



SUBJECT	ACADEMIC PRESENTATION – FACULTY OF LAND AND FOOD SYSTEMS
MEETING DATE	DECEMBER 5, 2019

Forwarded on the Recommendation of the President

**APPROVED FOR
SUBMISSION**

Santa J. Ono, President and Vice-Chancellor

FOR INFORMATION

Report Date	October 31, 2019
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Presented By Andrew Szeri, Provost and Vice-President Academic, UBC Vancouver
 Rickey Yada, Dean and Professor, Faculty of Land and Food Systems
 Aaron Griffith, Director, Finance and Resources, Faculty of Land and Food Systems

EXECUTIVE SUMMARY

The Faculty of Land and Food Systems was one of the three founding Faculties at UBC in 1915. Formerly known as the Faculty of Agricultural Sciences and Faculty of Agriculture, we have a proud record of achievement. Today, among its faculty members are two Canada Research Chairs, two NSERC Industrial Research Chairs, a 3M National Teaching Fellow and an Endowed Professorship.

In 2005, the Faculty voted overwhelmingly to rebrand itself as the Faculty of Land and Food Systems, to better reflect its expanded focus in the areas of Food Science, Nutrition, and Land, Food, and Communities.

Following our strategic plan – *Action Plan 2016-2020* – the Faculty of Land and Food Systems uses student-centered learning to educate new generations of scientists equipped to solve the most fundamental issues faced by society — those focused around human health, a sustainable food supply and the responsible use of finite land and water resources. To that end, Faculty initiatives foster and support research excellence, innovative active learning environments, strong community connections, and global and local collaborations.

This overview highlights our organizational structure, operations, financials, and our strategic plan along with its alignment to *Shaping UBC's Next Century* and the draft *Indigenous Strategic Plan*. It will also include a snapshot of feedback from our 2018 External Review and outline our priorities in the coming year.



Faculty of Land and Food Systems: Overview for UBC Board of Governors

December 5, 2019

Dr. Rickey Yada, Professor and Dean





OUR VISION

The Faculty of Land and Food Systems is a world leader in integrated research, education and service to address critical global issues around human health and a sustainable food supply.

Land and Food Systems Action Plan 2016-20



LFS Action Plan – Pillars supporting our Vision	Shaping UBC's Next Century – Core areas
Teaching, Student Learning and Engagement	Transformative Learning
Research, Innovation and Excellence	Research Excellence
Leadership and Community Engagement	Local and Global Engagement
Outstanding Work Environment	People and Places
Sustainability	

Action Plan to be renewed for 2020-2024

Land and Food Systems alignment with Indigenous Strategic Plan



- Student Support and Retention: Dedicated advisor supports Indigenous recruitment and retention of students
- Curriculum: LandOne embeds Indigenous and Western perspectives (1st-year cohort with Forestry and LFS students)
- Faculty Recruitment and Research: Indigenous Health Research & Education Garden at UBC Farm; Launching search for Indigenous new-hire (Assistant Professor)
- Community: Initiatives housed at UBC Farm – Tal A'xin: Maya in Exile Garden; Tu'wusht Garden Project; Culturally Relevant Urban Wellness Program

