNH 370  | 3          |
| FNH 371  | 3          |
| FNH 398  | 3          |
| MICB 202   | 3          |
| Unrestricted electives                             | 3          |
| Restricted electives <sup>7</sup>                  | 3          |
| <b>Total Credits</b>                               | <b>30</b>  |
| Fourth Year  |            |
| FNH 451  | 3          |
| FNH 477  | 3          |
| ECON 310 or LFS 101                                | 3          |
| Unrestricted electives                             | 12         |
| Restricted electives <sup>7</sup>                  | 9          |
| <b>Total Credits</b>                               | <b>30</b>  |
| <b>Overall four-year total credits<sup>8</sup></b> | <b>124</b> |

<sup>1</sup> Equivalent courses include BIOL 153, CAPS 301

<sup>2</sup> CHEM 111 is not for students with Chemistry 12.

<sup>3</sup> Students who have not completed Calculus 12 should take MATH 180 or 184 to fulfill their first-year MATH requirement.

<sup>4</sup> Equivalent courses include PHYS 107 or 117. Students without credit for Physics 12 must take PHYS 100 before taking other 100-level PHYS courses.

<sup>5</sup> Equivalent courses include BIOL 300, EPSE 482, FRST 231, STAT 200

<sup>6</sup> Equivalent courses include BIOL 201, BIOC 202, BIOC 203

<sup>7</sup> For suggested course see the list (<http://www.landfood.ubc.ca/academics/undergraduate/restricted-electives/>) posted on the Faculty website

<sup>8</sup> A minimum of 45 credits required for the Major must be for courses numbered 300 or higher.

### B.Sc. in Food, Nutrition, and Health > Dual Degree Program in Food, Nutrition and Health and Education

The Dual Degree Program in Food, Nutrition and Health and Education offers qualified students the opportunity to earn a B.Sc. (Food, Nutrition and Health) and a B.Ed. (Secondary) in five Winter Sessions with some academic requirements in Term 1 of the Summer Sessions. After completing all the requirements, students are normally eligible for a British Columbia Professional Teaching Certificate.

#### Admission

Admission to the Dual Degree Program requires application to the Land and Food Systems Student Services Office by January 31 of second year with approval by April in order to undertake a teaching practicum at the end of second year.

Application for admission to the program is made through the Land and Food Systems website (<http://landfood.ubc.ca>) by January 31 of second year and must receive approval from the Faculties of Land and Food Systems and Education. All students will initially be accepted on a provisional basis. Admission will be confirmed only after successful completion of year two and successful completion of the in-school practicum in May following second year. A criminal records check is required of all teacher candidates admitted to the B.Ed. program.

Admission at any time is conditional; maintenance of good academic standing and an average of at least 65% in each session are required throughout. Students who do not maintain a 65% average will be required to withdraw from Education, but may continue with the Food, Nutrition and Health major if their average is 50.0% or higher. In addition, students must participate in volunteer or work experience with youth aged 13-16 to meet the requirements of the Bachelor of Education program. Students must satisfy all of the degree and specialization requirements for both the Food, Nutrition and Health major in the B.Sc. Food, Nutrition and Health and the B.Ed. Secondary program. Some individual courses may be considered to satisfy requirements for both degrees.



Students must communicate with an advisor in the Food, Nutrition and Health Program and the Teacher Education Office annually after admission to the program to discuss their progress.

The Dual Degree Program is not open to students with a previous degree.

|   |           |
|---|-----------|
| <b>First Year (Winter)</b>                          |           |
| LFS 100   | 1         |
| ENGL 112  | 3         |
| BIOL 112 & 121                                      | 6         |
| BIOL 155 <sup>1</sup>                               | 6         |
| CHEM 121 (or 111) <sup>2</sup>                      | 4         |
| CHEM 123 (or 113)                                   | 4         |
| MATH 102 <sup>3</sup>                               | 3         |
| PSYC 100 or SOCI 100                                | 6         |
| <b>Total Credits</b>                                | <b>33</b> |
| <b>Second Year (Winter)</b>                         |           |
| LFS 250   | 6         |
| LFS 252 or equivalent <sup>4</sup>                  | 3         |
| FNH 200   | 3         |
| FNH 250   | 3         |
| CHEM 233  | 3         |
| CHEM 235  | 1         |
| BIOL 200  | 3         |
| SOCI 200 or SOCI 240                                | 3         |
| ENGL 110, 120 or 121                                | 3         |
| BIOL 201 <sup>5</sup>                               | 3         |
| <b>Total Credits</b>                                | <b>31</b> |
| <b>Second Year (Summer)</b>                         |           |
| EDUC 319  | 1         |
| <b>Total Credits</b>                                | <b>1</b>  |
| <b>Third Year (Winter)</b>                          |           |
| LFS 350   | 3         |
| FNH 340   | 3         |
| FNH 341   | 3         |
| FNH 342   | 3         |
| EDST 401  | 3         |
| LLED 360  | 3         |
| EPSE 317  | 3         |
| Restricted electives <sup>6</sup>                   | 9         |
| <b>Total credits</b>                                | <b>30</b> |
| <b>Third Year (Summer)</b>                          |           |
| EDUC 399  | 1         |
| <b>Total Credits</b>                                | <b>1</b>  |
| <b>Fourth Year (Winter)</b>                         |           |
| EDCP 491  | 3         |
| EPSE 308  | 3         |
| FNH 313   | 3         |
| FNH 350   | 3         |
| FNH 351   | 3         |
| FNH 403   | 3         |
| Health electives <sup>7</sup>                       | 6         |
| Restricted electives <sup>6</sup>                   | 9         |
| <b>Total Credits</b>                                | <b>33</b> |
| <b>Fourth Year (Summer)</b>                         |           |
| EDST 403  | 1         |
| EDST 404  | 1         |
| EDUC 440  | 3         |
| LLED 361  | 3         |
| Unrestricted Electives                              | 3         |
| <b>Total Credits</b>                                | <b>11</b> |
| <b>Fifth Year (Winter)</b>                          |           |
| EDUC 315  | 2         |
| EDUC 421  | 12        |
| EDUC 430  | 1         |
| EDUC 450  | 3         |
| EDUC 451  | 3         |
| EPSE 310  | 3         |
| EPSE 311  | 1         |
| EDCP 391  | 3         |
| EDCP 492, 493, 494 or 498 (or alternate as advised) | 3         |





|  |     |
|--|-----|
| Total Credits  | 31  |
| <b>Fifth Year (Summer)</b>   |     |
| EDUC 452   | 3   |
| Total Credits  | 3   |
| <i>Minimum Credits for Dual Degree</i>   | 174 |
| <sup>1</sup> Equivalent courses include BIOL 153, CAPS 301<br><sup>2</sup> CHEM 111 is not for students with Chemistry 12.<br><sup>3</sup> Students who have not completed Calculus 12 should take MATH 180 or 184.<br><sup>4</sup> Equivalent courses include BIOL 300, EPSE 482, FRST 231, STAT 200.<br><sup>5</sup> Equivalent courses include BIOL 201, BIOC 202, BIOC 203<br><sup>6</sup> To be selected in consultation with a program advisor. Must include 18 credits of approved family studies and/or clothing and textiles courses at the 300 or 400 level.<br><sup>7</sup> To be selected in consultation with a program advisor. For suggested courses see the list ( <a href="http://www.landfood.ubc.ca/academics/undergraduate/restricted-electives/">http://www.landfood.ubc.ca/academics/undergraduate/restricted-electives/</a> ) posted on the Faculty website |     |

