



SUBJECT	New Program Tuition Bachelor of Science in Food and Resource Economics, Faculty of Land & Food Systems, UBC Vancouver
SUBMITTED TO	Finance Committee
MEETING DATE	November 20, 2023
SESSION CLASSIFICATION	Recommended session criteria from Board Meetings Policy: OPEN
REQUEST	APPROVAL REQUESTED IT IS HEREBY RESOLVED that the Finance Committee, in accordance with authority delegated by the Board of Governors, approves tuition of \$194.78 per credit for domestic students and \$1,543.19 per credit for international students for the Bachelor of Science in Food and Resource Economics in the Faculty of Land & Food Systems at UBC Vancouver, in alignment with other Bachelor of Science programs for 2023-2024, subject to increases as approved by the Board of Governors.
LEAD EXECUTIVE	Gage Averill, Provost and Vice-President Academic UBC Vancouver
SUPPORTED BY	Christina Hendricks, Vice-Provost and Associate Vice-President Teaching & Learning <i>pro tem</i> Bhushan Gopaluni, Vice-Provost and Associate Vice-President Faculty Planning

EXECUTIVE SUMMARY

First launched in 2018, the Food and Resource Economics (FRE) group within the Faculty of Land and Food Systems offers a 121-credit, four-year Bachelor of Science in Food and Resource Economics (BSFE) at UBC’s Vancouver Campus. This program provides students with an opportunity to learn the principles of economic theory, business, and resource management, and apply them to the context of agri-food supply chains, natural resource systems, and environmental issues deriving from our agri-food markets.

While this is an existing program, the curricular updates are significant and will be required to be reviewed and approved by the Ministry of Post-Secondary Education and Future Skills. Following approval of the program by the UBC Vancouver Senate in September 2023, the request for approval of the Bachelor of Science in Food and Resource Economics was forwarded to the Learning & Research Committee under that Committee’s November 2023 agenda. Students currently enrolled in the program will be given the choice of finishing their degree in the current iteration of the program or, with support from LFS advising, transitioning into the updated iteration of the program, as appropriate.

The Faculty is not seeking to change tuition rates as a result of the proposed curricular updates. As with the current iteration of the program, the proposed tuition is \$194.78 per credit for domestic students and \$1,543.19 per credit for international students. These rates are in alignment with other Bachelor of Science programs for 2023-2024. All fees are subject to increases as approved by the Board of Governors.

The Office of the Vice-President Students conducted a student consultation regarding the tuition proposal. The e-consultation was conducted from November 3, 2022 to December 3, 2022. Submissions were received from the AMS and LFS Undergraduate Society, and these were supportive of the program as proposed.

As the first few cohorts were admitted and taught, FRE faculty reflected on their own experience and vision for the program, consulted with peers in related disciplines at UBC, and gathered feedback from students and employers for the purposes of curriculum redesign. In a series of surveys, paired interviews, and focus groups,

students in the program expressed an interest in having more data analytics courses and distinct and in-depth paths to choose from. A number of employers interviewed emphasized that data analytics, although challenging to acquire, is a necessary and desirable skill for future hires to possess.

Informed by this feedback, the faculty embarked on redesigning the curriculum and identified the following changes to enhance student learning and clarify the program's goals: 1. Allow direct first-year entry (in addition to the current second-year entry); 2. Create two distinct and in-depth interdisciplinary majors within the program: *Data Analytics* and *Business and Markets*.

The program currently has (and will continue to have) three important components contributing to its value and relevance in the labor market: the empirical analysis of small and large data sets, policy impact assessment, and a science-focused interdisciplinary perspective. Recent market research reveals a growing need for applied, interdisciplinary training in food and resource economics, and a rising demand for graduates with skills in data analysis, and the ability to occupy "hybrid roles" requiring expertise in multiple functional areas.