Faculty of Land and Food Systems

High Level Organizational Structure



Associate Dean Portfolios

- Graduate Studies
- Research
- Academic

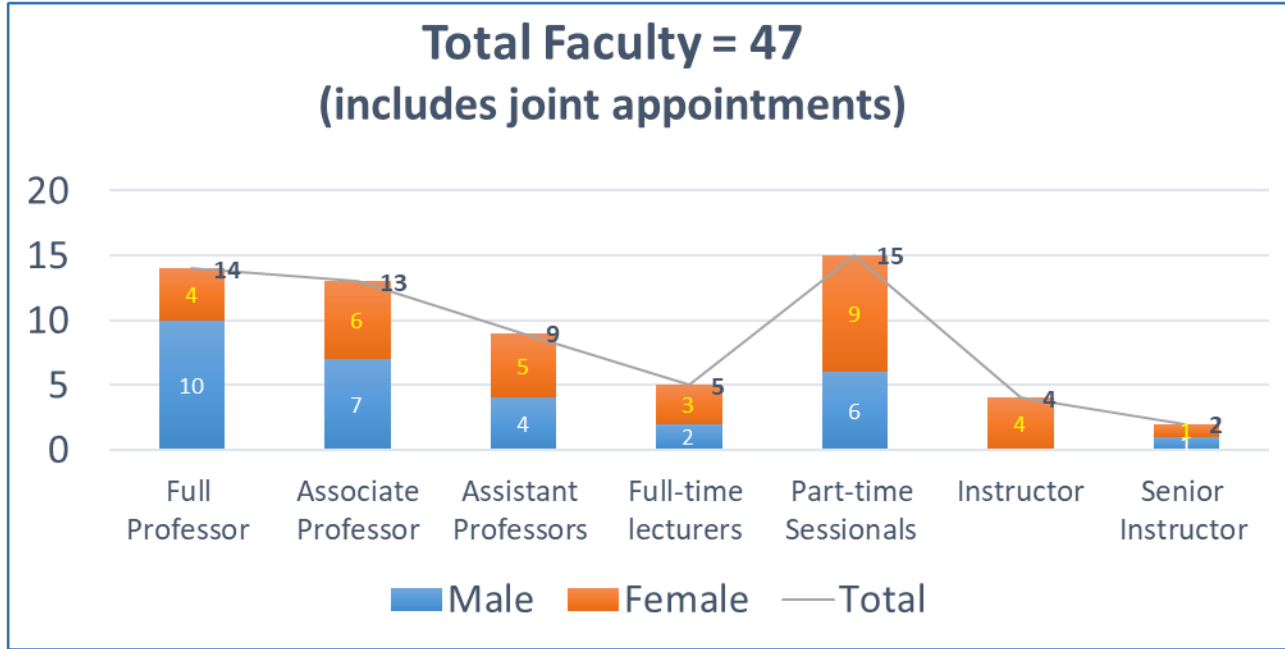
Faculty Advisory Board

- Independent and external perspective, supports external relations

Assistant Deans

- Learning Technologies
- Development and Alumni Engagement

Faculty and Staff



Staff: Management/Prof. (59); Clerical/Secretarial (10); Tech/ Research Asst. (23); Farm Workers (4). **Total Staff headcount = 96**

Academic Programs



Undergraduate Programs

- Four programs leading to a Bachelor of Science degree (BSc)
- Field study courses in BC (wine grape production) and abroad (Cuba, India, Thailand, Indonesia, etc.)

Graduate Programs

- Seven research-based programs (MSc/PhD)
- Three professional masters programs
- Launching a Graduate Certificate Program in Aquaculture

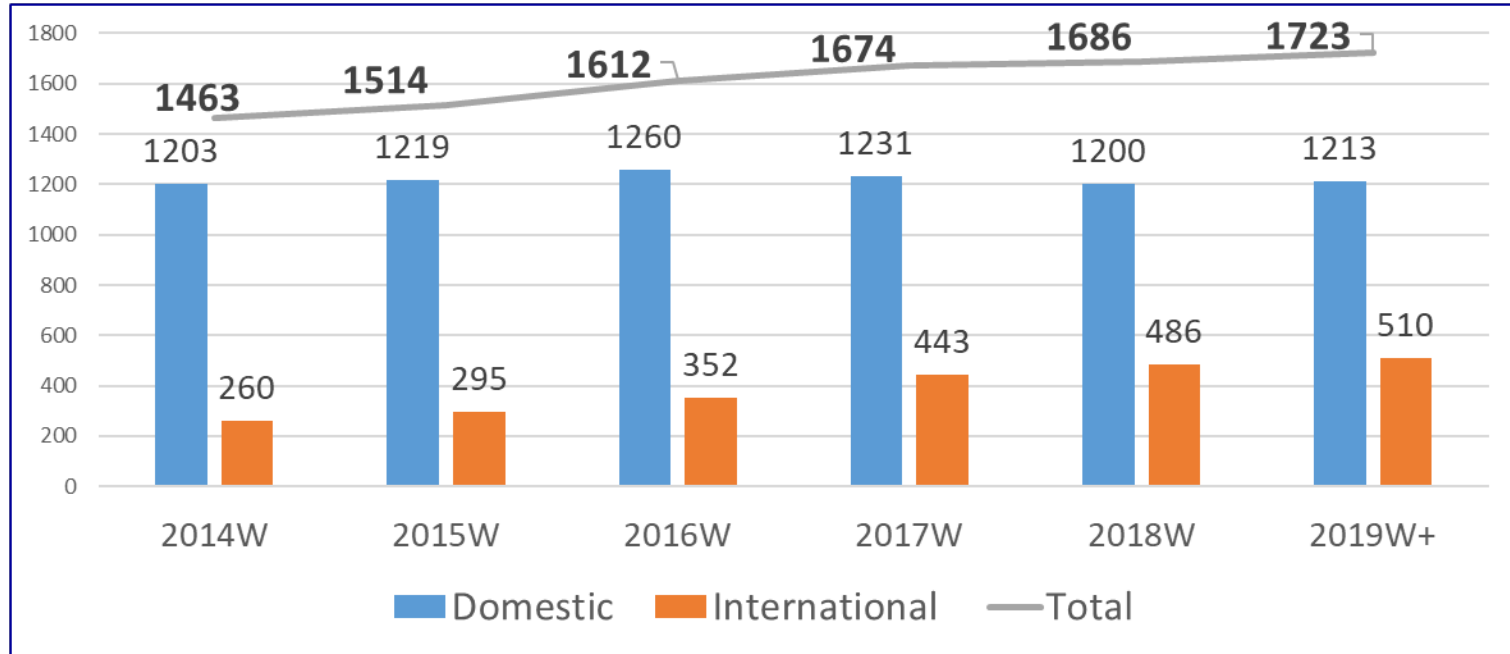
Land and Food Systems Undergraduate Student Body