**B.Sc. in Food and Resource Economics (FRE)**

**B.Sc. in Food and Resource Economics (FRE) > Introduction**

The B.Sc. in Food and Resource Economics (FRE) allows students to critically analyze a wide range of economic issues in food supply chains, including the resource and environmental impacts of food production. The program consists of interdisciplinary courses in land and food systems, math and empirical methods courses, restricted elective courses, primarily in economics and business, and unrestricted electives. Students with an interest in agri-business and resource management can choose the Food and Resource Management stream, or apply for the Master of Management Dual Degree Program Option. Students who complete the B.Sc. (FRE) program are well suited to pursue graduate studies within the Masters of Food and Resource Economics (UBC), the School of Public Policy and Global Affairs (UBC) and various applied economics M.Sc. programs outside of UBC.

Students can specialize or mix-and-match from the three topic areas:

- Food Markets and Trade
- Land, Resources and Environment
- Food and Resource Management.

**B.Sc. in Food and Resource Economics (FRE) > Advising Office**

See the Academic Advising Office (<http://www.calendar.ubc.ca/vancouver/proofedit/index.cfm?tree=12,194,793,0#10175>).

**B.Sc. in Food and Resource Economics (FRE) > Admission**

Students can apply to the Food and Resource Economics program after completing 24 credits of post-secondary level courses, including: LFS 150 or ENGL 100-level (see note 1 below); MATH 104 (see note 2 below); ECON 101 and either MATH 105 (see note 2 below) or ECON 102. To be considered, students are required to have a minimum academic standing of at least 70% (or 2.80 on a 4-point scale). Achievement of this minimum, however, does not guarantee admission. Due to receipt of many more qualified applicants than there are spaces available in most programs, a higher average is often required.

To help assess suitability students must submit with their application a 500 word (maximum) Letter of Intent which addresses the following: a) why the student wishes to enroll in the Food and Resource Economics program; b) the student's professional aspirations; and c) any relevant personal, volunteer, or work experience. The letter of intent is to be submitted to the Faculty of Land and Food Systems Student Services at the time of application (instructions are provided at <http://www.landfood.ubc.ca/academics/undergraduate/ug-admissions/>)

While not required, students interested in applying to the Bachelor of Science in Food and Resource Economics are strongly encouraged to follow the first-year requirements of the Food and Resource Economics Degree.

**B.Sc. in Food and Resource Economics (FRE) > Degree Requirements and Program Options**

Degree Requirements

|  |           |
|--|-----------|
| <b>First Year</b>  |           |
| LFS 100  | 1         |
| LFS 150 or ENGL 100-level <sup>1</sup>   | 3         |
| BIOL 121   | 3         |
| MATH 104 & 105 <sup>2</sup>  | 6         |
| ECON 101 & 102   | 6         |
| Electives <sup>3</sup>   | 12        |
| <b>Total credits</b>   | <b>31</b> |
| <b>Second Year</b>   |           |
| LFS 250  | 6         |
| One of APBI 200, FHN 200, FHN 250  | 3         |
| FRE 306  | 3         |
| LFS 252 <sup>4</sup>   | 3         |
| ECON 301 and three of ECON 221, 234, 255, 302, 303, 339, 360, 365 <sup>5</sup> | 12        |
| Unrestricted elective  | 3         |
| <b>Total credits</b>   | <b>30</b> |
| <b>Third Year</b>  |           |
| LFS 350  | 3         |
| FRE 394  | 3         |
| FRE 326 <sup>6</sup> and one of FRE 385, FRST 399, GEOB 270                    | 6         |
| FRE Topic Courses <sup>7</sup>   | 6         |
| Supporting Topic Courses <sup>8</sup>  | 3         |
| Restricted electives <sup>9</sup>  | 6         |
| Unrestricted elective  | 3         |
| <b>Total credits</b>   | <b>30</b> |
| <b>Fourth Year</b>   |           |
| FRE 426 <sup>6</sup> and one of FRE 385, FRST 399, GEOB 270                    | 6         |
| FRE Topic Courses <sup>7</sup>   | 6         |
| Supporting Topic Courses <sup>8</sup>  | 9         |
| Restricted electives <sup>9</sup>  | 6         |
| Unrestricted elective  | 3         |
| <b>Total credits</b>   | <b>30</b> |



Overall 4 Year Total Credits<sup>10</sup>

121

- <sup>1</sup> ENGL 112 recommended.
- <sup>2</sup> Students may substitute MATH 100, 102 or 110 for MATH 104, and MATH 101 or 103 for MATH 105. Students who have not completed Calculus 12 should take MATH 184 as a substitute for MATH 104.
- <sup>3</sup> It is recommended that students take a minimum of 6 credits of 100, 200 level courses that contribute toward interdisciplinary breadth. This includes courses in science (e.g., biology), geography, sociology, psychology and political science.
- <sup>4</sup> Students who are admitted into the program with ECON 325 can use it to substitute for LFS 252. Students in the program may not substitute ECON 325 for LFS 252 but may substitute STAT 200, BIOL 300 or FRST 231 for LFS 252.
- <sup>5</sup> Students must complete their first year MATH requirement before taking ECON 301, 302 and 303, and must take ECON 301 and other prerequisites before taking 400 level ECON courses.
- <sup>6</sup> Students who are admitted into the program with ECON 326 can use it to substitute for FRE 326, and with ECON 425 can use it to substitute for FRE 426. Students in the program may not substitute ECON 326 for FRE 326, or ECON 425 for FRE 426. FRE 326/426 cannot replace ECON 325/326 as prerequisites within the various VSE programs.
- <sup>7</sup> Choose from FRE 302, 340, 374, 420, 460 and 490. Recommended: FRE 340 and 460 (Food Markets and Development), FRE 374 and 420 (Land, Resources & Environment) and FRE 302 and either FRE 460 or FRE 420 (Food and Resource Management).
- <sup>8</sup> There are three topic areas (see note 7). Students can specialize by choosing all supporting courses from one topic area or can achieve breadth by choosing supporting courses from multiple topic areas. Acceptable courses are listed on the Food and Resource Economics website.
- <sup>9</sup> Choose any eligible 300 or 400 level course in COMR, ECON and FRE. Students with a strong interest in research should take FRST 399 and consider having a FRE faculty member supervise a directed studies course (FRE 497) and/or a 6 credit thesis (FRE 499).
- <sup>10</sup> A minimum of 45 credits required for the Major must be from courses numbered 300 or higher.

## B.Sc. in Global Resource Systems

### B.Sc. in Global Resource Systems > Introduction

The Bachelor of Science in Global Resource Systems program recognizes that resource problems are complex and require solutions that are global and interdisciplinary in scope, and draw on a range of skills. It offers a comprehensive and flexible undergraduate degree program in which students are given the opportunity to customize their degree by selecting both a resource area and region of the world to focus their studies.

