

# External Reviews of Academic Units and Programs at UBC Vancouver 2013 – 2014

Report to Senate • January 8, 2015

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The following units and programs undertook external reviews between September 1, 2013 and August 31, 2014.

## **Faculty of Applied Science**

- ❖ Department of Chemical and Biological Engineering – January 2014
- ❖ Department of Mining Engineering – December 2013
- ❖ Institute for Computing, Information and Cognitive Systems – May 2014

## **Faculty of Arts**

- ❖ Arts Studies in Research & Writing Program – April 2014
- ❖ Creative Writing Program – April 2014
- ❖ Department of English – March 2014
- ❖ School of Library, Archival and Information Studies / Master of Library and Information Studies – October 2013 (*Accreditation Review*)
- ❖ Liu Institute for Global Issues – November 2013
- ❖ School of Music – January 2014

## **Faculty of Education**

- ❖ School of Kinesiology Programs – November 2013 (*Accreditation Review*)

## **Faculty of Graduate and PostDoctoral Studies**

- ❖ Interdisciplinary Studies Graduate Program – February 2014

## **Faculty of Medicine**

- ❖ Department of Biochemistry and Molecular Biology – April 2014
- ❖ Centre for Blood Research – October/November 2013
- ❖ Brain Research Centre / Centre for Brain Research – November 2013
- ❖ Centre for Disease Control – September 2013
- ❖ Centre for Health Services and Policy Research – May 2014
- ❖ Master of Occupational Therapy Program – October 2013 (*Accreditation Review*)
- ❖ Department of Physical Therapy – December 2013

## **Sauder School of Business**

- ❖ AACSB Maintenance of Accreditation Review – December 2013 (*Accreditation Review*)
- ❖ EQUIS Accreditation Review – April 2014 (*Accreditation Review*)

### **Faculty of Science**

- ❖ Department of Earth, Ocean and Atmospheric Sciences – March 2014
- ❖ Department of Microbiology and Immunology – April 2014
- ❖ Department of Statistics – September 2013

### **Office of the Provost & Vice-President Academic**

- ❖ UBC IT – July 2014

Key findings and recommendations from the above reviews appear on the following pages. The units' and Faculty responses to the reviews are included if they were provided.

**Department of Chemical and Biological Engineering**  
**Faculty of Applied Science**

Reviewed January 2014

Highlights and Key Findings:

- The review team shared a general view that UBC CHBE is an outstanding department. It is among the very top chemical engineering departments in Canada and has an excellent international reputation. The review team had no major concerns about the Department.
- The education programs at both undergraduate and graduate levels are strong.
- The faculty group is outstanding and there are a good number of world leading researchers and research groups in the areas, consistent with their international standing.
- The staff members are supportive and have good spirit of service.
- The undergraduate and graduate students are very positive about the department and are generally happy with the programs.
- The Department's leadership is strong.

Key Recommendations and Action Taken:

- Recommendation: Work to resolve some of the teaching issues identified by students.

*The Department will continue to build on the positive experience of the efforts in the past two years to respond to student concerns and continuously improve the quality of teaching. To further improve support for students the Department held a retreat in the summer dedicated to undergraduate programs and produced an undergraduate handbook that was made available to the students at the beginning of the academic year and to be updated annually. In addition, a coordinated effort with instructors will be made to adopt more student-centered learning instruction, to consider active learning approaches to instruction, to better articulate learning outcomes and to have more effective training of Teaching Assistants.*

- Recommendation: Develop a vision and strategic planning for faculty renewal in terms of research areas, including considerations such as traditional strengths with expansion in new directions, and of managing the demographic transition.

*The Department has the opportunity to be among the best chemical and biological engineering departments in the world. It has a renewal plan thorough the hiring of three recent emerging world leaders in the areas of Metabolic engineering for green synthesis of fuels and pharmaceuticals, pretreatment of forest biomass for production of biochemical and biomaterials, and advanced solar energy conversion. The Department currently has an NSERC Industrial Research Chair and CRC, which offer further opportunities to exploit faculty renewal. The Department is confident that it can attract the very best candidates.*

- Recommendation: Have a clear delineation of administrative roles and responsibilities for both staff and advisors with respect to support of faculty and students and transparency to stakeholders.

*Staff members are crucial to the delivery of the Department's teaching and research mission. The roles and responsibilities of the staff members are defined in the staff organization chart. The Department acknowledges that they will need to work on streamlining of processes and improving responsiveness. The students in the PhD and MASc Program are mostly engaged in experimental research and the undergraduate teaching programs have a very significant laboratory component. Both these programs require the support from the technical staff to build and maintain experimental facilities. Due to the changing needs of the students, the gradual enrolment increase and the graduate attribute accreditation requirements, the Department is conscious of the need to have a dedicated staff member to assist with student development projects.*

- Recommendation: Investigate further increasing graduate student funding, taking into consideration the high living expenses in Vancouver and making the graduate support competitive among other Canadian chemical engineering departments.

*The Department has increased the minimum funding level to \$21,000 last October. It will work on raising the minimum to at least \$25,000 which will place the Department at the top in terms of student support. In addition, the Department will consider offering newly hired faculty support for at least one Ph.D. student for 3-4 years as part of their start-up package. In the long run, the Department and the Faculty will have a broader discussion regarding additional support for students that will include covering tuition fees.*

- Recommendation: Increase the amount of effort to promote a sense of community, not only among faculty members but also between faculty, staff and student groups.

*The Department recognizes it should put greater effort to engage students, faculty and staff. It now holds lecture series/ seminars, industry night and student competitions, and annual Design and Research days to improve the social cohesion and faculty, student and staff engagement. A dinner with the industry advisory council gave an opportunity to mix faculty and council members and will now occur annually. The following events have been planned: 1) a Design Day to celebrate the student's achievements in the Capstone Design project course; 2) selected notable student achievements are celebrated at the annual graduation luncheon.*

*At the Faculty level, the Dean of Applied Science has established a new initiative that is expected to enhance the sense of community. Promotion to full professor will now provide an opportunity for a social event with a public lecture and a gathering of alumni, sponsors, students, colleagues, friends and family.*

**Department of Mining Engineering**  
**Faculty of Applied Science**

Reviewed December 2013

Highlights and Key Findings:

- The Department of Mining Engineering has highly dedicated Faculty and Staff.
- Undergraduate and graduate students were generally engaged, positive and enthusiastic about their programs and would recommend the Mining program to others.
- The co-op program is highly recommended as it builds a bridge between theory and practice.
- The Department is spread very thinly over several programs and teaching commitments.
- The undergraduate teaching laboratories have outdated and out-of-order equipment.
- The Faculty of Applied Science and the Department need better communication about budget.

Key Recommendations and Action Taken:

- Recommendation: Implement an official mentoring program for early career faculty and review appropriateness of teaching loads to ensure junior Faculty can work towards tenure.

*The Department currently has a mentoring program in place and teaching loads are being adjusted*

- Recommendation: Undergraduate curriculum should introduce students to the mines early on, and CAD and basic computer skills should be taught in first year as a foundation for future work.

*Field trips are scheduled in each year of the undergraduate program, and basic computer skills are taught in the first year. The Department will reinforce these skills in subsequent years.*

- Recommendation: Co-taught undergraduate and graduate courses should be differentiated.

*The Department will find a solution that would be appropriate for research focus graduate courses without adding significantly more teaching time to an overloaded faculty.*

- Recommendation: Increase the ratio of teaching assistants to students. Teaching assistants should be sourced from the appropriate discipline for the relevant labs.

*The budget for teaching assistants is limited but we will pursue creative solutions.*

- Recommendation: Work to resolve the laboratory issues; implement a preventative maintenance program and associated budget for lab equipment; encourage Professors to apply for equipment grants.

*The Department concurs that there are concerns about laboratory safety and outdated equipment. In 2014, the department purchased \$400,000 of new from the interest accumulated in its Keevil endowment equipment to replace aging units and alleviate overcrowding. Unfortunately, the equipment grants from NSERC, RTI and CFI cannot be used to provide equipment for undergraduate teaching. There is one industry fund earmarked for laboratory improvement, but its funds are primarily used for maintenance.*

- Recommendation: Faculty members are spread very thinly over many programs and Department commitments. The Department should balance the resources required for both existing and new commitments relative to their benefits. The Department should work with other departments and Faculties rather than relying solely on Mining resources.