Program (BSc)	2014W	2015W	2016W	2017W	2018W	2019W+
Agroecology*	3	1	0	0	0	0
Applied Biology	393	414	458	426	470	514
Food, Nutrition, Health	958	978	1039	1123	1096	1081
Global Resource Systems	109	121	115	125	120	124
Food & Res. Economics (Yr. 1)						4
Total	1463	1514	1612	1674	1686	1723

*Agroecology program phased out
 + 2019W enrolment figures confirmed in Nov.

Domestic and International Undergraduate Students



+ 2019W enrolment figures confirmed in Nov.

UBC Community Based Experiential Learning



Opportunities by Faculty – Number of placements as % of FTE. Compiled by UBC Centre for Community Engaged Learning.

	2015-16	2016-17	2017-18
Overview of UBC Faculties			
# Local course-based placements	5294	5368	4592
LFS	669 (44%)	687 (43%)	797 (48%)
Arts	671 (5%)	811 (6%)	1162 (8%)
APSC	999 (21%)	1043 (2%)	692 (14%)
Science	1797 (23%)	1731(20%)	1129(14%)
HKIN	110 (0%)	-	-
Forestry	42 (5%)	-	-
Education	557 (24%)	637 (25%)	731 (28%)
Pharmacy	241 (27%)	235 (27%)	31 (4%)
Dentistry	208 (57%)	224 (62%)	50 (14%)

Unique Learning Sites



UBC Farm's Centre for Sustainable Food Systems

- Collaborative research, teaching and learning
- Partners with community, Indigenous programs, industry, 8 UBC Faculties, and local/int'l academics
- 24-hectare site, south end of UBCV campus



Unique Learning Sites



Dairy Education and Research Centre in Agassiz, BC

- World-leading research in animal welfare and animal reproduction
- 500 animal herd – 230 cows milked/day
- Milk and animal sales cover cost of farm operations
- Open-door policy, more than 2500 visitors/year



Unique Learning Sites



Dietetics students embedded in BC health organizations

- 300 Preceptors supervise Dietetics students in hospitals, health & residential care centres, private practice, community/gov't organizations.
- 89 Clinical Instructors appointed in Land and Food Systems for ongoing contributions to the UBC Dietetics education



SWOT



Strengths

- Addressing global issues in Faculty Action Plan
- Research excellence
- Strong industry/gov't collaborations
- Joint appointments with 4 UBC Faculties currently
- Applied learning/research
- Multidisciplinary approach

Weaknesses

- Inadequate facilities are detrimental to research and teaching (MacMillan)
- Low percentage of mid-career faculty members creates administrative pressure
- Some graduate programs not reflective of current faculty member strengths