Students are eligible to apply to the Bachelor of Science in Global Resource Systems undergraduate program after completing first-year. They can begin the program at the beginning of second year or third year. In third and fourth years, students pursue a double major, a resource specialization, and a regional specialization.

For the resource specialization, students focus on one discipline or choose courses from different disciplines that relate to a resource theme. Options include, but are not limited to: environment, food and resource economics, First Nations resource systems, food security, global health, and nutrition, horticulture, human ecology, international development, and sustainable agriculture.

For the regional specialization, students choose Africa, Asia Pacific, Europe, or the Americas. Within the regional specialization, the program requires a relevant language other than English, a relevant international experience, and relevant coursework. The international experience requirement is met through a period of learning in the region via academic exchange, field study, or work-based learning (internships).

### B.Sc. in Global Resource Systems > Advising Office

See the [Academic Advising Office](#).

### B.Sc. in Global Resource Systems > Admission

Students can apply to the GRS program after completing 24 credits of first-year university-level courses. To be considered, students are required to have a minimum academic standing of at least 70% (or 2.80 on a 4-point scale). Achievement of this minimum, however, does not guarantee admission. Admission is limited by the Faculty's capability to accommodate students in this global program. Admission is based on grades, preparation, experiences, and commitment to a global education. When applying to GRS, students must submit a letter of intent (500 words or less) conforming to guidelines specified by GRS GRS (<http://www.landfood.ubc.ca/programs/grs Ug.htm>). The letter of intent is to be submitted to Enrolment Services at the time of application.

Students are advised to complete first-year requirements listed in Degree Requirements.

#### Transfer from the Environmental Studies Diploma, Langara College

Students who successfully complete the Environmental Studies Diploma program at Langara College, and gain admission to the Faculty of Land and Food Systems and the Global Resource Systems (GRS) undergraduate program, will receive transfer credit for 60 credits into the GRS program if they have:

1. satisfied first-year requirements of the GRS program in Biology, Chemistry, Economics, English, and Mathematics;
2. completed UBC course AGSC 250 or equivalent; and
3. completed 6 credits of language relevant to the regional specialization.

They will be able to finish the GRS program with the further 62 credits required.

### B.Sc. in Global Resource Systems > Academic Regulations

Please see [Academic Regulations \(http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,194,795,0\)](http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,194,795,0).

### B.Sc. in Global Resource Systems > Degree Requirements and Program Options

Bachelor of Science in Global Resource Systems

| First Year  |           |
|---|-----------|
| LFS 100   | 1         |
| BIOL 111/112 or 121                               | 3         |
| CHEM 121 (111) <sup>1</sup>                       | 4         |
| ECON 101 or LFS 101                               | 3         |
| LFS 150 or ENGL 100-level <sup>2</sup>            | 3         |
| Language <sup>3</sup>                             | 6         |
| MATH 100, 102, 104, 110, 180, or 184 <sup>4</sup> | 3-4       |
| Program Electives <sup>5</sup>                    | 9/8       |
| <b>Total Credits</b>                              | <b>32</b> |
| Second Year                                       |           |
| LFS 250   | 6         |
| LFS 252   | 3         |
| GRS 290 <sup>6</sup>                              | 1/2       |
| Language <sup>3</sup>                             | 6         |
| Program Electives <sup>7</sup>                    | 11/10     |
| Unrestricted Electives                            | 3         |
| <b>Total Credits</b>                              | <b>30</b> |
| Third and Fourth Years                            |           |
| LFS 350   | 3         |
| LFS 450   | 3         |
| Field Experience <sup>8</sup>                     | 3         |
| GRS 390 <sup>9</sup>                              | 1-2       |
| GRS 490   | 2         |



|   |            |
|---|------------|
| Resource Specialization Electives <sup>10</sup> | 21         |
| Regional Specialization <sup>11</sup>           |            |
| Anthropology and Culture                        | 3          |
| Economics and Commerce                          | 3          |
| Geography, History, and Political Science       | 3          |
| Regional Specialization Electives               | 9          |
| International Experience <sup>12</sup>          | 0          |
| Program Electives <sup>7</sup>                  | 3/2        |
| Unrestricted Electives                          | 6          |
| Total Credits                                   | 60         |
| <b>Overall four-year total</b>                  | <b>122</b> |

<sup>1</sup> CHEM 111 is not for students with Chemistry 12.

<sup>2</sup> ENGL 112 is recommended.

<sup>3</sup> Students who pass an oral proficiency test for a language relevant to their regional specialization are exempt, and must choose 6 credits of program electives approved by a program advisor.

<sup>4</sup> Students who have not completed Calculus 12 should take MATH 180 or 184 to fulfill their first-year Math requirement.

<sup>5</sup> Courses that provide a foundation for the resource specialization. Science-based resource specializations require BIOL 121 and 140 and CHEM 113 or 123. Economics-based resource specializations require ECON 102. Must be approved by a program advisor.

<sup>6</sup> At least 1 credit is required.

<sup>7</sup> Courses that provide further foundation for the resource specialization. Typically in land and food systems, biology, chemistry, or economics. Must be approved by a program advisor.

<sup>8</sup> Met by a field studies course that is pre-approved by a program advisor.

<sup>9</sup> At least 1 credit is required.

<sup>10</sup> 300- or 400-level courses from one resource discipline or from several disciplines that relate to a resource theme. Must be approved by a program advisor.

<sup>11</sup> Africa, Asia Pacific, Europe, or the Americas. The regional specialization requires 18 credits that are relevant to the region. These can include social sciences, humanities, language courses, and experiential learning. At least 3 credits must relate to each of these areas: anthropology and culture, economics and commerce, and geography, history, and political science. Must be approved by a program advisor.

<sup>12</sup> Met by learning in the region of specialization for at least one term, or three-month period. Options include participation in UBC's Go Global Student Mobility Programs or work-based learning (internships). Must be pre-approved by a program advisor.

#### Master of Management Dual Degree Program Option

Interested students may apply for the Bachelor of Science (Global Resource Systems) – Master of Management Dual Degree Program Option. For details regarding this Dual Degree Program Option and application see the [Faculty of Commerce and Business Administration](#) section of the Academic Calendar.

#### Minor Options

Global Resource Systems students are eligible to apply for a [Minor in Arts](#), [Minor in Commerce](#) or a [Minor in Science](#).

### B.Sc. in Global Resource Systems > Credit/D/Fail

Students in the Bachelor of Global Resource Systems program are permitted to take electives to satisfy degree requirements in compliance with the University's Credit/D/Fail policy.

Courses selected for Credit/D/Fail cannot be used to satisfy Regional or Resource specialization requirements. See Credit/D/Fail (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,42,910,0#18786>).

### Dual Degree and Minor Options

#### Master of Management Dual Degree Program Option

This dual degree program option offers qualified students the opportunity to earn, in one course of study, an undergraduate degree from the Faculty of Land and Food Systems and a Master of Management degree from the Faculty of Commerce and Business Administration (also known as the Sauder School of Business). This dual degree program option can be completed in four and one half years through intensive study and scheduling that includes one summer following fourth year. The Business Career Centre in the Sauder School of Business will also provide extensive professional development and career preparation throughout the dual degree program option of study.

Due to the fixed scheduling requirements of the Dietetics Major, it is typically not possible for students in this major to do the Master of Management through the dual degree route.