The BSFE is aligned with various UBC Strategic Plans as follows:

[UBC's Strategic Plan:](#)

- [Strategy 3 > Thriving Communities](#)> the program is committed to the Climate Action Plan 2030 Targets and Actions in Food Systems and promoting knowledge and skills in creating resilient and regenerative food systems.
- [Strategy 4 > Inclusive Excellence](#)> courses include content on natural resource management, the importance and value of recognizing and implementing rights of Indigenous peoples, and enhancing an understanding of indigenous knowledge in preserving resources, managing climate change, and ensuring sustainability.

[UBC's Indigenous Strategic Plan:](#)

- *Goal 3, Action 13*> faculty and students will address how to respectfully approach and involve interested community partners, with commitment to co-developing research protocols and community-specific ethical research guidelines
- *Goal 6, Action 16*> content addressing Indigenous ways of knowing, relationship with the land and its resources, as well as community engagement protocols, exists across various courses.
- *Goal 6, Action 25*> committing to diversifying its student body by working with (1) the Indigenous Academic Advisor program at LFS to support recruitment and retention of Indigenous students; (2) a work learn student position entitled LFS Indigenous Outreach Coordinator to support prospective and new students in their pursuit of post-secondary studies in STEM fields, specifically LFS, and provides training on Indigenous allyship for other student leaders in LFS.

APPENDICES

1. Tuition and Fee Assessment Details
2. Student Tuition Consultation Report

Tuition and Fee Assessment Details

Program Description: Bachelor of Science, Food and Resource Economics

Anticipated Start Date: September 2024

	Domestic	International
Tuition fees per credit – Note 1	\$194.78	\$1,543.19
Application Fees (Undergraduate) – Note 2	\$75.50	\$127.75
Supplemental Application Fees	N/A	N/A
Non-Refundable Acceptance Deposit – Note 3	\$500.00	\$1,000.00
Other Faculty and Course Fees	N/A	N/A

Note 1 – These rates are aligned with the existing Bachelor of Science in Food and Resource Economics program as approved for the 2023/24 academic year, and should remain aligned with Bachelor of Science programs. Proposed tuition will be subject to annual increases as established by the university.

Note 2 – This is the current fee for the 2024W application cycle and is subject to annual increases.

Note 3 – The non-refundable acceptance deposit will be applied towards the first tuition instalment.

BACHELOR OF SCIENCE IN FOOD AND RESOURCE ECONOMICS (BSFE)

STUDENT TUITION CONSULTATION REPORT

The Vice-President, Students Office, in partnership with the Faculty of Land and Food Systems, conducted a student consultation regarding the proposal for a curricular updates for their existing Bachelor of Science in Food and Resource Economics. This report outlines the consultation process and summarizes student feedback including the student representatives' submission verbatim in Appendix 2.

Student Representative Bodies Invited to the Consultation

- Alma Mater Society (AMS)
- Land & Food Systems Undergraduate Society (LFS|US)

Mode of Consultation

The consultation consisted of an e-consultation. Student representative groups were invited to the consultation through email, and asked to distribute the invitation to their constituents as they felt appropriate. Student representative groups were also offered a face-to-face/zoom meeting to discuss the tuition proposal. A meeting was not requested by student representatives.

Basis of Consultation: The consultation was based on a tuition proposal and rationale document created by the Faculty. Please see Appendix 1 for the invitation and tuition rationale document.

Timelines: The e-consultation was conducted over the period of Thursday November 3, 2022 to Saturday December 3, 2022.

Summary of Student Feedback: Submissions were received from the AMS and LFS|US. The verbatim submissions are in Appendix 2.

No individual student submissions were received.

Organization	Summary
AMS	Support for proposed program “The AMS is in favour of the proposed program changes. We believe the B.Sc. in Food and Resource Economics program will provide a more interdisciplinary framework to learning, more career opportunities and better job market prospects, and more technical and data analytic skills which are important, necessary, and wanted by many students in the Faculty.”
LFS US	“The tuition proposal is fair in our opinion.”

APPENDIX 1: INVITATION TO CONSULTATION AND TUITION RATIONALE DOCUMENT

*****This message is sent on behalf of Dr. Samantha Reid, Executive Director of the Office of the Vice President, Students*****

Hello everyone,

There is a proposal by the Faculty of Land and Food Systems for their existing Bachelor of Science in Food and Resource Economics. As the curricular updates are significant, the program will be presented to the Ministry of Advanced Education and Skills Training as a 'new' program. There are no tuition changes proposed because of these curricular updates.