*We are actively searching for ways to bring in more money so that the Department can hire more faculty. The start-up of CIIEID has strained resources but the Department is confident that over time this will change for the better. Having Mining students take courses from other departments has been considered in the past; however the content and focus of the courses from other departments are sufficiently different which would lead to accreditation problems.*

- Recommendation: Department should hire an additional full time staff member.

*The Department agrees that an additional full time staff member is needed.*

- Recommendation: We suggest that the Department encourage young female and indigenous students to pursue graduate studies with the objectives of becoming junior Faculty members.

*The Department is working with Women in Science and Engineering to address this issue.*

- Recommendation: Better interaction with professors from other departments is needed to ensure cross-disciplinary opportunities.

*Department faculty members collaborate with Biochemistry, Electrical & Computer Engineering, SCARP, Anthropology, Sauder and the Beedie school of Business at SFU.*

- Recommendation: Better communication within and across the Department.

*The Department will implement monthly faculty meetings and will include staff in these meetings.*

- Recommendation: Department should develop a long term plan that outlines its vision, operational plan and capacity requirements.

*The Department has a long term plan and vision from a previous retreat.*

- Recommendation: The B.C. government is aligned towards supporting mining and natural resources, sustainable practices, and Asian opportunities. The Department should leverage their natural alignment to the resource industry to support this mandate.

*The department is working with other faculty and departments on a Northern Strategy for BC, and with other departments in Science and Applied Science on a Mine of Tomorrow initiative.*

- Recommendation: Improve communication and transparency between the Faculty and the Department with respect to budget.

*The Department and the Dean's Office are working together to clear up issues with respect to the budget.*

## Institute for Computing, Information and Cognitive Systems

### Faculty of Applied Science

Reviewed in May 2014

#### Highlights and Key Findings:

- ICICS has laid the foundation for continued excellence in the future. It has an impressive track-record as a catalyst for research, but it has not achieved its full potential. ICICS funded Professors need to be aware of their connection with ICICS, their role in its success, and be more engaged in the work of ICICS from its strategic planning to its operation.
- ICICS is an amazing tool for the future but in order to improve national standing, it must have a clear mandate supported by the affiliated departments.

#### Key Recommendations and Response from Unit:

- Recommendation: Oversight of ICICS should be provided by a Committee of Deans from several Faculties; and there should be an Advisory Committee consisting of ICICS Chairs, the Director and one representative from each affiliated Department/Faculty.

*A Committee of Deans will help ICICS engage a wider representation of the University and the Advisory Committee will complement other Committees in ICICS and will help to address ICICS issues such as emerging research directions, funding opportunities, space allocation, etc. The Faculty will work with the ICICS Director to implement this recommendation.*

- Recommendation: ICICS should develop a clear strategic plan with an explicit mission, vision and goals.

*ICICS will develop a strategic plan in consultation process ICICS stakeholders.*

- Recommendation: ICICS should be an umbrella for (a) MAGIC, (b) people/planet/smarthomes; (c) digital media centre; (d) HCI initiatives, and (e) other centres/initiatives as appropriate.

*ICICS agrees that it is the best place to house multidisciplinary centres and research initiatives and will explore ways to expand its reach beyond the current members. The Director will work with the ICICS Advisory Committee and relevant ICICS stakeholders to identify dedicated research space in ICICS for additional centres.*

- Recommendation: ICICS should pay more attention to harnessing mechanisms for collaboration and communications within UBC.

*Discussions for additional pan-university collaborations are underway with the Sauder School of Business, Peter Wall Institute for Advanced Studies and the UBC eHealth Strategy Office.*

- Recommendation: ICICS should catalyze student and faculty engagement through a program of annual awards.

*There are currently discussions to restructure the NextBC 2015 event as a combined Industry/UBC innovation showcase, with awards for top innovators, panel discussions, exhibitions and important graduate student networking.*

## Arts Studies in Research and Writing

### Faculty of Arts

Reviewed April 2014

#### Highlights and Key Findings:

- The ASRW is a pioneer in the development of truly cross-disciplinary writing pedagogy. The unit holds the promise of exciting growth, reviewer knew of no institution where it this approach had been so thoughtfully and thoroughly implemented in curriculum and practice.
- The work of ASRW has received national attention because of conference presentations and the involvement of faculty members in *the Canadian Journal for the Study of Discourse and Writing*.
- ASRW faculty energies have been spread too thinly and sometimes without clear purpose.
- Despite its wider successes, the unit had no clear location or identity within the Faculty, and was thus unable to achieve the visibility or status it requires to do its work well.

#### Key Recommendations:

- Reviewers recommended that the Faculty of Arts create a cross-disciplinary institute by combining all first-year programs/courses which include: ASRW, the Coordinated Arts Program, and Arts One, in order to bring together faculty members and greater cohesion and coherence in manifold Arts-based activities. The appointment of faculty colleagues from across Arts as Affiliates or Associate Members in ASRW would strengthen the ties between units without necessarily increasing workload responsibilities.
- A number of course-level recommendations included: rethink themes and evaluate WRDS 150, determine optimal course length, offer 6-credit Community Based Experiential Learning sections of WRDS 150, consider implementing more cohort-based learning, resolve debate over equivalency and transferability of writing courses, revisit articulation agreements to ensure that transfer credits have met the necessary requirements.
- Re-evaluate teaching load equity, priorities, and guidelines. Determine better configuration of support staff and academic staff.

#### Unit's Response:

*ASRW supports the creation of an institute to combine the three programs in a way that would serve students and pedagogical innovation. ASRW will clarify reference to the research themes in WRDS 150 in the UBC course schedule and prepare a 6-credit community based experiential learning course.*

#### Faculty's Response:

*The Dean's office has appointed an Acting Chair of First Year Programs (FYP) to explore questions of appropriate operational structure for greater coherence among the three programs as well as to contribute to an overall strategic plan. We have seconded an acting administrator for FYP to improve administrative support for all three programs, evaluate the administrative workload and work with the programs to implement priorities and create procedures and guidelines. We will improve ASRW's website in order student access to necessary information and more clearly identify its contributions to UBC.*

## Creative Writing Program

### Faculty of Arts

Reviewed April 2014

#### Highlights and Key Findings:

- There is high enthusiasm, excitement and unshakeable commitment to the program.
- Participants agree that the Program is in the best shape it has been in 25 years. Its irrefutable national and international status and recent successful growth are significant milestones.
- They cited its excellent experiential learning opportunities, community outreach and commitment to research as key markers of its success.
- Becoming a School would amplify the Program's chances for development.

#### Key Recommendations:

- The program must forge a clear vision to consolidate the promise embodied in its recent growth and success, to prevent faculty and staff burnout if the current pace of growth continues.
- Grading processes should be reviewed to ensure that grade-inflation does not undermine academic credibility.
- Faculty and staff should develop forward-thinking and coherent policies to clarify many of the "long-standing unwritten policies and customs" that make up the program's culture.
- The program should formalize clear procedures regarding e-publishing students' work, which protect students but also allow public universities to disseminate new knowledge.
- Funding for Aboriginal outreach should be augmented and made permanent part of the Program's budget.
- Space deficiencies include: no storage space, insufficient library and lounge space, too-small and shared administrative space.

