SENATE AGENDA

1:30 p.m., Friday, June 8, 2018
Arts and Humanities Building, Rm 1R40

The Land Acknowledgment will be read at the beginning of the meeting.

1. Minutes of the Meeting of May 11, 2018

2. Business Arising from the Minutes

3. Report of the President – EXHIBIT I (A. Chakma)

4. Unanimous Consent Agenda – EXHIBIT II

5. Reports of Committees:
   Operations/Agenda - EXHIBIT III (M. Milde)
   Nominating Committee – EXHIBIT IV (W. Pearson)
   Academic Policy and Awards - EXHIBIT V (J. Hatch)
   University Planning – EXHIBIT VI (D. Laird)
   University Research Board - EXHIBIT VII (J. Capone)

6. Announcements – EXHIBIT VIII

7. Discussion and Question Period

8. New Business

9. Adjournment

Senate meetings are scheduled to begin at 1:30 p.m. and normally will end by 4:30 p.m. unless extended by a majority vote of those present.
SUMMARY OF AGENDA ITEMS: June 8, 2018

APPROVAL OF MINUTES

REPORT OF THE PRESIDENT

UNANIMOUS CONSENT AGENDA
FOR ACTION

OPERATIONS/AGENDA COMMITTEE
FOR ACTION
Senate Membership – Schulich School of Medicine & Dentistry Constituency
Senate Membership – Science Undergraduate Student Constituency
Revisions to the University Council on Animal Care Terms of Reference

FOR INFORMATION
Candidates for Degrees and Diplomas

SENATE NOMINATING COMMITTEE
FOR ACTION
Decanal Selection Committee for the Richard Ivey School of Business

SENATE COMMITTEE ON ACADEMIC POLICY AND AWARDS (SCAPA)
FOR ACTION
Faculty of Engineering: Introduction of the New Subject Area “Integrated Engineering (IE)”
School of Graduate and Postdoctoral Studies:
Revisions to the Course-Based MSc in Clinical Medical Biophysics (CAMPEP) Program
Revisions to the Course Requirements of the Graduate Programs (MA and PhD) in English
Revisions to the Admission Requirements of the Master of Science in Occupational Therapy (MScOT) and the Master of Physical Therapy (MPT) Programs
Faculty of Health Sciences, Arthur Labatt Family School of Nursing: Revisions to the Admission Requirements
Schulich School of Medicine & Dentistry: Revisions to the Admission Requirements of the MD and DDS Programs
Articulation Agreements:
Western University and Sheridan College Institute of Technology and Advanced Learning for qualified graduates of the Chemical Engineering Technology – Environmental Diploma Program
Renewal of the Articulation Agreement between Western University, Faculty of Science, Environmental Science Program, and Northern College for qualified graduates of the Environmental Technician Program

FOR INFORMATION
Brescia University College: Specialization in Sociology (For Information Only)
SUPR-U Report: Cyclical Reviews of English and Writing Studies; Anatomy and Cell Biology; Dentistry; Biology
SUPR-G Report: Cyclical Reviews – Anatomy and Cell Biology; Biochemistry, Medical Biophysics; Physiology and Pharmacology, Biology, Psychology
New Scholarships and Awards

SENATE COMMITTEE ON UNIVERSITY PLANNING (SCUP)
FOR ACTION
Peter F.J. Miller Fellowship in Media and Journalism
John M. Thompson Fellowship in Engineering Leadership

FOR INFORMATION
Performance Indicators Report
Annual Report of the University Librarian
Report on Promotion and/or Tenure

UNIVERSITY RESEARCH BOARD (URB)
FOR ACTION
Revisions to MAPP 7.10 Policy and Procedures – Institutional Animal User Training Program

ANNOUNCEMENTS
FOR INFORMATION
Canada 150 Funding Summary Report
MINUTES OF THE MEETING OF SENATE

MAY 11, 2018

The meeting was held at 1:30 p.m. in Room 1R40, Arts and Humanities Building.

SENATORS: 55

T. Baerg  J. Hatch  C. Olivier
P. Barmby  A. Hearn  G. Parraga
G. Belfry  H. Hill  I. Paul
P. Bishop  A. Hrymak  W. Pearson
A. Bowlus  C. Jones  A. Pero
S. Burke  D. Jorgensen  A. Ray
J. Capone  R. Konrad  C. Roulston
T. Carmichael  K. Kwan  P. Schmidt
A. Chakma  D. Laird  V. Schwean
E. Chamberlain  J. Matthews  K. Shuey
C.L. Chambers  M. McDayter  Z. Sinel
A. Chant  C. McLeod  V. Staroverov
K. Clark  J. Michalski  C. Stevees
R. Collins  M. Milde  G. Tigert
J. Crimmins  K. Miller  M. Viczko
J. Deakin  L. Miller  J. Wilson
I. Decoito  J. Mitchell  P. Yu
P. Doyle  V. Nielsen
J. Garland  M. Novello

Observers: M. Bettle, J. Doerksen, S. Pitel, J. Sadler, T. Solebo, J. Weese

By Invitation: D. Redmond

Land Acknowledgement

T. Baerg read the Land Acknowledgement.

S.18-84

MINUTES OF THE PREVIOUS MEETING

The minutes from the meeting of April 13, 2018 were approved as circulated.

S.18-85

REPORT OF THE PRESIDENT [Exhibit I]

The Report of the President, detailed in Exhibit I, contained information about the following items:

- New Hellmuth Prize winners and DUPs named
- Western Leadership update

Additional items he reported on included:

- Vladimir Hachinski – past president of the World Federation of Neurology and a world-renowned stroke expert – has been named a 2018 Killam Prize winner for Health Sciences. Hachinski is the sixth Western researcher to be given this honour
- the recent allocation of two new Canada Research Chairs and an NSERC Chair
- Jennie Massey appointed Western’s new AVP (Student Experience)
S.18-86 **UNANIMOUS CONSENT AGENDA** [Exhibit II]

It was moved by A. Chant, seconded by P. Doyle,

That the items listed in Exhibit II, Unanimous Consent Agenda, excluding item 11, Report on the April 26 Board of Governors Meeting, be approved or received for information by Senate by unanimous consent.

CARRIED

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**REPORT OF THE OPERATIONS/AGENDA COMMITTEE** [Exhibit III]

S.18-87 **Senate Membership: Representatives from the General Community**

S.18-87a **Senate Membership: Representative from the General Community**

It was moved by A. Chant, seconded by P. Doyle,

That effective July 1, 2018 Mr. Patrick Peddle be appointed to serve on Senate as a representative from the General Community. Mr. Peddle’s appointment will run from July 1, 2018 to June 30, 2020.

CARRIED (By Unanimous Consent)

S.18-87b **Senate Membership: Representative from the General Community**

It was moved by A. Chant, seconded by P. Doyle,

That effective July 1, 2018 Mr. Don Macpherson be appointed to serve on Senate as a representative from the General Community. Mr. Macpherson’s appointment will run to June 30, 2019.

CARRIED (By Unanimous Consent)

S.18-88 **Senate ad hoc Committee on Renewal’s Recommendation re: the Nominating Process to Fill Senate Seats that Remain Vacant After Nominations Closed**

Senate received for information a report on the Senate ad hoc Committee on Renewal’s recommendation regarding the Nominating Process to fill Senate Seats that remain vacant after nominations closed detailed in Exhibit III, item 2.

The Chair reported that a variation in processes existed, but now all Faculties/Schools are utilizing a process that reflects the principles that Senate itself uses in the nominations process.

S.18-89 **Question from Senate regarding the Recommendations of the Governance Review Task Force**

Senate received for information the response to the question posed to the Board of Governors regarding the progress that has been made towards implementing the recommendations from the Report of the Governance Review Task Force to the Board, detailed in Exhibit III, item 3. Of the 22 recommendations in the Governance Review Task Force report:

- 8 have been completed/undertaken
- 14 are in progress.

It is anticipated that most of the recommendations should be completed by the end of 2018, though some initiatives may require further time depending on the availability of external parties.
Senate Committee on Renewal – Report on Implementation of Recommendations - update

Senate received for information, detailed in Exhibit III, item 4, an update on the outstanding items noted in the Report of the Senate ad hoc Committee on Renewal with suggested next steps and/or current status. M. Milde, Chair of the Operations/Agenda Committee, said that progress on some items has been slower due to limited resources in the University Secretariat.

Discussion included the following comments, concerns:

- Opening the UWO Act in order to expand representation on Senate and the risks associated with doing so, including the possibility of the government becoming more involved in the University’s business
- Consider revisiting opening the UWO Act after the June 2018 Provincial election
- Request that the Chair allow more time for Senators to present questions during the Discussion and Question Period
- Request that the Board of Governors report not be included on the Consent Agenda to provide an opportunity for questions to be raised
- Inclusion of a third seat on Senate for staff and more seats on Senate committees for staff
- The Nominating Committee process is a more engaged process, including the submission of nominee bios
- Governance Website needs restructuring
- An investment in enhancing the University Secretariat is needed in order to fulfill certain recommendations contained in the report
- The Report seeks to reinvigorate a culture of inclusion and trust on campus
- Push versus Pull technology vis-à-vis communications; a monthly summary regarding Senate’s business could be emailed to the Western community
- Importance of an annual Senate performance evaluation and self-assessment.
- Senators agreed that it is important to keep in touch with their constituencies in order to engage the Western community

The Secretary advised that work will continue over the summer to progress the recommendations contained in the update.

Motion regarding the Recommendations of the Senate ad hoc Committee on Renewal

It was moved by A. Hearn, seconded by M. McDayter,

That the Operations/Agenda Committee be charged with redoubling its efforts to implement all of the recommendations of the Senate ad hoc Committee on Renewal as adopted by Senate, and have the implementation process completed by December of 2018.

CARRIED

REPORT OF THE SENATE COMMITTEE ON ACADEMIC POLICY AND AWARDS [Exhibit IV]

School of Graduate and Postdoctoral Studies: Revisions to the PhD in Music (Music Education) Program

It was moved by A. Chant, seconded by P. Doyle,

That the revisions to the PhD in Music (Music Education) program be approved effective September 1, 2018, as shown in Exhibit IV, item 1.

CARRIED (By Unanimous Consent)
Schulich School of Medicine & Dentistry, Department of Pathology and Laboratory Medicine: Withdrawal of the Specialization in Pathology

It was moved by A. Chant, seconded by P. Doyle,

That effective September 1, 2018, admission to the Specialization in Pathology be discontinued, and that the Specialization be withdrawn.

CARRIED (By Unanimous Consent)

Schulich School of Medicine & Dentistry and the Faculty of Science: Withdrawal of the “Pathology and Toxicology” Subject Area

It was moved by A. Chant, seconded by P. Doyle,

That effective September 1, 2018, Pathology and Toxicology be withdrawn as a subject area in the undergraduate course offerings in the Schulich School of Medicine & Dentistry and from Category C in the Breadth Requirements for Graduation.

CARRIED (By Unanimous Consent)

Faculty of Social Science, DAN Department of Management & Organizational Studies: Introduction of a Specialization and an Honors Specialization in Management and Legal Studies

It was moved by A. Chant, seconded by P. Doyle,

That effective, September 1, 2018, a Specialization and an Honors Specialization in Management and Legal Studies be introduced as shown in Exhibit IV, Appendix 1.

CARRIED (By Unanimous Consent)

Brescia University College: Introduction of a Major in Creativity and Literature

It was moved by A. Chant, seconded by P. Doyle,

That a Major in Creativity and Literature be introduced effective September 1, 2018 as shown in Appendix IV, item 5.

CARRIED (By Unanimous Consent)

Huron University College: Introduction of a Specialization in Global Health Studies

It was moved by A. Chant, seconded by P. Doyle,

That a Specialization in Global Health Studies be introduced at Huron University College, as shown in Exhibit IV, Appendix 2, effective September 1, 2018.

CARRIED (By Unanimous Consent)

Revisions to the “Structure of the Academic Year” Policy – Scheduling Reading Weeks

It was moved by A. Chant, seconded by P. Doyle,

That the “Scheduling Reading Weeks” section of the “Structure of the Academic Year” policy be revised as shown in Exhibit IV, Appendix 3, effective September 1, 2018.

CARRIED (By Unanimous Consent)
S.18-99 Information Items Reported by the Senate Committee on Academic Policy and Awards

Exhibit IV, Report of the Senate Committee on Academic Policy and Awards, contained the following items that were received for information by unanimous consent:

- SUPR-U Report: Cyclical Reviews of Pathology and Laboratory Medicine; Philosophy
- New Scholarships and Awards

S.18-100 REPORT TO SENATE FROM THE BOARD OF GOVERNORS [Exhibit V]

Senate received for information the Report from the Board of Governors on the April 26, 2018, meeting.

S.18-100a New MAPP Policy and Procedures on Intellectual Property

On behalf of UWOFA, an Official Observer voiced disappointment that the Board of Governors did not support Senate’s recommendation that the MAPP Policy on Intellectual Property contain a minimum threshold for reporting the creation of copyright material. He referred to the materials submitted for consideration by the Board and queried how the Board came to its decision. He orally presented three questions which the Secretary asked that he send to her to be forwarded to the Board of Governors for their consideration.

A. Chakma noted that the University Act allows Senate to provide its advice on issues, however, that advice cannot fetter the discretion of the Board to take a decision on matters within its mandate.

In response to a question as to how a decision is made regarding Senate and Board jurisdictions, the University Secretary responded that in her role she would consider the matter and provide an opinion. As needed she may seek the advice of Legal Counsel, and as may be appropriate, external legal advice may also be sought.

S.18-100b Code of Student Conduct Review

A Senator said that, in his view, some of the changes to the Code of Student Conduct, recently approved by the Board of Governors, could be seen as over-reaching in its power. He urged Senators to review the revised Code, keeping that in mind.

S.18-101 REPORT OF THE ACADEMIC COLLEAGUE [Exhibit VI]

The Report of the Academic Colleague, detailed in Exhibit VI, was received for information. Items covered in the report included sexual violence, Fair Workplaces Act, international PhD tuition and provincial election.

ANNOUNCEMENTS [Exhibit VII]

S.18-102 Senate Committee Election Results – April 2018

Exhibit VII, Announcements, contained a report on the results of the Senate Committee Elections held in April.
DISCUSSION AND QUESTION PERIOD

S.18-103  
**Security during Exams in April 2018**  
*(Senate granted speaking privileges to D. Redmond)*

A Senator sought clarification regarding the employment of an external security firm during the April undergraduate exam period, specifically the purpose of this security, what direction did the employees receive as to their role/responsibilities and what communications were distributed to inform the campus community of their use. Mr. D. Redmond, Director, Campus Community Police Service explained that the security was hired during the exam period to prevent fire alarms from being pulled. During the 2014 exam period four fire alarms were pulled and during the exam period in 2015 and 2016 three fire alarms were pulled. None were pulled during this exam period. He acknowledged that better communications about using this service should have been sent to the university community.

S.18-104  
**Western’s Criteria for Closures due to Inclement Weather**

Responding to concerns raised that Western proceeded with the scheduled exams the weekend of April 14/15 when Southern Ontario experienced severe weather, Dr. J. Deakin, Provost and Dr. J. Doerksen, Vice-Provost (Academic Programs) explained that when faced with inclement weather, a team of people assess whether the campus should remain open or closed. The team includes the Vice-President (Operations & Finance), Provost, Vice-Provost (Academic Programs) and the Director, Campus Community Police Service. At the forefront of this consideration is the ability to operate the campus safely and for the Western community to get to campus safely. The normal process is to assess the conditions on campus, the status of London Transit Operations, the conditions of primary/main City roads and Environment Canada radar and reports for London. Students have the right to seek academic relief should they be unable to get to campus for an exam due to inclement weather.

S.18-105  
**Question about Compensation Terminology**

A Senator expressed concern regarding the terminology used in the recent communication from Human Resources which referred to a “Total Rewards” statement as opposed to a “Total Compensation” statement. This concern will be referred to Human Resources for their consideration.

ADJOURNMENT

The meeting adjourned at 3:00 p.m.
For the June 8, 2018 meeting of Senate, I wish to highlight the following news and developments since my last written report for the meeting of Senate on May 11, 2018.

**New CRCs and Killam Prize laureate named:**
Congratulations to Professors Chantelle Richmond and David Armstrong on being named Canada Research Chairs. Chantelle, who is an Associate Professor in Geography, with cross-appointments to First Nations Studies and the Department of Family Medicine, is the CRC in Indigenous Health and Environment. David, who is an Associate Professor in Political Science, is the CRC in Political Methodology. A third colleague, Professor Shawn Li at the Schulich School of Medicine & Dentistry, also saw his existing CRC in Molecular and Epigenetic Basis of Cancer renewed and elevated from Tier 2 to Tier 1. Congratulations are also in order to Dr. Vladimir Hachinski on being named among this year’s Killam Prize winners – the highest research honour awarded by the Canada Council of the Arts – in recognition for his pioneering work on the relationship between stroke and dementia. Vladimir is a Professor of Neurology at Schulich and joins a very select group of faculty who have been honoured with a Killam, including Professors David Bentley (English) and John Whalley (Economics), the late Alan Davenport (Wind Engineering), the late Maurice Bergougnou (Chemical & Biochemical Engineering), and Robarts Research Institute co-founder and medical scientist, the late Henry Barnett.

**2020 Congress of the Humanities and Social Sciences:**
Western has been selected to host the 2020 Congress of the Humanities and Social Sciences — Canada’s largest multidisciplinary gathering of academic scholars in the humanities and social sciences. Running from May 30 to June 5, 2020, the conference is expected to attract more than 8,000 attendees, making it the largest ever held in London. For nearly 90 years, Congress has brought together more than 70 scholarly organizations who hold their annual conferences under a common banner. It’s an opportunity for academics, researchers, policy-makers and practitioners to share findings, refine ideas and build partnerships that focus on Canada’s future.
Western leadership update:

Jennie Massey has been appointed Western’s new Associate Vice-President (Student Experience) for a five-year term commencing August 13. Jennie is currently Director of Student Life at Memorial University, a portfolio she has led since 2015. Prior to joining Memorial, Jennie held several student-focused leadership positions in Canada and the United States, including roles at Queen’s, Windsor, University of Illinois (Urbana-Champaign), and most recently at Baylor University (Waco, Texas), where she was Assistant Dean, Student Learning & Engagement, from 2011 to 2015. Jennie holds an honours BA in geography from Kings College London (UK), an MA in urban political geography from University of Illinois (Urbana-Champaign), and a PhD in geography and planning from Queen’s. As a student affairs scholar-practitioner, Dr. Massey’s research is focused on the geographies of higher education, with special interests in access, retention and persistence. Her work examines the impact of co-curricular experiences on student learning and engagement, particularly for marginalized student populations.

Meanwhile, review and selection committees remain active for the roles of President & Vice-Chancellor and Dean of the Ivey Business School. New review and selection committees have also begun their work in relation to the Dean of Engineering, Vice-Provost (Academic Programs), Vice-Provost (Graduate & Postdoctoral Studies), and the Vice-Provost & Chief Librarian.
UNANIMOUS CONSENT AGENDA

FOR APPROVAL

Any member who wishes to ask a question, discuss, or oppose an item that is listed below may have it removed from the consent agenda by contacting the Secretary of Senate prior to the meeting or by asking that it be removed before the Chair calls for a mover and seconder for the following motion.

Recommended: That the following items be approved or received for information by the Senate by unanimous consent:

Report of the Senate Operations/Agenda Committee – EXHIBIT III

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Senate Membership – Schulich School of Medicine &amp; Dentistry Constituency</td>
<td>ACTION</td>
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<tr>
<td>2.</td>
<td>Revisions to the Terms of Reference of the University Council on Animal Care</td>
<td>ACTION</td>
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<tr>
<td>3.</td>
<td>Candidates for Degrees and Diplomas</td>
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Report of the Senate Committee on Academic Policy and Awards – EXHIBIT VI

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<td>Faculty of Engineering: Introduction of the New Subject Area “Integrated Engineering (IE)”</td>
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<td>Revisions to the Course-Based MSc in Clinical Medical Biophysics (CAMPEP) Program</td>
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Report to Senate Committee on University Planning – Exhibit VI

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<td>ACTION</td>
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### Report of the University Research Board – Exhibit VII

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<td>21.</td>
<td>Revisions to MAPP 7.10 Standardized Training in Animal Care and Use</td>
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### Announcements – Exhibit VIII

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<td>22.</td>
<td>Canada 150 Funding Summary Report</td>
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The Unanimous Consent Agenda

The Senate’s parliamentary authority -- *Sturgis Standard Code of Parliamentary Procedure* -- explains the consent agenda:

Organizations having a large number of routine matters to approve often save time by use of a *consent agenda*, also called a *consent calendar or unanimous consent agenda*. This is a portion of the printed agenda listing matters that are expected to be non-controversial and on which there are likely to be no questions.