In order to inform the program leads and the Board of Governors with regards to the **tuition proposal** for this program, the University is undertaking a consultative process to get your comments as student representatives, and provide an opportunity for students to provide individual comments on the tuition proposal if they wish. **Please note: the scope of this consultation process is limited to the tuition proposal.**

The consultation will consist of:

1. e-consultation

Please find attached a document which outlines the details of the tuition proposal, including:

- an overview of the program,
- the student consultation that has happened to date,
- the tuition and fees rationale for the program, and
- the proposed tuition and fees.

Please share the document and this email as you see appropriate. **Comments and student organization submissions on the tuition proposal can be provided to Irena Deretic – Administrative Coordinator, Office of the Vice President Students (vpsassist@mail.ubc.ca).**

2. Face to Face/Zoom meeting

If requested by student representatives, we can arrange a face-to-face/Zoom meeting with the program leads regarding this tuition proposal. Please advise as soon as possible if you would like us to arrange a meeting.

THE CONSULTATION PROCESS WILL END ON SATURDAY, DECEMBER 3, 2022 AT MIDNIGHT.

Confidentiality

- Comments will be collected by the Vice-President Students Office, and only analysts within that office will know the identity of individual students submitting comments. At no time will anyone outside of the Vice President Students Office know the identity of individual students who submit comments to this consultation. Your comments will only be used for the purposes of the tuition consultation.
- Comments from individual students will be stripped of any identifying information to ensure confidentiality, but otherwise will be provided to the responsible program leads and Board of Governors verbatim.
- Comments received from student organizations will be reported as coming from those organizations, and provided to the responsible faculty and Board of Governors as received. There will also be a summary report of the consultation developed for the Faculty and Board of Governors.

Please let me know if you have any questions about the process.

Thank you,

Samantha

Samantha Reid Ph.D. (she/her)

Executive Director

Office of the Vice President Students

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THE UNIVERSITY OF BRITISH COLUMBIA

BACHELOR OF SCIENCE IN FOOD AND RESOURCE ECONOMICS (BSFE) TUITION CONSULTATION

PROGRAM OVERVIEW

This consultation is requested as it relates to curricular updates proposed by the Faculty of Land and Food Systems for their existing Bachelor of Science in Food and Resource Economics. As the curricular updates are significant, the program will be presented to the Ministry of Advanced Education and Skills Training as a 'new' program. There are no tuition changes proposed because of these curricular updates.

First launched in 2018, the Food and Resource Economics (FRE) group within the Faculty of Land and Food Systems (LFS) offers a 121-credit, 4-year, Bachelor of Science in Food and Resource Economics (BSFE) at UBC's Point Grey Campus. This program provides UBC students with an opportunity to learn the principles of economic theory and business, and resource management, and apply them to the context of agri-food supply chains, natural resource systems (e.g., soil and water), and environmental issues deriving from our agri-food markets. In the current iteration of the program, students take courses in FRE, interdisciplinary courses from the LFS core, microeconomics (principles and intermediate), relevant economics courses (e.g., international trade), and restricted and unrestricted electives, including those from the Faculties of Forestry, Science, Arts, and the Vancouver School of Economics (VSE). Students currently either specialize in Food Markets and Development; Land, Resources and Environment; or Food and Resource Management; or complete a flexibly blended version of these three concentrations.

As the first few cohorts were admitted and taught, the faculty at FRE reflected on their own experience and vision for the program, consulted with peers in related disciplines at UBC, and gathered feedback from students and employers for the purposes of curriculum redesign. In a series of surveys, paired interviews, and focus groups, students in the program expressed:

- a) an interest in having more data analytics courses in the upper years that would scaffold and deepen their understanding of the knowledge acquired in previous courses; and
- b) distinct and in-depth paths to choose from instead of the relatively shallow specializations currently offered by the program.