Students admitted into this program can use COMM 120 (3), COMM 220 (3) towards their unrestricted elective requirement and COMM 320 (1.5), COMM 321 (1.5), COMM 420 (1.5), and COMM 421 (1.5) towards their restricted elective requirement.

Students who are in the Food Market Analysis Major as part of the Dual Degree Program Option cannot take COMM 329, COMM 398, COMM 457, COMM 458, COMM 465, COMM 473 or COMM 493, due to significant content overlap with the Masters of Management required courses.

Additional specialized fees (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=14,266,987,0#22547>) for the Master of Management will be paid by all students admitted into the dual degree program option. For further information on this dual degree program option see the [Faculty of Commerce and Business Administration](#) section of the Academic Calendar.

#### Minor Options

The Faculty of Land and Food Systems offers several minor options for students. Some minors are restricted to specific programs. For details please refer to the minor specific content below. Enrolment in a Minor is limited to students eligible for third-year standing with an average of at least 68% in each of the previous two years. Meeting the stated minimum requirements does not guarantee admission into the Minor.

An acceptable Minor must consist of 18 upper-level credits. Students should design a coherent and academically sound course of studies for their Minor, which must be submitted at the time of application. For guidelines on appropriate course selection, please refer to the minor specific content below. Students with questions should consult with an Academic Advisor in LFS Student Services.

Application forms for minors may be obtained from the Land and Food Systems website (<http://www.landfood.ubc.ca/undergraduate/programs/fnh>). Completed applications must be submitted no later than March 31st of the students' second year.

Of the 18 credits required for the minor, a maximum of 6 can be double-counted towards the elective requirements of the major. Therefore students should be prepared to complete 12 credits in addition to those required of their major.

Continuation in a Minor requires that the student maintain Good Academic Standing. In addition, space in many courses is limited. Admission to a Minor does not guarantee access to courses agreed upon for the Minor. Where space in courses required for a Minor is limited, a sessional average substantially higher than the minimum for Good Academic Standing may be required to enable registration in such courses. Students who wish to pursue a Minor should be aware of the prerequisites of many of the upper-level courses.

Students might encounter difficulty fitting the courses for the Minor into their program timetable; careful planning is essential, and completion of the Minor will usually require an additional period of study beyond four years.

#### Minor in Arts

An acceptable Arts Minor must comprise courses in the Faculty of Arts that are for credit toward a Bachelor of Arts degree and must consist of 18 upper-level credits in a single subject or field of specialization.

All courses must be acceptable for a B.A. major in the proposed subject area or field, although the student is not bound by other requirements of the Faculty of Arts.

Space in many courses is limited. Admission to an Arts Minor does not provide priority access to courses agreed upon for the Minor.

Upon successful completion of the minor, the notation "Minor in Arts" will be added to the student's transcript.

Students wanting a subject-specific minor may also undertake a minor in a specific Arts discipline's minor program, which requires the completion of at least 30 credits in a single subject field of specialization, of which at least 18 credits must be numbered 300 or higher. Upon successful completion, the notation "Minor in [subject-specific]" will be denoted on the student's transcript.

Space in many Arts courses is limited. Admission to an Arts Minor does not provide priority access to courses agreed upon for the Minor.

#### Minor in Commerce



Students wanting a foundation in business management are encouraged to consider the Minor in Commerce. Enrolment in this is limited.

Meeting the stated minimum requirements does not guarantee admission into the Minor.

Due to the fixed scheduling requirements of the Dietetics Major, it is typically not possible for students in this major to do a Commerce Minor.

Due to the significant overlap in coursework, students in the Food Market Analysis Major and the Food are not normally permitted to complete a Commerce Minor.

Applicants must have successfully completed one of MATH 100, 102, 104, 110, 120, 180, or 184 and one of ECON 101, LFS 101, ECON 310, and one of ECON 102, ECON 311. In addition, a statement of intent is required as part of the application.

The Minor will consist of COMM 329 (3), COMM 457 (3), COMM 465 (3), COMM 473 (3), COMM 493 (3), and one of COMM 398 (3) or COMM 458 (3) for a total of 18 credits.

Upon successful completion the notation "Minor in Commerce" will be placed on the student's transcript.

#### Minor in Fermentations

Courses from both the UBC Vancouver and Okanagan campuses can be used to complete the Fermentations minor. Students interested in applying credits earned at the Okanagan campus to Vancouver campus programs should be aware of the Requirements to Receive a Degree or Diploma on the Vancouver campus (<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3.40.0.0>).

An acceptable minor must comprise:

- At least 3 credits of the following courses: FNH 405 (UBC Vancouver) or BIOL 380 (UBC Okanagan)
- One of BIOC 302 (UBC Vancouver); BIOL 311 or BIOC 304 (UBC Okanagan)
- At least 6 credits of the following courses: FNH 330, FNH 335 (UBC Vancouver); BIOC 307, BIOC 408 (UBC Okanagan)
- At least 6 credits from the following courses: BIOL 323, CHEM 311, CHBE 381, FNH 300, FNH 301, FNH 302, FNH 313, FNH 413, FNH 415; APBI 442 from UBC Vancouver; BIOC 310, BIOL 382, BIOL 480 from UBC Okanagan.

Upon successful completion of the Minor, the notation "Minor in Fermentations" will be denoted on the student's transcript.

#### Minor in Kinesiology

Only students enrolled in the Bachelor of Science in Food, Nutrition, and Health degree may undertake a Minor in Kinesiology. Enrolment in this minor is limited.

Due to the fixed scheduling requirements of the Dietetics Major, it is typically not possible for students in this major to do a Kinesiology Minor.

Admission to the minor is competitive and will be based on a cumulative grade-point average of 54 credits of required first- and second-year courses for the Bachelor of Science in Food, Nutrition, and Health degree.

The Kinesiology Minor will consist of 18 credits selected from the following:

KIN 303, 351, 353, 361, 366, 373, 375, 390, 425, 461, 462, 464, 469, 471, and 473.

Students who wish to pursue a Minor in Kinesiology should be aware of the 300-level prerequisites for 400-level Kinesiology courses. 100- and 200-level prerequisites for KIN courses may be waived for students taking the minor, however students are required to take either BIOL 155, BIOL 153, CAPS 301 or KIN 190 and 191 in lieu of the KIN course prerequisites. Space in many Kinesiology courses is limited.

Upon successful completion of this minor, the notation "Minor in Kinesiology" will be placed on the student's transcript.

Students who wish to pursue studies in the Faculty of Education should be aware that courses that are acceptable for a Kinesiology Minor might not necessarily meet the requirements for a teaching concentration in the Faculty of Education. Students planning to enter the Teacher Education Program in the Faculty of Education (<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12.202.320.157>) need to review the detailed admission requirements.

#### Minor in Science

An acceptable Science Minor must comprise courses in the Faculty of Science that are for credit towards a Bachelor of Science degree and consist of at least 18 credits numbered 300 or higher in a single subject (see [Biochemistry](#), [Chemistry](#), [Environmental Sciences](#), and [Oceanography](#) Minor listings for exceptions).

Upon successful completion of the Minor, the notation "Minor in [Subject]" will be denoted on the student's transcript.