Before taking the vote, the chair allows time for the members to read the list to determine if it includes any matters on which they may have a question, or which they would like to discuss or oppose. Any member has a right to remove any item from the consent agenda, in which case it is transferred to the regular agenda so that it may be considered and voted on separately. The remaining items are then unanimously approved en bloc without discussion, saving the time that would be required for individual votes.

While approval of an omnibus motion saves time at Senate meetings, Senate members will want to review the agenda materials carefully in order that they properly discharge their responsibilities.

**How it works:**

In consultation with Committee chairs and principal resource persons, the Secretary identifies action and information items that are routine and/or likely non-controversial. In each Committee’s report, these items are noted in the list of items at the beginning of the report. Action and information items on the agenda and in committee reports that are not noted on the consent agenda will be presented singly for discussion and voting (when appropriate).

When members receive their Senate agendas, they should review all reports in the usual manner. *If any member wants to ask a question, discuss, or oppose an item that is marked for the consent agenda, he or she can have it be removed from the consent agenda* by contacting the Secretary of the Senate prior to the meeting or by asking that it be removed before the Chair calls for a mover and seconder for the motion to approve or receive, by unanimous consent, the items listed.

At the Senate meeting, before the unanimous consent motion is presented for approval, the Chair of the Senate (1) will advise the Senate of items that are to be removed from the list, based on prior requests from Senate members; and (2) will ask if there are any other items that should be removed from the list. The remaining items are then unanimously approved *en bloc* without discussion, saving the time that would be required for individual presentation and voting. Those matters that have been struck from the consent agenda will be handled in the usual way as each Committee’s report is presented.

The minutes of the Senate meeting will report matters approved as part of the consent agenda as "carried by unanimous consent". Information items received as part of the consent agenda will be reported as received.
REPORT OF THE OPERATIONS/AGENDA COMMITTEE

<table>
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<th>Contents</th>
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<td></td>
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<td>Revisions to the UCAC Terms of Reference</td>
<td>Yes</td>
</tr>
<tr>
<td>Candidates for Degrees and Diplomas – Spring Convocation 2018</td>
<td>Yes</td>
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</tbody>
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FOR APPROVAL

1. Senate Membership – Schulich School of Medicine & Dentistry Constituency

**Recommended:** That Jane Rylett, representative of the Schulich School of Medicine & Dentistry be reappointed for a two year term (to June 30, 2020).

**Background:**
Jane Rylett has agreed to a reappointment in accordance with Section 5. of the Election Procedures.

5. *Faculty*

   Senate may appoint a member upon the recommendation of the unit concerned.

2. Revisions to the University Council on Animal Care (UCAC) Terms of Reference

**Recommended:** That Senate approve the revisions to the University Council on Animal Care (UCAC) Terms of Reference as shown in Appendix 1.

**Background**
As shown in Appendix 1, the Terms of Reference of UCAC was revised to bring it in line with Canadian Council on Animal Care (CCAC) guidelines. Several editorial amendments were made to the policy to achieve this. The redline version of the document is attached as Appendix 2.

It was also recommended by CCAC during its last assessment in 2015 and articulated in its Policy Statement for Senior Administrators Responsible for Animal Care and Use Programs (Section 3, P1-2) [https://www.ccac.ca/Documents/Standards/Policies/Senior_administrators.pdf](https://www.ccac.ca/Documents/Standards/Policies/Senior_administrators.pdf), that “a single, senior institutional official must be appointed to coordinate efforts and ensure that all organizational/institutional responsibilities are met.” This responsibility has been delegated to the Vice-President (Research) to reflect a clean line of accountability within Western's research community (including affiliates). The wording change in Point 2) e) addresses this recommendation by naming the Vice-President (Research) as the primary responsible person for animal care related issues, instead of a governing body, such as Senate.

FOR INFORMATION

3. Candidates for Degrees and Diplomas - Spring 2018

On behalf of the Senate the Provost approves the list of Candidates for Degrees and Diplomas upon the recommendation of the Registrar [S.96-124]. The list of Candidates approved by the Provost will be appended to the Official Minutes of the June 8, 2018 meeting of Senate.
University Council on Animal Care (UCAC)

Effective Date: December 2015
Revised: 22MAY2018

TERMS OF REFERENCE

1) **Purpose** - The University Council on Animal Care’s (UCAC) purpose is to oversee and advise on all matters pertaining to the procurement, maintenance and use of animals as defined by the Canadian Council on Animal Care (CCAC), hereafter referred to as “animals,” for research, testing, teaching and display associated with the University and its affiliated bodies.

   a) As necessary, the UCAC shall deliver its mandate through the following sub-committees and/or department:
      i) Animal Care Committee (ACC);
      ii) Department of Animal Care & Veterinary Services (ACVS);
      iii) Other subcommittees as developed by UCAC.

2) **Responsibilities** - With the assistance of its ACC and ACVS, the UCAC has overall responsibility to:

   a) Ensure that all animals are procured, cared for and used in a manner that maintains animal-based science activities of the University and its affiliates in accordance with all Federal, National, Provincial, Institutional and U.S. (as applicable) policy statutory requirements, regulations and guidelines, including:
      i) The Canadian Council on Animal Care (CCAC) – Policy statements, guidelines, and other standards
      ii) Tri-Agency’s “Agreement on the Administration of Agency Grants and Awards by Research Institutions”
      iii) Other Federal agencies whose policies apply to the use of animals and/or materials used in research involving animals, including but not limited to:
         (1) Canadian Food Inspection Agency;
         (2) Health Canada;
         (3) Public Health Agency of Canada;
         (4) Environment Canada;
         (5) Transport Canada.
      iv) **CALAM Standards of Veterinary Care** – Canadian Association for Laboratory Animal Medicine;
      v) The **Animals for Research Act** – Ontario Ministry of Agriculture, Food and Rural Affairs;
      vi) For animal-based science involving U.S. funding, **Policy on Humane Care and Use of Laboratory Animals** – Public Health Service – Office of Laboratory Animal Welfare (OLAW);
      vii) University Policies – Academic Integrity in Research Activities [MAPP 7.0]; Policy and Procedures for the Use of Animals in Research, Testing and Teaching [MAPP 7.12]; Standardized Training in Animal Care and Use [MAPP 7.10]; Post Approval Monitoring Program [MAPP 7.15]; UCAC policies; ACC’s Terms of Reference; ACC-approved procedures, including Standard Operating Procedures (SOPs).
b) Ensure that the University’s and its affiliates’ animal facilities and personnel provide appropriate welfare, care, and supervision of all animals before, during and after the course of experimental procedures and/or teaching exercises and/or displays in accordance with the aforementioned regulatory policy statutory requirements, regulations, and guidelines.

c) Work with the University community to ensure that all animal users and care givers are informed of and comply with institutional animal care and use policies.

d) Address any individual or organizational submissions or complaints relating to the operation of the Animal Care Committee (ACC), the Department of Animal Care and Veterinary Services (ACVS), and/or the care and use of animals within its jurisdiction.

e) Use its authority as delegated by the Vice President (Research) to:
   i) Stop any procedure it considers objectionable on the basis that unnecessary distress or pain is being experienced by an animal;
   ii) Stop immediately any use of animals which deviates from the approved use, any non-approved procedure, or any procedure causing unforeseen pain or distress to animals; and
   iii) Have an animal euthanized humanely if pain or distress caused to the animal is not part of the approved Animal Use Protocol and cannot be alleviated; and
   iv) Delegate authority to treat or euthanize animals to an ACVS veterinarian.

f) Hear and decide appeals from decisions of the ACC in accordance with appeal mechanisms established in the Policy and Procedures for the Use of Animals in Research, Testing and Teaching [MAPP 7.12].

g) Support the ACC in promptly resolving non-compliance as described within the Concerns Identification, Project Refinement and Corrective Response policy and related procedures.

h) Review and approve internal policies directly associated with animal-based science at Western and its affiliates.

i) Advise on or direct:
   i) future requirements for animal facilities and foster the orderly development of such facilities by reviewing all developmental plans for additions, expansions, consolidations and renovations of animal facilities and determine that adequate professional advice has been sought with respect to their design and equipage;
   ii) city-wide health surveillance strategies;
   iii) disease outbreak and other disaster response;
   iv) strategies for proactively and reactively managing activism and protests against animal research;
   iv) other animal-science related issues with potential for significant impact upon the program.

j) Advise the President & Vice-Chancellor, who shall bring to Senate via the University Research Board those matters requiring Senate’s attention.

k) Report on its activities to Senate through the University Research Board at least annually.

l) Ensure that enquiries from the public and the news media regarding the procurement, care and use of animals at this University and affiliated institutions are directed to a Communications Response Team of the UCAC, chaired by the Vice President (Research).
3) **Composition & Terms of Office** –

Voting members shall represent all of Western’s animal-based science programs:

a) President & Vice-Chancellor

b) Vice President (Research), or designate, who will serve as Chair

c) Vice-Provost (Graduate & Postdoctoral Studies), or designate

d) Scientific Director, Lawson Health Research Institute, or designate

e) Director, Animal Care and Veterinary Services, or designate

f) Chair, Basic Sciences Committee from Schulich School of Medicine & Dentistry, or designate

g) Chair, Animal Care Committee, or designate (The designate must be a member of ACC at the time of appointment)

h) Dean of Schulich School of Medicine and Dentistry, or designate

i) Dean of Science, or designate

j) Dean of Social Science, or designate

k) Dean of Health Sciences, or designate

l) Four faculty members elected by Senate: two who conduct animal-based research and two who do not conduct animal-based research. None of these faculty shall be members of the ACC.

m) One student, appointed by the President & Vice-Chancellor.

n) Ex officio Members – non-voting:

i) ACVS Veterinarian appointed by the ACVS Director

ii) Secretary of Senate

o) With the exception of the Director ACVS, other ACVS veterinarians, and the ACC Chair, no member of UCAC may at the same time be a member of the ACC.

p) The Council shall select a Vice-Chair from the voting members of Council for a two-year term, once renewable.

*The list of the most up to date internal policies is posted on Research Western’s web page:*

http://uwo.ca/research/services/animalethics/animal_care_and_use_policies.html
University Council on Animal Care (UCAC)

Effective Date: December 2015

Revised: 11 April, 2018 DRAFT22MAY2018

TERMS OF REFERENCE

1) Purpose - The University Council on Animal Care’s (UCAC) purpose is to oversee and advise on all matters pertaining to the procurement, maintenance, and use of animals as defined by the Canadian Council on Animal Care (CCAC), hereafter referred to as “animals,” for research, testing, teaching, and display associated with the University and its affiliated bodies.

a) As necessary, the UCAC shall deliver its mandate through the following sub-committees and/or department:
   i) Animal Care Subcommittee (ACC);
   ii) Department of Animal Care & Veterinary Services (ACVS);
   iii) Other subcommittees as developed by UCAC.

2) Responsibilities - With the assistance of its ACC and ACVS, the UCAC has overall responsibility to:

a) Ensure that all animals are procured, cared for and used in a manner that maintains animal-based science activities of the University and its affiliates in accordance with all Federal, National, Provincial, and University Institutional and U.S. (as applicable) policy statutory requirements, regulations and guidelines, including:
   i) The Canadian Council on Animal Care (CCAC) –
      (1) Policy statements, guidelines, and other standards
      http://www.ccac.ca/en_/standards/policies;
      (2) Other standards http://www.ccac.ca/en_/standards/other_standards; and
   iii) Other Federal agencies whose policies apply to the use of animals and/or materials used in research involving animals, including but not limited to:
      (1) Canadian Food Inspection Agency;
      (2) Health Canada;
      (3) Public Health Agency of Canada;
      (4) Environment Canada;
      (5) Transport Canada.
   iv) The Canadian Association of Laboratory Medicine’s CALAM Standards of Animal Veterinary Care – Canadian Association for Laboratory Animal Medicine;
   v) The Animals for Research Act (Ontario) – Ontario Ministry of Agriculture, Food and Rural Affairs;
   For animal-based science involving U.S. funding –
   vi) Animal Welfare Act (AWA) and Animal Welfare Regulations – U.S. Department of Agriculture (USDA)
   v) Policy on Humane Care and Use of Laboratory Animals – Public Health Service – Office of Laboratory Animal Welfare (OLAW);
b) Ensure that the University's and its affiliates' animal facilities and personnel provide appropriate welfare, care, and supervision of all animals before, during and after the course of experimental procedures and/or teaching exercises and/or displays in accordance with the aforementioned regulatory policy statutory requirements, regulations, and guidelines.

c) Work with the University community to ensure that all animal users and caregivers are informed of and comply with institutional animal care and use policies.

d) Address any individual or organizational submissions or complaints relating to the operation of the Animal Care Committee (ACC), the Department of Animal Care and Veterinary Services (ACVS), and/or the care and use of animals within its jurisdiction.

e) Use its authority as delegated by the Senate Vice President (Research) to:
   i) Stop any procedure it considers objectionable on the basis that unnecessary distress or pain is being experienced by an animal;
   ii) Stop immediately any use of animals which deviates from the approved use, any non-approved procedure, or any procedure causing unforeseen pain or distress to animals; and
   iii) Have an animal euthanized humanely if pain or distress caused to the animal is not part of the approved Animal Use Protocol and cannot be alleviated; and
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   i) future requirements for animal facilities and foster the orderly development of such
      facilities by reviewing all developmental plans for additions, expansions, consolidations
      and renovations of animal facilities and determine that adequate professional advice has
      been sought with respect to their design and equipage;
   ii) city-wide health surveillance strategies;
   iii) disease outbreak and other disaster response;
   iv) strategies for proactively and reactively managing activism and protests against animal
      research;
   iv) other animal-science related issues with potential for significant impact upon the
      program.

j) Advise the President & Vice-Chancellor, who shall bring to Senate via the University
   Research Board those matters requiring Senate's attention.

k) Report on its activities to Senate through the University Research Board at least annually.

l) Ensure that enquiries from the public and the news media regarding the procurement, care
   and use of animals at this University and affiliated institutions are directed to a
   Communications Response Team of the UCAC, chaired by the Vice President (Research).

3) **Composition & Terms of Office** –

   Voting members shall represent all of Western's animal-based science programs:
   a) President & Vice-Chancellor
   b) Vice President (Research), or designate, who will serve as Chair
   c) Vice-Provost (Graduate & Postdoctoral Studies), or designate
   d) Scientific Director, Lawson Health Research Institute, or designate
   e) Director, Animal Care and Veterinary Services, or designate
   f) Chair, Basic Sciences Committee from Schulich School of Medicine & Dentistry, or designate
   g) Chair, Animal Care Committee, or designate (The designate must be a member of ACC at
      the time of appointment)
   h) Dean of Schulich School of Medicine and Dentistry, or designate
   i) Dean of Science, or designate
   j) Dean of Social Science, or designate
   k) Dean of Health Sciences, or designate
   l) Four faculty members elected by Senate: two who conduct animal-based research and two
      who do not conduct animal-based research. None of these faculty shall be members of the
      ACC.
   m) One student, appointed by the President & Vice-Chancellor.
   n) Ex officio Members – non-voting:
      i) ACVS Veterinarian appointed by the ACVS Director
      ii) Secretary of Senate
   o) With the exception of the Director ACVS, other ACVS veterinarians, and the ACC Chair, no
      member of UCACAC may at the same time be a member of the ACC.
p) The Council shall select a Vice-Chair from the voting members of Council for a two-year term, once renewable.

*The list of the most up to date internal policies is maintained by the Animal Care and Veterinary Services posted on Research Western’s web page:
http://uwo.ca/research/services/animalethics/animal_care_and_use_policies.html
http://www.uwo.ca/research/services/animalethics/animal_care_and_use_policies.html
REPORT OF THE NOMINATING COMMITTEE

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</tbody>
</table>

FOR ACTION

1. **Decanal Selection Committee – Richard Ivey School of Business**

**Composition:** A committee to select a Dean of a Faculty shall consist of:

(a) the Provost & Vice-President (Academic), who shall be Chair
(b) the Vice-President (Research)
(c) 6 persons, one of whom shall be an undergraduate student enrolled in the Faculty and one of whom shall be a graduate student enrolled in a program housed in the relevant Faculty, elected by the Council of the Faculty concerned
(d) 3 faculty or staff elected by Senate, who are from outside of the Faculty concerned, and only one of whom may be a Dean.

**Current Senate Elected Members:**

- vacancy
- vacancy
- Scott MacDougall-Shackleton (SS)

**Required:** 2 faculty or staff elected by Senate, who are from outside of the Richard Ivey School of Business and only one of whom may be a Dean to replace K. Barnes (Sci) who has resigned and A. Hrymak who is the Provost-Elect.

**Nominees:**

- Michael Bartlett (Engg)
- Erika Chamberlain (Dean/Law)

FOR INFORMATION

**Future Business of the Senate Nominating Committee**

Upcoming Nominating Committee agenda items are posted on the Senate website at:

REPORT OF THE SENATE COMMITTEE ON ACADEMIC POLICY AND AWARDS
(SCAPA)

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<td>Revisions to the Course Requirements of the Graduate Programs (MA and PhD) in English</td>
<td>Yes</td>
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<td>Revisions to the Admission Requirements of the Master of Science in Occupational Therapy (MScOT) and the Master of Physical Therapy (MPT) Programs</td>
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<td>Faculty of Health Sciences, Arthur Labatt Family School of Nursing: Revisions to the Admission Requirements</td>
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<td>Schulich School of Medicine &amp; Dentistry and the Faculty of Science: Revisions to the Admission Requirements of the MD and DDS Programs</td>
<td>Yes</td>
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<td>Articulation Agreements:</td>
<td>Yes</td>
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<td>Western University and Sheridan College Institute of Technology and Advanced Learning for qualified graduates of the Chemical Engineering Technology – Environmental Diploma Program</td>
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<td>Brescia University College: Specialization in Sociology</td>
<td>Yes</td>
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<td>Yes</td>
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<td>Yes</td>
</tr>
<tr>
<td>New Scholarships and Awards</td>
<td>Yes</td>
</tr>
</tbody>
</table>

FOR APPROVAL

1. Faculty of Engineering: Introduction of the New Subject Area “Integrated Engineering (IE)”

Recommended: That the new subject area “Integrated Engineering (IE)” be introduced into the undergraduate offerings of the Faculty of Engineering, and included in Category C for Breadth Requirements for Graduation, as shown below, effective September 1, 2018.
The first part of the policy is unchanged

CATEGORY C

Engineering
Chemical and Biochemical Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Engineering Science, Green Process Engineering, Integrated Engineering, Mechanical and Materials Engineering, Mechatronic Systems Engineering, Software Engineering

Medical Science
Anatomy and Cell Biology, Biochemistry, Biostatistics, Chemical Biology, Epidemiology, Epidemiology and Biostatistics, Medical Biophysics, Medical Health Informatics, Medical Sciences, Microbiology and Immunology, Neuroscience, One Health, Pathology, Pathology and Toxicology, Pharmacology, Physiology, Physiology and Pharmacology

Science

Various
Communication Sciences and Disorders, Financial Modelling

The rest of the policy is unchanged

Background
In May 2018, the Board of Governors approved the creation of a new Centre for Engineering Leadership and Innovation that has academic responsibility for the Integrated Engineering program. Seven of existing undergraduate courses, that are not discipline specific but are currently housed in other Engineering departments, need to be moved to the new Centre, which necessitates the creation of the new subject area, Integrated Engineering.

2. School of Graduate and Postdoctoral Studies: Revisions to the Course-Based MSc in Clinical Medical Biophysics (CAMPEP) Program

Recommended: That the revisions to the course-based MSc in Clinical Medical Biophysics (CAMPEP) program be approved effective September 1, 2018, as shown in Appendix 1.