#### Unit's Response:

- *The Creative Writing Program has created a committee to examine the future of the unit, in order to solidify its proposal to transition from a Program to a School. It is formalizing administrative practice in written policy guidelines.*
- *The Program has hired additional .5 FTE staff to address workload and is working with the Faculty of Graduate and Postdoctoral Studies to establish a policy for digital storage of MFA theses.*

#### Faculty's Response:

*The Faculty supports the Program's ambition to become a School of Creative Writing and has instituted a leadership search at a level usually reserved for Directors. We are providing additional full-time instructional resources where suggested by growing demand. Anticipating the move of the Vancouver School of Economics from the Buchanan Tower, we are working with the academic units in the Buchanan Complex to revise space programs, and we expect to provide additional space to Creative Writing, adequate to current and anticipated faculty and student needs.*

**Department of English**  
**Faculty of Arts**  
Reviewed March 2014

Highlights and Key Findings:

- Reviewers identified the strong publications and impact of the Canadian literature faculty, including publication of the journal *Canadian Literature*.
- The Department of English as “currently in reasonable shape”, identified potential problems including: a 27% decrease in the number of English major degrees awarded since 2006; and 31% decrease in the number of English majors since their peaks.
- The graduate program is healthy, the funding packages were quite generous, and the SSHRC success rate, admirable. The Ph.D. Co-Op Program with non-academic employers is impressive.
- Reviewers applauded the department’s efforts and appointment of “Instructors” (lecturers converted into tenure-track teaching faculty) as a result of English’s emphasis on teaching.
- Reviewers were impressed with the range of interdisciplinary connections; but found the department’s response to important directions of change in the discipline less clear.
- There was concern about reactive governance, the lack of strategic planning, and transparency.

Key Recommendations:

- The department should reform the English major curriculum to make it more integrated and attractive.
- The department, with UBC, should institute opportunities for students to participate in research, and host with an annual symposium and awards.
- Canadian literature, both the field and the journal, should receive support from the department and Faculty of Arts, particularly as six Canadianists are expected to leave the university in the near future.
- They recommended that the department hold a full retreat in the near future to design a strategic plan.
- A number of recommendations from the 2007 review have not been addressed: accumulate and internally publicize details of ongoing research in the department; create a perception of transparency about management of the department, including the assessment of merit; consider more senior appointments to maintain a balanced demography; develop a formal process for mentoring junior faculty; make the expectations for tenure more transparent; create an Associate Head for Research and Development; prepare a constitution or set of bylaws.

Unit’s Response:

- *The student declines in the Department are similar to other English departments throughout the world. It has implemented a recruitment and advertising campaign, and a partnership with Arts Co-op, that show promise of stabilizing admissions.*

- *The Department courses already feature innovative approaches, and it is currently revising the undergraduate curriculum, which will address many of the concerns identified by reviewers.*
- *A Department retreat is scheduled for the Spring, which will thoroughly evaluate the unit.*

Faculty's Response:

*We are working with development and alumni to help the Department better track graduates and to increase coop experience at both the undergrad and graduate levels. Through our initiative on program outcomes we are working with the department to better understand curriculum and to develop first-year courses that attract majors and students seeking enrichment courses. We are going to monitor enrolment in relation to resources and faculty complement.*

**School of Library, Archival and Information Studies (iSchool)  
and Master of Library and Information Studies**

**Faculty of Arts**

(Reviewed: October 2013)

Highlights and Key Findings:

- The Committee on Accreditation granted conditional accreditation status (a three-year extension) to the MLIS program.
- The next accreditation review will take place in fall 2016, with the final accreditation decision to be made in January 2017.
- The iSchool was asked to submit a plan, due October 1, 2014, which addressed issues identified by the committee and included a detailed timeline indicating progress made since the review.

Key Recommendations:

The School did not comply with ALA standards in the following areas:

- “The lack of evidence that the mission, goals and objectives are linked to competencies identified and the assessment activities named (Standard I.2)”;
- “The absence of concrete evidence of student learning outcomes assessment with both indirect and direct measures (Standard II.7)”;
- “The absence of student learning outcomes assessment equally applicable to all students in the program (Standard IV.6).”

Faculty’s Response:

- *The School has made significant changes to track outcomes in the MLIS degree as per the ALA request.*
- *The Faculty of Arts hired an external advisor experienced in accreditation reviews and provided two faculty members with a course release to afford them time to draft the response.*
- *The Dean’s Office supervised the process and provided feedback on appropriate revisions to the response, which was submitted to the ALA in October 2014.*
- *The School will be meeting with ALA officials in late November 2014 to determine whether its work on outcomes and response will be sufficient to have the conditional status removed in advance of the next scheduled accreditation visit.*
- *The Dean’s Office has initiated a formal external review of the School in December 2014 in light of the School’s conditional accreditation status.*

## Liu Institute for Global Issues

### Faculty of Arts

Reviewed November 2013

#### Highlights and Key Findings:

- The 2013 External Review of Liu Institute for Global Issues ranked Institute very high relative to comparators when considering resources, affiliated faculty, and its strong reservoir of active scholarly talent with international reputations.
- The most significant contribution over the years since the last review has been to build “strong research networks” particularly among doctoral and post-doctoral students “around select themes and global issues”.
- Reviewers identified potential benefits and risks in launching a proposed new professional Masters of Public Policy and Global Affairs (MPPGA) degree. The MPP degree could establish a new centripetal force currently missing to increase faculty presence and engagement, and improve relationships with cognate units; or it could create an identity problem for the Institute if the proposed program is detached from the Liu’s mandate and create conditions for conflict among the three cooperating units (Institute of Asian Research, Institute for Resources, Environment and Sustainability and Liu Institute for Global Issues).

#### Key Recommendations:

- Develop a strategic plan for future hires based around core themes and priorities, related to the proposed MPPGA degree and areas of potential growth.
- The MPPGA should have a single governance structure involving the three host units and explore re-purposing International House if the MPPGA comes on stream.
- The Institute’s growth plans would require increased financial support from the Faculty of Arts.
- The Institute and the Dean’s office should make a concerted effort to address gender imbalance among the faculty and prioritize equity and diversity when appointing a new Director.
- The Institute would benefit from “an external advisory committee of representative stakeholders (in business/government/NGOs) and/or experts to offer broad-based advice and support for Liu’s mission and strategic direction”.

#### Unit’s Response:

*In collaboration with other units on campus and with support from the Dean’s office and University, the Institute has completed research on the development of an MPPGA as a two-year professional degree in global public policy that equips future policy leaders to address the complex problems of the 21st century with multidisciplinary policy analysis and design skills, substantive strengths in development, sustainability, and global governance, and the ability to integrate tools with policy through field-based professional experience. It builds on existing capacity with membership from the IAR, IRES, and Liu together with relevant department representatives including economics, geography and political*

science.

*The Institute has reconfigured the staff positions at the Institute to put all student activities under one staff position. The new structure freed up a communications and program development position, which has been successfully filled with a starting date of April 23, 2014.*

Faculty's Response:

*The Faculty has addressed a number of the reviewers' recommendations. It approved future recruitment for a new faculty position called the Simons Chair in Disarmament and Global Security. In 2014, the Faculty appointed a new Director of Liu, Moura Quayle, former dean of Land and Food Systems (1997-2005) and deputy minister of Higher Education (2005-2008), will soon appoint a director to lead the MPPGA for the next two years, and create an administrative position to support the new degree program. It also recently recruited a new Tier I CRC in Global Food Security and hired Wade Davis, who is appointed in Anthropology and located in the Liu Institute. The Faculty and University are also approaching the federal government to discuss the possibility of creating an Institute for Future Legislators in partnership with the Centre for the Study of Democratic Institutions, which would provide possible funding for a repurposing of International House.*

**School of Music**  
**Faculty of Arts**  
(Reviewed January 2014)

Highlights and Key Findings:

- Reviewers applauded the School of Music's high quality faculty members.
- The School, compared to schools of a similar size and scope, retained a fairly traditional "classical" orientation, which attracts students and elicits public support.
- Substantial progress has been made in hiring and promotions, curriculum review and innovation, community engagement and donor cultivation since the previous review.
- Reviewers identified an "extremely low overall representation of women on the faculty".
- Address "solvable" problems and challenges in communications, facilities, finance, governance, personnel, and program requirements.