Additionally, a significant portion of the employers interviewed also emphasized that data analytics, although challenging to acquire, is a necessary and desirable skill for future hires to possess.

Informed by this feedback, the faculty embarked on redesigning the curriculum and identified the following changes to enhance student learning and clarify the program's goals:

1. allow direct first-year entry (in addition to the current second-year entry)
2. create two distinct and in-depth interdisciplinary majors within the program: *Data Analytics* and *Business and Markets*.

The proposed changes would enable students to join the program in first year, directly from completion of high school, and be able to benefit from a shared 1st and 2nd year curriculum before branching into two distinct and specialized "majors". Accordingly, the degree path would be reorganized as follows:

- In Year 1, DSCI 100 would be added, and students would be allowed the option of BIOL 111 in addition to BIOL 112 or 121. In Year 2, FRE 226¹ would be added to the requirements to strengthen student training in Data Analysis. To allow more space in Year 2, ECON 301 would be moved to Year 3 from Year 2.
- A clear path to major in Data Analytics would be available, for which students would take the following in Year 3 and 4: ECON 301, FRE 326, FRE 374, FRE 426², FRE 474, FRST 443, GEOS 270 or CONS 340, and GEOS 370;

¹ FRE 226 is a new course titled "*Data Analysis for Applied Economists using R*"

² FRE 426 is a new course titled "*Predictive Analytics for Food and Resource Economics*"

- A clear path to major in Business Markets would be available, for which students would take the following in Year 3 and 4: ECON 301, FRE 302, FRE 326, FRE 374, FRE 385, FRE 394, FRE 420, FRE 460

Figure 1 below visually depicts the changes in the degree path:



Figure 1. Degree Path: Current vs. Proposed

The program currently has (and will continue to have) three important components contributing to its value and relevance in the labor market: the empirical analysis of small and large data sets, policy impact assessment, and a science-focused interdisciplinary perspective. Recent market research reveals a growing need for applied, interdisciplinary training in food and resource economics, and a rising demand for graduates with skills in data analysis, and the ability to occupy “hybrid roles” requiring expertise in multiple functional areas.

The target launch date for this revised program is September 2024. Early discussions with the admissions department indicates support for these proposed changes. Marketing by the recruiting team, and an update to the program website will help potential students recognize the uniqueness of the program. All students enrolled in the program prior to September 2024 will be given the option to transition into the updated iteration or the program or complete the program under the current structure. The academic calendar will be updated with both options for current students.

Students currently enrolled in the program will be given the choice of finishing their degree in the current iteration of the program or, with support from LFS advising, transitioning into the update iteration of the program as appropriate.

To help determine student demand/interest into the proposed updates and enrolment for the degree, a survey was sent to over 1,930 UBC students enrolled in 11 related degrees (Applied Biology, Arts (undeclared), Conservation – Global Perspectives, Conservation – Science and Management, Economics, Environmental Science, Food and Resource Economics, Food Science, Geography, Geography – Environment and Sustainability, Global Resource Systems). The majority of the respondents (94%) were in favor of the proposed changes to the program, with the reasons given ranging as follows:

- Data analytics skills are important, necessary, and wanted by students.
- Will provide more job opportunities / meet job market demands.
- The interdisciplinary approach to learning is important and necessary.

When asked about the likelihood of respondents enrolling in the proposed BSFE, slightly less than half (48%) of the respondents indicated they would have enrolled in the updated BSFE program had the option been available to them. They cited their motivations below:

- the updated BSFE program is more interdisciplinary than other programs
- the updated BSFE program presents more career opportunities than other programs
- the updated BSFE program is more relevant to my career interests than other programs
- the updated BSFE program is more technical than before (e.g., more statistics courses)

Additionally, three sets of focus groups consisting of seven current FRE students and four Global Resource Systems students revealed that students:

- recognized and appreciated how the program outcomes allowed them to have very diverse career goals (for example, in banking, medicine, counselling, trade, etc.)
- recognized and appreciated how the program offered flexibility to take courses.