Background
The Department is proposing to implement the standalone course-based CAMPEP MSc, with an optimized curriculum that will allow completion of the necessary course work within one year.

The current program’s curriculum exceeds the learning outcomes prescribed by CAMPEP’s Standards for Accreditation. The program identified opportunities to improve the efficiency of delivering CAMPEP’s Standards for Accreditation and consolidated learning outcomes into fewer courses, removing extraneous topics and redundancies, resulting in an optimized curriculum with no changes to the learning outcomes defined by the program or required for accreditation. This benefits students by allowing them to complete the CAMPEP requirements with fewer courses.

New students can choose one of two pathways: (1) complete the course-based CAMPEP MSc with the optimized curriculum, or (2) complete a thesis-based PhD in Medical Biophysics while taking all of the courses in the optimized CAMPEP curriculum.
Students choosing pathway (1) will receive the MSc upon successful completion of the optimized curriculum. Thesis-based PhD students choosing pathway (2) will receive a notation on their transcripts in the form of a milestone reading “All CAMPEP course requirements completed”, and a letter from the CAMPEP director certifying that they have completed the CAMPEP curriculum, upon completion of the required CAMPEP courses. It is confirmed with CAMPEP leadership that students choosing either of these pathways will be equally eligible to undertake clinical physics residency training after graduation.

Current students (i.e. students enrolled in the CAMPEP MSc+PhD program prior to September 2018) will not be negatively affected by this modification. They will be free to choose either of the following curriculum pathways: (1) complete the current curriculum (current curriculum courses will be offered until all current students have completed), or (2) complete the optimized curriculum. Upon successful completion, current students will receive the CAMPEP MSc+PhD as originally stipulated in their letters of offer.

Current students who have not yet completed the CAMPEP course requirements may choose to remain in the CAMPEP MSc+PhD program or choose to withdraw from the CAMPEP MSc and instead receive the transcript notation and certifying letter referenced above. In both cases, they will be expected to complete within a total of five years.

3. School of Graduate and Postdoctoral Studies: Revisions to the Course Requirements of the Graduate Programs (MA and PhD) in English

Recommended: That the revisions to the course requirements of the graduate programs (MA and PhD) in English be approved effective September 1, 2018, as shown below.

<table>
<thead>
<tr>
<th>Current program</th>
<th>Proposed Change(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>…involves the completion of four full-year (or equivalent) courses and one half-year bibliographical methods course. (MA)</td>
<td>…involves the completion of four full-year (or equivalent) courses. (MA)</td>
</tr>
</tbody>
</table>

Compulsory Course in Bibliography and Textual Studies

English 9002 is a compulsory half-course for all students in the M.A. year or in a Ph.D. program. A student who regards his or her previous training in bibliography and textual studies as satisfactory must arrange to see the course instructor, who will assess that previous training and determine whether or not the student must take English 9002. This course will include study of annotation, the history and nature of textual scholarship in English, documents, the history of book production, printing, and editing. (PhD) If this proposed change is approved, the requirement will be deleted. The course will be taught in 2018-19 as an elective.

Background

The graduate program in English is proposing to remove a half-year bibliographical methods course – English 9002 - from the list of required courses. This course is currently part of the M.A. program and the same requirement exists for Ph.D. students who have not completed the course during their M.A.. It is proposed that this requirement is removed from both programs.

This course had evolved over a number of years in directions that have greatly reduced its effectiveness as an introduction to bibliography, textual criticism, and the history of the book. It has been determined by the department that it no longer adequately fulfills the function for which it was originally intended. It will be replaced with more focused elective offerings on these subjects, to be taught by specialists in the field, and
made available as possible and expedient through the normal procedures established for graduate courses in English. This motion also brings our graduate programs into line with developments in other Canadian English departments.

4. **School of Graduate and Postdoctoral Studies: Revisions to the Admission Requirements of the Master of Science in Occupational Therapy (MScOT) and the Master of Physical Therapy (MPT) Programs**

**Recommended:** That the admission requirements of the Master of Science in Occupational Therapy (MScOT) and the Master of Physical Therapy (MPT) programs be revised to include the new screening tool “Computer-Based Assessment for Sampling Personal Characteristics” (CASPer) starting with the 2019 admission cycle.

**Background**
CASPer is a web-based assessment of situational-based judgement (see https://www.dropbox.com/s/2zceednw3vtiitd/Altus%20Assessments%20Customer%20Manual%202017%20%281%29.pdf?dl=0) and it is used by a large number of professional schools in Canada, Australia, New Zealand and the US. It has been shown to be highly predictive of medical student performance on the Medical Council of Canada licensing exams; i.e., PHELO (Population Health, Ethical, Legal and Organizational aspects of Medicine) and C2LEO (Considerations of Legal, Ethical and Organizational Aspects of the Practice of Medicine). Lower scores on both the PHELO and the C2LEO are highly correlated with complaints to the Canadian provincial medical colleges (e.g., College of Physicians and Surgeons of Ontario). CASPer performs slightly better than the Multiple Mini-Interview (MMI) in terms of predictive validity but requires far less resources to administer locally. While GPA is predictive of student performance on academic aspects of medical school qualifying exams, CASPer is measuring important aspects of the capacity to practice as a health care professional which are currently not evaluated in the admissions process.

The Admission Committees of the School of Occupational Therapy and the School of Physical Therapy recommend trialing CASPer as a new screening tool beginning in the 2019 admissions cycle. The scores produced by CASPer will be monitored over the next 5 years to confirm the appropriateness of its use and assigned weighting.

In the School of Occupational Therapy, applicants will be ranked based on both GPA (70%) and CASPer (30%) scores, and the top 400 ranked applicants will be considered for admission. Applicants who are not ranked within the top 400, but who score ≥2 SD above the mean on CASPer (above average performance) may also be considered for admission. The weightings will be revisited and adjusted if necessary, based on the ongoing evaluation within the program, to ensure the CASPer scores are weighted appropriately.

In the School of Physical Therapy, applicants will be rank ordered by GPA and the top 300 will be considered for admission. Applicants who are not ranked within the top 300 by GPA but who score ≥ 2SD above the mean on CASPer will also be considered for admission (must have a minimum GPA of 3.4). Any applicant with a score of <0 SD on CASPer (i.e., below average performance) will be removed from the top 300 GPA ranked files for review to determine whether the file should be considered for admission. Ongoing monitoring of admissions criteria and CASPer scores will be completed to ensure this tool is producing measurable performance indicators.

5. **Faculty of Health Sciences, Arthur Labatt Family School of Nursing: Revisions to the Admission Requirements**

**Recommended:** That the admission requirements for the undergraduate Nursing programs be revised effective September 1, 2018, as shown in Appendix 2.

**Background**
Changes are being made to revise outdated information.
6. **Schulich School of Medicine & Dentistry: Revisions to the Admission Requirements of the MD and DDS Programs**

6a. **Revisions to the Admission Requirements of the MD Program**

**Recommended:** That the MD program’s Admission Requirements in the Schulich School of Medicine & Dentistry be revised, as set out in Appendix 3, effective July 1, 2018.

**Background**

The program is now requiring an Autobiographical Summary from candidates as Schulich is implementing a competency-based curriculum in 2019 for the MD program and they want to ensure that they are selecting students who will be successful in this learning environment.

In addition, a statement is added to clarify that students must complete their Masters program they are enrolled in at the time of application in order to be considered for admission.

6b. **Revisions to the Admission Requirements of the DDS Program**

**Recommended:** That the DDS program’s Admission Requirements in the Schulich School of Medicine & Dentistry be revised, as set out in Appendix 4, effective July 1, 2018.

**Background**

A statement is added to the Admission requirements to clarify that if both numeric and alpha grade appear on the transcript, the numeric grade will be considered for admission purposes.

7. **Articulation Agreement between Western University and Sheridan College Institute of Technology and Advanced Learning for qualified graduates of the Chemical Engineering Technology – Environmental Diploma Program**

**Recommended:** That the Articulation Agreement between Western University and Sheridan College Institute of Technology and Advanced Learning regarding the transfer of credit for students in the Chemical Engineering Technology – Environmental Diploma Program be approved effective July 1, 2018, as shown in Appendix 5.

**Background**

For the past several years, Western has awarded transfer credit to graduates from the Chemical Engineering Technology – Environmental Diploma Program at Sheridan College. This agreement formalizes this practice and supports the initiatives of the province to develop formal articulation agreements recognized by the Ontario Council for Articulations and Transfer (ONCAT).

The Registrar’s Office at Western, in consultation with the appropriate authorities in the respective programs will be responsible for the administrative processes associated with this Articulation Agreement.

This agreement will be effective July 1, 2018 and shall continue in force unless terminated by either party.

8. **Renewal of the Articulation Agreement between Western University, Faculty of Science, Environmental Science Program, and Northern College for qualified graduates of the Environmental Technician Diploma**

**Recommended:** That Senate approve the renewal of the Articulation Agreement between Western University and Northern College regarding the transfer of credit for students in the Environmental Technician Program, as shown in Appendix 6.
Background
For the past several years, Western has awarded transfer credit to graduates of the two-year Environmental Technician Diploma Program at Northern College. This agreement has expired and is due to be renewed. The renewal of this agreement supports the initiatives of the province to develop formal articulation agreements recognized by the Ontario Council for Articulations and Transfer (ONCAT). This renewal is an addition to the existing Multilateral Agreement that passed on March 17, 2017.

The Registrar’s Office at Western, in consultation with the appropriate authorities in the respective programs will be responsible for the administrative processes associated with this Articulation Agreement.

This Agreement will be effective July 1 2018 and shall continue in force unless terminated by either party.

FOR INFORMATION

9. Brescia University College: Specialization in Sociology

The Specialization in Sociology will be added to the Academic Calendar in Brescia’s offerings of programs as shown below. This is to correct an oversight in the SCAPA Report to Senate of September 19, 2003 (S.03-152), which did not list the Specialization in the list of modules being introduced in September 2004 at the time of introducing the new academic choices (modular system) at Western. Students have been graduating with this degree since 2003 and the module appears in the Undergraduate Program Review (UPR) conducted under the current IQAP in 2015-16, therefore this proposal is for administrative purposes only.

NEW CALENDAR COPY

SPECIALIZATION IN SOCIOLOGY

Admission Requirements
Completion of first-year requirements, including Sociology 1020 or Sociology 1021E with a mark of at least 60%.

Module
9.0 courses:

1.0 course: Sociology 2205A/B and Sociology 2206A/B.
1.0 course from: Sociology 2240E or Sociology 2270A/B and Sociology 2271A/B.
1.0 course in Sociology numbered 3000-3999.
4.0 courses in Sociology numbered 2200-3999.
2.0 courses in Sociology numbered 2100 to 3999.

10. SUPR-U Report: Cyclical Reviews of English and Writing Studies; Anatomy and Cell Biology; Dentistry; Biology

The following cyclical reviews of undergraduate programs were conducted:

<table>
<thead>
<tr>
<th>Faculty/Affiliates</th>
<th>Program</th>
<th>Date of Review</th>
<th>SUPR-U recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts and Humanities</td>
<td>English and Writing Studies</td>
<td>February 26, 2018</td>
<td>Good Quality with Report in Three Years</td>
</tr>
<tr>
<td>Schulich School of Medicine &amp; Dentistry</td>
<td>Anatomy and Cell Biology</td>
<td>February 5, 2018</td>
<td>Good Quality</td>
</tr>
<tr>
<td>Schulich School of Medicine &amp; Dentistry</td>
<td>Dentistry</td>
<td>March 7, 2018</td>
<td>Good Quality with Report in Three Years</td>
</tr>
<tr>
<td>Science</td>
<td>Biology</td>
<td>March 28, 2018</td>
<td>Good Quality</td>
</tr>
</tbody>
</table>

The detailed Final Summary Reports for these reviews are attached as Appendix 7.
11. **SUPR-G Report: Cyclical Reviews of Anatomy and Cell Biology; Biochemistry; Medical Biophysics; Physiology and Pharmacology; Biology; Psychology**

The following cyclical reviews of graduate programs were conducted:

<table>
<thead>
<tr>
<th>Faculty/Affiliates</th>
<th>Program</th>
<th>Date of Review</th>
<th>SUPR-G recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schulich School of Medicine &amp; Dentistry</td>
<td>Anatomy and Cell Biology</td>
<td>February 28-March 1, 2018</td>
<td>Good Quality</td>
</tr>
<tr>
<td>Schulich School of Medicine &amp; Dentistry</td>
<td>Biochemistry</td>
<td>January 17-18, 2018</td>
<td>Good Quality</td>
</tr>
<tr>
<td>Schulich School of Medicine &amp; Dentistry</td>
<td>Medical Biophysics</td>
<td>November 23-24, 2017</td>
<td>Good Quality with Report (update September of 2019) with full report September 2020</td>
</tr>
<tr>
<td>Schulich School of Medicine &amp; Dentistry</td>
<td>Physiology and Pharmacology</td>
<td>February 8-9, 2018</td>
<td>Good Quality</td>
</tr>
<tr>
<td>Science</td>
<td>Biology</td>
<td>November 27-28, 2017</td>
<td>Good Quality</td>
</tr>
<tr>
<td>Social Science</td>
<td>Psychology</td>
<td>February 26-27, 2018</td>
<td>Good Quality with Report due April 2019</td>
</tr>
</tbody>
</table>

The detailed Final Summary Reports for these reviews are attached as [Appendix 8](#).

12. **New Scholarships and Awards**

SCAPA approved on behalf of the Senate, the Terms of Reference for the new scholarships and awards shown in [Appendix 9](#) for recommendation to the Board of Governors through the Vice-Chancellor.
### MSc in Clinical Medical Biophysics

<table>
<thead>
<tr>
<th><strong>Current courses (with weights)</strong></th>
<th><strong>Proposed Courses (with weights)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MANDATORY</strong></td>
<td><strong>MANDATORY (ALL COURSES)</strong></td>
</tr>
<tr>
<td>BIOPHYS9513Y: Scientific Communications</td>
<td>BIOPHYS9513A and BIOPHYS9514B: Scientific Communications</td>
</tr>
<tr>
<td>BIOPHYS9700: Graduate Seminars</td>
<td>BIOPHYS9700: Graduate Seminars</td>
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<tr>
<td>BIOPHYS9567B Radiation Biology with Biomedical Appl (0.5)</td>
<td>BIOPHYS9567B Radiation Biology with Biomedical Appl (0.5)</td>
</tr>
<tr>
<td>BIOPHYS9515 Introduction to Medical Imaging (0.5)</td>
<td>BIOPHYS9515 Introduction to Medical Imaging (0.5)</td>
</tr>
<tr>
<td>PHYS9655 Radiological Physics (0.5)</td>
<td>PHYS9655 Radiological Physics (0.5)</td>
</tr>
<tr>
<td>ANAT2221 Functional Human Anatomy (1.0)</td>
<td>BIOPHYS9572 CAMPEP Anatomy / Physiology (0.5)</td>
</tr>
<tr>
<td>PHYSIOL2130 Human Physiology (1.0)</td>
<td>BIOPHYS9507 Clinical Physics: Practice and Quality (0.5)</td>
</tr>
<tr>
<td>BIOPHYS9603 Research Ethics and Biostatistics (0.5)</td>
<td>BIOPHYS9672 Practical Radiotherapy Physics (0.5)</td>
</tr>
<tr>
<td>AAPM Professionalism (n/a)</td>
<td>LHSC Radiation and Lab Safety Orientation (n/a)</td>
</tr>
<tr>
<td>BIOPHYS9513Y Scientific Communication</td>
<td>BIOPHYS9522 Inferencing from Data Analysis (0.5)</td>
</tr>
<tr>
<td>BIOPHYS9522 Inferencing from Data Analysis (0.5)</td>
<td>LHSC Good Clinical Practice (n/a)</td>
</tr>
<tr>
<td><strong>ELECTIVES (1.5 CREDITS REQUIRED)</strong></td>
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<tr>
<td>BIOPHYS9503 Introductory Medical Imaging (0.5)</td>
<td></td>
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<tr>
<td>BIOPHYS9520 Practical Medical Physics Lab (0.5)</td>
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<tr>
<td>BIOPHYS9516 Imaging Principles (0.5)</td>
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<tr>
<td>BIOPHYS 9663 MRI Physics 9663B (0.5)</td>
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<tr>
<td>BIOPHYS 9650 Conceptual MRI (0.5)</td>
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<tr>
<td>PHYS9662 Nuclear Magnetic Resonance (0.5)</td>
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<tr>
<td>BIOPHYS9665 Advanced MRI Physics (0.5)</td>
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</tr>
<tr>
<td>BIOPHYS9570 Practical Nuclear Medicine Physics (1.0)</td>
<td></td>
</tr>
<tr>
<td>BIOPHYS9672 Practical Radiotherapy Physics (0.5)</td>
<td></td>
</tr>
</tbody>
</table>
Nursing Applicants

Full statements of some policies are not included below but are in the Academic Calendar:

1) Ontario high school applicants should refer to Ontario Applicants: General Admission Requirements to Programs at http://www.uwo.ca/univsec/pdf/academic_policies/admission/ontario.pdf for specific admission requirements to Western UWO and the Western-Fanshawe Collaborative BScN Program.

2) See also English Language Proficiency Requirements for Admission to Undergraduate Nursing Programs at http://www.uwo.ca/univsec/pdf/academic_policies/admission/englishadm.pdf


4) Students admitted are advised to refer to the program registration requirements in the Academic Calendar at http://www.uwo.ca/univsec/pdf/academic_policies/registration_progression_grad/profprog_nursing.pdf

CPR-HCP CERTIFICATION

Students are required to obtain a valid certificate in Cardiopulmonary Resuscitation at the Health Care Provider level. This certificate must be renewed annually.

Students in the Western-Fanshawe Collaborative BScN program must present this certificate to ParaMed (London) by the advertised deadline date in Years 2, 3 and 4 of the program, as communicated by the Placement Coordinator, Requirements & Information.

Students in the Compressed Time Frame BScN program must present this certificate to ParaMed (London) by the advertised deadline date in each of Levels 1 through 5 of the program, as communicated by the Placement Coordinator, Requirements & Information.

Students who fail to comply with this policy will be denied access to their professional practice courses.

[Secretarial note: Students are required to obtain a valid Standard First Aid Course upon admission to the program. See the academic calendar for information.]

WESTERN-FANSHAWE COLLABORATIVE NURSING PROGRAM

Admission Requirements - For Admission, September 2011 and beyond

Enrolment in first year is limited and admission is competitive. The minimum admission average is determined each year and is dependent on the number and quality of applicants, and number of available places in the program. Meeting the minimum requirements listed does not guarantee admission.

Possession of published minimum requirements does not guarantee admission. Current OSSD applicants should request application forms from their Secondary School. All other applicants contact the Registrar’s Office.

Note: All students applying to the Western-Fanshawe Collaborative BScN program do so through the Ontario Universities’ Application Centre (www.ouac.on.ca), choosing program code ‘ENW’ for Western and ‘ENF’ for Fanshawe College. Students are encouraged to apply to both Western and Fanshawe where applicable.
**Note:** Priority consideration shall be given, all other things being equal, first to Canadian citizens and permanent residents from Ontario, and second to Canadian citizens and permanent residents from other Canadian provinces. Special consideration may be given to a student supported by the Canadian International Development Agency or a similar agency.

**Applicants Presenting an Ontario Secondary School Diploma**

Applicants must complete an Ontario Secondary School Diploma (OSSD) and have a minimum of six Grade 12 U and/or M-level courses (excluding co-op courses), credits, including the following with a minimum of 65% in each:

**REQUIRED**

- Grade 12 U English ENG4U
- Grade 12 U Biology SBI4U
- Grade 12 U Chemistry SCH4U
- One of:
  - Grade 11 U Functions MCR3U
  - Grade 11 M Functions and Applications MCF3M

In order to be considered for admission students should strive to achieve an average in the high 70s to low 80s.

**Note:** If an applicant does not meet the minimum Math requirement in one of the Grade 11 courses, Western will check for a minimum of 65% in one of Advanced Functions MHF4U, Calculus and Vectors MCV4U, or Math of Data Management MDM4U.