Key Recommendations:

- "The School must work purposefully and diligently to achieve a better gender balance" among faculty.
- Streamline the music theory requirement for music education, given the constantly increasing demands of the contemporary job market.
- The School of Music and the Chan Centre require a more communicative, collaborative relationship. The Dean's office could pool the Chan's staffing resources with those of the School of Music to facilitate more efficient, effective staffing for UBC's collective musical activities. Establish a standing committee to discuss programming, usage, scheduling, and marketing.
- Funds should be sought to build a large ensemble rehearsal facility to relieve scheduling pressures that arise from use of the Chan Centre.
- Re-allocating administrative tasks among staff and create an equitable and efficient work structure.
- The School should consider levying small fees (e.g. locker fees, practice room fees, and lesson fees) to pay for equipment purchases, repairs for facilities to create a fund to cover expenses.
- Scholarships are needed to attract first-rate young performers and seek private funding to create an endowment for instruments.

Unit's Response:

- *The School has created a task force to explore curriculum renewal and to examine new pedagogical approaches in a music teaching and learning context, new collaborations across disciplines in the Faculty, as well as ways to decrease some of the BMUS core requirements.*
- *The School has prioritized space, facilities and fundraising issues including, renovation of the fourth floor of the Music building, pursuing facility expansion plans and continued efforts to fundraise for student scholarships and equipment.*
- *The School has recently recruited a female faculty member in a male-dominated subfield and is taking a "proactive" approach on upcoming searches. This approach has included attending the*

*Faculty workshops on hiring, and incorporating recommended best practices into search procedures in order to maximize the likelihood of attracting top women candidates.*

- *The School has also reiterated its need to the Dean's office for funding support for staffing resources.*

Faculty's Response:

- *The Dean's office is reorganizing communications for the Arts & Culture District, which includes the School of Music and the Chan Centre, in order to optimize support for its units and better utilize resources for the creative and performing arts. The Faculty initiated a facility resource study with RPG (Resource Planning Group) looking at recommendations for improvements with respect to scheduling. We have developed plans to include, as part of the Armoury Commons, a 6,000 square foot rehearsal facility for Music, and are proceeding with plans to renovate the 4th floor for additional practice rooms and student space.*

**Program Accreditation Reviews, School of Kinesiology  
Faculty of Education**

Reviewed November 2013

The Kinesiology and Health Science and Physical and Health Education streams in the Bachelor of Kinesiology degree (BKin) were reviewed in November 2013 for reaccreditation by the Canadian Council of University Physical Education and Kinesiology Administrators (CCUPEKA) Accreditation Council. CCUPEKA accreditation is for seven years. The previous reviews were conducted in 2006.

Highlights and Key Findings (Bachelor of Kinesiology (BKin) Physical and Health Education Stream)

- an outstanding degree program and stream of study for students aspiring to broadly-defined careers in physical education, teaching, coaching and other related areas
- continues to be one of the leading programs for students pursuing careers in physical and health education through its continued commitment to ensuring activity instruction, movement analysis and opportunities for students to learn and engage in a variety of instructional strategies and design experiences
- The complementary course and co-operative “hands on” experiences ensure students have access to practical integration of their classroom learning and “real world” engagement.
- The School maintains many strong collaborative relationships with other units on campus, in particular the Faculty of Education which is of most pertinence to the current accreditation.
- Appreciation was expressed to the School for its commitment to the visit, the preparation of documents and the detailed discussions.

Key Recommendations (BKin Physical and Health Education Stream):

- Develop a long-term sustainable plan to ensure the strength of this leading edge program strength is important given pending retirements.
- The lack of ONE building for faculty minimizes its opportunities to fully develop its interdisciplinary capacity for both faculty and students. Integration of the unit within new health sciences facilities would be advantageous.
- Lab space and equipment, while upgraded from previous years, continue to be a challenge. Activity spaces in many instances are in need of upgrade.
- Ensuring exposure to up to date field/laboratory equipment is essential so that students can function in the workplace upon graduation. Recent improvements/upgrades to classroom space have been positively received by faculty teaching in these spaces
- The Bachelor of Kinesiology – Physical and Health Education stream should receive CCUPEKA accreditation in Physical Education.

Highlights and Key Findings (BKin Kinesiology and Health Science Stream):

- Overall a high quality and popular Bachelor of Kinesiology degree

- This stream provides students with excellent preparation as a Kinesiologist or for graduate study in a health area.
- Most of the teaching in the program is done by full-time faculty, and ongoing upgrades to classrooms and teaching laboratories provide a very positive environment for learning, despite the negative impact of the distribution of faculty, students, and facilities across the Vancouver campus.
- The School appears to be progressing very strategically with a curriculum review and with projects exploring the use of new pedagogical approaches.

Key Recommendations (BKin Kinesiology and Health Science Stream):

- “We conclude that the Kinesiology and Health stream of the Bachelor of Kinesiology degree at UBC has attained Kinesiology accreditation.”

**Interdisciplinary Studies Graduate Program**  
**Faculty of Graduate & Postdoctoral Studies**

Reviewed February 2014

Highlights and Key Findings:

- The ISGP is an excellent program, with highly talented, self-directed students and high quality leadership, offering an “exciting and rich intellectual experience for graduate students” and is a “critical resource and unique university asset” for faculty.
- The program is underfunded for what it is expected to do.
- Many are unaware of the program. There is a lack of TAship opportunities for students, inconsistent support and integration of students within their supervisors’ departments, and difficulties in mounting courses.
- Is the Masters program still valued given its undefined purpose and the amount of time needed for its oversight?
- Reviewers supported the move of the program to the Macmillan building.

Key Recommendations:

- The program should not admit unfunded students. If the program is thereby reduced in size, the reviewers strongly urged G+PS to maintain the current 4YF allocation.
- The program should establish a larger Faculty Advisory Committee consisting of ISGP supervisors appointed by the Deans of the faculties, with a more comprehensive mandate to address among enrolment, learning outcomes, and coursework.
- The program should provide half the funding for a limited number of TAships.
- The program should increase its internal and external communication efforts.
- The high quality student-led online journal and annual conference should continue.
- The program should hire additional an half-time staff member (1/2-time) to address communication and administrative needs, and appoint an Associate Chair.
- Tenure-stream faculty could team-teach with some of the sessional instructors who have offered INDS courses, because it “would have the advantage of modelling interdisciplinary collaboration as a best practice in interdisciplinary studies.”

Program’s and Faculty’s Response:

- *The program has been, and will continue to move toward minimum funding guarantees for all admitted PhD students.*
- *The broadened of governance structures has already implemented.*
- *The Chair agrees is investigating budgetary sources for administrative support.*
- *The program will explore the development of learning outcomes and different models of mounting courses.*

## Department of Biochemistry and Molecular Biology

### Faculty of Medicine

Reviewed April 2014

#### Highlights and Key Findings:

- The Department Head, Dr. Roger Brownsey, is well respected by his colleagues and the Review Committee.
- Department faculty members teach in the BSc Biochemistry program in the Faculty of Science, and continue to develop new curriculum in this undergraduate degree program.
- Graduate teaching is a strength, and the Department provides flexible access to graduate students for Associate faculty members with primary appointments in different Departments.
- The quality of research carried out by members of the Department is outstanding.
- The existing administrative structure adequately serves the needs of the Department.
- Continuing the Department's outstanding record and productivity in the future will depend on the ability of the Head to access resources for new hires and to provide support for career progress of the junior faculty members.

#### Key Recommendations and Action Taken by Unit:

- Recommendation: The Department consider ways to focus on increasing the number of women faculty and instructors.

*The Department supports this recommendation. When recruitment opportunities arise, the Department will proactively encourage potential female applicants. In future recruitment of instructors, the Department will also target senior female trainees with appropriate skills and career ambitions.*

- Recommendation: The Department appoint an Associate Head from amongst the Head's colleagues in the Unit, with the goal of training a possible successor.

*The Department will discuss such an appointment, but prefers to keep open the option for a broader future search for a possible external candidate as the next Department Head.*

- Recommendation: The Department should monitor the success of the undergraduate curriculum renewal using the appropriate metrics, and adapt the program as required.

*Feedback is now being obtained from recent Biochemistry and Molecular Biology B.Sc. graduates about the renewed curriculum to assess the impact of the curriculum changes that have been implemented and being considered.*

- Recommendation: The Department find ways to generate tenured positions for Instructors on short term contracts that have worked in the Department for many years.