SWOT



Opportunities

- Support BC agri-food and aquaculture industries
- High demand for Registered Dietitians (RD)
- Expand joint wine research with UBCO
- Strengthen Indigenous community ties – programs at UBC Farm, student support, faculty new-hire
- Academic Renewal Plan

Threats

- Retention of younger faculty challenging
- Absence of mandatory retirement at UBC makes succession planning difficult
- Lack of critical faculty mass in certain areas
- Reliance on ISI enrolment

Recent LFS External Review Findings



What's working well

- Commitment to innovative teaching, scientific excellence and community engagement
- Good budget and asset management
- Collaborative and focused on partnerships
- Strong alumni engagement
- Work culture and community building within LFS

Recommendations

- Consider growing via joint hires with other Faculties
- Solicit new and creative methods to fund facility upgrades
- Improve communication of faculty hirings and faculty expectations (teaching load, research, etc.)

Land and Food Systems Rankings 2017-19



Rankings	2017		2018		2019	
	Canada	Worldwide	Canada	Worldwide	Canada	Worldwide
ARWU (Ag. Science)	1	16	1	16	1	20
QS (Ag. and Forestry)	1	16	1	12	1	15

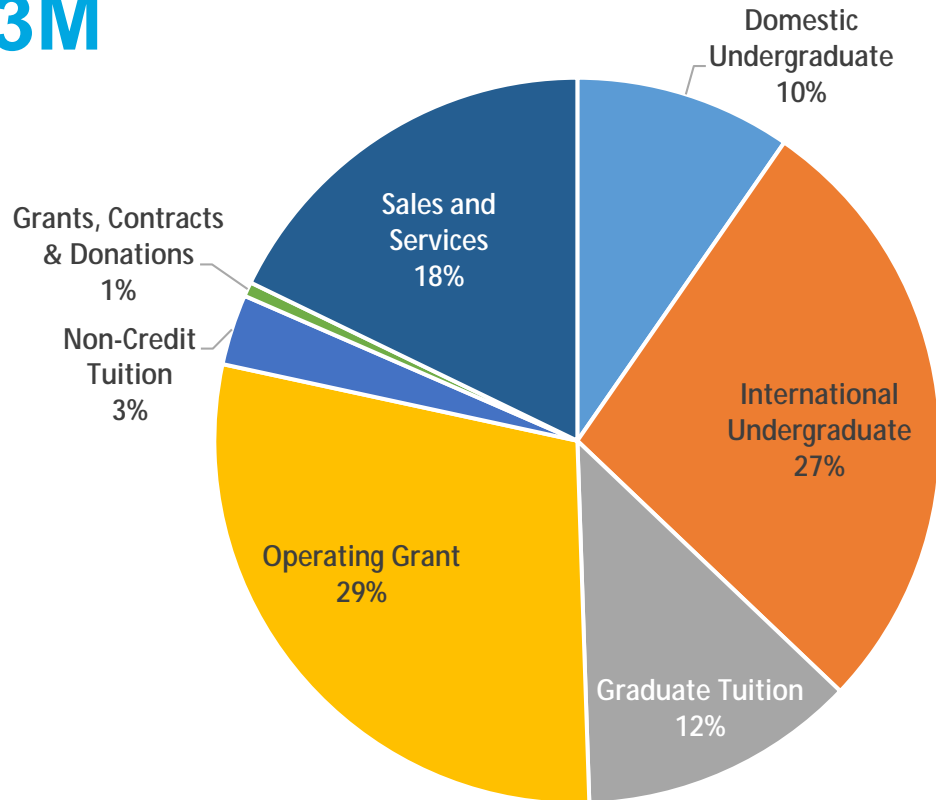
Rankings	2017		2018		2019	
	Canada	Worldwide	Canada	Worldwide	Canada	Worldwide
ARWU (Food Science & Tech.)	8	101-150	3	51-75	4	76-100