**Applicants with High School Standing from other Canadian Provinces**

Applicants from other provinces in Canada are eligible to apply for admission on the basis of senior matriculation if their academic records meet, in subject matter and standing obtained, both the admission requirements of this School and the admission requirements of to a recognized university in their own province. This must include the successful completion of (Grade 12 university preparation) courses in English, Biology, Chemistry and Mathematics (comparable to Ontario Grade 11 Functions & Relations), with a minimum grade of 65% in each.

Please refer to Admission of Students From Canadian Provinces Other Than Ontario at http://www.uwo.ca/univsec/pdf/academic_policies/admission/otherprovinces.pdf

**Applicants Currently Enrolled in a University, or who have Previously Attended University or other Post-Secondary Institutions**

Entry to the Western-Fanshawe Collaborative BScN program is on a competitive basis. Applicants applying to transfer into or enter the nursing program from Post-Secondary studies are considered on the basis of their OSSD average high school pre-requisite coursework and university, college or other post-secondary standing. Specifically,

- students applying with one year of full-time university study must have achieved a minimum 70% overall average;
- students having completed two or more full-time years of university may be admitted on the basis of study must have achieved a minimum overall of 70% in the final two years of study (10.0 credits) of study. If courses are repeated within the last 10.0 credits completed, both attempts are utilized in the admission average;
- students applying from part-time university study will be admitted on the basis of a minimum 70% average in the last 10 courses completed;
- students applying from a community college a College of Applied Arts and Technology (CAAT) must have achieved an overall a cumulative average of “B” (GPA of 2.5 3.0) in a completed program.
All applicants must also have completed the equivalent of the following Ontario secondary school courses with a minimum grade of 65% in each:

- **Gr. 12 U** English **ENG4U**
- **Gr. 12 U** Biology **SB14U**
- **Gr. 12 U** Chemistry **SCH4U**
- One of:
  - **Gr. 11 U** Functions **MCR3U**
  - **Gr. 11 M** Functions and Applications **MCF3M**

Applicants may be required to submit official detailed course syllabus information to determine if courses meet the pre-requisite requirements.

**Mature Applicants**

Applicants will be considered for admission who:

- meet Western’s definition of mature applicant, and
- are able to demonstrate academic success within the last four (4) years by achieving a credit equivalent to the following Ontario secondary school courses, according to the general criteria at Western, with a minimum mark of 65% in each:

  - **Gr. 12 U** English **ENG4U**
  - **Gr. 12 U** Biology **SB14U**
  - **Gr. 12 U** Chemistry **SCH4U**
  - One of:
    - **Gr. 11 U** Functions **MCR3U**
    - **Gr. 11 M** Functions and Applications **MCF3M**

**Aboriginal Indigenous Applicants**

The School of Nursing recognizes that Aboriginal Indigenous Peoples are not represented adequately in the nursing profession and therefore welcomes their applications.

Eligible Aboriginal candidates Indigenous applicants may be admitted to the nursing program from one of two paths:

1. **Aboriginal candidates Indigenous applicants** who have successfully completed the program’s admission requirements, and whose admission average has met the annual program admission average as determined by the School of Nursing and the University's Admissions Office, will be considered for admission along with all other program applicants.

2. **Aboriginal candidates Indigenous applicants** who have successfully completed the program’s admission requirements, but whose overall average has NOT met the annual program admission average as determined by the School of Nursing and the University's Admissions Office, will be considered on a discretionary basis to fill four seats (two seats at the UWO site and two seats at the Fanshawe College site) set aside for applicants in this latter category.

**Applicants from Diploma and Degree Nursing Programs**

Applicants in this category must have completed the requirements as outlined below to receive admission consideration:

1. Meet admission requirements as stated in the current Academic Calendar;
2. Submit, in writing, the reason for leaving the previous or current program and for applying to a nursing program at The University of Western Ontario.

The applicant must provide written permission to the School of Nursing to contact the Dean, Director, Coordinator, or Head of the Nursing program in which the student was previously or is currently registered
for release of information about the student’s status in the previous or current nursing program (including matters pending) with regard to failures, probation, suspensions, determination of professional unsuitability, disciplinary action, or other related matters.

**Applicants are not admitted into upper year studies. All core Nursing courses must be completed at Western University and/or Fanshawe College.**

**Submission of Applications for Admission**

Current OSSD applicants should request application forms from their secondary school. All other applicants should contact the Office of the Registrar.

Applications for admission to the Western-Fanshawe Collaborative BScN Program must be submitted by February 15. It is recommended that the application be made early to ensure all required documentation arrive in a timely manner. The enrolment in this program is limited. Because of the large number of applicants, it is recommended that application be made early. The enrolment in this program is limited.

**Admissions Appeals Procedure**

Following the final date for application, applicants may file any supplementary information relevant to their application with the Registrar’s Office no later than May 1.

Decisions of the Admissions Committee are final.

Applicants may request a review of the decision by the Admissions Committee, provided that such a request is based upon significant new information, pertinent to the application and not available to the applicant prior to May 1. This request must be filed with the Dean’s Registrar’s Office not later than 2 weeks after the issuance of the original decision.

**COMPRESSED TIME FRAME BScN PROGRAM**

**Admission Requirements**

To be eligible to apply to the Compressed Time Frame Bachelor of Science in Nursing (BScN) program, applicants must have completed at least ten (10.0) university-level full-course equivalents with a minimum 75% (3.0 GPA) average in the last two years or in the last ten courses of their university education, with a minimum grade of 60% in each of physiology, anatomy and statistics (see below).

The minimum 10.0 courses presented for consideration must include the following:

1. 1.0 course in human physiology, or equivalent.
2. 0.5 course in anatomy.
3. 0.5 course in introductory statistics.
4. No more than 5.0 courses at the introductory level (equivalent to courses numbered 1000 to 1999 at The University of Western Ontario Western University).

Applicants may be required to submit official detailed course syllabus information to determine if courses meet the prerequisite requirements.

If courses are repeated within the last 10.0 credits completed, both attempts are utilized in the admission average.

Enrolment in this program is limited and possession of the minimum requirements should not be viewed as a guarantee of admission. Students with university preparation outside of Canada must submit documentation from the World Education Services (WES) www.wes.org.
Submission of Application for Admission
All applicants must apply through the Ontario Universities Application Centre. The application deadline is March 1 **February 15**. It is recommended that the application be made early. The enrolment in this program is limited.

Admission Appeals Procedure
Applicants wishing to appeal an admission decision must do so following the procedure outlined in Admission Appeals Procedure specified for Western-Fanshawe Collaborative BScN Program.

ACADEMIC POLICIES: WESTERN-FANSHAWE COLLABORATIVE BScN PROGRAM/BScN PROGRAM FOR REGISTERED NURSES

Advanced Standing and Transfer of Credit
Decisions regarding advanced standing and transfer of credit are governed by the policy of this University.

1. In exceptional circumstances, a student registered in a BScN program in another university may be able to transfer into a program offered by this University. Permission must be granted by the Admissions Committee, Arthur Labatt Family School of Nursing.
2. An applicant may request transfer of credit toward a degree at this University for courses taken prior to admission to the BScN program at this University. The Arthur Labatt Family School of Nursing reserves the right to determine what transfer of credit will be granted.
3. After admission to the School of Nursing, students intending to take courses at another university are required to obtain a Letter of Permission from Program Office for credit in their BScN program.
4. Registered nurse candidates who qualify for unconditional admission to the BScN program for Registered Nurses will be admitted directly to Year 3 of the program.
5. The Introduction to Nursing Management: Distance Education program sponsored by Canadian Nurses Association/Canadian Hospital Association, and similar courses, may be granted advanced standing for Nursing 4412W/X if successfully completed within the last ten years.
Admission - MD Program

MEDICINE

The first part of the policy is unchanged

Additional Non-Academic Requirements (Page 3)

1. Citizenship
   Applicants must be Canadian Citizens or Permanent Residents of Canada.

2. Confidential Assessment Form
   Any three persons who, in the opinion of the applicant, will give an informed critical assessment will be acceptable as referees.

3. Autobiographical summary
   Applicants will be asked to highlight their top activities that showcase certain skillsets important for being a physician. Verifiers for these activities must be provided. It is the applicant’s responsibility to describe appropriate activities, provide accurate verifiers who can attest to their abilities, and ensure that verifiers are aware that they may or may not be contacted by the Admissions Office to provide support and verification of the skills and/or activities any time up to August 31st of the year following submission.

4. Interview
   Select applicants will be invited for an interview. Individuals who satisfy the academic requirements as determined by the Admissions Committee each year will have their applications reviewed carefully and will receive consideration for an interview. Interviews are structured, standardized 45-minute interviews with a panel of three: one faculty member/physician, one senior medical student, and one community representative.

   Many factors contribute to the final determination of which applicants will be invited for an interview. Achieving the minimum GPA and MCAT scores does not guarantee an invitation to be interviewed.

5. Proficiency in English
   The Schulich School of Medicine & Dentistry reserves the right to deny admission to any applicant whose facility in written and spoken English is judged to be inadequate.

6. Basic Life Support Training
   Applicants are required to complete training in standard first aid and a CPR Basic Rescuer course (CPR-C), and provide valid certification before enrolment in the medical program. It is the responsibility of the student to keep this up to date.

7. Statement on Potential Health Risks and Immunization Requirements
   Students in the Schulich School of Medicine & Dentistry will be required to care for persons with infectious diseases (including Hepatitis B and HIV) should they be assigned to them. Students accepted into the medical program will be sent complete documentation regarding health status policies and immunization requirements. Documentation of immunization and tuberculin status will be required.

8. Police Records Check Including Vulnerable Sector Screening
   All medical students will interact with vulnerable populations through the course of their academic programs. In recognition of the requirements of clinical agencies to ensure that medical students do not place vulnerable populations at risk, the Schulich School of Medicine & Dentistry requires that all students provide, as a condition of their admission into the MD program, a current Police Records check including a Vulnerable Sector (Position) Screening.
For more detailed information, please see the Admissions website, or review the Police Check policy for the Undergraduate Medicine program.

... Additional Information for Applicants (Page 5)

1. Co-op Programs and Clinical Placements
All undergraduate degree programs that have a co-op or clinical placement component are dealt with on an individual basis. Questions about how this is considered, should be emailed to admissions.medicine@schulich.uwo.ca.

If applicants are enrolled in an Honors-level co-op degree program, their academic course work will be considered as follows:

The two years considered for GPA purposes will be the best two academic years with a full course load (5.0 courses or equivalent). Please note that an “academic year” in this case will consist of the two semesters which combine to complete one of the mandatory “years” of the program (e.g., a student’s third year may consist of courses taken between September-December and May-September, while the student is registered by their university as being a third-year student. Two semesters belonging to different academic years of study will not be considered.

Applicants registered in co-operative programs should submit a separate letter from their Dean or program director that specifies the schedule of their academic and work terms if this information is not clear from their transcript. This letter should be sent directly to the Office of Admissions & Student Affairs, Schulich School of Medicine & Dentistry.

2. Graduate Students

Candidates enrolled in a Master’s program at the time of application must complete the requirements of the program. Withdrawal from a Master’s program during that year in order to enrol within Schulich Medicine will not be acceptable.

Graduate students completing thesis-based master’s degrees must have completed all requirements for their graduate degree. Final transcripts showing that all requirements for their graduate degree have been completed (or a letter attesting to the same) must be received by OMSAS no later than June 30th.

Applicants who are enrolled in a course-based master’s at the time of application must have completed all requirements by August 15th. A letter of good standing indicating there are no concerns with meeting all requirements of the course-based master’s degree must be received at OMSAS no later than June 30th.

Western does not take graduate courses into consideration for the GPA; only undergraduate years are used. Applicants who currently are enrolled in a master’s program are encouraged to make inquiries about the MD/PhD program:
http://www.schulich.uwo.ca/medicine/undergraduate/research/mdphd_program.html

The rest of the policy is unchanged.
Admission - Dentistry

The first part of the policy is unchanged

Scholastic Records (Page 2)

To be eligible for admission to Dentistry, applicants must

- be in the final year of, or have successfully completed, an undergraduate degree program leading to a four-year undergraduate degree at a recognized university. Applicants in this category are advised that the following courses are mandatory: at least 0.5 laboratory course in organic chemistry and at least 0.5 course in biochemistry, and 1.0 course in human or mammalian physiology. Successful completion of prerequisite courses for Dentistry Admissions requires a minimum grade of B or 74.5% based on the Ontario Medical Schools Application Services (OMSAS) scale for applicants studying at a Canadian university. **If both a numeric grade and an alpha grade appear on the transcript the numeric grade will be used.** Western will convert grades and averages for applicants who are not studying in a Canadian university based on grading practices and grading scale interpretation of institutions attended. It is also to their advantage to have successfully completed 1.0 laboratory course in biology, chemistry and physics

OR

- be in the final year of, or have successfully completed, a graduate degree program at a recognized university. Graduate degree candidates must complete all requirements for their graduate degree (including a successful thesis defense, if applicable) by June 30th of the year of entry. It will be the students’ responsibility to assure confirmation by their Faculty of Graduate Studies no later than June 30th that all requirements for the degree have been met. No deferred admission will be granted. Applicants in this category are advised that the following courses are mandatory: at least 0.5 laboratory course in organic chemistry, at least 0.5 course in biochemistry, and 1.0 course in human or mammalian physiology. Successful completion of prerequisite courses for Dentistry Admissions requires a minimum grade of B or 74.5% based on the Ontario Medical Schools Application Services (OMSAS) scale for applicants studying at a Canadian university. **If both a numeric grade and an alpha grade appear on the transcript the numeric grade will be used.** Western will convert grades and averages for applicants who are not studying in a Canadian university based on grading practices and grading scale interpretation of institutions attended. It is also to their advantage to have successfully completed 1.0 laboratory course in biology, chemistry and physics.

*The rest of the policy is unchanged.*
ARTICULATION AGREEMENT

FROM:

THE CHEMICAL ENGINEERING TECHNOLOGY – ENVIRONMENTAL DIPLOMA PROGRAM, 
The Sheridan College Institute of Technology and Advanced Learning

- TO THE -

FACULTY OF SCIENCE – ENVIRONMENTAL SCIENCE OR CHEMISTRY DEGREE MODULES, 
THE UNIVERSITY OF WESTERN ONTARIO

THIS ARTICULATION AGREEMENT (“Agreement”), effective the 1 day of July, 2018 (“Effective Date”), is made by and between:

THE UNIVERSITY OF WESTERN ONTARIO, a university continued under the 
University of Western Ontario Act, 1988 (Ontario), located at 1151 Richmond St.,
London, Ontario, N6A 3K7, hereinafter referred to as “Western”

- and -

THE SHERIDAN COLLEGE INSTITUTE OF TECHNOLOGY AND ADVANCED 
LEARNING, a college formed under the Ministry of Colleges and Universities Act 
(Ontario), located at 1430 Trafalgar Road, Oakville, Ontario, L6H 2L1, hereinafter 
referred to as “Sheridan College”

WHEREAS, Sheridan and Western (collectively, the “Institutions” and each an “Institution”) wish to 
outline the mutually beneficial agreement between the two Institutions, which will enable greater student 
mobility between the two Institutions and recognize that credit transfer is a key means to encourage such 
mobility;

AND WHEREAS, the Institutions wish to facilitate the admission of qualified graduates, of the Chemical 
Engineering Technology – Environmental diploma program at Sheridan to the Faculty of Science - 
Environmental Science or Chemistry modules at Western, by entering into an articulation agreement 
recognized by the Ontario Council for Articulation and Transfer (ONCAT), and wish to set out clearly 
defined processes for the movement of the graduates between Sheridan and Western;

NOW THEREFORE, in consideration of the mutual covenants herein, and for other good and valuable 
consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follow:

1. GOVERNANCE

1.1 The Faculty of Science – Environmental Science or Chemistry degree modules are governed 
by the academic regulations and policies as approved by Western’s Senate. Please refer to 
Appendix 1, for a list of the current degree modules and applicable graduation 
requirements.
1.2 The Student’s completion of the applicable prerequisite Chemical Engineering Technology – Environmental diploma program, is governed by the academic regulations and policies of the sending institution, Sheridan, as approved by the Sheridan Senate.

2. **DEGREE MODULE ADMISSION AND REQUIREMENTS**

2.1 The Faculty of Science at Western will counsel students regarding module options. Applicants have the option to apply to either the 3 year, 4 year, or Honors specialization modules. Please refer to Appendix 1.

2.2 Western agrees to consider for admission to the Faculty of Science - Environmental Science or Chemistry degree modules, and grant transfer credit to graduates of the 3-year Chemical Engineering Technology – Environmental diploma program at Sheridan, who meet the following requirements:

   i) A competitive overall admission average determined by Western for the year in which they apply to the University;

   ii) No individual grade less than “C” or 60 in each course outlined in Appendix 1.

2.3 Admissions decisions are not appealable. Applicants who meet the requirements set out above are not guaranteed admission under this Agreement. The decision as to the number of students who will be accepted in any academic year may vary from year to year.

3. **APPLICATION PROCESS**

3.1 Applicants must apply to Western by following the steps identified on the admissions website (http://welcome.uwo.ca/admissions/how_to_apply/index.html). Students will be required to use the Ontario University Application Centre (“OUAC”). The application must be received no later than June 1st in order to qualify for admission to the following fall term.

3.2 All Students must submit an official transcript confirming their cumulative overall program GPA and current enrollment at Sheridan or graduation from their program. If only a partial transcript is sent, the admission offer will be conditional on the presentation of a full transcript confirming the overall GPA for semesters completed or graduation from the Sheridan program.

3.3 Right to Refuse: Western reserves the right to refuse admission to Students who are not qualified or if the program has reached capacity.

3.4 Western and Sheridan agree to support this Agreement by providing timely information to interested students and encouraging qualified students to apply. Western and Sheridan agree to designate representatives who will serve as contacts between the two institutions for the support of students applying to Western under the terms of this Agreement.

3.5 The Program representatives and other relevant staff at each Institution shall meet at least once every two years to review their processes and determine if changes are needed to meet the objectives of this Agreement.

4. **ARTICULATION**

4.1 Successful applicants shall receive transfer credit for the Sheridan courses in accordance with Appendix 2.

4.2 Transfer credit may be applied to another program at the discretion of the Dean of the Faculty in which the applicant wishes to transfer.
4.3 The course names and numbers set out in Appendix 2 may be revised from time to time with the agreement in writing of the parties. Failure to provide timely notification to Western of changes to Sheridan’s course names or numbers may result in denial of admission and transfer credit to qualified applicants.

4.4 The parties acknowledge that the granting of transfer credit is based on an assessment of the Chemical Engineering Technology – Environmental diploma program curriculum and the courses as of the date of this Agreement. It is the responsibility of Sheridan to notify Western of any subsequent changes or anticipated changes to the curriculum or content of the courses and provide sufficient information to enable Western to decide whether transfer credit will continue to be granted for these courses.

5. **TERM**

5.1 This Agreement is effective July 1 2018, and shall continue in force unless terminated by either party as set out herein.

5.2 Either party may terminate this Agreement upon three months’ written notice of termination to the other party. No applicants will be considered for admission after the date of such notice.

5.3 Notwithstanding paragraph (b), if Western decides to terminate this Agreement due to changes to the Chemical Engineering Technology – Environmental diploma program curriculum or course content, this Agreement shall terminate on a date that is the earlier of three months after written notice of termination is given to Sheridan and the date that the changes were made by Sheridan.

5.4 Students accepted by Western under this Agreement prior to issuance of a notice of termination by either party shall be permitted to complete their studies under the terms of this Agreement.

6. **APPLICATION OF PRIVACY POLICIES**

6.1 Adhering to the *Freedom of Information and Protection Act* ("FIPPA"), in addition to Sheridan’s Student Information Policy, Privacy Policy, and Western’s Access to Information and Protection of Privacy Policy (collectively, referred to as the “Institutional Privacy Policies”); Sheridan and Western will facilitate the authorization of students’ personal and/or academic information for statistical, administrative and/or research purposes; and, to support the application process to the degree modules.

7. **PROMOTION AND TRADEMARKS**

7.1 Western and Sheridan will mention the Agreement in promotional materials and advertisements pertaining to their respective programs, during related special events and on their websites, and will ensure that this agreement is publicized on the Ontario Council on Articulation and Transfer ("ONCAT") website, upon approval.