*The Department fully agrees with the reviewers, but the Department needs to build alternative sources of revenue to be able to achieve this goal.*

- Recommendation: The Department should upgrade and evolve their Graduate program and mentorship of Postdoctoral Fellows (PDFs) to ensure that their training gives them the widest possible choice of career options.

*The Department will take advantage of teaching of general skills that are now provided by the Faculty of Graduate and Postdoctoral Studies and the Centre for Teaching and Learning Technology and emerging entrepreneurial training options within the Life Sciences Institute. The Department has also made efforts to improve PDF mentorship, including a summer seminar series and mock interview days, and will be exploring options for providing PDFs with teaching opportunities.*

- Recommendation: The Department should explore innovative ways to attract new students.

*The Department will explore other avenues to attract applications. Recent enhancements have led to substantially increased traffic to the Department website and other social media options are being developed. Plans are also being developed to re-establish an annual brochure that could be distributed directly to other undergraduate programs across North America and also provided to faculty to distribute as they travel to other institutions to give talks.*

**Centre for Blood Research**  
**Faculty of Medicine**  
Reviewed October/November 2013

Highlights and Key Findings:

- Uniformly high regard was expressed for the outstanding leadership of Dr. Edward Conway.
- The Centre is recognized nationally and internationally for its research excellence and exceeds the performance of comparable blood research centers.
- The Centre provides a high quality environment for research and training of high quality personnel at all levels, aided by active pursuit of alternative sources of funding.
- The Centre has made its resources accessible to the broader community.
- The current success and viability of the Centre may be compromised if additional funding is not found. Creative steps to obtain funding from other sources have begun.

Key Recommendations and Action Taken by Unit:

- Recommendation: Consider delegating and/or encouraging additional Centre investigators to take on specific leadership roles over the next term. Succession planning and diversification of fundraising and Centre-wide grant writing more equitably among the 38 active Centre members are important considerations to ensure success continues in shorter and longer terms.

*Candidates for an Associate Director are being sought, and succession planning is being discussed with the Steering Committee. We will hire a director of education who to ease the load. CFI grants have been submitted by different members of the Centre.*

- Recommendation: Sustainability is the major issue raised in the review. The current success and viability of the Centre may be compromised if additional funding is not found.

*The Centre has been and continues to be very successful in raising funds from the private sector and industry. The expectation is that this funding will increase as new investors and donors are identified, and strong and trusting relationships are established.*

- Recommendation: With retirements in the near future there is significant opportunity for new recruitment.

*The Centre will strategically hire two young investigators to ensure that their interests complement those that exist, while adding new technologies to the environment.*

- Recommendation: Postdoctoral fellows expressed a desire for greater career development and opportunities to acquire experience in teaching (i.e. guest lectures), grant writing, industry liaisons, organization of seminar series, and alternative career paths.

*A Research Associate and a PDF will join the Centre's Steering committee. With the Director, and Associate Director, or a PI-delegate, these two personnel will meet with all CBR PDFs and RAs, and any clinical fellows/trainees who are interested, as well as senior PhD students if they so wish, to identify needs and to design a program. The Faculty of Graduate and Postdoctoral Studies will be*

*consulted and where possible, programs will be integrated. Funding will be provided by the Centre, and the Centre is confident that this will be matched by donors. A full-time person will be hired to lead the Centre's educational program, who will also direct the summer studentship and the collaborative research award programs, and liaise with the national Transfusion Medicine Training Program.*

**Brain Research Centre and Centre for Brain Health**  
**Faculty of Medicine**

Reviewed November 2013

Highlights and Key Findings:

- Dr. Max Cynader, is commended for his vision, energy and inter-personal skills in establishing the Centre as one of the leading academic units in Canada.
- The Centre has attained an international reputation for excellence in basic neuroscience led by outstanding researchers such as Drs. Terry Snutch, Ann-Marie Craig, Yu Tian Wang, Brian MacVicar and others. Clinical neuroscience has also been very well led by investigators such as Dr. Jon Stoessl.
- The Centre has been an excellent site for training graduate students and Postdoctoral Fellows.
- During the past 15 years, the cohesiveness and morale within the Centre have been excellent.
- The Centre could become a hub for brain health research and education across the Province.
- Allocation of resources (such as space and budget) has not been transparent.

Key Recommendations and Action Taken by Unit:

- Recommendation: As Dr. Cynader's term as Director concludes June 30, 2014, a Transition Team should be formed to plan for the leadership change and plan for the future direction of the Unit, including a high-level strategic vision over the next five years. A search for a new leader should be initiated.

*A Transition Team was formed and they developed and are implementing a transition plan. A Search Committee for a new leader was formed and is currently in the recruitment process.*

- Recommendation: The new Director should consider the review committee's report and recommendations.

*Permanent leadership has not yet been confirmed for the Centre. Accordingly, this recommendation will be considered once permanent leadership has been established.*

**Centre for Disease Control**  
**Faculty of Medicine**  
Reviewed September 2013

Highlights and Key Findings:

- The UBC Centre for Disease Control (UBCCDC) and the British Columbia Centre for Disease Control (BCCDC) and now effectively one organization under the banner of BCCDC (the “Unit”).
- The Unit, under the outstanding leadership of Dr. Robert Brunham as Executive Director, has performed very well in the last few years.
- Bibliometric analyses, including citation analysis, demonstrate a continuing and significant level of impact in the field of public health. Network analysis demonstrates a high level of connectivity between leading Unit researchers and their peers across the public health domain.
- The Unit’s activities over the past five years in research, teaching and service align well with the Faculty of Medicine’s Strategic Plan.
- Trainees were positive and enthusiastic about the training environment and support at the Unit.
- All were satisfied with the administrative support provided by operational managers.

Key Recommendations and Action Taken by Unit:

- Recommendation: Continue providing attention to relationship with Simon Fraser University (SFU).

*Unit has no plans to pursue a formal relationship with SFU but will continue the ongoing ad hoc collaborations with SFU researchers, the informal partnership with the Faculty of Health Sciences, and the policy of offering practicum placements to SFU students.*

- Recommendation: Leverage the BC Centre for Disease Control Foundation to secure partners who can support research projects.

*The Foundation is currently actively seeking partners to fund projects and personnel awards and the Unit expects substantial growth in these areas in the coming years.*

- Recommendation: Address issue of partner appointment eligibility for certain salary awards.

*The CRC is the only salary award for which partner appointees are currently ineligible. Unit is preparing a case to present to the university administration addressing concerns regarding ineligibility of partner appointments for Canada Research Chair (CRC) awards*

- Recommendation: Monitor the university’s evaluation of applied research as contribution to tenure and promotion.

*The Unit has confirmed that within the Faculty of Medicine, the Centre’s faculty are formally evaluated against domains inclusive of contributions spanning research and publication, teaching, community service and knowledge translation (including influence on policy), and service to UBC (including service to the Unit). Members of our faculty have already made successful cases for*

*promotion based on the "professional case," in which the candidate is assessed especially for their impact on public health practice nationally and internationally.*

- Recommendation: Implement flexible professional tracks with varied weightings of academic and service requirements for Unit staff, based on individual proclivities and strengths, which may include protected research time.

*The recent creation of the Senior Scientist role has been an important step towards formalizing various types of professional tracks in place within the Unit. We are performing a network analysis of the flow of ideas through our organization, and the data will inform best practices around organizational structures supporting research, service, innovation, and collaboration. Rather than blocks of protected time, the Unit's researchers are encouraged to follow the model of "research embedded within service." To facilitate this, the Unit has hosted workshops on time management, work practices, and innovation.*

- Recommendation: Lessen focus on basic science and fundamental research in favour of applied public health research.

*The Unit recognizes that the primary mandate of a public health agency is applied research and the Unit strongly believes it is operating effectively in this domain, as evidenced by the number of our publications directly impacting policy and practice. However, the Unit also recognizes that basic research underpins applied research, and believes that the Unit should act as facilitators of basic research through partnerships and data stewardship.*

- Recommendation: Support for grant content and research ethics issues.

*The Unit is planning to recruit a grant development specialist accessible to Unit researchers across all service lines.*

- Recommendation: Monitor potential perceptions of inequity in research support across groups.