#### Minor in Sustainable Food Systems

The Minor in Sustainable Food Systems emphasizes an interdisciplinary perspective and experiential learning.

The Sustainable Food Systems Minor consists of LFS 350, 12 credits from 300- or 400-level courses from an approved list of courses available on the Faculty website (<http://landfood.ubc.ca/undergraduate/restricted-elective/>), and 3 credits selected from APBI 465, LFS 450, or LFS 496 for a total of 18 credits. Students must have their course of studies approved by an LFS advisor.

Upon successful completion of the minor program, the notation "Minor in Sustainable Food Systems" will be added to the student's transcript.

### First Year Options

The Faculty of Land and Food Systems offers two options for enrolment in the first year:

1. The standard program in which students admitted to the Faculty design their own program according to Degree Requirements, selecting both the courses and the sections they wish to attend.
2. The Land One cohort option. Land One cohort option is jointly offered by the Faculty of Land and Food Systems and the Faculty of Forestry. In this limited-enrolment option, students admitted to their respective Faculty and degree programs enroll in a standard timetable of 15 core credits as a cohort. The standard timetable includes BIOL 121, MATH 102, LFS/FRST 101, LFS/FRST 110, and LFS/FRST 150. Additionally, students register for the remaining first-year credits according to their Degree Requirements.

#### Land One Cohort Option for the Faculty of Land and Food Systems

Land One is a unique way for first-year Land and Food Systems students in the Bachelor of Science in Applied Biology or Bachelor of Science in Food, Nutrition and Health programs to begin their degrees. Students with a passion for learning in an integrated format will benefit from the program's cohort model, where complex issues related to food security, climate change, land use, and sustainability are explored through a coordinated curriculum offered in a small learning community.

Jointly offered by the Faculty of Land and Food Systems (LFS) and the Faculty of Forestry, the option integrates required first-year subjects (BIOL 121, MATH 102, LFS 101, LFS 150 and LFS 110) within the context of real-world cases from both First Nations and Western perspectives. It facilitates students' transition to university and enhances the connections to their home Faculty by creating a learning community centred on collaborative engagement and learning with their peers and instructors.

Students register in a 15-credit standard timetable (STT) that consists of designated sections of BIOL 121, MATH 102, LFS 101 (all taught in the first term), LFS 150 (taught in the second term) and LFS 110 (taught over both terms).

Land One instructors teach the same course content as the standard program using examples, approaches, and case studies that relate to current issues in Land and Food Systems and Forestry through lectures, tutorials, and peer-to-peer engagement. All Land One students attend their lectures together and have access to a designated study space, creating a smaller social and learning community.

LFS 110 is an integrative seminar that discusses the connections between courses in Land One and current issues. Each week, students meet for a one-hour lecture and a one-hour tutorial session throughout both terms 1 and 2. Students work in groups to explore disciplinary and integrative approaches to cases involving both First Nations and Western perspectives. Students also participate in field trips (e.g. to UBC farm, Malcolm Knapp Research Forest, and Museum of Anthropology) and engage in various hands-on activities.

All majors/programs in LFS allow for the Land One standard timetable to meet first-year degree requirements, however, students are responsible for meeting all remaining degree requirements in their respective program. The 15-credit standard timetable leaves space for students to take other courses in first-year and build their own program path within LFS, and across campus.

#### Application Process

The Land One program is limited to direct-entry students in their first-year of study in either the Bachelor of Science in Applied Biology or the Bachelor of Science in Food, Nutrition and Health. Students must be admitted to LFS in order to be eligible for the Land One cohort option. Students should consult the Admission (<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12.194.793.0>) section for details on applying to the Faculty of Land and Food Systems at UBC. As Land One integrates five courses, in addition to the Faculty's admission requirements, students must meet the pre-requisites of these courses as listed below (or the equivalent in the students' home curriculum):

- BIOL 121: Biology 11 or 12, or BIOL 111



- MATH 102: High-school calculus and one of (a) a grade of 80% or higher in BC Principles of Mathematics 12 or Pre-calculus 12, or (b) a satisfactory score in the UBC Mathematics Basic Skills Test.
- FRST/LFS 101: No pre-requisites
- FRST/LFS 150: Enrolment limited to LFS students with first year status and a minimum Language Proficiency Index (LPI) of 4 or equivalent. Because writing will be a significant part of the Land One option, proficiency in English is strongly recommended.
- FRST/LFS 110: No pre-requisites

Students must submit a separate application for the Land One program, via an online application by May 31. Students are required to submit a Letter of Intent (500 word maximum) addressing why they would like to join Land One.

Additional information about the Land One cohort option and the application process are available on the Land One website (<http://landone.ubc.ca>).

## Co-operative Education Program

Co-operative Education is a process of education which integrates academic study with relevant, supervised and paid work experience in co-operating employer organizations.

An optional Co-operative Education Program is available for students in all Land and Food Systems programs, with the exception of students in the Dietetics Major of B.Sc. in Food, Nutrition and Health. The Program is intended to help prepare interested and qualified students for career within the private or public sectors with at least four work terms (i.e. each work term is normally 4 months long) supervised by qualified professionals. Faculty advisors or Co-op Coordinators also conduct site visits at the student's work place and provide advice and support for the placement.

To be eligible, students must be in at least second year of an undergraduate program in the Faculty of Land and Food Systems (other than the Dietetics Major). Admission is by application to the Science Co-op Office. Selection of students will be based on academic performance and general suitability to the work environment as determined by the Co-op intake interview. The total enrolment will be subject to the availability of appropriate work placements. The work placements are arranged by mutual agreement between students and employing organizations. Participating students register for LFS 398, 399, 498, or 499 as appropriate, and pay the Co-operative Education program fee per course and Co-op Workshop fee as listed under Program, Course and Faculty Fees (Calendar page <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=14,296,0,0#1803>).

Graduation in the Co-operative Education Program for Land and Food Systems requires a student to complete LFS 398, 399, 498, and 499, in addition to the normal academic requirements.

Detailed information on the program can be obtained from the Co-operative Education Office in Room 170, Chemistry and Physics Building, 6221 University Boulevard, Vancouver, BC V6T 1Z1 or online (<http://www.sciencecoop.ubc.ca/prospective/apply/land>).

## Exchange Programs

Formal exchange programs facilitate the exchange of undergraduate students with other universities in Canada and abroad. These exchanges allow students to experience a different cultural and academic life, and receive credit for courses successfully completed. Undergraduate students normally in their third year of studies are eligible to spend a semester or two on exchange. Graduate students are also eligible. Interested students should see Go Global (<http://students.ubc.ca/career/international-experiences/exchange-study-abroad/exchange-eligibility/#graduate-students>) for further information.

### Canadian Exchange Programs

Opportunities for student exchanges at Canadian universities exist at McGill University, University of Toronto and Université de Montréal. Opportunities also exist at University of Guelph, which has an exchange agreement with the Faculty.

### International Exchanges

Go Global (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=4,228,549,735#446>) offers eligible students the opportunity to spend one or two semesters at a variety of partner universities throughout the world, including the University of California, University of Melbourne and Queensland University (Australia), University of Auckland (New Zealand), University of Copenhagen (Denmark), Wageningen University (Netherlands) and Swedish Agricultural University.