8. **GOVERNING LAW**

8.1 This Agreement shall be construed in accordance with the laws of the province of Ontario and the laws of Canada applicable therein, without giving effect to any conflict of laws principles. The Institutions irrevocably and unconditionally consent to the non–exclusive jurisdiction and venue of the courts (whether federal or provincial) in the province of Ontario.
9. **HEADINGS**

9.1 Headings included herein are for convenience only, and will not be used to construe this Agreement.

10. **EXECUTION AND COUNTERPARTS**

10.1 Institutions may communicate with each other by facsimile or e-mail and such communication is acceptable as a writing. Facsimile or digital signatures that comply with Ontario law regarding signature authenticity shall constitute “original” signatures.

This Agreement may be executed in counterparts each of which shall constitute an original and all of which shall constitute one and the same document.

11. **ENTIRE AGREEMENT**

11.1 This Agreement, including the Provisions hereto, and together with any other documents to be executed and delivered pursuant hereto, constitute the entire agreement between Western and Sheridan with respect to the subject matter hereof and supersede all other prior agreements, understandings, negotiations and discussions, whether oral or written, between any of the Institutions in that regard and there are no warranties, representations, covenants or other agreements between the Institutions, except as specifically set forth herein.

12. **ASSIGNMENT AND BINDING EFFECT**

12.1 Except as otherwise provided in this Agreement, an Institution must not assign, novate or subcontract its rights, obligations or interests under this Agreement without the prior written consent of the other Institution, which consent may be withheld in the other Institution’s absolute discretion.

12.2 This Agreement binds and benefits the Institutions and their respective heirs, executors, administrators, successors and assigns.

12.3 All the rights and obligations contained in the Agreement are automatically transferred to Assignees, if applicable.

13. **NO INDEMNITY**

13.1 Notwithstanding anything herein or in any other agreement to the contrary, neither Institution to this Agreement shall have any obligation to indemnify the other Institution or any third party to this Agreement against costs, in connection with any matter related to or arising out of the subject matter of this Agreement.

13.2 “Costs” mean costs awarded in accordance with the order of a court of competent jurisdiction, the order of a board, tribunal or arbitrator or costs negotiated in settlement of a claim or action.

14. **WAIVER**

14.1 Neither Institution is deemed to have waived the exercise of any right that it holds under this Agreement, unless such waiver is made in writing and signed by both Institutions. A waiver made with respect to the exercise of a specific right or provision, is not to be deemed a waiver in respect to the other rights or provisions under the Agreement.
15. **INDEPENDENT CONTRACTOR RELATIONSHIP**

15.1 For the purposes of this Agreement and all services to be provided hereunder, nothing in this document constitutes a partnership, employment, or joint venture arrangement between the Institutions or makes an Institution an agent of the other Institution for any purpose, except as expressly provided.

15.2 Neither Institution will have authority to make any statements, representations, warranties, or commitments of any kind, or to take any action that is binding on the other Institution, except as explicitly provided for herein or authorized in writing.

16. **SEVERABILITY**

16.1 If any Provision of this Agreement will be found by a court of competent jurisdiction to be void, invalid or unenforceable, the same will either be reformed to comply with applicable law or stricken if not so conformable, so as not to affect the validity or enforceability of this Agreement.

IN WITNESS WHEREOF, the Institutions have caused their duly authorized representatives to sign this Agreement to be effective as of the Effective Date.

**Agreement Signatories**

**SHERIDAN COLLEGE**

* __________________________ __________________________
  Dr. Janet Morrison     Date
  Provost and Vice-President, Academic

* __________________________ __________________________
  Dave Wackerlin      Date
  Interim Vice Dean, Faculty of Applied Science and Technology

**THE UNIVERSITY OF WESTERN ONTARIO**

* __________________________ __________________________
  Dr. John Doerksen     Date
  Vice-Provost (Academic Programs)

* __________________________ __________________________
  Dr. Matt Davison      Date
  Dean, Faculty of Science

*I have authority to bind the institution.
## APPENDIX 1

Articulation Agreement between  
The University of Western Ontario and Sheridan College, July 1 2018

### Degree Completion

<table>
<thead>
<tr>
<th>Type of Module</th>
<th>Name of Module</th>
<th>Length of Degree</th>
<th># of credits required to complete*</th>
<th>Overall Average Required at Western</th>
<th>Modular Average Required at Western</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Science (BSc.) Modules</td>
<td>Major in Environmental Science</td>
<td>3-Year</td>
<td>8.5</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Major in Chemistry</td>
<td></td>
<td>9.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Major in Chemistry and Minor in Environmental Science</td>
<td>4-Year</td>
<td>14.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Major in Chemistry and Major in Environmental Science (can also be done in an Honors degree – see averages below)</td>
<td></td>
<td>14.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specialization in Environmental Science</td>
<td></td>
<td>13.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specialization in Chemistry</td>
<td></td>
<td>14.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honors Bachelor of Science (BSc.) Modules</td>
<td>Honors Specialization in Environmental Science</td>
<td>4-Year</td>
<td>13.5</td>
<td>65%</td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td>Honors Specialization in Chemistry</td>
<td></td>
<td>14.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The module/degree combinations above are the combinations most relevant to the transfer credits the students are receiving in this agreement. The transfer credits awarded through this agreement may be applied to any module(s) within the Faculty of Science. Students interested in other modules should contact the Science Academic Counselling Office regarding degree completion requirements.

*Full-time students typically take 5.0 credits during the academic school year

Note: Specific details on courses required for each module are available on the Academic Counselling webpage located at:  
http://uwo.ca/sci/counselling/new_students/articulation_agreement_information1/degree_options.html

**Residency, Breadth, and Essay Requirements – All Modules**  
See specific details on courses required for each module on the Academic Counselling page above.
## APPENDIX 2

**Articulation Agreement between**
The University of Western Ontario and Sheridan College, July 1, 2018
Chemical Engineering Technology - Environmental

<table>
<thead>
<tr>
<th>Western Course</th>
<th>Western Course Title</th>
<th>Western Credit Weight</th>
<th>Sheridan Course</th>
<th>Sheridan Course Title</th>
<th>Sheridan Credit Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1301A</td>
<td>Discovering Chemical Structure</td>
<td>.5</td>
<td>CHEM 16682</td>
<td>Applied Chemistry 1</td>
<td>6.0</td>
</tr>
<tr>
<td>CHEM 1302B</td>
<td>Discovering Chemical Energetics</td>
<td>.5</td>
<td>CHEM 20379</td>
<td>Applied Chemistry 2</td>
<td>6.0</td>
</tr>
<tr>
<td>PHYSICS 1020TRN</td>
<td>Elective Physics Credit Year 1 Level</td>
<td>.5</td>
<td>PHYS 19554</td>
<td>Physics for Chemical Sciences</td>
<td>3.0</td>
</tr>
<tr>
<td>CALCULUS 1000A</td>
<td>Calculus 1</td>
<td>.5</td>
<td>MATH 22558</td>
<td>Integral Calculus</td>
<td>3.0</td>
</tr>
<tr>
<td>SOCIOL 1020TRN</td>
<td>Elective Sociology Credit Year 1 Level</td>
<td>.5</td>
<td>CULT 10001G</td>
<td>The Impact of Culture on the Canadian Workplace</td>
<td>3.0</td>
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<tr>
<td>MICROIMM 2100TRN</td>
<td>Elective Microbiology and Immunology Credit Year 2 Level</td>
<td>.5</td>
<td>BIOL 10101</td>
<td>Microbiology</td>
<td>4.0</td>
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<tr>
<td>CHEM 2213A</td>
<td>Organic Chemistry</td>
<td>.5</td>
<td>CHEM 21471</td>
<td>Organic Chemistry 1</td>
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<td>CHEM 29536</td>
<td>Organic Chemistry 2</td>
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<tr>
<td>CHEM 2272F</td>
<td>Introductory Analytical Chemistry</td>
<td>.5</td>
<td>CHEM 25770</td>
<td>Analytical Chemistry 1</td>
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<tr>
<td></td>
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<td>CHEM 27025</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>CHEM 25415</td>
<td>Instrumental Analysis 1</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>CHEM 29479</td>
<td>Instrumental Analysis 2</td>
<td>5.0</td>
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<tr>
<td>CHEM 2374A</td>
<td>Thermodynamics</td>
<td>.5</td>
<td>CHEM 34137</td>
<td>Physical Chemistry 1</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CHEM 30104</td>
<td>Physical Chemistry 2</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 2271A</td>
<td>Structure and Bonding in Inorganic Chemistry</td>
<td>.5</td>
<td>CHEM 20342</td>
<td>Inorganic Chemistry 1</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CHEM 21022</td>
<td>Inorganic Chemistry 2</td>
<td>3.0</td>
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<tr>
<td>CHEM 3330F</td>
<td>Industrial Chemistry</td>
<td>.5</td>
<td>ENGI 29839</td>
<td>Chemical Process Industries 1</td>
<td>2.0</td>
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<td></td>
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<td>ENGI 39430</td>
<td>Chemical Process Industries 2</td>
<td>2.0</td>
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<tr>
<td>BIOCHEM 2100TRN</td>
<td>Elective Biochemistry Credit Year 2 Level</td>
<td>.5</td>
<td>CHEM 36472</td>
<td>Biochemistry</td>
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<tr>
<td>STATS 2143A</td>
<td>Applied Statistics &amp; Data Analysis for Engineers</td>
<td>.5</td>
<td>MATH 27597</td>
<td>Statistics</td>
<td>3.0</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>6.5</strong></td>
</tr>
</tbody>
</table>
ARTICULATION AGREEMENT

THIS AGREEMENT made BETWEEN:

THE UNIVERSITY OF WESTERN ONTARIO
(hereinafter called “Western”)

and

NORTHERN COLLEGE OF APPLIED ARTS AND TECHNOLOGY
(hereinafter called “Northern”)

WHEREAS Western and Northern wish to increase student mobility between their institutions and recognize that credit transfer is a key means to encourage such mobility;

AND WHEREAS the parties wish to facilitate the admission of qualified graduates of the Environmental Technician 2-Year Diploma program at Northern to the Environmental Science program in the Faculty of Science at Western by entering into an articulation agreement recognized by the Ontario Council for Articulation and Transfer (ONCAT), and wish to set out clearly defined processes for the movement of the graduates between Northern and Western;

NOW THEREFORE in consideration of the mutual covenants herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follow:

ADMISSION

1. Western agrees to consider for admission to the Faculty of Science (3-year B.Sc. Environmental Science major, 4-year B.Sc. Environmental Science major, 4-year B.Sc. Environmental Science Specialization, 4-year B.Sc. Environmental Science Honors Specialization), and grant transfer credit to graduates of the Environmental Technician program who meet the following requirements:
   - A minimum cumulative GPA of 3.0 on all courses taken toward the completion of the two-year Environmental Technician Diploma program. The competitive overall average can vary from year to year and will be determined by the University for the year in which students apply. Courses used towards the diploma program that are upgraded after the completion of the diploma program will be considered as part of the GPA. Any course taken after completion of the diploma program and not used toward the diploma program will not be calculated as part of the GPA;
   - Achieve a minimum grade of “C” or 60 percent in each college course taken toward the completion of the diploma program; and
   - No longer than 3 years should have elapsed between conferral of the diploma and admission to Western. Exceptions will be considered on an individual basis.

2. Admissions decisions are within the sole discretion of Western and are not appealable. Applicants who meet the requirements set out above are not guaranteed admission under this Agreement. The decision as to the number of students who will be accepted in any academic year may vary from year to year.
TRANSFER CREDIT

3. Successful applicants shall receive transfer credit for the Northern courses in accordance with Appendix 1.

4. The course names and numbers set out in Appendix 1 may be revised from time to time with the agreement in writing of the parties. Failure to provide timely notification to Western of changes to Northern’s course names or numbers may result in denial of admission and transfer credit to qualified applicants.

5. The parties acknowledge that the granting of transfer credit is based on an assessment of the Environmental Technician 2-year Diploma program curriculum and the courses as of the date of this Agreement. It is the responsibility of Northern to notify Western of any subsequent changes or anticipated changes to the curriculum or content of the courses and provide sufficient information to enable Western to decide whether transfer credit will continue to be granted for these courses.

GENERAL

6. Students who subsequently transfer to another program or Faculty will have the transfer credit removed from their academic record and credit for Northern courses will be assessed by Western on a course-by-course basis.

7. Northern and Western shall provide Northern students with information about the transfer credit and encourage qualified students to apply.

8. The parties shall each designate a Program representative to assist with the operation of this Agreement. The Program representatives and other relevant staff at each institution shall meet at least once every two years to review their processes and determine if changes are needed to meet the objectives of the parties.

TERM

9.(a) This Agreement is effective July 1 2018 and shall continue in force unless terminated by either party as set out herein.

(b) Either party may terminate this Agreement upon three months' written notice of termination to the other party. No applicants will be considered for admission after the date of such notice.

(c) Notwithstanding paragraph (b), if Western decides to terminate this Agreement due to changes to the Environmental Technician 2-year Diploma program curriculum or course content, this Agreement shall terminate on a date that is the earlier of three months after written notice of termination is given to Northern or the date that the changes were made by Northern.

(d) Students accepted by the University under this Agreement prior to issuance of a notice of termination by either party shall be permitted to complete their studies under the terms of this Agreement.
IN WITNESS WHEREOF the parties have executed this Agreement under the hands of their duly authorized officers.

NORTHERN COLLEGE OF APPLIED ARTS AND TECHNOLOGY

____________________________   ____________________________  
Audrey Penner      Date  
Vice President Academic & Student Success

*  
Fred Gibbons      Date  
President and CEO

THE UNIVERSITY OF WESTERN ONTARIO

*  
Dr. John Doerksen      Date  
Vice-Provost (Academic Programs)

Dr. Matt Davison      Date  
Dean, Faculty of Science

*I have authority to bind the institution.
Appendix 1
Diploma to Degree Pathways Program in Environmental Science at Western University

Below are the transfer credits students will receive towards their degree/module at Western University from a **2-year Environmental Technician Diploma from Northern College**

**Admission criteria for all programs below:** 75% cumulative average for all college courses with no single course under 60%; No longer than 3 years should have elapsed between conferral of diploma and admission to Western (exceptions will be considered on an individual basis)

<table>
<thead>
<tr>
<th>College Program</th>
<th>Degree Program/ Module</th>
<th>Number of credits granted</th>
<th>Minimum credits to be completed</th>
<th>Actual credits granted</th>
</tr>
</thead>
</table>
| Environmental Technician Diploma – 2 year | B.Sc. Environmental Science Major – 3 year degree | 4.0 | 11.0 | **Introductory Science**  
- 1.0 course: 1000-level Chemistry: Chemistry 1301A/B and 1302B  
- 0.5 course: Environmental Science 1021F/G |
| | B.Sc. Environmental Science Major – 4 year degree | 4.0 | 16.0 | **Environmental Content/Field Skills**  
- 1.0 course: 2000-level science course from Environmental Science course list  
- 0.5 course: Geography 2220A |
| | B.Sc. Environmental Science Specialization – 4 year degree | 4.0 | 16.0 | **Social Science**  
- 0.5 course: 2000-level Social Science credit |
| | B.Sc. Environmental Science Honors Specialization – 4 year degree | 4.0 | 16.0 | **Other Credits**  
- 0.5 course: 1000-level Communications (Arts) |

Note: A one semester course is typically 0.5 credits.
Executive Summary
All meetings took place in the Arts & Humanities building which was nearing renovation completion. The formal meetings began with Drs. John Doerksen, Vice Provost (Academic Programs) and Karen Campbell, Vice-Provost (Academic Planning, Policy & Faculty). Dr. Doerksen reviewed the Quality Assurance process and program in Ontario, and focused on the Learning Outcomes of the curriculum. Dr. Doerksen commented that English had gone through a considerable restructuring and refocusing with attention on skill development, and they would be able to use this assessment to determine strategies for moving forward. Recognizing that English was losing enrolment, there was a emphasis on turning this around by collaborating with Classical Studies and Women’s Studies with a major focus on experiential and active education.

Dr. Campbell focused on the faculty component and on the relatively stable constituents in the English Department. In comparison, the Writing Studies contingent has many limited term appointments without PhD’s, which causes some growing pains, but strong commitments to working through any emerging issues related to this. At the same time, there are opportunities for the introduction of writing courses with other areas such as Engineering. She also explained the current issue with funding modules, with some areas having incremental enrolments, so the declining enrolments has resulted with “claw-backs” which have caused a problem. In her view, the corridor funding will mean stability in enrollment numbers, so enriching the environment without an increase in faculty complement should not be a problem. The program will need to establish priorities and use replacements to address any potential gaps, instead of hiring new faculty.

The reviewers met with the Acting Chair, with whom they discussed the impending move into the new building, the opportunities for restructuring in a newly renovated space and the interface between the different types of English and Writing programs. At a subsequent meeting with Dr. Michael Milde, Dean of the Faculty, conversations were focused on the budget implications of the declining enrolment, the opportunities for enhanced interactions, including with Ivey and the combined HBA program, and the implications of moving into a newly renovated building. The use of social media and engagement with the university community were also discussed.
Following a tour of University College the reviewers met with faculty members. The discussions were focused on the faculty and curricular changes, as well as on what was working and what would require significant effort to enhance in the program.

An additional meeting with staff emphasized the potential for outreach, marketing and opportunities for strategically enhancing the catchment of undergraduate students, while utilizing already existing expertise in the Department.

The final meeting of the reviewers was held with undergraduate students. They were very enthusiastic about their interactions with the Department’s leadership and faculty members, as well as about the potential for developing a more coherent student body with the redesigned spaces in a newly renovated building. This was considered by the reviewers as a positive enhancement of student engagement in an already good program, and as a potential for improved interactions with other areas such as Film, Women’s Studies and Writing.

**Significant Strengths of the Program**
The reviewers felt that the Department had provided and innovative way of crafting its own learning outcomes which was fostered with “consultation and collegial thinking”. However, they also cautioned the necessity of having sufficiently wide outcomes to encompass the variety of fields the graduates could be considering post-graduation. The restructured program was noted to reflect the energy of the faculty and felt by the reviewers to be a good choice in providing greater flexibility for the students and allow for a wider chronological range of offerings, which was seen as appealing to the faculty as well as the students.

The faculty was seen as having an impressive research profile, with grant success and fellowships etc. The writer in residence was seen as innovative and encouraging for young writers. Also the “English 3580 Canadian Literature: Creativity and the Local” course was thought to provide excellent learning for students with local community engagement.

Another strength was the newly renovated building both in terms of the facilities, but also for the potential for enhancing the cohort concept within the student body. This will require thought to make use of both the space and ways of using it for innovative activities for students outside the classroom.

**Suggestions for Improvement & Enhancement**
There was a recognition of the need for better integration of the Writing program within the English Department and closer affinity of all the faculty rather than writing being perceived as a threat. Another concern was the revisions to the 3rd and 4th year courses hadn’t yet made it to 1st and 2nd year courses and perhaps incorporating group presentations and oral communication earlier would benefit the students.

Although it didn’t make it to the recommendations was the relatively low number of academic advisors available for students. This was also to focus on the aspects of advice of potential career choices as they would likely be more aware than the faculty of what is “beyond the university walls”.

Overall the reviewers were quite positive on the Department and recent changes. They had 10 specific recommendations.

1. Extend the revision of the curriculum to the 2000- and 1000-level courses, especially to attract more students into the program. Courses should be designed and taught with an eye to the recruitment of students.

2. Integrate the Writing program, Film Studies, and Women’s Studies more fully into the program. To succeed, we feel that integration, rather than separation, is the best way forward. This must take place at all levels: collegiality; voting rights on committees; curriculum. Students are clamouring for more opportunities to reach beyond one discipline, and English, as capacious as it must feel it already is, can lead the way in opening wide the doors of collaboration. This should not be done in a merely symbolic way, but thoroughly, intentionally, and conscientiously.
3. Hire full-time faculty into the Writing program, decreasing the reliance on faculty with poor job security and stature in the university/Faculty.

4. Incorporate some training in oral delivery prior to the 4000-level.

5. Establish a marketing and communication strategy and a committee for social media, web presence, outreach, and community formation, including professors and students.

6. Make the website more accessible to smartphones.

7. Have syllabi posted as early as possible.

8. Expand professional advising.

9. Strengthen the racial and gender diversity in the course offerings by weaving these discourses more thoroughly throughout courses on periods, genres, authors, etc.