*The Unit believes the recruitment of the individual above will address this recommendation.*

## Centre for Health Services and Policy Research

### Faculty of Medicine

Reviewed May 2014

#### Highlights and Key Findings:

- The policy expertise of CHSPR is essential to the School of Population and Public Health (SPPH) and the Faculty of Medicine.
- The Centre's effectiveness is endangered by tenuous relationships with policy makers, external stakeholders (Ministry of Health), lack of collaborative work within UBC and externally.
- The independent nature of the Centre's activities may be impairing its ability to meet the challenge of the increasing demand from students and faculty for policy advice and mentoring.
- The Centre is dedicated and engaged in its efforts to influence the politics of healthcare.
- The dedication of CHSPR faculty to teaching and student supervision is unquestionable.
- The research portfolio is excellent and most faculty are globally competitive.
- The Centre has been remarkably successful in securing research grants projects, but there is a risk associated with reliance on such funding which has been awarded largely from one agency.

#### Key Recommendations:

- Commit to a strategic planning process in the context of the SPPH and the Faculty of Medicine, with a unified vision for health policy and services research across the units. The new strategic plan should include plans to recruit new faculty at assistant professor level to fill gaps defined by discipline, methods expertise, or content areas.
- Invest as a group with all sectors of academic life, beyond research.
- Develop the Centre's collective capacity as the "go to" resource for policy information and advice for other groups and programs.
- Reach out to potential partners and stakeholders to define common ground and build a program that draws on all of the expertise available.
- Establish a Summer Institute in health services research and policy.
- Re-build bridges with the BC Ministry of Health and other government stakeholders and create an advisory board inclusive of partners and stakeholders.
- The School and Faculty should ensure access and support for the designated director or chair.
- Establish a program to attract policy makers and decision makers; for example, a mentoring program aimed at post-graduate students.
- Diversify sources of research funding to reduce dependence on CIHR.
- CHSPR expertise in data analysis needs to be updated to take advantage of new opportunities and challenges related to data science and high expectations of decision-makers.

#### Unit's Response:

- *We believe that the communications of our research findings to policymakers and the general public are strategic strengths for UBC. We look forward to working with the School, the Faculty, and our sister Centres to refine, clarify and implement plans that ensure this brand of disciplined,*

*respectful, yet independent research contributes positively to the larger health policy research enterprise at UBC.*

- *CHSPR can do more to articulate its core purpose as a research centre and we will develop a clear organizational mission and values over the next six months. We will engage advisors from key domains such as SPPH, UBC more broadly, health professions, public interest groups, and decision-makers at the local and national level.*
- *We will prepare for the recruitment of more tenure-track faculty members to replace retiring faculty members.*
- *CHSPR typically attains over \$2 million per year in research funding. Since the review, CHSPR faculty have secured research funding from the Michael Smith Foundation for Health Research, the Institute for Health System Transformation and Sustainability, and the BC office of the Canadian Institute for Health Information. We will develop strategic plans to promote continued success in grant competitions.*
- *We agree that engaging in new educational programs is very worthwhile. We look forward to working with UBC, the SPPH and the Faculty of Medicine on new initiatives related to health services and policy research training at UBC.*

**Master of Occupational Therapy (MOT)  
and Department of Occupational Science and Occupational Therapy (OSOT)  
Faculty of Medicine**

Accreditation Review October 2013

Highlights and Key Findings:

- Remarkable progress was achieved since the 2007 review, notably the shift to being a department within the Faculty of Medicine.
- The Department of Occupational Science and Occupational Therapy is 'outstanding', 'the gold standard', 'the poster child', 'a unifying force', and 'the most open department to work with'.
- The leadership of Catherine Backman is systematic, organized, strong and visionary.
- High level of commitment to the program by faculty, staff, and clinical faculty.
- The pedagogical team is highly respectful, engaged, valued, and have a sense of professional identity that relates directly to their involvement in the department.
- The students are polite, respectful, intelligent, pleasant to work with, and well versed in their discipline.
- The participation of clinical faculty in admissions process builds confidence among clinicians about the calibre and quality of students admitted into the program.
- Students come to their fieldwork placements with the skills and knowledge needed to be successful.
- The high level of scholarship and research of the faculty is clearly embedded in the curriculum.
- The level of scholarship in the RSOT 547 projects is remarkable and is clearly valued by the clinical and academic communities.
- Inter-professional education is actively integrated in the curriculum, and the faculty are recognized as leaders in this area by the Faculty of Medicine.
- Great value is placed on the scholarship of teaching, is supported by UBC structures for tenure and promotion, and is seen through success in obtaining teaching and learning funding from the TLEFs and Flexible Learning Initiative.
- The inclusion, respect, and value afforded to all stakeholders has created a workplace and learning place with a quality that cannot easily be described. The whole is greater than the sum of its parts.

Key Recommendations:

- There needs to be more comprehensive plan for annual program evaluation that follows a logical framework.
- Vision Mission Values and Philosophy could be linked explicitly to the conceptual framework in the curriculum document could be more explicit in how the overview links with the details of the conceptual if the visual depiction was linked to the written description.
- We are confident that the department, and the MOT program are capable of effectively implementing significant changes to professional education, but take care moving forward not to lose the elements of your current program that make it so strong and effective.

Unit Response:

*OSOT continues to work towards a more comprehensive program evaluation plan and work with key stakeholders for the expansion of seats as well as the Academic Health Sciences Network.*

## Department of Physical Therapy

### Faculty of Medicine

Reviewed December 2013

#### Highlights and Key Findings:

- The Department is performing above and beyond expectations.
- The Department Head, Dr. Jayne Garland, is highly respected.
- There Department is innovative (e.g. the dual degree MPT/PhD program).
- There is significant concern about the financial situation and resulting potential impacts.
- Opportunities for generating new funds and shared resources that should be examined.
- MSc/PhD students and postdoctoral trainees emphasized the high quality of the faculty and the excellent mentorship that they receive.
- The research enterprise of the UBC Physical Therapy program is strong.

#### Key Recommendations and Action Taken by Unit:

- Recommendation: Close scrutiny of budget is needed, and we suggest development of other sources of revenue generation for the department in partnership with important stakeholders and with support from the Faculty of Medicine and the University.

*This recommendation will be a key focus of Department management because the current situation is not sustainable. The Department is investigating options to increase our revenues with minimal additional costs, but revenue is modest relative to the shortfall, so we will consider collaboration with other departments/units.*

- Recommendation: Provide opportunities for personal and professional growth and recognize and celebrating success. Communication regularly with faculty and staff.

*The Department has internal awards to recognize strong work and achievement in a range of academic and administrative areas. "Weekly Update" emails recognize teaching and research achievements that have been formally announced in the preceding week. In addition to the professional development funds that are provided in accordance with the collective agreements to both staff and faculty, the Department has a modest budget line to provide additional professional development funds especially to those not eligible for central funds (e.g. part-time instructors).*

- Recommendation: Formal recognition of teaching stream and opportunities for promotion and tenure are needed.

*The Department closely adheres to the tenure and promotion processes of the University for both the instructor and the professorial streams. The University's relatively recent creation of a Professor of Teaching is a positive initiative in addressing any perceived inequity between instructor and professorial streams*

- Recommendation: Augment collaborative partnerships with clinical community and research centers, and expand on the opportunities within the health authority to meet the needs of

students in clinical education; there is the potential for more student run clinics and fieldwork placements in the public sector.

*Successful collaboration is already occurring between the Department and partners. Building on these and expanding to new areas will be important to address in the next Strategic Plan.*

- Recommendation: Relationships with the Northern Health Authority and academic environment need to be nurtured and cultivated with systematic communication among the UBC, UNBC, Northern Health and clinical communities.

*The Department will endeavor to continue to enhance these relationships.*

## Sauder School of Business – AACSB Maintenance of Accreditation Review

Reviewed December 2013

The AACSB (Association to Advance Collegiate Schools of Business) accreditation challenges post-secondary institutions to pursue excellence and continuous improvement in their business programs, is valued as an indicator of quality assurance to UBC, provincial government, partner institutions and prospective students, provides wider access to exchange programs for students, and allows the School to participate in influential rankings.