## BC Institute of Agrologists

Agrology is the profession of applying science and scientific principles to the business and art of agriculture. In British Columbia, agrology is recognized by the provincial statute of 1948, the *Agrologists Act*, under which the BC Institute of Agrologists (BCIA) (<http://www.bcia.com>) is incorporated.

A graduate of the Faculty holding a Bachelor of Science in Agroecology, Bachelor of Science in Applied Biology, Bachelor of Science in Food, Nutrition, and Health, or a Bachelor of Science in Global Resource Systems meets the educational requirements for membership in the BCIA.

A graduate who plans to practise as an agrologist in the province of British Columbia is expected to register as a member of the BCIA. Applications should be forwarded to the Registrar, BCIA.

## Dr. and Mrs. A. S. Dekaban Foundation

A foundation was established by Dr. and Mrs. A. S. Dekaban primarily to permit graduate students from the Polish agricultural universities to study in the Faculty of Land and Food Systems. Polish students may spend up to six months in the Faculty, undertaking research related to their study program in their home institution. The students are selected by the Polish agricultural universities. The foundation also supports occasional short-term visits by members of the Faculty Land and Food Systems to Polish agricultural universities and visits by scientists from the Polish agricultural universities to the Faculty.

## Academic Staff

### Academic Staff > Applied Biology

#### Professors

**T. A. Black**, B.Sc. (Br.Col.), M.Sc., Ph.D. (Wis.)  
**A. Farrell**, B.Sc. (Bath), Ph.D. (Br. Col.)  
**D. G. Fraser**, B.A. (Tor.), Ph.D. (Glas.)  
**M. K. Upadhyaya**, B.Sc. (Ag.) (J. Nehru Agri.), M.Sc. (I.A.R.I.), M.A. (Princ.), Ph.D. (Mich.), P.Ag., C.P.H., C.P.Ag., F.W.S.S.A.  
**M. von Keyserlingk**, B.Sc. (Br.Col.), M.Sc. (Alta.), Ph.D. (Br.Col.)  
**D. M. Weary**, B.Sc., M.Sc. (McG.), Ph.D. (Oxf.)

#### Professors Emeriti

**T. M. Ballard**, B.S.F., M.F., Ph.D. (Wash.)  
**K. M. Cheng**, B.S. (Tenn. Tech.), M.S. (S. Ill.), Ph.D. (Minn.)  
**G. W. Eaton**, B.S.A. (Tor.), Ph.D. (Ohio)  
**F. B. Holt**, B.Sc., M.Sc. (Manit.), Ph.D. (Camb.), P.Ag.  
**M. B. Isman**, B.Sc., M.Sc. (Br.Col.), Ph.D. (Calif.)  
**P. A. Jolliffe**, B.Sc. (Qu.), Ph.D. (Br.Col.)  
**C. R. Krishnamurti**, B.V.Sc., M.V.Sc. (Madras), Ph.D. (Alta.)  
**L. M. Lavkulich**, B.Sc., M.Sc. (Alta.), Ph.D. (Cnell.)  
**J. Leichter**, B.S. (Cracow Coll., PL), M.S., Ph.D. (Calif., Berkeley)  
**L. E. Lowe**, B.A., M.A. (Oxf.), M.Sc., Ph.D. (McG.)  
**B. March**, B.A., M.S.A., Hon. D.Sc. (Br.Col.), F.A.I.C., F.R.S.C., F.P.S.A., P.Ag.  
**J. H. Myers**, B.Sc. (Chatham), M.Sc. (Tufts), Ph.D. (Indiana)  
**B. D. Owen**, M.Sc. (Alta.), Ph.D. (Sask.), P.Ag.  
**V. C. Runeckles**, B.Sc. (Lond.), A.R.C.S. (Imp.Coll.), Ph.D. (Lond.), D.I.C. (Imp.Coll.)  
**H. E. Schreier**, B.A. (Colorado), M.Sc. (Sheff.), Ph.D. (Br.Col.)  
**D. M. Shackleton**, B.Sc. (Leic.), M.Sc. (W.Ont.), Ph.D. (Calg.)  
**M. Shaw**, M.Sc., Ph.D., D.Sc. (McG.), F.A.P.S., F.R.S.C.  
**T. P. Sullivan**, B.Sc., M.Sc., Ph.D. (Br.Col.)  
**I. E. P. Taylor**, B.Sc., Ph.D. (Liv.)  
**J. R. Thompson**, B.Sc., M.Sc. (Br.Col.), Ph.D. (Calif., Davis), P.Ag.

#### Associate Professors

**S. Castellarin**, B.S., M.S., Ph.D. (Udine, IT)  
**R. Cerri**, M.Sc., Ph.D. (Calif., Davis)  
**E. Jovel**, B.Sc. (Cal.Tech.), M.Sc., Ph.D. (Br.Col.)  
**M. Krzic**, B.Agron., M.S. (Belgrade), Ph.D. (Br.Col.)  
**A. Riseman**, B.Sc., M.Sc., Ph.D. (Penn)

#### Associate Professors Emeriti

**A. A. Bomke**, B.S., M.S. (S.Ill.), Ph.D. (Ill.)  
**R. J. Copeman**, B.Sc. (McG.), Ph.D. (Wis.)  
**J. De Vries**, B.A., M.A., Ph.D. (Br.Col.)  
**R. C. Fitzsimmons**, B.Sc. (Wash.), M.Sc., Ph.D. (Minn.)  
**M. D. Novak**, B.Eng. (McG.), M.Sc. (W.Ont.), Ph.D. (Br.Col.)  
**R. G. Peterson**, B.Sc. (Wyo.), M.Sc., Ph.D. (Ill.)



**M. D. Pitt**, B.Sc., M.S., Ph.D. (Calif.), P.Ag.  
**R. M. Tait**, B.Sc. (Durham), Ph.D. (Ncle,U.K.)

Affiliate Assistant Professors

**R. Harbut**, B.Sc., M.S. (Guelph), Ph.D. (Cornell)

Assistant Professors

**J. Carrillo**, B.A., M.A., Ph.D. (Rice)  
**S. Smukler**, B.Sc. (Calif., Davis), M.Sc. (Wash.), Ph.D. (Calif., Davis)

Clinical Assistant Professors

**C. Schuppili**, B.Sc. (Guelph), M.Sc. (Alta.), Ph.D. (Br.Col.), D.V.M. (Sask.)

Instructor

**S. Brown**, B.Sc., M.Sc., Ph.D. (Br.Col.)  
**W. Valley**, B.Sc., B.Ed. (Br.Col.)  
**K. Walker**, B.Sc. (Calif., S. Diego), M.Sc. (Port.), Ph.D. (B.Col.)