10. Promote experiential learning across a broader range of courses.

Departmental/Decanal responses to the recommendations.

1. The Department has agreed to test some adjustments to the 1st year course, but suggest that 2nd year courses are not amenable to such adjustments.

2. Although there have been some adjustments, the departmental response was to await the arrival of a new chair to proceed with this recommendation. The Dean also points out that Women’s Studies is a different department so “incorporation” is not part of the mandate although enhanced interdisciplinarity within the Department and cooperation between departments could be pursued.

3. The department recognized that hiring is beyond the ability of the program itself.

4. The department will ask the undergraduate committee to look for opportunities to incorporate more oral presentations.

5. The department suggested a committee composed of the Coordinator, Vice Chair, Chair, and Undergraduate Chair to be responsible for developing the strategy with the Coordinator being responsible for developing the platform. The Dean agreed that delegating this work to individuals who have these items as part of their portfolio would be achievable. The distinction between this collective and a “committee” isn’t clear. In addition, the Dean suggested that assistance from the Faculty’s Communications Officer, Jo Jennings could be a resource for this group (committee).

6. The department agrees this to be an ongoing issue, which they will be working on. No specific plans were given.

7. The department commented that they will work to get information out earlier.

8. The department recognized that this was a Faculty issue which they commented that they would explore ways of being more proactive with students in need of career counselling.

9. The department stated that rotation of courses in the 3rd year was assisting with enhancing diversity and that increasing course offerings will be useful for enhancement.

10. The department will encourage additional faculty to incorporate experiential learning in additional courses.

Of the 10 recommendations, only 3 are necessary to halt the slide in enrolments and provide sustainability of the program.
## Recommendations Required for Program Sustainability

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explore opportunities for interdisciplinary collaboration with the Writing Program and Film Studies.</td>
<td>Dean and Department</td>
</tr>
<tr>
<td>Establish a marketing and communication strategy for social media, web presence, outreach, and community formation, including professors and students</td>
<td>Department/Faculty</td>
</tr>
<tr>
<td>Strengthen the racial and gender diversity in the course offerings by weaving these discourses more thoroughly throughout courses on periods, genres, authors, etc.</td>
<td>Department</td>
</tr>
</tbody>
</table>
Executive Summary

During the day-long visit, the reviewers met with administrators, faculty members, staff, teaching assistants, librarians, and students in the program. The clear impression from all these groups was that the program in Medical Cell Biology is a strong one that easily meets the University’s strategic priorities. The Department itself is research intensive, learning centred, collaborative and involved in opening learning. Teaching is shared amongst faculty who are dedicated to teaching (and research on teaching innovation) as well as faculty members who have the more traditional split on teaching and research. Courses include written assignments, debates, ethical discussions, grant writing and other activities that foster critical thinking skills. The reviewers conclude by saying: “In general, Anatomy and Cell Biology is an innovative, successful program. … Based on the documentation provided, site visit and the interviews, the undergraduate courses within this program have achieved a good level of quality on all outcomes and the program is sustainable”.

Significant Strengths of the Program

1. The faculty have won many teaching awards, and several have published peer-reviewed articles on teaching innovations in the classroom as well as on assessment criteria. The courses themselves involve cutting-edge technologies, including virtual histology slide sets. One course is piloting a virtual 3D model of a renal corpuscle.
2. Courses are team taught by highly trained and competent people, thereby ensuring the students experience different teaching styles and perspectives.
3. Class sizes are generally small. Most courses have fewer than 30 students, though the popular human anatomy and histology has 100 registrants.
4. The honours thesis project ensures that students have first-hand experience in a research lab. This course clearly meets the Ministry’s definition of a “workplace simulated environment”

5. The students in this program are strong and enthusiastic. More than 95% finish their degree within the recommended time.

Suggestions for Improvement & Enhancement

1. Students enter this program after two years in Science. A number of people raised the concern that many students were not aware of the program. The reviewers offered two suggestions to increase the program’s visibility. First, Anatomy 3319 could be split into two half-courses, with the first half-course taught in second year. The Department is investigating the feasibility of this suggestion. Second, students who receive an 85% in the second-year Cell Biology course could be sent a letter introducing them to the module.

2. While the honours thesis is a clear strength of the program, it could be redesigned to include more structure so that students have clear expectations as they go along and are able to complete the thesis in a timely fashion. The Department will implement this suggestion.

3. The Department should conduct a short-term and a long-term succession plan for equipment repair and replacement. Currently replacement of microscopes is dependent on the Science Student Donation Fund. Since the review, the Department obtained reserve funds for laboratory equipment that should reduce reliance on the student donation fund. That said, an assessment should also be done of the most effective and efficient methods to deliver course objectives. (Perhaps replacing microscopes is no longer the best alternative.)

4. Because of limitations in streaming live audio and video (and permitting live two-way interactions) in courses, the reviewers suggested that the University should conduct an audit of IT services in support of undergraduate programs, a suggestion the Department enthusiastically endorses.

Recommendations Required for Program Sustainability

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhance communication and recruitment of prospective students, such as providing students identified through the intent to register process, with detailed program information on the HSP in Anatomy and Cell Biology in Year 2</td>
<td>Faculty</td>
</tr>
<tr>
<td>Short-term and long-term succession plan for equipment repair and replacement</td>
<td>Department</td>
</tr>
<tr>
<td>Review of IT resources and software available to support live streaming of audio and video required to effectively deliver the online components of courses in Histology and Human Anatomy</td>
<td>University</td>
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</table>
Schulich School of Dentistry
Final Assessment Report

<table>
<thead>
<tr>
<th>Faculty / Affiliated University College</th>
<th>Schulich School of Dentistry</th>
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<tr>
<td>Degrees Offered</td>
<td>Doctor of Dental Surgery (DDS)</td>
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<tr>
<td>Modules Reviewed</td>
<td>Doctor of Dental Surgery (DDS) Internationally Trained Dentists (ITD) Program</td>
</tr>
<tr>
<td>External Consultants</td>
<td>Dr. Debora Matthews, Associate Dean Academic Affairs, Dalhousie University Dr. Shahrokh Esfandiari, Associate Dean Academic Affairs, McGill University</td>
</tr>
<tr>
<td>Internal Reviewers</td>
<td>Dr. Karen Danylchuk, Professor and Associate Dean (Undergraduate Programs), Faculty of Health Sciences</td>
</tr>
<tr>
<td>Date of Site Visit</td>
<td>March 7, 2018</td>
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<tr>
<td>Evaluation</td>
<td>Good Quality with Report in Three Years</td>
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<tr>
<td>Approval Dates</td>
<td>SUPR-U: May 16, 2018 SCAPA: May 30, 2018 Senate:</td>
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Executive Summary

The site visit on March 7, 2018 included separate meetings with Dr. John Doerksen, Vice-Provost (Academic Programs); Dr. Harvey Goldberg, Assistant Director, Schulich Dentistry; Dr. Michael Strong, Dean, Schulich School of Medicine and Dentistry, and Acting Director, Schulich Dentistry; Dr. Gildo Santos, Assistant Director, Clinics; Dr. Stephen Ferrier, Chair, Internationally Trained Dentists Program; Dr. John Costella, Research and Instructional Librarian; faculty researchers; undergraduate students; full-time and part-time faculty members; and support staff. In addition, the reviewers participated in tours of the clinic, simulation lab, and research facilities.

The external reviewers acknowledged that the mission, values, and strategic priorities of the Schulich School of Dentistry are, for the most part, well aligned with those of the Schulich School of Medicine and Dentistry, and the University. Both the Doctor of Dental Surgery (DDS) and Internationally Trained Dentists (ITD) programs meet accreditation standards for undergraduate dental programs as determined by the Canadian Dental Accreditation Commission (2017). Further, Schulich Dentistry has begun to use the new “Association of Canadian Faculties of Dentistry (ACFD) Educational Framework for the Development of Competency in Dental Programs” in their curriculum and has mapped the competencies to each course in the DDS curriculum.

To be eligible for a license to practice dentistry in Canada, candidates must pass examinations administered by the National Dental Examining Board (NDEB). The performance of students from Western on these exams is strong and similar to other Canadian dental schools and the overall knowledge of Western dental students meets the required standard. During the IQAP review, DDS students rated the quality of their instruction very positively. The Dentistry Outreach Community Service program (DOCS) is a success and Internationally Trained Dentists (ITD) trainees are happy with their experience at school. Although regular curriculum reviews are conducted through the curriculum committee, there appears to be a lack of formal training for critical appraisal of the literature and the integration of clinical research into daily practice.
The physical resources to support the program are considered adequate. Clinic facilities and simulated lab spaces have been recently renovated and are well utilized, and library resources are satisfactory. A recent influx of financial commitment for infrastructure, including patient management systems, is likely to address, at least in part, issues related to efficient usage of clinical chairs. This concern, raised during recent reviews, is likely to improve student access to clinical experiences as well as revenue from clinical care at the School’s clinics. Maintaining an adequate ratio of students to clinical instructors is essential to meet the successful implementation of the Strategic Plan. The possibility of opening the School’s clinical facilities on weekends and evenings is being considered in order to provide better access to potential patients who may not be available during the day, as well as more opportunities for student clinical experiences. This idea faces logistical challenges, such as availability of clinical support staff and student supervisors. Dental students gain a range of clinical experience through externships outside the regular dental clinics in the School. However, some students have reported barriers in obtaining excused absences from the program to attend short clinical externships at other institutions.

Several concerns were expressed by all stakeholders regarding organizational structure and communication within the School. The School has undergone three reviews in the past six years: two accreditation reports (2012, 2017), and an external review of the program commissioned by the Dean in 2015. Significant progress has been made in addressing recommendations of the 2015 review and are being addressed through the new 2016-26 Strategic Plan. Revamping of the organizational reporting structure and appointments of new leaders and clarification of roles is underway.

The School is under-resourced with respect to full-time qualified faculty to meet the mandate of teaching, scholarly activity, and administration. The current full-time faculty complement is insufficient to adequately address education and calibration of part-time faculty, clinical supervision of students (including last-minute ‘fill-ins’ for part-time clinicians), and to contribute to scholarly activity and oversee the administration of the program. Recruitment of full-time faculty with the necessary credentials is a challenge, but this is faced by all dental programs in North America.

**Significant Strengths of the Program**

1. Quality education of students who perform at or above average in their National Dentistry Examination Board exams
2. Very good level of student satisfaction with quality of instruction and supervision in classroom and clinics
3. Very good clinical and simulated lab facilities
4. Passionate and dedicated full and part-time faculty members and support staff who have ideas for improvement and want to be engaged in such process

**Suggestions for Improvement & Enhancement**

The following recommendations were suggested by the external reviewers for improvement and enhancement of the Schulich Dentistry program. The initial response by Schulich Dentistry is shown in italic font beneath each recommendation.

**Recommendation 1.** Develop a longitudinal full-time faculty recruitment strategy that not only aligns with the 2016 strategic plan, but is supported financially by the School of Medicine and Dentistry and Western University.

The Dean has had ongoing discussions with the University in this regard and a plan is now in place to initiate recruitment of several new faculty full-time priority hires. Recruitment will take time due to the challenge of recruiting North American Board-certified specialists. Backup plans are in place to ensure the maintenance of minimal resources in certain disciplines in the event that more time is needed to recruit specialists in those disciplines.
Recommendation 2. Implement calibration sessions for all clinical and pre-clinical faculty.

Calibration of faculty, both full- and part-time, is critical for consistent oversight of each students' work in the lab and the clinic. Part-time clinical faculty are often unaware of what is being taught in lectures by the full-time faculty. To address this concern, a calibration model developed in Endodontics will be adapted for the rest of the clinical disciplines in the Program. Scoring of the student work will be carefully defined to ensure that instructors will be calibrated to be consistent with what is expected from the students. Additionally, all clinical courses will be monitored for calibration compliance.

Recommendation 3. Develop Faculty Development modules to train full and part-time faculty in Evidence-Based Health Care, including critical appraisal of the literature and integration of best available clinical research into daily practices. Consultations should be arranged around best practices for designing and implementing evidence-based decision-making into the didactic and clinic curricula.

The School plans to fully integrate critical thinking into its four-year curriculum by requiring all Faculty to attend planned sessions on critical thinking beginning in Fall 2018, and to work with them to integrate aspects of it into their teaching and students’ assessments. Additionally, the School will work directly with its students in this regard and has included introductory and follow-up lectures on critical thinking throughout their four-year curriculum. The School will continue to support research and evidence-based opportunities through the Dentistry Summer Student Research program and DART (Dental Academic Research Trainees).

Recommendation 4. Identify and implement educational modules to enhance students’ learning experience with other health-related disciplines.

This will be a focus beginning in 2019 as Schulich completes the process of developing an indigenous strategy for its educational programs in collaboration with the University. Additionally, all first-year dental students, along with selected staff and faculty, will continue to participate in an annual Interprofessional Day, which is part of the SouthWestern Ontario Academic Network (SWAHN), and includes full first-year cohorts from the Schulich School of Medicine & Dentistry, University of Waterloo’s Pharmacy and Optometry programs, social work students from King’s University College, and nursing and other health science students from Western’s Faculty of Health Sciences. Other initiatives to address this recommendation will be discussed.

Recommendation 5. Explore the feasibility of opening the clinical facilities on weekends and evenings.

Given the new educational clinical model that is currently being discussed and likely to be implemented in the next few years, evening and weekend clinics are being considered. Cost analyses will be conducted. The clinic is currently used on several evenings and Saturdays to accommodate the Dentistry Outreach Community Service program (DOCS) and it appears manageable.

Recommendation 6. Revise an appropriate, comprehensive Leaves and Absence Policy for students, including ramifications for missing educational modules (i.e., didactic and/or clinical sessions), and ensure it is accessible to students.

Dental students gain a range of clinical experience through externships outside the regular dental clinics in the School. However, some students have reported barriers in obtaining excused absences from the program to attend short clinical externships at other institutions. The Dean has recently appointed four dental faculty to decanal positions to review and revise all set policies in their mandates, and develop new ones that will address the activities and concerns of faculty, staff, and students. A Leaves and Absence Policy will be one such policy addressed.
### Recommendations Required for Program Sustainability

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Responsibility</th>
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<tr>
<td>Develop a strategy to support teaching that aligns with the 2016-26 strategic plan</td>
<td>Dean, Assistant Director Dentistry</td>
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<tr>
<td>Implement calibration sessions for all clinical and pre-clinical faculty</td>
<td>Dean, Assistant Director Dentistry</td>
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<tr>
<td>Integrate evidence-based health care and critical appraisal into the curriculum</td>
<td>Assistant Director Dentistry &amp; Curriculum Committee</td>
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Biology
Final Assessment Report

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<tr>
<th>Faculty / Affiliated University College</th>
<th>Faculty of Science</th>
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<tr>
<td>Degrees Offered</td>
<td>Bachelor of Science (BSc)</td>
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| Modules Reviewed                       | Honors Specialization in Animal Behaviour  
|                                        | Honors Specialization in Biodiversity and Conservation  
|                                        | Honors Specialization in Biology  
|                                        | Honors Specialization in Genetics  
|                                        | Honors Specialization in Genetics and Biochemistry  
|                                        | Specialization in Biology  
|                                        | Major in Biology  
|                                        | Major in Ecosystem Health  
|                                        | Major in Genetics |
| External Consultants                   | Dr. Hugh Broders, Professor and Department Chair, Department of Biology, Waterloo University  
|                                        | Dr. Patricia Chow-Fraser, Professor and Acting Associate Chair (Undergraduate), Department of Biology, McMaster University |
| Internal Reviewers                     | Dr. John Cuciurean, Associate Professor and Associate Dean (Undergraduate Admissions and Programs), Don Wright Faculty of Music, Western University |
| Date of Site Visit                     | March 28, 2018 |
| Evaluation                             | Good Quality |
| Approval Dates                         | SUPR-U: May 16, 2018  
|                                        | SCAPA: May 30, 2018  
|                                        | Senate: |

Executive Summary

On Wednesday March 28, 2018, the review team met with the Vice Provost (Academic) Dr. John Doerksen and the Vice Provost (Academic Planning, Programs, and Faculty) Dr. Karen Campbell, Faculty of Science Acting Associate Dean (Academic) Dr. Ken Yeung, Associate Chief Librarian Robert Glushko, Head of Research & Instructional Resources Deb Meert-Williston, Chair of the Department of Biology Dr. Mark Bernards, Undergraduate Chair, BUEC, Dr. Anthony Percival-Smith, Manager of Undergraduate Lab Operations Dr. Raihan Uddin (who was accompanied by 5 additional members of the lab operations technical support staff), Academic Counsellor (Biology) Dr. Richard Gardiner, Faculty of Science Academic Advisor Jane Sexsmith, Undergraduate Program Assistant (Biology) Stefani Tichbourne, Undergraduate Secretary (Biology) Beata Malczewski. The committee also met with a group of thirteen faculty members, a second group comprised of fifteen undergraduate students at various levels of the program, and two current graduate students who recently graduated from undergraduate program in Biology. In addition, two separate facilities tours were led by Biology Facilities Manager Vicky Lightfoot (Biological & Geological Sciences Building) and faculty member Dr. Robert Dean (North Campus Building).

The reviewers concluded that the Department of Biology “offers an appropriate and comprehensive undergraduate curriculum in biology that is at least as comprehensive as programs offered in departments at peer institutions. … The outcomes are comprehensive and appropriate and cover the degree expectations as required by the Ontario Council of Academic Vice Presidents.” The reviewers...
cited several noteworthy strengths of the program that are summarized below under “Significant
Strengths of the Program.”

The reviewers observed that “the self-study identifies 27 means of assessments of student achievement
(p. 55) [which] include conventional assessment methods such as multiple choice, short answer, tests
and exams, essays, and original research presentations and problem-solving assignments [as well as]
less conventional assessments that include debates, blogging, creation of apps, and online discussions.”
In relation to the curriculum mapping completed by the department which correlates the assessment
methods noted above to the individual courses offered by the department, the reviewers concluded that
the “students receive instruction and are assessed through a variety of means that are appropriate for the
programs.

Nonetheless, the reviewers did offer some suggestions to the department to consider as the program
evolves, to which the Department responded to all recommendations and concerns indicating that they
have given serious consideration to the report and its recommendations. These suggestions (and where
appropriate, some explanatory information from the Department) are summarized below under
“Suggestions for Improvement & Enhancement.”

As stated in the summary response to the external reviewer’s report by Acting Associate Dean, Ken
Yeung, the program assessment was “an overall very positive report provided by the external
consultants.” Ken Yeung also observed that the reviewers “highly praised the diversity of additional
experiential learning opportunities in Biology, which include summer employment in research labs,
Science Internship, and Undergraduate Honors thesis research.”

The Departmental response also acknowledged the reviewer’s report as “very complimentary” and states
that “we find that we have little to respond to.” The department response focused on four key points: 1)
Addressing strategic priorities; 2) the Biology-Medical Science Double Majors; 3) Biology 2290; and 4)
Faculty complement, each of which will be addressed separately below.

1) Strategic Priorities

The external reviewers acknowledge the following: “Biology’s mission, which is consistent with Western
University’s mission, is to create, disseminate and apply knowledge for the benefit of society through
excellence in teaching, research and scholarship; its vision matches that of the University, which is to see
Western as a destination of choice for the world’s brightest minds, and for those who seek the best
learning experience in a leading Canadian research university.”

They then state, however, that, “According to the Vice-Provost (Academic), Dr. John Doerksen, there are
three strategic priorities: 1) enhancing internationalization (both with respect to increasing international
students, and increasing participation of Canadian students in overseas exchange); 2) increasing
experiential learning opportunities; and 3) promoting indigenous research, scholarship and education at
Western.” They recognize that “there was ample evidence of Biology’s efforts to address experiential
learning,” but “internationalization and indigeneity have not been addressed as priorities in the self-study
[and that] information provided following the site visit indicated very low participation in international
exchange, and there are no courses or programs devoted to indigeneity.”

The Departmental response to this issue provided detailed data on the number of Western Biology
students on exchange over the past four academic years; a total of 29 students. The Department then
conceded that they “do not have data on the number of students doing an exchange in the Biology
program,” nor on the number of indigenous students in their program.

