Faculty of Science
Town Hall
February 1, 2018
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Live Streaming?
We are not live streaming today – cost prohibitive
Encourage anyone who wants to use their device to broadcast this talk

By the Numbers: 2017-18
- 6,300 ugrads
- 1,174 grads
- 43,000 alumni
- $110M operating
- 285 faculty
- >1,500 on payroll
- $78M research

Research Success
Science!
Jeff Gu et al.
Evelyn Merrill, et al.
Craig Heinke, Greg Sivakoff, et al.
Nature!
Michael Caldwell, et al.
Graham Pearson, et al.

And this is just the first month of the year!

Research Funding
Rose from $68M to $78M
Success with CFI, all matched funds
Recruitment for a CERC
Metabolomics Innovation Centre funding

Artificial Intelligence
AI/ML is #2/#3 in the academic world and has been there for 20 years!
$25M Federal investment
Google DeepMind donation
Best paper prize(s)
Teaching

Excellent teaching evaluations (4.5+)
SCI-Lift (Science Education and Learning Innovation Facilitation Team)
Dino 101 and Mountains 101 recognition
Leadership certificate
AlbertaSat II is on its way

Space: Update

$11.5M cost for >$30M of renos
BioSci Zoology tower – 4 floors
Chemistry West (south) – 3 floors
Chemistry undergraduate labs (4)
Chemistry undergraduate labs (2)
ESB, CS, BioSci, NINT networking
Tory/ESB backfill
Student Innovation Space

Space: Reality Check

>$150M to finish Chemistry East/West and Biological Sciences
Need to find provincial support, federal support, institutional support, and donors

Fundraising

<table>
<thead>
<tr>
<th>Year</th>
<th>Funds Raised</th>
<th>Year</th>
<th>Funds Raised</th>
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<tbody>
<tr>
<td>2009-10</td>
<td>$5.38M</td>
<td>2012-13</td>
<td>$8.31M</td>
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<tr>
<td>2010-11</td>
<td>$6.78M</td>
<td>2013-14</td>
<td>$10.87M</td>
</tr>
<tr>
<td>2011-12</td>
<td>$6.10M</td>
<td>2014-15</td>
<td>$12.94M</td>
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<tr>
<td>2016-16</td>
<td>$14.85M</td>
<td>2016-17</td>
<td>$11.69M</td>
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<tr>
<td></td>
<td></td>
<td>2017-18</td>
<td>$24.30M</td>
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</table>

But no money for renovations

Diversity (Faculty Members)

Last 3 years:
19 of last 38 hires have been women
Climbed to 17% women in Science
Computing Science: from 4 to 8
EAS NSERC faculty: from 0 to 4
Chemistry: from 3 to 5

In Any Other Year...

2018-19 would have been amazing!
5 new AI Chairs
DeepMind endowed Chair
CERC possibility
Renovations
Budget 2017-18

- 2% increase from the province...
- ...but 0% passed on to Faculties (carbon tax; benefits)
- ...and a 0.5% cut
- Consequence was ~$3 million reduction in spending power
- Slowed down the pace of space renovations

Budget 2018-2021

Budget reduction:
- 2018-19: 4%
- 2019-20: 2.5%
- 2020-21: 2.5%

Devastating to research, teaching, and service for all academic units

Budget 2018-2021

University’s budget remains the same
All units are being asked to make these cuts
Self-inflicted wound to address the “structural deficit”
Temporarily addresses a deficit and reduces debt but does not address the structural problems

Consequences

Costs: budget reduction, merit, chairs
- 2018-19: $3.7M + $1M + $0.4M
- 2019-20: $2.3M + $1M + $0.3M
- 2020-21: $2.2M + $1M + $0.3M

Total: $12.2M from a $110M budget

Assumptions

- 0% grant increase from Government
- 0% cost of living increase
- 0% inflation
- No impact of the new University budget model
- No impact from Government tuition review

By the Numbers: 2018-21

- 6,300 ugrads
- 1,174 grad
- 43,000 alumni
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Where Does the Money Go?

<table>
<thead>
<tr>
<th>Budget Item</th>
<th>Amount</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Income (sales, IDF)</td>
<td>19.2</td>
<td></td>
</tr>
<tr>
<td>Central transfer</td>
<td>91.4</td>
<td>110.6</td>
</tr>
<tr>
<td>Faculty Salaries</td>
<td>61.8</td>
<td></td>
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<tr>
<td>Staff/Students Salaries</td>
<td>20.9</td>
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<tr>
<td>Benefits</td>
<td>14.2</td>
<td>96.9</td>
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<tr>
<td>Supplies/Service/Sundries</td>
<td>6.7</td>
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<tr>
<td>Capital Purchases</td>
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<tr>
<td>Mortgage</td>
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<tr>
<td>Travel</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>Maintenance/Repairs</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>Transfers</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0.5</td>
<td>14.5</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td>111.4</td>
</tr>
</tbody>
</table>

Faculty salary & benefits: $74M, 67% of budget

Important Points

Revenue generation needs to be profit generation
Accounting categories do not match business processes
Renovations become low priority

(1) Reduce Faculty

For every two senior professors that retire, hire one junior professor
Estimate $1.8M reduction for each of three years

(2) Reduce UG Enrolment

2017-18: 83% admission, 6,300 students
2018-19: 85% admission, 6,100 students
2019-20: 86-87% admission, 5,900 students
2020-21: 87-88% admission: 5,700 students
Government funding for 6,100 students is from 2011 – we cannot be held to this standard
Saves money, but deplorable to reduce access to our excellent UG programs

(3) Budget Enforcement

2017 University introduced UPlan, our first proper budgeting tool
Units in Science will need to justify their budget and live within those parameters
Analysis suggests that there are significant savings here
Will take a year or two to get it right

Solution So Far

<table>
<thead>
<tr>
<th>Item</th>
<th>2018-19</th>
<th>2019-20</th>
<th>2020-21</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Faculty retirements</td>
<td>1.8M</td>
<td>1.8M</td>
<td>1.8M</td>
<td>5.4M</td>
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<tr>
<td>Donation</td>
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<td>0.2M</td>
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<tr>
<td>Reduce UG enrolment</td>
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<td>0.2M</td>
<td>0.2M</td>
<td>0.6M</td>
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<tr>
<td>Budget enforcement</td>
<td>1.0M</td>
<td>0.5M</td>
<td></td>
<td>1.5M</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3.2M</td>
<td>2.5M</td>
<td>2.0M</td>
<td>7.7M</td>
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</tbody>
</table>
Provocative Ideas?

- Look critically at course offerings
- Reduce number of labs and/or lab courses (reduces number of TAs; reduces supplies)
- Reduce Science’s special internal research funding programs
- Having three semesters
- Fund only “must do”, not “would be nice to do”
- Profit generation

Need Your Help

- Looking for Ideas...
- Please start with $100K+ ideas
- Smaller ideas welcome but have low priority right now

Don’t Lose Sight of Reality

- Excelling in research, teaching, and service
- Strength in undergraduate students, graduate students, PDFs, staff, and faculty

Bottom Line

- Thank you for making this a great place to work and study
- For students, staff, and faculty