### Highlights and Key Findings:

- Career services are strong and greatly appreciated by undergrads and MBAs.
- The Full-Time MBA program has developed a wide range of professional development activities to complement program coursework, notably the Global Immersion Project which requires students to participate in an international business project.
- Sauder's undergraduate and MBA programs are highly diverse with respect to international students.
- Sauder has developed a pedagogy course for its Ph.D. students as well as a full weekend "Teaching Retreat" to enhance the teaching skills of their Ph.D. students. Faculty members assume a mentoring role for both their teaching and research activities.

### Key Recommendations:

- Sauder has made significant strides in its assurance of learning (AOL) programs, but we recommend that Sauder include measures of subject matter knowledge (e.g., accounting, finance, marketing, etc.) among its learning goals, provide more focus on "closing the loop" with curricular revisions based on the results of their assessment processes, and begin implementing AOL processes in their Executive MBA programs.
- Sauder should provide a fifth year of funding committed to students upon acceptance for Ph.D. students to enable Sauder to increase the quality of their incoming Ph.D. students, and provide students with the opportunity to enhance their research productivity prior to entering the job market.
- Full-time lecturers should be better informed as to requirements to maintain their classification as Professionally Qualified.

In December 2013, the School received confirmation from AACSB that accreditation of the Sauder School's business programs for an additional five years was approved, with next accreditation review to take place in 2018-2019.

### School's Response:

*The School concurs with the recommendations outlined in the AACSB peer review team's report and fully intends to implement the specific recommended actions in advance of the next reaccreditation review in 2018.*

## Sauder School of Business – EQUIS Re-Accreditation Peer Review

Reviewed March 2014

### Highlights and Key Findings:

- Sauder has an appropriate and ambitious vision and values, is international in outlook, and all programs have significantly increased their numbers of international students.
- The School has solid corporate connections.
- One of the most outstanding traits is the positioning of research within the School and the world-class research output of its faculty; faculty publish in the leading, top-tier international journals.
- One challenge is to ensure that research findings that are of interest to the corporate community are shared with that community.
- Strategic positioning, direction and planning are good.
- The composition and role of the Faculty Advisory Board is a major strength of the School; Board members have diverse backgrounds, devote considerable time and commitment to Board duties and play a major role in guiding the School and integrating it into the corporate world.
- The quality of candidates in the PhD program is outstanding.
- The master's programs portfolio is less integrated and has low enrolments in some cases.
- The School's position as the leading business school in Canada may be threatened by the provincial government's plan to cap tuition.
- Support for students' personal and professional development is high, and above standard.
- The School has met the challenges related to physical resources and learning environment that were identified in the previous peer-review.

### Key Recommendations:

- Develop and implement an appropriate strategy to guide activity in the areas of ethics, responsibility and sustainability so that they permeate the School.
- Grow the School's international and national alumni network.
- Broaden the School's international reach and influence through strategic collaborations with Asia-based business schools, more international appointments to the Faculty Advisory Board, or broadening curriculum to include more Asian case-studies.
- Build global corporate partnerships via appointments to the School's Faculty Advisory Board.
- Explore the breadth of masters-level offerings in the context of current market demand and new opportunities; some of these programs have low enrolments and are not a coherent suite of programs from a strategic point of view.
- Consider increasing the flow of research findings to the external corporate community, as well as back into teaching.
- The Executive Education portfolio is functioning well and profitably and meets standards on all criteria, but there is scope to grow it further; for example, the School should consider increasing the percentage of Sauder faculty involved in Executive Education.
- The peer-review team recommends granting of EQUIS accreditation for a further five years.

## Department of Earth, Ocean, and Atmospheric Sciences

### Faculty of Science

Reviewed March 2014

#### Highlights and Key Findings:

- The Earth sciences at UBC enjoy a strong international reputation across several subfields, and is one of the top research programs overall in Canada ... perhaps one of the top 20 programs internationally. Relationships with the resource extraction industries in British Columbia are strong, providing impressive support for both research and teaching.
- The Department has experienced more than a decade of transformation, including the consolidation of various units to form the present Department, the recent construction and occupation of a magnificent new building housing much of its activities, superb facilities due to new construction and renovation with state-of-the art laboratories, and what appears to be adequate space for all teaching and research functions.
- The Department has engaged in an impressive reconstruction of its undergraduate instructional program under the initiative led by Dr. Carl Wieman, engendering enthusiasm among faculty, staff, and students, and setting a strong example not only for the other sciences at UBC, but also Earth sciences programs elsewhere.

#### Key Recommendations:

- The Department should initiate develop a Strategic Plan. The current hiring plan should carefully balance academic, industry and basic research needs to achieve uniform excellence, coherence, and long-term financial sustainability of the different programs, particularly with regards to resolving the issues surrounding atmospheric science.
- Efforts should be made to engaging the younger faculty through mentoring, and extend to RAs, PDFs, graduate, and undergraduate cohorts.
- The Department should engage with the fund-raising professionals of the university with the aim of resolving perceived issues of donor interactions and fund-raising objectives.
- The faculty and university administration should strongly consider a campus-level initiative in scientific computing and data science with considerable EAOS input.

#### Unit's Response:

- *The Department's self-study includes nine strategic initiatives for 2014-2019. The strategic planning process continues and will be completed during the first year (2014-2015) of the new Head.*
- *All pre-tenure faculty are assigned mentors before they arrive in the Department. The Department Head meets annually with all untenured faculty, and most tenured faculty, to review performance and expectations. In response to concerns, the Head instituted a group mentoring structure effective July 2014, in which the untenured faculty and senior faculty mentors meet as a peer group to further enhance mentoring and foster a broader interdisciplinary approach.*
- *EOAS' graduate student body has taken a leadership role in fostering interdisciplinary dialogue*

*within the department, recently forming a Graduate Council. Efforts have begun to better include the department's post-doctoral fellows and research associates into this effort to grow interdisciplinary research and understanding.*

- *The department has benefitted greatly from strong relationships with industry and alumni, whose support contributed over \$25M toward the new Earth Sciences Building. The department will continue to work with the Faculty of Science development team to advance multiple priorities.*
- *Data science is integral to many areas in the earth, ocean, and atmospheric sciences and the department welcomes prioritizing campus-level initiatives in scientific computing.*

Faculty's Response:

- *In the Faculty of Science, external reviews typically take place in the last year of a Head's five-year term. We are exploring the possibility of moving the strategic planning process to the first year of a new Head's term, the progress against which would be assessed at the external review in year 5 of the Head's term. In this manner the strategic planning process would be informed by the self-study report and external review, and the new Head would play a key role in the strategic planning process and executing the strategic plan.*
- *Our Associate Dean Faculty Affairs and Strategic Initiatives has met with all untenured EOAS faculty and made recommendations to the Head to re-examine the departmental mentoring assignments, to clarify the roles of mentors and mentees, and to encourage more engagement of junior faculty in grant initiatives and in departmental strategic planning.*
- *The Faculty development team has worked closely with the EOAS Head and faculty members to successfully secure substantial funding for the new Earth Sciences Building, EOAS' Carl Wieman Science Education Initiative, and faculty research related to resource extraction. Significant funds have been raised to support the construction of a new geological field school in Oliver, but this project cannot move forward without full funding.*
- *The Faculty of Science is working closely with all academic departments and research centres to achieve financial sustainability. At present, few Science faculty hires are being authorized in response to provincial budget cuts, significant salary inflation pressures, and the paucity of faculty retirements.*
- *The Faculty of Science is helping lead UBC's data science initiative including the search for a Tier 1 Canada Research Chair, whose appointment could be in one of several Science departments including EOAS. We are also moving forward with plans to develop a Professional Masters and Certificate programs in Data Science, create a Data Science Institute, and host software carpentry workshops.*

## Department of Microbiology and Immunology

### Faculty of Science

Reviewed April 2014

#### Highlights and Key Findings:

- The Department of Microbiology and Immunology is an active and dynamic unit with excellent, experienced leadership and productive, well-funded research programs. The department consistently provides effective and innovative undergraduate and graduate training.
- The review committee was very impressed with the collegial atmosphere and transparent leadership of the Department of Microbiology and Immunology (M&I). Faculty, staff and students all spoke very highly of Dr. Gold as a leader, mentor and educator.
- The Department has an excellent reputation as a home to outstanding science and high quality training of research personnel. There is a good mixture of highly productive, internationally recognized senior scientists who are household names in their fields; strong mid-career investigators with great reputations; and promising new recruits.