The Acting Associate Dean’s response addressed the concern noted by the consultants regarding the
fact that the university’s priorities on internationalization and indigeneity have not been addressed as
priorities of the Department of Biology. He asserted that “the Faculty of Science will continue to work with
departments in promoting international exchanges in the future. Likewise, we encourage and support
departments to initiate curriculum development that promotes indigenous research, scholarship and
education. In Biology, I am hopeful that they will consider incorporating discussion and/or case studies related to the indigenous communities in their courses in the future."

2) Biology-Medical Science Double Majors

The reviewers were specifically concerned that students pursuing the Biology-Medical Science Honors double major might be disadvantaged by electing this module pair. The reviewers noted that “the rigor of this degree may be compromised by the fact that one can meet the requirements of the program without having to complete senior courses, including a capstone course (i.e. 4000-level low-enrolment seminar course (20 students) or an honors thesis). Further there was at least some concern regarding students being able to take similar-content courses in each of the Schulich School of Medicine and Dentistry and in the department of biology, thereby potentially receiving double credit for the same material. We recognize this is a university-level issue, but would encourage the department of Biology to maintain communication with the Schulich School of Medicine and Dentistry to manage this.”

Elsewhere in the external report, the reviewers observe that “only 10% of the 70 graduates in the Biology Major opt for a capstone course. This comparison highlights the disparity between students in the Honours specialization and Major programs with respect to advanced experiential training."

The response to this concern by the Department indicates that they “will keep in contact with the Schulich School of Medicine and Dentistry about the issue surrounding the Biology-Medical Science Double Major. The biggest concern for us (Biology), and hopefully the university, is graduating students with a degree of restricted future use. The worry is that students, whose prime mission is entry into Medical School, see the Biology Medical Science Double Major as the easiest route to getting high marks because it allows them not to have to take many higher level courses or complete an undergraduate thesis.” Given the high rejection rate of Medical School applicants, the Biology-Medical Science Double Major students who do not gain entrance to Medical School may have limits on the applicability of their degree. However, they note that “the double majors program can create some interesting combinations (Biology and Music) and we do not propose that the double majors be removed as an option.”

The Acting Associate Dean’s response summarized the issues surrounding the double major concern as twofold: “(1) the rigor of double major degrees may be compromised by the fact that one can meet the requirements of two major modules without having to complete senior courses, including a capstone course or Honor Thesis course; and (2) students may select different courses from two modules with similar or overlapping content, thereby receiving double credit on the same materials.”

He points out that, “the first concern was acknowledged by the consultants as a university-level issue, but perhaps one that is unavoidable due to nature of a double-major in favoring breath over depth. In my opinion, it is a potential issue for those wishing to pursue a graduate degree, but it is not necessarily limiting for others pursuing careers in industries. The issue occurs when students encounter prospective graduate programs that require 4000-level courses that they do not have, requiring them to return for a fifth year to pursue the missing courses.” His conclusion, which agrees with the Department’s conclusion, is that “an effort should be made to ensure that all first and second year students are aware of the potential limitation with the double-major option, as per recommendation by the consultants.” Concerning the second issue, he suggests that it “may be addressed by the departments involved, by identifying the overlapping courses and declaring them as anti-requisites.”

3) Biology 2290F/G:

The reviewers commented on the strength and innovations of some of the course offerings, paying particular tribute to Biology 2290F/G, as well as a breadth of sub-discipline courses in level 2 which “ensures that all students gain at least some level of exposure to the breadth of biology while maintaining sufficient flexibility within program requirements to delve deeper in a particular area of specialization in levels 3 and 4.” They went on to compliment the course by stating “that the department is able to offer this course to so many students is a feat; that they have been able to do it so efficiently speaks highly of the
team of dedicated people associated with its design and delivery. The course offers skill development in several disciplines, and an opportunity to practice critical thinking and scientific writing."

The department responded by reinforcing that “the importance of Biology 2290 F/G in the curriculum is that it introduces students to high-level skills in the first half of their degree. Biology 2290 F/G has a writing component and diverse laboratory components that along with the lab portion of Biology 2601A ensures that students are introduced to communication and practical skills in preparation for third and fourth year level courses. The first two years of their education is not restricted to building knowledge, but also includes fulfillment of other program outcomes.”

Nevertheless, the external report raised a potential concern over the expense of delivering Biology 2290F/G to over 1000 students each year. The department seized on this issue to draw attention to the fact that while “the total expenditures for 2290 is higher than revenue, Biology 2290 was created from the removal of the lab components of the Genetics, Cell Biology and Ecology courses taught prior to 1993. So if 2290, 2382, 2483, 2581, and 2601 are considered together as a unit then for every dollar spent on second year Biology core courses, $1.50 returns.” They further underscored that the faculty members, teaching assistants, and support staff involved in delivering Biology 2290F/G “make other important contributions to the department outside this course. They handle the allocation of teaching assistants, organize the proctors 2018 for Fall and Winter midterm and Final examinations, and administer marks for the large second year courses. If Biology 2290 was removed, this work would have to be taken on by others.” They conclude that “considering the role that Biology 2290 has in the Biology curriculum and the actual expense to revenue, it is not an expensive course.”

4) Faculty Complement

In his response to the external report, the Acting Associate Dean commented on both the strengths acknowledged by, and recommendations made by, the reviewers. On the issue of resources, Ken Yeung noted that “the consultants commented that ‘all parties expressed satisfaction with the adequacy of resources available for the delivery of the program’, ‘labs and teaching spaces are modern, well maintained, with modern and appropriate equipment and staffed appropriately’, and ‘the department is very well served by its human resource complement - both in quantity and quality’.”

On the issue of adequacy of faculty resources and teaching loads, the reviewers noted that “even though the department is able to meet its teaching obligations with the current complement, there should be a faculty renewal plan to guide the department in the coming years as retirements occur. The long-term stability and maintenance of strength in the department requires that there be an appropriate distribution of faculty across the ranks. It is concerning that at present there is just one tenure track assistant professor in the department.”

The Acting Associate Dean’s response addressed the concern directly when he wrote that “furthermore, they noted that teaching capacity ‘is adequate or near adequate for the delivery of the current suite of courses in support of the program’, but it is critical to continue funding for the contractual positions and fill retirements in a timely manner to maintain strengths of the program.”

The departmental response did not address this concern directly but included a table of all faculty teaching loads (including full-time probationary and tenure track, limited term, standing appointments, and limited duties) illustrating the fact that “for a variety of reasons (e.g., secondment as Associate/Assistant Deans (1.5 FCE), appointment as Associate Chairs (1.0 FCE), contribution to the administration of programs outside of Biology (1.0 FCE), sabbatical/other leaves (4.0 FCE) and other arrangements (2.0 FCE)), for the 2017-18 academic year, the actual contribution to undergraduate teaching by Biology-appointed faculty was 48.75 FCE.” They continued by showing that “during the 2017-18 academic year, the Department of Biology delivered 57.75 undergraduate FCE. The shortfall was made up through the hiring of part-time instructors (referred to as Limited Duties).”

Ken Yeung added to this response by re-affirming that “the Faculty of Science and the Department of Biology have been monitoring the balance between teaching capacities and course offerings and
managing any shortfall with the hiring of Limited Duties instructors. They will continue to do so in the future, as recommended by the external consultants."

**Significant Strengths of the Program**

1. The Department of Biology at Western University offers an appropriate and comprehensive undergraduate curriculum in biology that are at least as comprehensive as programs offered in departments at peer institutions. The Honors Specialization modules are particularly noteworthy in this regard. The learning outcomes are comprehensive and appropriate and cover the degree expectations as required by the Ontario Council of Academic Vice Presidents.

2. 1000- and 2000-level core courses are foundational and introduce basic principles and skills. One of the core courses, Biology 2290F/G (Scientific Methods in Biology), is an excellent example when it comes to providing experiential learning to students early in their programs (and has been used as a model for the development of similar courses at peer institutions). A large number of 3000-level courses in several sub-disciplines, and 4000-level courses cover emerging fields and advances in more conventional fields. There are also capstone courses that allow students to conduct independent studies, or an honours research thesis, as well as a selection of seminar courses. These courses show impressive breadth and are appropriate and desirable in a department offering a comprehensive Biology program.

3. A diversity of experiential learning opportunities including employment within faculty research labs (USRAs, etc.), a Faculty of Science Internship program and undergraduate thesis work which may be conducted under the supervision of faculty from either the Department of Biology or elsewhere.

4. Labs and teaching spaces are modern, well maintained, with modern and appropriate equipment and staffed appropriately. Overall, infrastructure seems appropriate for the delivery of biology programs.

5. There is open and thoughtful communication among the technical staff, the instructors, and TAs and they work effectively as a team. The staff complement appears sufficient under current circumstances as workloads are reasonable and temporary help is available in the event of special circumstances (via support within the complement or from external temporary hires).

6. Students have access to high-quality instructors who engage with them to ensure a high-quality experience. The faculty are passionate, hard-working, and dedicated to the delivery of effective programs. Many students spoke to the influence that faculty have had on their program choices. Overall, the department of Biology is very well served by its human resource complement—both in quantity and quality.

7. The website is the primary means of communication of program offerings and requirements for completion of each module. Students should be able to gather all information required to plan their programs from the information available on the website.

8. The department has a dedicated team of staff, academic advisors, and technical support to help students choose programs and courses. In all, there appears to be sufficient academic support available for the programs in the department.

9. The library and information technology support the program well and help ensure a high-quality undergraduate program.

10. Between 2010 and 2017, undergraduates contributed to 95 publications in peer-reviewed publications. This great achievement is evidence that individual faculty members are providing high-quality training to undergraduate students in senior theses and in courses such as the Biodiversity Science course.
11. Opportunities for students to participate in research that undoubtedly made these students competitive for national and international awards, scholarships and opportunities. In all, the Department of Biology appears to be leaving a positive impression on students: 93% of graduating students from biology would recommend Western University to a friend.

Suggestions for Improvement & Enhancement

1. The University’s strategic priorities regarding internationalization and indigeneity appear to be different from the Department of Biology’s priorities based on the self-study document. There are no courses or programs within the department devoted to indigeneity. Recommend enhancing existing courses or developing new courses that address these strategic priorities.

2. The rigor and appropriateness of the double major program, specifically the double major with the medical science program. The rigor of this degree may be compromised by the fact that one can meet the requirements of the program without having to complete senior courses, including a capstone course. There was also at least some concern regarding students being able to take similar-content courses in each of the Schulich School of Medicine and Dentistry and in the Department of Biology, thereby potentially receiving double credit for the same material. Recommend working with the Schulich School of Medicine and Dentistry to address the overlap in programs and list appropriate courses as anti-requisites. Also consider adding a 4000-level course requirement in the Biology Major portion of the double major degree.

3. Some concern was also expressed by faculty that students graduating with the double major without taking 4000-level courses may not qualify for graduate school, and must return for a 5th year to upgrade their credentials. If steps have not been taken already, the department should ensure that students are made aware of this potential dilemma early in their undergraduate degree. Recommend informing students early in the degree program about this potential shortcoming of the double major degree so that students can make better informed choices.

4. Delivery of 2290F/G to 1000 students each year is expensive, and is rather unique among other universities in southern Ontario. No recommendation was provided for solving this problem. This was addressed by the Department by demonstrating that, when the complete roster of courses in year two are taken into account, this course is, in fact, not expensive.

5. Some concern that the faculty complement is somewhat precarious given the unpredictable nature of retirement and the number of faculty of retirement age, specifically relating to how the experiential learning opportunities and capstone experiences will remain intact if there is a reduction in faculty or staff complement without also a commensurate reduction in student enrolment. There should be a faculty renewal plan to guide the department in the coming years as retirements occur. The long-term stability and maintenance of strength in the department requires that there be an appropriate distribution of faculty across the ranks. It is concerning that at present there is just one tenure track assistant professor in the department. Recommend the adoption of a renewal plan.

6. Concern that, if the university does not continue to fund the Department at the current level, then ensuring that laboratory resources and safety standards are maintained will become untenable, and that staff and instructors will not be able to keep up with changing technologies in the various sub-disciplines. Recommend continuing the same level of funding as is currently in place.
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<th>Recommendation</th>
<th>Responsibility</th>
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<tbody>
<tr>
<td>Consider promoting international exchange initiatives and indigenous course-related materials</td>
<td>Department, Faculty</td>
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<tr>
<td>Develop faculty renewal plan in anticipation of pending retirements</td>
<td>Department</td>
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</table>
Executive Summary

In terms of the program design, the quality and engagement of the faculty members in teaching and research, and graduate students' dedication to their learning outcome and success, the external reviewers provided very positive evaluations during this cyclical review. The relatively young Clinical Anatomy PhD program (thesis-based, created as a response to the recommendation from the previous graduate program review) received high praises from the reviewers for its success and uniqueness in North America. Both the major and minor recommendations, as detailed below, have more to do with further developing the strengths of the three streams (Thesis-based MSc and PhD in Cell Biology, Neurobiology, and Clinical Anatomy, and Course-based MSc in Clinical Anatomy) in the Anatomy and Cell Biology Graduate Program (ACB), rather than addressing any significant inadequacies.

Significant Strengths of Program:

- The educational component of the ACB graduate program is considered a gem, which copies a unique niche and is highly regarded in North America, mainly because of the well-trained clinical anatomists who have been sought after by many North American universities as educators in this field.
- The program is strong and collaborative in nature, integrating anatomy, cell biology, and neurobiology, with some faculty having close collaborations with the Brain and Mind Institute for research and graduate student training.
- Highly enthusiastic faculty and staff, and dedicated graduate students, with a good sense of working together to develop and improve the graduate program.

Suggestions for improvement & Enhancement:

- Areas for improvement and opportunities for enhancement
  Better branding and promotion of the unique and successful educational component of clinical anatomy.
• **Steps the program can or should take for improvement**
  Develop a rotation program for new graduate students to improve matching with potential supervisors. This is considered by the external reviewers as a widely adopted practice in most other life sciences programs in Canada and elsewhere.

• **Improvements that require support or assistance beyond the program**
  Clinical Anatomy Laboratory Renovation. This lab handles a fairly large number of cadavers for clinical anatomy and dissection. The working environment needs some improvement, especially brighter lighting and better ventilation will help improve the health and safety standard of this lab.

<table>
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<tr>
<th>Recommendations required for Program sustainability:</th>
<th>Responsibility</th>
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</table>
| Investigate potential health and safety concerns in the clinical anatomy laboratory regarding ventilation and lighting | Dean  
Department Chair  
Graduate Program Chair |
| Explore a rotation program for new graduate students to optimize match with supervisors. | Vice Dean of Schulich  
Department Chair Graduate Chair  
Graduate Committee |
| Strengthen interactions with the Faculty of Education re clinical education / teaching | Department Chair  
Graduate Program Chair  
Graduate Committee |
| Enhance interactions between students in the clinical and research stream, through more shared seminars and courses | Department Chair and Graduate Committee |
**Executive Summary**

The graduate program in Biochemistry (http://www.biochem.uwo.ca/grad/default.html) has been in existence since the arrival of Dr. R.J. Rossiter as Department Head in 1947. The program originally focused on lipid research and has since expanded through several phases of faculty recruitment and through diversification of research into new fields of investigation. At present, the program is composed of 40 members with supervisory privileges and about 80 graduate students. Research laboratories of participating members are located within Western University and its affiliated institutions including Robarts Research Institute, Lawson Health Research Institute, the Child Health Research Institute and the London Regional Cancer Program.

Faculty in the Department of Biochemistry have active and productive research programs that have direct or translational aspects related to health sciences. The environment both on campus and at satellite facilities offers graduate students an exceptional training environment which provides ample scientific and career development opportunities.

Until 2014, the program offered a traditional Master’s program (thesis-based) leading to the degree of MSc and a doctoral program leading to the degree of PhD. In 2012, they introduced an Accelerated MSc program which facilitates early registration and an anticipated early completion of the thesis-based Master’s. In 2015, they introduced an additional option for the Master’s program, a one-year Non-thesis MSc program. This is a course-based MSc program that includes two streams, a research-based individual project stream and a non-research collaborative project option. Currently (Sept, 2017), there are 35 students enrolled in the thesis-based MSc program, 14 in the Non-thesis, and 36 in the PhD program.

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<table>
<thead>
<tr>
<th>Program:</th>
<th>Biochemistry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degrees Offered:</td>
<td>MSc (Thesis &amp; Non-Thesis) PhD</td>
</tr>
</tbody>
</table>
| Approved Fields: | • Genome Dynamics, Epigenetics and Gene Expression  
• Human Genetics and Clinical Biochemistry  
• Signal Transduction and Intracellular Communication  
• Macromolecular Structure and Dynamics  
• Proteomics  
• Bioinformatics |
| External Consultants: | Dr. Liliana Attisano  
Department of Biochemistry  
University of Toronto  
Dr. Caroline Cameron  
Department of Biochemistry and Microbiology  
University of Victoria |
| Internal Reviewers: | Paula Dworatzek, PhD RD  
Chair and Associate Professor, School of Food and Nutritional Sciences  
Brescia University College, at Western University  
Jenna Kitz  
Graduate Student (Anatomy & Cell Biology) |
| Date of Site Visit: | January 17-18, 2018 |
| Evaluation: | Good Quality |
| Approved by: | SUPR-G on May 14, 2018  
SCAPA on May 30, 2018 |
The learning outcomes were presented in a clear and cohesive manner and were appropriately tailored for the various streams (MSc non-thesis, and MSc or PhD thesis). The methods used to measure whether these objectives have been achieved are well thought out and reflect the most appropriate means to assess their achievement in each stream.

Faculty have been proactive in developing graduate training programs to meet the changing needs of graduate training and expectations of students by creating a non-thesis-based Master’s that has an optional research/laboratory track; prioritizing the direct-entry PhD track in an effort to maximize research productivity; and the willingness of faculty to tailor teaching styles and be flexible with teaching workloads to instruct the thesis-based and non-thesis-based students within the graduate course offerings. The new non-thesis based Master’s was created to meet the needs of students not wanting a thesis-based degree as well as the evolution of the biomedical sciences job market.

The external reviewers recommended that the Schulich School of Medicine and Dentistry restructure their funding formula to provide increased financial support to the Graduate Program within the Biochemistry Department and other basic science departments, to ensure faculty members can continue to train graduate students within their research programs. While this may be a valid opinion, it is deemed outside of the scope of the reviewers to make this a recommendation.

Significant Strengths of Program:
- Expertise of the faculty who have a national and international reputation for research excellence.
- Dedication of the faculty to revising the graduate program to suit the needs of today’s biomedical students.
- The technical resources to assist students and faculty achieve their research goals.

Potential weaknesses:
- Potential vulnerability of the traditional thesis Master’s, which has been the most consistent source of incoming students, due to the removal of a minimum stipend and the option for a non-thesis Master’s.
  - The Department has noted that: they “encourage Faculty members to provide at least a base stipend equivalent to the cost of graduate tuition (~$9000). Thus far all thesis MSc students enrolled in our program receive a stipend. We will closely monitor our thesis MSc student numbers to determine whether our decision to not guarantee a minimum stipend for these students affects enrolment as we understand that this could affect PhD enrolment and overall student numbers.” Furthermore, the department response acknowledges that while the annual funding per Master’s student has decreased, it has increased for PhD students and as such there is an overall increase for the program.
- Lack of transparency about where financial resources provided by the University go once they reach the Schulich School of Medicine and Dentistry.

Suggestions for Improvement & Enhancement:
- Engage in strategic planning to identify core research pillars for their research vision, and to demonstrate to the University the need to retain a full complement of faculty positions.
  - The Department has stated: “We agree that the development of a succession plan to replace retiring Faculty members over the next 5 years is a high priority. The Department has a committee in place (the Strategic Planning Committee) that is identifying the core research pillars that are of importance to the Department’s research and to the Graduate program.”
- Develop a plan to optimize the core graduate courses to suit the differing needs of the thesis and non-thesis Master’s ensuring the research-intensive courses are offered often enough to meet the needs of the thesis students.
  - The department has responded that they “agree that we can expand our set of courses by offering additional topics, and faculty are encouraged to do so every year. We have initiated this in the 2017-18 academic year by offering a new course (Bioc 9525R,
Modern Applications of Biological NMR Spectroscopy). We will therefore set in place a process to add one or 2 courses that students will be able to substitute for a core course.