The focus groups were provided with an early draft of alternative degree pathways. They provide feedback that suggested those early iterations were too rigid and too focused on statistics courses. Their feedback helped shape the degree pathways as presented here which we feel provides flexibility for students and options to focus on either data analysis or business and markets.

TUITION AND FEES RATIONALE

There are no proposed changes to the tuition as originally approved by the [Board of Governors in June 2018](#) due to these curricular updates. For the 2022/23 academic year, tuition fees per credit for the FRE are:

- \$190.97 per credit for domestic students
- \$1,469.71 per credit for new incoming international students

Tuition for the program will remain aligned with Bachelor of Science programs.

PROPOSED TUITION AND FEES

Appendix 1 – Tuition and Fee Assessment Details

Program Description: Bachelor of Science, Food and Resource Economics

Anticipated Start Date: September 2024

	Domestic	International
Tuition fees per credit – Note 1	\$190.97	\$1,496.71
Application Fees (Undergraduate) – Note 2	\$74.25	\$125.25

Supplemental Application Fees	N/A	N/A
Non-Refundable Acceptance Deposit – Note 3	\$500.00	\$1,000.00
Other Faculty and Course Fees	N/A	N/A

Note 1 – These rates are aligned with the existing Bachelor of Science in Food and Resource Economics program as approved for the 2022/23 academic year, and should remain aligned with Bachelor of Science programs. Proposed tuition will be subject to annual increases as established by the university.

Note 2 – This is the current fee for the 2023W application cycle and is subject to annual increases.

Note 3 – The non-refundable acceptance deposit will be applied towards the first tuition instalment.

APPENDIX 2: STUDENT SUBMISSIONS & FACULTY RESPONSES

Submission from the AMS.



December 2nd, 2022 UBC
Board of Governors

Re: Changes to the Bachelor of Science in Food and Resource Economics

Dear members of the UBC Board of Governors,

This submission is being made on behalf of the Alma Mater Society (AMS) of UBC Vancouver in response to the request for feedback on the curricular updates proposed by the Faculty of Land and Food Systems for their existing Bachelor of Science in Food and Resource Economics program.

The proposed changes to the B.Sc. in Food and Resource Economics will allow direct first-year entry from high school, in addition to the current second-year entry, and will create two distinct and specialized majors within the program which are *Data Analytics* and *Business Markets*.

The AMS is in favour of the proposed program changes. We believe the B.Sc. in Food and Resource Economics program will provide a more interdisciplinary framework to learning, more career opportunities and better job market prospects, and more technical and data analytic skills which are important, necessary, and wanted by many students in the Faculty. The Faculty of Land and Food Systems has also conducted rigorous student consultation and found that the majority of the respondents (94%) were in favour of the proposed changes to the program.

The AMS would like to sincerely thank the Faculty of Land and Food Systems for their commitment to ensuring that student voices are heard. We hope to see this continue and look forward to working with UBC to make education affordable and accessible to students across all levels. We also appreciate the Board's consideration of this submission.

Sincerely,

Dana Turdy
VP Academic and University Affairs Alma
Mater Society

Submission from LFS|US

[CAUTION: Non-UBC Email]

Hello,

On behalf of LFS|US and importantly of the FRE Elected Representative our thoughts are below.

"Personally, I do not have any problems with this document after reading through it. The tuition remains the same as the current BSc. FRE's tuition while new courses such as DSCI100, FRE226, and FRE426 and two-degree options were added to expand students' choice in terms of course selection and enhance the overall students' experience in this major.

From my point of view, the two 'clear paths to major' totally make sense. I am following the 'Business Markets' path myself and have taken or going to take all of the courses mentioned in that course list although not specified before.

One thing I would suggest (although not relate to tuition therefore I do not know if it is appropriate) is to have FRE340/ 490 added to the 'business markets' path, maybe by offering students a choice to take 2 courses within FRE 340, 420, 460, and 490. Since FRE 340 covers the important concepts of policy analysis, while FRE490 covers impact evaluation analytics. Both course topics remain essential for 'business markets' from my point of view."

The tuition proposal is fair in our opinion.

Best,



**Alisha Temirova
(she/her/hers)**

President of Land and Food Systems
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