ARWU: Academic Rankings of World Universities; QS: Quacquarelli Symonds

Operating Fund in FY19/20



Total \$23M



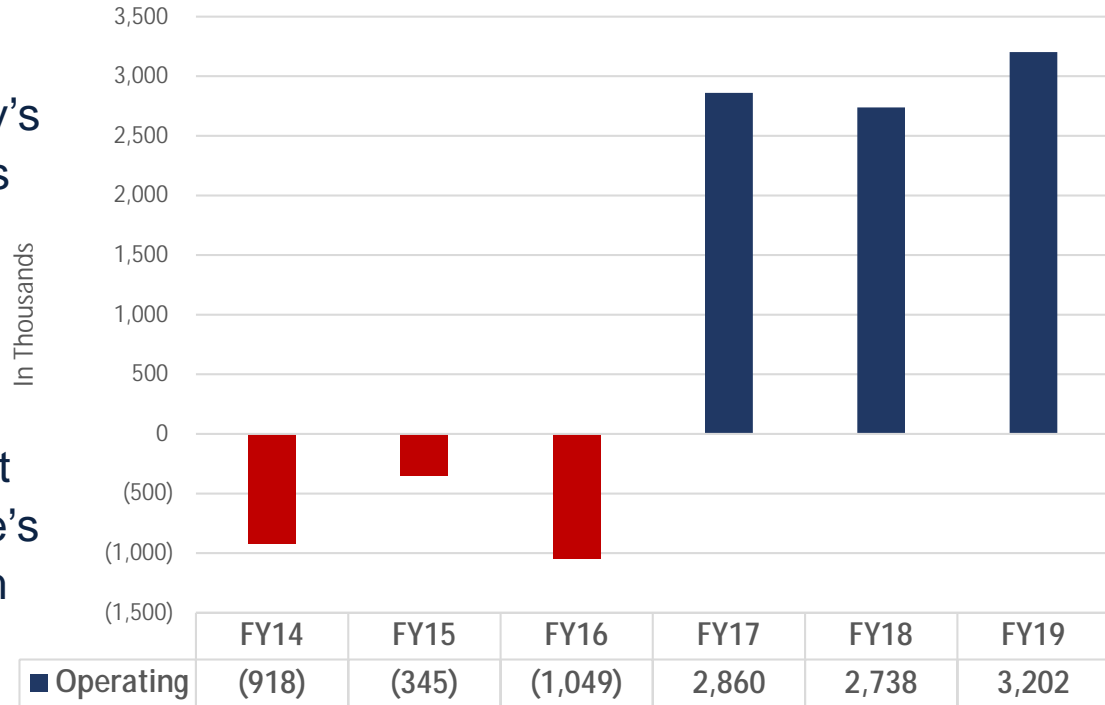
Year End Surpluses/(Deficits)



Operating Fund

Carry Forward:

- As of FY19, the Faculty's cumulative reserve was \$11,265k.
- The reserve is mainly earmarked for 50% of UBC Farm Building Phase 1 Capital Project (\$8,290k), Dairy Centre's Robotic Milking System (\$1,700k) and Faculty Renewals (\$2,528k).



Faculty Priorities in 2020/2021



- Complete UBC Farm Centre Building with required funding and approvals
- Upgrade Dairy Centre milking facilities with a robotic system
- Launch Aquaculture Certificate Program
- Expand/restructure Dietetics program
- Faculty hires in plant science, aquaculture, nutrition; and Indigenous faculty member
- Complete FNH pilot plant renovations
- Complete formalized risk planning process and registry

Long-Term Priority



- Upgrade of H.R. MacMillan and facilities to support learning, research excellence, people & places.

Appendix



Undergraduate Programs



Degree Programs (BSc)

- Applied Biology
- Global Resource Systems
- Food and Resource Economics
- Food, Nutrition and Health, *including* BC's only nationally accredited Registered Dietetics (RD) program

Transformative Learning for Students

- LFS Core Series (LFS 100, 250, 350, 450) – community-based learning and research projects
- Field Studies courses in BC (wine grape production) and abroad (Cuba, India, Thailand, Indonesia, etc.)

Graduate Programs



Research-based Programs (MSc and PhD)

- Applied Animal Biology
- Food Science
- Human Nutrition
- Integrated Studies in Land & Food Systems
- Plant Science
- Soil Science
- Agriculture Economics (MSc)

Professional Masters

- Master of Food and Resource Economics
- Master of Land and Water Systems
- Master of Food Science

Graduate Certificate Program (new)

- Aquaculture