Lecturers

**D. McArthur**, B.Sc., M.Sc. (Br.Col.), Ph.D. (Alta.)  
**J. Wilson**, B.Sc., M.Sc. (Br.Col.)

Adjunct Professors

**P. K. Abram**, P.K. Abram, B.Sc. (Qu.), M.Sc. (Car.), Ph.D. (Montr.)  
**P. Ackermann**, B.Sc., M.Sc., Ph.D. (Br.Col.)  
**C. P. Bennett**, B.Sc. (Salf.), M.Sc. (Exe.)  
**S. M. Berch**, B.Sc., M.Sc. (Wat.), Ph.D. (Laval)  
**H. Brown**, B.Sc. (Rhodes), M.Sc., Ph.D. (U. Port Eliz.)  
**A. B. de Passillé**, M.Sc., Ph.D. (McG.)  
**M. Dossett**, B.Sc. (Wash.), M.Sc., Ph.D. (Oregon)  
**S. Dubois**, B.Sc. (Vic.(B.C.)), M.Sc., Ph.D. (Br.Col.)  
**J. E. Elliott**, M.Sc. (Ont.), Ph.D. (Br.Col.)  
**S. M. Fitzpatrick**, B.Sc., M.Sc. (Brit.Col.), Ph.D. (Laval)  
**T. A. Forge**, B.Sc. (Kansas), Ph.D. (Wis., Madison)  
**I. Forster**, B.Sc., M.Sc. (Br.Col.), Ph.D. (Wash.)  
**I. J. Makowska**, B.Sc. (McG.), M.Sc., Ph.D. (Br.Col.)  
**P. Mitchell-Banks**, B.S., M.S., Ph.D. (Missouri), Ph.D. (Br.Col.)  
**K. Mullinix**, B.Sc. (Qu.), M.B.A. (Br.Col.), M.Sc. (Tor.), Ph.D. (Br.Col.)  
**D. M. Rochon**, B.A., M.S., Ph.D. (Wayne)  
**J. Rushen**, B.S., Ph.D. (Qld.)  
**D. A. Thellmann**, B.Sc., M.Sc. (Qu.), Ph.D. (Tex.A&M)  
**W. Vandersteen**, B.Sc.(Qu.), M.Sc. (Man.), Ph.D. (Br.Col.)  
**D. Veira**, B.Sc. (Guelph), M.Sc. (Aberd.), Ph.D. (Guelph)  
**T. Wahbe**, B.Sc. (Calif.), M.Sc., Ph.D. (Br.Col.)  
**B. Wallace**, B.Sc., M.Sc. (Brit.Col.), Ph.D. (Sask.)

Academic Staff > Food, Nutrition, and Health

Professors

**D. D. Kitts**, B.Sc., M.Sc., Ph.D. (Br.Col.)  
**H. Wittman**, B.A. (Wash.), M.Sc., Ph.D. (Cornell)  
**R.Y. Yada**, B.Sc., M.Sc., Ph.D. (Br.Col.)

Professors Emeriti

**M. Arcus**, B.Sc. (Neb.), W.Ed., Ph.D. (Iowa)  
**S. I. Barr**, B.H.E. (Br.Col.), Ph.D. (Minn.)  
**R. Blair**, B.Sc. (Glas.), Ph.D. (Aberd.), D.Sc. (Sask.), P.Ag.  
**I. D. Desai**, B.Sc., M.Sc. (Gujarat), Ph.D. (Calif., Davis)  
**T. D. Durango**, B.Sc. (Wat.), B.Sc. (Guelph), M.Sc., Ph.D. (Br.Col.)  
**E. Li-Chan**, B.Sc. (Br.Col.), M.Sc. (Alta.), Ph.D. (Br.Col.)  
**W. D. Powrie**, M.A. (Tor.), Ph.D. (Mass.), F.I.F.T., F.C.I.C., F.C.I.S.T.  
**J. F. Richards**, M.Sc. (Manit.), Ph.D. (Minn.), F.C.I.F.S.T., P.Ag.  
**P. N. Townsley**, B.S.A. (Br. Col.), M.Sc., Ph.D. (Calif., Berkeley)  
**H. J. J. Van Vuuren**, B.Sc., M.Sc. (Stell.), Ph.D. (Ghent)  
Affiliate Professor  
**G. Chapman**, B.S.H.Ec. (Sask.), M.Sc., Ph.D. (Tor.)

Associate Professors

**J. Black**, B.Sc. (Tor.), M.S. (Col.), Ph.D. (N.Y.)  
**Y. Lamers**, M.Sc., Ph.D. (R.F.W.U.)  
**X. Lu**, B.Sc. (Ocean), Ph.D. (Wash.State)  
**C. McAusland**, B.A. (Br.Col.), M.A. (Br.Col.; Mich.), Ph.D. (Mich.)  
**C. H. Scaman**, B.Sc., M.Sc. (Br.Col.), Ph.D. (Alta.)  
**S. Wang**, B.Sc. (Fudan), Ph.D. (IllIT)  
**Z. Xu**, B.Sc. (Jiangxi), M.Sc., Ph.D. (Guelph)

Associate Professors Emeriti

**B. J. Skura**, B.Sc., M.Sc. (Alta.), Ph.D. (Br.Col.)  
**J. Staniszki**, B.F.A. (Art Inst., Chic.)  
**J. Vanderstoep**, B.S.A., M.S.A., Ph.D. (Br.Col.)

Affiliate Associate Professor

**L. Newman**, B.Sc. (Br.Col.), M.E.S., Ph.D. (York(Can.))

Assistant Professors

**D. Dee**, B.Sc. (Sask.), M.Sc., Ph.D. (Guelph)  
**J. Frostad**, B.Sc. (Wash.), Ph.D. (Calif., S. Barbara)  
**M. Jossri**, B.Sc. (S.B. Iran), M.Sc. (Alta.), Ph.D. (Tor.)  
**C. Karakochnik**, B.Sc. (Brit.Col.), M.Sc. (Tor.), Ph.D. (Brit.Col.)  
**A. Pratap Singh**, B.S., M.S. (Kharagpur), Ph.D. (McG.)  
**B. M. Stefanska**, M.P.H., Ph.D. (Lodz)

Senior Instructor

**J. A. McLean**, B.Sc., Ph.D. (Br.Col.)  
**C. Rideout**, B.A., B.Sc. (Qu.), Ph.D. (Br.Col.)

Instructor

**G. Hammond**, B.Sc. (Vic.(B.C.)), M.Sc., Ph.D. (Br.Col.)  
**P. Hingston**, B.Sc., M.Sc. (Dal.), Ph.D. (Br.Col.)

Lecturers

**A. Madadi-Noel**, B.Sc., M.Sc. (S.B. Iran), Ph.D. (Br.Col.)

Clinical Instructors

**C. Adair**, B.Sc. (Br.Col.)  
**L. E. Aeberhardt**, B.H.Ec. (Manit.)  
**S. Alam**, B.Sc. (Br.Col.)  
**N. Alizadeh-Pasdar**, B.Sc. (Beheshli), M.Sc. (McG.), Ph.D. (Br.Col.)  
**C.L. Anderson**, B.Sc. (Br.Col.)  
**J.M. Andrews**, B.Sc. (Dal.), B.S.C.F.N. (Br.Col.)  
**J. Arqueza**, B.Sc. (Br.Col.)  
**K.M. Austin**, B.Sc. (Br.Col.)  
**C. Baxter**, B.Sc. (Br.Col.)  
**K. E. Beggs**, B.Sc. (McG.)  
**M. B. Berner**, B.H.E. (Br.Col.)  
**M. Broughton**, B.Sc. (Alta.), M.Sc. (Br.Col.)



