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

<table>
<thead>
<tr>
<th>LFS Action Plan – Pillars supporting our Vision</th>
<th>Shaping UBC’s Next Century – Core areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching, Student Learning and Engagement</td>
<td>Transformative Learning</td>
</tr>
<tr>
<td>Research, Innovation and Excellence</td>
<td>Research Excellence</td>
</tr>
<tr>
<td>Leadership and Community Engagement</td>
<td>Local and Global Engagement</td>
</tr>
<tr>
<td>Outstanding Work Environment</td>
<td>People and Places</td>
</tr>
<tr>
<td>Sustainability</td>
<td></td>
</tr>
</tbody>
</table>

**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

Assistant Deans
• Learning Technologies
• Development and Alumni Engagement

Faculty Advisory Board
• Independent and external perspective, supports external relations
Faculty and Staff

**Total Faculty = 47**
(includes joint appointments)

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

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

*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.

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

<table>
<thead>
<tr>
<th>Rankings</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Canada</td>
<td>Worldwide</td>
<td>Canada</td>
</tr>
<tr>
<td>ARWU (Ag. Science)</td>
<td>1</td>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td>QS (Ag. and Forestry)</td>
<td>1</td>
<td>16</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rankings</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Canada</td>
<td>Worldwide</td>
<td>Canada</td>
</tr>
<tr>
<td>ARWU (Food Science &amp; Tech.)</td>
<td>8</td>
<td>101-150</td>
<td>3</td>
</tr>
</tbody>
</table>

ARWU: Academic Rankings of World Universities; QS: Quacquarelli Symonds
Operating Fund in FY19/20
Total $23M

- Domestic Undergraduate: 10%
- International Undergraduate: 27%
- Operating Grant: 29%
- Graduate Tuition: 12%
- Sales and Services: 18%
- Non-Credit Tuition: 3%
- Grants, Contracts & Donations: 1%
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).

<table>
<thead>
<tr>
<th>Year</th>
<th>Operating Surplus/Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY14</td>
<td>(918)</td>
</tr>
<tr>
<td>FY15</td>
<td>(345)</td>
</tr>
<tr>
<td>FY16</td>
<td>(1,049)</td>
</tr>
<tr>
<td>FY17</td>
<td>2,860</td>
</tr>
<tr>
<td>FY18</td>
<td>2,738</td>
</tr>
<tr>
<td>FY19</td>
<td>3,202</td>
</tr>
</tbody>
</table>
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.
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