#### Key Recommendations:

- The Department and University administration should work with all its partners to ensure an immediate and sustainable solution to the animal care issues that are threatening the research programs of Microbiology and Immunology faculty members.
- The Department should develop a five-year Faculty recruitment plan that will ensure the long-term integrity of educational and research programs and allow for effective resource planning. This should include establishing a succession planning for teaching faculty to ensure that the undergraduate teaching program continues to be a reference of excellence in education.
- The Department should address the issue of contributions of the different departments to the teaching of BIOL 112 (Biology of the Cell) and include the Associate Dean for Curriculum in these discussions.
- Increase career development opportunities and training for graduate students and post- doctoral fellows.

#### Unit's Response:

- *Expert recommendations for increasing operational efficiency (and consequently reducing costs to users) must be seriously considered and implemented to the greatest extent possible. The recent transfer of FINDER, a world-class BSL-3 facility for studying pathogens, from UBC Animal Care Services to the Department threatens the continued operation of this critical facility beyond 2014-15.*
- *A lecturer jointly hired by M&I and BIOL, is coordinating the learning objectives of BIOL 112 and BIOL 200. The long- time course coordinator for BIOL 112 is seeking feedback from the instructors for courses that build on BIOL 112 (as well as other stakeholders) as to what they expect students coming out of BIOL 112 to know.*
- *The department is keenly aware that professional development is integral to graduate training*

*and helps develop these skills through formal classes (e.g., MICB 506), career nights and encouraging students to take advantage of workshops offered by the Faculty of Graduate & Postdoctoral Studies, the Centre for Teaching & Learning Technology, and the Life Sciences Institute. Additional workshops addressing specific skills are currently in the planning stages.*

Faculty's Response:

- *The Faculty will continue to advocate strongly for UBC to (1) resolve the animal care issues that have impeded research and (2) to provide appropriate financial support for our state-of-the-art animal facilities such that researchers can afford to use these facilities for their grant-funded research projects.*
- *The Faculty has authorized a CRC-2 faculty search to be conducted in 2014-2015 by the Department of Microbiology and Immunology and the Centre for High-Throughput Biology.*
- *The Faculty is working closely with all academic units to achieve financial sustainability. At present, very few Science faculty hires are being authorized in response to significant salary inflation pressures and the lack of faculty retirements. These stresses are exacerbated by the need to fund the salaries of CRC-2 faculty members when their CRC terms expire.*
- *In April 2014, UBC's Board of Governors granted Board 1 approval to construct a new \$75M Life Sciences Teaching Labs Building that will house all of the teaching functions for the Department of Microbiology and Immunology, as well as those of other life science departments in the Faculties of Science and Medicine. This new facility will provide modern teaching labs and lecture halls for all UBC life science students, and provides us with an opportunity to rethink how best to meet our learning goals, including introductory cell biology.*

## Department of Statistics

### Faculty of Science

September 2013

#### Highlights and Key Findings:

- The Department is a leading center of statistical education, research and practice in Canada.
- The Department has benefitted from strong leadership, outstanding new space, and has launched several exciting initiatives that have positioned the Department for considerable growth.
- The Department's faculty are uniformly active in research, and student supervision, as well as being successful in attracting support for their research programs. The faculty have diverse interests and the department has widely developed strengths in many areas from biostatistics and genomics to environmetrics, statistical computation and foundations.

#### Key Recommendations:

- Engage in a meaningful strategic planning exercise
- Take on a leadership role, together with Computer Science, in efforts to respond to the sudden emergence of Data Science as a top strategic priority for both the Faculty and the University.
- Increase the emphasis on scientific problem solving throughout the undergraduate curriculum and increase educational collaborations with other units within the Faculty and beyond. In particular, the department should have a leadership presence in all undergraduate statistics instruction on campus including a much greater capacity to teach the majority of introductory statistics at UBC.
- Further integrate the Statistical Consulting and Research Laboratory (SCARL) into its research and educational mission as well as its business functioning.

#### Unit's Response:

- *The Department conducted a strategic planning exercise in Spring 2014 guided by a professional facilitator.*
- *Department members view Statistics involvement in any UBC Data Science initiative as essential. Several department members have already taken on informal leadership roles and plans are being developed to address training programs and to expand existing research and industry collaborations. Together with the Department of Medical Genetics and CMMT, the Department conducted a successful CRC-2 faculty search in statistical genomics in 2013-14.*
- *The Department is improving undergraduate statistics education through innovative courses such as the capstone course STAT 450 (Case Studies in Statistics) and through its work with the Carl Wieman Science Education Initiative. The Department has taken a leadership role in cross-campus Introductory Statistics discussion group and the Flexible Learning Introductory Statistics project. The Department is examining the specific undergraduate teaching recommendations made by the external review team.*
- *The Department is reviewing SCARL and ways by which they can increase their profile across campus, expand their role in undergraduate, graduate and continuing education, and increase revenues to support this important unit. Commencing in January 2014, with support from the*

*Provost and VPRI, SCARL is offering an hour of statistical consulting for UBC graduate students to help them understand statistical issues in their research project. In a second initiative, SCARL is presenting a series of six two-hour workshops on statistical methodology to UBC graduate students. SCARL's business plan is being revised and expanded.*

Faculty's Response:

- *The Faculty of Science will be conducting a CRC-1 faculty search in data science / big data in 2014-2015, and the Department of Statistics will play a central role in this search.*
- *The Departments of Statistics and Computer Science are working with the Faculty of Science and the Provost to develop a blended (on-line and face-to-face) Professional Masters degree in Data Science. The Department of Statistics is also exploring opportunities to develop workshops, courses, and/or certificates for students and alumni aiming to take professional actuarial exams.*

## UBC Information Technology

Reviewed July 2014

### Highlights and Key Findings:

- Overall, central IT organization and the Department of Information Technology are headed in the right direction, attributable to the leadership of the current Director.
- The unit was praised for the speed of progress made in addressing recommendations from the previous external review in 2008.
- Day-to-day support is good; staff seen are technically capable and service-oriented; but there are some process issues to address.
- There are some overlaps and gaps, as well as misallocation of resources resulting from the distributed nature of IT services across the UBC-V campus.
- There is some confusion about leadership, governance, priorities and strategic direction, for IT and for UBC, which affects how various IT groups work together and perceive each other.
- The review committee heard concerns about the lack of flexibility that could result from standardization and centralization, particularly for research and scholarship.

### Key Recommendations:

- To facilitate an IT ecosystem that will best benefit and support the UBC mission, it will be important to clarify how UBC strategy drives and connects to IT strategy.
- Be mindful of the scope, pace and complexity of change occurring across the institution, and remain adaptable even after decisions are made, and take local culture into account.
- Find an appropriate balance between customization and standardizing, recognizing that processes may need to change to fit standardization.
- Standardize in areas that do not provide differentiation for the University, such as a common email / calendaring system and desktop support.
- Clarify and simplify the IT governance structure; clarify where decision-making authority lies. Separate projects from the governance structure.
- Clarify and systematize the relationship between CTLT and UBC IT with respect to implementation, support and training, and learning technologies.
- Provide sufficient training to staff and students when new systems are introduced.
- Improve quality, frequency of communications to the campus community regarding how and when decisions are made, set expectations for communicators and monitor results.
- Evaluate and adjust the nature of consultations with campus community.
- Review the chargeback model to determine if some “baseline” IT services could be more effectively and efficiently funded through centralizing those costs.
- The review committee conveyed various suggestions from the campus community for enhancing technical aspects of service and support.
- Provide institutional stewardship of research data.
- Develop technologies to enable research collaboration across institutions, such as identity federation.
- Consolidate supporting technologies where possible, such as high-performance computing resources, research data storage, data visualization facilities.
- Ensure the needs of diverse disciplines are supported.