M.E. Buhler, B.Sc. (Br.Col.)  
P. Bul, B.Sc. (Br.Col.)  
E. Cabrera, B.Sc., M.Sc. (Br.Col.)  
K. Y. Chan, B.Sc. (W.Ont.)  
L. Chao, B.H.E. (Br.Col.)  
C. C. Chen, B.Sc. (Br.Col.)  
C. Chui, B.Sc. (Br.Col.)  
T. M. Clwidin, B.Sc., M.A. (Br.Col.)  
C.A. Collier, B.Sc., M.Sc. (Guelph)  
A.M. Cormier, B.Sc. (Acad.)  
L.C. DaSilva, B.H.E. (Br.Col.)  
D.E. DeGagne, B.Sc. (Br.Col.)  
S. Dukhia, B.Sc. (Br.Col.)  
S. Eggertson, B.Sc. (Alta.)  
C. Eliens, B.Sc. (Br.Col.)  
E. A. Eppler, B.A. (W.Wash.)  
C. Esselen, B.Sc. (Br.Col.)  
S. Feeney, B.Sc. (Br.Col.), M.Sc. (Lond.SOAS)  
L. Fortier, B.Sc. (Br.Col.)  
C.L. Frost, B.Sc. (Vic. (B.C.)), (McG.)  
C. J. A. Go, B.Sc. (Br.Col.)  
Y. Hao, B.Sc. (Br.Col.)  
Y. Hillsden, B.H.E. (Br.Col.)  
K. Ho, B.Sc. (Br.Col.)  
C.M. Hopson, B.Sc. (Br.Col.)  
A. Hsiang, B.Sc. (Br.Col.)  
R. Hsu, B.Sc., M.H.A. (Br.Col.)  
L. Hussain, B.Sc. (Br.Col.)  
W. S. Hussain, B.Sc. (Br.Col.)  
F. F. Johnson, B.H.E., M.Sc. (Br.Col.)  
J. Jones, B.Sc. (Br.Col.)  
G. Joshi, B.Sc. (Br.Col.)  
T. Kafka, B.Sc. (Br.Col.), M.Sc. (Tufts)  
J.A. Kennedy, B.Sc. (Vic. (B.C.)), (Br.Col.)  
J. C. Koh, B.Sc. (Nfld.), M.Sc. (Br.Col.)  
Y.K. Kwok, B.Sc. (Br.Col.)  
R.A. Larson, B.Sc. (Alta.)  
S. Lausner, B.Sc. (Br.Col.)  
M. LeBlanc, B.Sc. (Br.Col.)  
K. M. N. Lee, B.Sc. (Br.Col.)  
O.H. Lee, B.Sc. (Br.Col.)  
W.M. Lee, B.A. (S. Fraser), B.Sc. (Br.Col.)  
J. O. Leung, B.Sc. (Br.Col.)  
T. Leung, B.Sc. (Br.Col.)  
Y. Lewis, B.Sc. (McG.)  
C. Loong, B.Sc. (McG.)  
E. Mackay, B.Sc., M.Sc. (Br.Col.)  
A. Martel, B.Sc. (Qu.), M.Sc. (Br.Col.)  
M. Milic, B.Sc. (Br.Col.)  
L.D. Nelson, B.Sc. (Br.Col.)  
M. Nouguchi, B.Sc. (Br.Col.)  
K. A. Parinas, B.Sc. (Dal.), B.Sc. (Mt.St.Vin.)  
J. C. Parker, B.Sc. (Cascadia)  
T. L. Pawliw, B.Sc. (Alta.)  
M. Radhakrishnan, B.Sc. (Br.Col.), M.Ed. (Calg.)  
A. Richardson, B.Sc. (Br.Col.)  
H. Robinson, B.Sc. (Br.Col.)  
K. L. Romsey, B.H.Ec. (Manit.), M.A. (Br.Col.)  
R.R. Sandhu, B.APSC., M.APNU (Guelph)  
S. K. Sekhon, B.H.Ec. (Br.Col.)  
L. Shahvarani Renouf, B.Sc., M.Sc. (Br.Col.)  
S. Simpson, B.Sc. (Br.Col.), B.Sc. (Vic. (B.C.))  
A. Silwinski, B.H.Ec. (Br.Col.)  
C.Y. Sohn, B.H.Ec. (Br.Col.)  
S.L. Sommerer, B.Sc. (Br.Col.)  
P.S. Sony, B.Sc. (St FX)  
N. Spencer, B.Sc. (Br.Col.)  
D. Tan, B.Sc. (Br.Col.)  
L.T. Tomita, B.Comm. (Ott.), B.APSC. (Ryerson)  
J. Wasyluk, B.Sc. (Acad.)  
D. Whitham, B.Sc. (Br.Col.)  
H. E. Woodward, B.Sc. (Calg.), B.Sc. Hons. (Br.Col.)  
J. Yan, B.Sc. (Br.Col.)  
H. M. Yeung, B.Sc. (Br.Col.), M.H.Sc. (Tor.)  
P. Zimmer, B.Sc. (W. Ont.), (Langara)

Adjunct Professors

S. Bach, B.Sc., Ph.D. (Manit.)  
J. Barohn, B.Sc. (Tex.State), M.Sc. (Kansas)  
S. Cahill, B.Sc., M.Sc. (Br.Col.), Ph.D. (Car.)  
M. Cliff, B.Sc. (Br.Col.), M.Sc. (Calif., Davis), Ph.D. (Missouri)  
P. Delaquis, B.Sc., M.Sc. (Manit.), Ph.D. (Br.Col.)  
J. E. Elliott, M.Sc. (Ont.), Ph.D. (Br.Col.)  
T. Green, B.Sc. (Acad.), M.Sc. (Sask.), Ph.D. (Guelph)  
G. Kasten, B.Sc. (Alta.), M.Sc. (Br.Col.)  
R. Levy-Milne, B.Sc. (Tor.), M.Sc., Ph.D. (Nfld.)  
M. Z. C. Li, M.B.A., M.Sc. (Br.Col.), M.D. (Jinan)  
J. Oman, B.A., B.Ed. (Br.Col.), M.B.A. (S. Fraser.)  
K. Taylor, B.A. (Sask.), M.B.A. (Guelph), Ph.D. (Okla.)  
R. J. Wasik, M.B.A. (W.Ont.), Ph.D. (Manit.)  
S. Wood, B.Sc., Ph.D. (Salf.)

Academic Staff > Food Resource Economics

Professors

R. R. Barichello, B.Sc.(Agr.) (Br.Col.), A.M., Ph.D. (Chic.)  
S. Gulati, M.S., Ph.D. (UMD)  
J. A. Vercammen, B.Sc., M.Sc. (Sask.), Ph.D. (Calif., Berkeley)

Associate Professors

C. McAusland, B.A. (Br.Col.), M.A. (Br.Col.; Mich.), Ph.D. (Mich.)

Associate Professors Emeriti

G. Kennedy, B.A. (Br.Col.), M.Sc. (Minn.), Ph.D. (Purdue)

Assistant Professors

F. Noack, M.A. (Greifs., DE), Ph.D. (Kiel)

Lecturers

K. Wiseman, B.Sc., B.Comm. (Sask.), M.B.A. (Calif., S. Barbara), Ph.D. (Br.Col.)