- Tailor the graduate course offerings to increase the opportunities for developing written competency skills.
  - The program response indicates they have adequately addressed this, i.e., “Developing written competency skills is one of the priorities of our graduate program. We have a Writing Course that specifically teaches writing skills. Up to now, this course has been offered in the Fall Semester. We plan to offer this Writing course in both the Fall and the Winter Semesters to accommodate all the student requests starting next academic year (2018-19). In addition, 5 other courses have learning outcomes that include communication skills and have a writing component (9511Q, 9606S, 9516S, 9500R, 9505R), and both the Ideas to Innovation and the Advanced Research Project Course include a major writing component.”

- Move away from an exam-based approach for performance assessment for students undertaking a thesis-based graduate program.
  - Again, the program has addressed this comment. Specifically, “The large majority of our graduate courses do not have exam-based student assessments. Only 1 course (9522R, Applied Proteomics) has an exam that constitutes 30% of the final mark. While this represents a small fraction of the total assessment, we will phase out this exam component and replace it with a written assignment.”

- Develop a “new student” document that outlines the degree expectations and scientific rigor that is expected for each of the graduate programs
  - The Graduate Chair expects to have this complete for new students beginning in Sept.

<table>
<thead>
<tr>
<th>Recommendations required for Program sustainability:</th>
<th>Responsibility</th>
</tr>
</thead>
</table>
| Develop a plan to collect metrics from the non-thesis Master’s to assess student outcomes | Graduate Chair  
Associate Graduate Chair  
Graduate Program Administrator |
| Ensure greater clarity on program website for prospective student recruitment | Graduate Chair  
Associate Graduate Chair  
Graduate Program Administrator |
## Programs: Medical Biophysics

<table>
<thead>
<tr>
<th>Degrees Offered:</th>
<th>MSc, PhD</th>
<th>MSc</th>
</tr>
</thead>
</table>
| Approved Fields: | Prior to review  
- Medical Imaging  
- Microcirculation and Cellular Biophysics  
- Orthopaedic Biomechanics and Biomaterials  
- Medical Physics and Cancer  
*remove fields as part of this review.*  
No fields going forward | none |

### External Consultants:
- Cari Whyne, Professor, Institute of Biomaterials and Biomedical Engineering Sunnybrook Research Institute and University of Toronto
- Jan Suentjens, Professor and Director, Medical Physics Unit, Department of Oncology McGill

### Internal Reviewers:
- Jan Polgar, Professor Occupational Therapy and Health and Rehabilitation Sciences
- Julia Abitol, PhD Trainee Anatomy and Cell Biology

### Date of Site Visit: November 23-24, 2017

### Evaluation:
Good Quality with Report (update September of 2019) with full report September 2020

### Approved by:
- SUPR-G on April 23, 2019
- SCAPA on May 30, 2018

### Executive Summary

The Medical Biophysics program at Western is very strong, with internationally renowned faculty, excellent infrastructure/equipment, generally well funded research programs and a high level of scholarly productivity. Students are very engaged in the program, productive and feel valued by faculty. The flexibility of program requirements, which allow students to take additional courses as needed, seems to work well for students. The learning outcomes are clearly identified and linked to Western’s GDLEs and to the mission of the university.

### Significant Strengths of Program:
- Faculty are very strong, with international reputations; extremely productive
- The infrastructure for the most part is excellent, providing opportunity for the students and necessary equipment to allow them to complete their research
- Graduate chairs (current and previous) are viewed as highly supportive by the students
- Flexibility of the program requirements provide opportunities for students to tailor courses to their needs
- The ability of students to complete the requirements of the CAMPEP program is seen as a strength by the students
Suggestions for Improvement & Enhancement:

• The CAMPEP tuition is high and not aligned with the tuition of other institutions that also offer this program. This high tuition is causing strain on the supervisors who are unable to support students who wish to enter this program.

• Faculty members in the core program do not have the same space and infrastructure as do those located at Robarts, LRCP or Lawson. These core faculty members have a severe lack of space, have had their space taken away and been removed to other space that does not meet their needs (both in terms of footprint as well as space that is adequate for their equipment…eg., computers). This lack of space causes problems for the ability of faculty members to complete their research as they are unable to recruit trainees for their labs. In some cases grant funds have been returned. There is also a concern that successful faculty members may leave due to space issues.

• Faculty have challenges with access to students. There is an insufficient number of students in the Medical Biophysics program in relation to the capacity of faculty members to support trainees. Some attempts have been made to recruit students from other departments in which faculty are cross-appointed. Outreach is needed at different levels in order to attract students to this program.

• Students across the programs have little opportunity outside of seminars and courses to engage and learn from each other. There is little interaction among students at the different sites. Students do not sit on many committees in the faculty.

• There is a need for more transparency and democracy in the administration of the department, with input and inclusion of faculty from across all sites. Faculty/departmental meetings should occur regularly as planned. Currently, these are site-specific and have resulted in division among the faculty.

<table>
<thead>
<tr>
<th>Recommendations required for Program sustainability:</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop a space plan that addresses the graduate supervision needs of faculty in the core program</td>
<td>Dean Department Chair</td>
</tr>
<tr>
<td>Reconsider the PhD mid-level examination</td>
<td>Graduate Program Chair Four identified MBP graduate executive members MBP Graduate Executive Curriculum Subcommittee</td>
</tr>
<tr>
<td>Encourage creation of a students’ council to support interaction among students, particularly across the program’s multiple sites.</td>
<td>Graduate Program Chair Students</td>
</tr>
<tr>
<td>Create an outreach plan with the aim of recruiting/attracting more students to the program (Outreach to high schools, undergraduate programs at Western and other institutions)</td>
<td>Graduate Program Chair Graduate Council and members</td>
</tr>
<tr>
<td>Develop a communication plan to ensure that faculty and students across the program’s multiple sites all receive relevant information and all have opportunity for input as relevant</td>
<td>Department Chair Graduate Program Chair</td>
</tr>
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</tr>
<tr>
<td>To address the challenges related to the fact that the program is distributed across multiple sites, explore options for scheduling and location of the seminars to support faculty attendance</td>
<td>Graduate Program Chair Executive Committee</td>
</tr>
<tr>
<td>Exit surveys are needed to track graduated students. Exit survey needs to be created, process for administration determined prior to first implementation.</td>
<td>Graduate Program Chair MBP Graduate Executive Committee</td>
</tr>
<tr>
<td>Consider a strategy to support Clinical faculty who face challenges in accepting new graduate students due to a lack of long term grant funding support</td>
<td>Graduate Program Chair MBP Graduate Executive Committee</td>
</tr>
</tbody>
</table>
Executive Summary
The review committee met with a broad cross-section of program stakeholders: campus- and hospital/Institute-based graduate students and faculty; administrative staff members; and academic administrators including the Acting Chair and Graduate Chair; representatives of the Schulich School of Medicine and Dentistry and the School of Graduate and Postdoctoral Studies. In addition, the committee was taken on tours and had the opportunity to observe student spaces and research labs. The committee had an opportunity to discuss a broad range of considerations, including the balance between the two disciplines in the curriculum and among the faculty and the use of online modules to bring students up to speed; student participation in collaborative programs (Developmental Biology, Musculoskeletal Health, and Neuroscience); the continued role of the accelerated and two-year MSc programs; low level of faculty supervisions considering the high level of research funding; the high proportion of Western graduates in the program; the reliance on Western undergraduate students and difficulty in attracting Phys/Pharm undergraduates due to their overwhelming preference for medical school.

Significant Strengths of Program:
- Learning outcomes are clearly defined and measurable, and are consistent with the norms of SGPS and the Schulich School of Medicine and Dentistry.
- Faculty are diverse, committed, and well-funded, and faculty morale is high.
- Graduate trainees are highly productive and enjoy a high level of collegial interaction.
- Course work helps to prepare students for their research program and the amount of course work is appropriate.
- Program timelines are in keeping with comparable programs in other Canadian universities and regular meetings with the student’s committee, which includes a member of the Graduate Research Committee, ensure adequate progress through the program.
- Completion times are excellent given students’ high publication rates and there have been few withdrawals.
- With the exception of animal care facilities, the Program has access to impressive state-of-the-art support facilities.
Suggestions for Improvement & Enhancement:

- Physiology continues to be the dominant partner in the combined program, and the Department and Program will need to attend to actively maintaining the strength of Pharmacology.
- Animal care facilities will require (and are scheduled to receive) upgrades.
- Work toward providing all PhD students access to at least one national or international research conference; consider establishing a fund.
- Review the grant-writing component of the graduate course to include more examples of successful grants.
- Renew efforts to recruit students from a wider geographical area.
- Formalize procedure to allow and encourage senior PhD students to give guest lectures in undergraduate courses.
- Consider electronic transmission of seminars to and from off-campus sites for greater two way interaction between campus-based and off-campus based faculty and students.
- Continue harmonization of undergraduate programs to ensure that students entering graduate studies have a more uniform background in both disciplines.
- Consider partnership with other units to provide an integrated course-based master’s program for students preparing for professional programs.

<table>
<thead>
<tr>
<th>Recommendations required for Program sustainability:</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorporate at least one Physiology focused and one Pharmacology focused area in all PhD student comprehensives.</td>
<td>Graduate Studies Committee; Department.</td>
</tr>
<tr>
<td>Upgrade/enhance online modules to provide a higher level of competency in both disciplines.</td>
<td>Program (on agenda at Departmental Retreat)</td>
</tr>
<tr>
<td>Explore options for the accelerated MSc program</td>
<td>Department, Faculty</td>
</tr>
</tbody>
</table>
Executive Summary
The External Reviewers’ report provides an analysis and evaluation of the Graduate Program in Biology. The External Reviewers met with graduate students at MSc and PhD levels, faculty, program administrative personnel as well as the Acting Dean and the Associate Dean (Graduate Studies) of the Faculty of Science.

Significant Strengths of Program:
The Biology Graduate Program is strong, and has clearly defined and appropriate learning outcomes, and effectively combines training through a combination of formal and well-defined milestones, as well as informal opportunities to achieve them. It also has a high level of research activity, resources and success, which translates into high levels of expertise and knowledge for graduate students.

Suggestions for Improvement & Enhancement:
Opportunities for enhancement identified included continuing efforts to recruit students with high probability of successfully competing for scarce external funding, as well as continuing efforts to further facilitate the integration and active participation of graduate students whose research takes place off campus, specifically those who work at Agriculture and Agri-Food Canada (AAFC).

1. The Reviewers noted that there appears to be heterogeneity in supervisors’ expectations concerning student performance and time dedicated specifically to develop their research work, especially vis-à-vis other student activities, such as TA and course work. The program proposes the development of a supervisors’ manual, including an “orientation checklist” for new and existing supervisors. The Graduate Chair will conduct this task, with the material to be completed and the new procedure brought to the department for approval by 1 July 2018.

2. The Reviewers noted differences in assessment on the best format for Comprehensive examinations for doctoral students among interviewed faculty. To improve on assessment processes, the Graduate Chair will evaluate and potentially revisit the Comprehensive Examination process for Ph.D. students. The timeline for implementation is the 2018-2019 academic year.
3. The Reviewers noted there was concern among students regarding the effectiveness on the design of the department website to relay information on supervisors’ areas of research. This is crucially important for both new and prospective student recruitment. The department proposes update and improvement of its website to facilitate finding information regarding resources available to graduate students, supervisors’ areas of research, etc. to increase visibility for existing and prospective graduate students. The Associate Chair (Research) and the Graduate Chair will be responsible for this task. The time for implementation is December 2018.

4. Feedback from students at AAFC indicated there still exist significant challenges for them to travel between the University and the AAFC campus. Although the Program has addressed this issue in the past, it will work together with AAFC students and faculty to identify feasible and acceptable plans to try to address the challenge of transportation between the AAFC site and the Western campus. Expected time for implementation: September 2018.

5. The Reviewers indicated concern among some graduate students regarding frequency of some course offerings and/or relevance of such courses to their research and specific training, and particular interest in Bioinformatics instruction. The Graduate Chair will continue to facilitate offering of a balanced and diverse array of graduate courses, and alert students about additional courses or workshops elsewhere, as well as about professional development opportunities.

6. The Reviewers identified the need for and importance of stable financial support for graduate students in the form of TA positions as a critical element to maintain a strong Graduate Program. To this end, continuous effective communication between the Faculty of Science, the Graduate Chair, and individual faculty members will be ensured, particularly focused on providing adequate financial support to graduate students in the form of Teaching Assistant positions.

### Recommendations required for Program sustainability:

<table>
<thead>
<tr>
<th>Recommendations required for Program sustainability:</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of a supervisors’ manual, including an “orientation checklist” for new and existing supervisors.</td>
<td>Grad Chair</td>
</tr>
<tr>
<td>Improve assessment process for Comprehensive Exam</td>
<td>Grad Chair</td>
</tr>
<tr>
<td>Ensure greater clarity on program website for prospective student recruitment</td>
<td>Associate Chair (Research)</td>
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<td></td>
<td>Grad Chair</td>
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<td></td>
<td>Individual Faculty Members</td>
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<tr>
<td>Improve integration and active participation of all graduate students from on and off campus locations</td>
<td>Grad Chair</td>
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</table>
Executive Summary
The reviewers were very grateful to all program members (faculty, trainees and support staff), the dept. chair, Dean of the Faculty; Program Chair, Associate Dean and senior university administration for their forthright and insightful comments regarding the program. This is a program with a long history of excellence. It was obvious that all concerned cared a great deal about the academic strength of the program and its curriculum. There is no question that the program remains excellent in all measures that can be applied. However, all programs including excellent ones have challenges to face and ways to become even stronger. The reviewers assembled a number of fairly minor but important suggestions for improvement and raised 2 larger concerns that will have to be faced and addressed in coming years.

Significant Strengths of Program:
- Extremely strong and productive group of faculty; very active research program and impressive CVs.
- Faculty takes its responsibilities for teaching and supervising graduate students very seriously.
- Impressive recognition of the requirement to pursue Faculty member renewal by senior university administration and the Dean. Administration has shown impressive sensitivity to the department’s needs.
- Trainees clearly exceed the requirements for admission into the program and are extremely talented and committed young scientists. Current admission standards are strong.
- Completion times are well within expectations for vary majority of trainees.
- Strong links to other department, program and institutes; ie Brain and Mind institute & Business School.
- All members of the department’s administrative staff are incredibly dedicated to the program.
- The program and its trainees receive reasonable funding and support. Trainees did not raise support levels as a critical issue.

<table>
<thead>
<tr>
<th>Program:</th>
<th>Psychology Graduate Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degrees Offered:</td>
<td>Thesis based MSc</td>
</tr>
<tr>
<td></td>
<td>Non-clinical PhD</td>
</tr>
<tr>
<td></td>
<td>Clinical PhD (1 year internship)</td>
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<tr>
<td>Approved Fields:</td>
<td>Cognitive, Developmental and Brain Sciences</td>
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<td></td>
<td>Social, Personality &amp; Developmental</td>
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<tr>
<td></td>
<td>Clinical Science and Psychopathology</td>
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<tr>
<td></td>
<td>Industrial/Organizational</td>
</tr>
<tr>
<td>External</td>
<td>Dr Susanne Ferber</td>
</tr>
<tr>
<td>Consultants:</td>
<td>University of Toronto</td>
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<td></td>
<td>Dr Richard McFall</td>
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<td></td>
<td>Indiana University</td>
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<tr>
<td>Internal Reviewers:</td>
<td>Dr Andrew Watson</td>
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<tr>
<td></td>
<td>Schulich School of Medicine &amp;</td>
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<tr>
<td></td>
<td>Dentistry</td>
</tr>
<tr>
<td></td>
<td>Student not available</td>
</tr>
<tr>
<td>Date of Site Visit:</td>
<td>February 26th and 27th 2018</td>
</tr>
<tr>
<td>Evaluation:</td>
<td>Good Quality with report due April 2019</td>
</tr>
<tr>
<td>Approved by:</td>
<td>SUPR-G on April 23, 2019</td>
</tr>
<tr>
<td></td>
<td>SCAPA on May 30, 2018</td>
</tr>
</tbody>
</table>
Suggestions for Improvement & Enhancement:

- Outcome assessment methods could be specified in more detail; For example MSc thesis examination was listed as outcome measure for Research & Scholarship; Level of Application of Knowledge; Professional Capacity/ Autonomy; Level of Communication skills; Awareness of Limits of Knowledge. Reviewers felt all concerned would benefit from “unpacking” the Oral exam and explaining clear how the exam achieves assessment of all of these learning outcomes.
- The recent adjustments to program requirements ie comprehensive examinations and attendance at brown bag seminars needs to be better communicated so that all trainees understand fully what is required of them. Field specific variations in requirements still exist but may not be fully understood by all.
- Many senior Faculty have retired or will retire shortly. Aging issue must be addressed “urgently”.
- Increasingly the diversity of the trainee admissions pool is desirable. Very few international students in the program. A high proportion of trainees are from Western undergraduate programs.
- The program should address whether a GRE score is of benefit to admissions for any of their fields.
- Trainees mentioned challenges are associated with arranging advisory committee meetings and in receiving timely performance evaluations.
- Unevenness in Faculty numbers for each field. Personality, social development & clinical have shrinking numbers of faculty. Maintaining excellence in these areas will increasingly difficult if strategic renewal does not occur.
- The clinical area does require special attention since it has accreditation standards that must be maintained. Clinical students have a greater course load and internship requirements. The program would benefit from a review that focuses on clarifying “real requirements” and “perceived requirements”. Example greater practicum hours results in better practicum placements. Clinical psychology is evolving rapidly. Thus department must assess its vision for this field and how this field should adapt to changing external forces. Is this field consistent with the programs stated mission of “training scientists with a strong research focus”? Most recent graduates from this field have not pursued research positions.
- Gender equity within the Faculty pool could be better and should be a factor in guiding future recruitments.
- Students believe it would be beneficial to allow for a “rolling two year” window for travel fund distribution allowing $500 for travel for students to accrue.

<table>
<thead>
<tr>
<th>Recommendations required for Program sustainability:</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide more clarity and detail in learning outcomes and how they are evaluated</td>
<td>Program graduate committee</td>
</tr>
<tr>
<td>Work to improve gender equity in new faculty recruitment</td>
<td>Dean, Chair, Search committees</td>
</tr>
<tr>
<td>Ensure good communication of all program revisions to program members and students</td>
<td>Program Chair and Program Graduate Committee</td>
</tr>
<tr>
<td>Assess GRE requirement</td>
<td>Program Chair and Program Graduate Committee</td>
</tr>
<tr>
<td>Facilitate scheduling of annual student progress review meetings and ensure that students receive timely feedback</td>
<td>Program Chair and Program Graduate Committee</td>
</tr>
<tr>
<td>Consider a rolling 2 year window for graduate student travel grants to enable attendance at conferences</td>
<td>Program Chair and Program Graduate Committee</td>
</tr>
<tr>
<td>Reassess the vision of the Clinical field with particular attention to 1) clearly defining the course requirements, and 2) revisiting the stated mission of “training scientists” in light of the predominance of graduates who pursue clinical careers.</td>
<td>Dean, Chair, Program Chair and Program Graduate Committee</td>
</tr>
</tbody>
</table>
New Scholarships and Awards

Blenkhorn Family Football Award (Any Undergraduate or Graduate Program – Athletic Award)
Awarded annually to a full-time undergraduate or graduate student in any year of any degree program at Western, including the Affiliated University Colleges, who is making a contribution as a member of the Men's Football Team. Candidates must be in compliance with current OUA and CIS regulations. As per OUA and CIS regulations, an entering student athlete must have a minimum admission average of 80% and a non-entering student must have an in-course average of 70%. The Western Athletic Financial Awards Committee will select the recipient basing its decision on its evaluation of academic performance/potential (20%) and the written recommendation from the Head Coach assessing athletic performance/potential and team/campus leadership (weighted as 60% and 20% respectively). This award was established by Mr. Paul Blenkhorn (BSc '02) and Dr. Sarah Blenkhorn (MCISc '04, BHSc ’01).

Value: 1 at $2,500
Effective Date: 2017-2018 to 2021-2022 academic years inclusive

Katherine J. Little Graduate Nursing Scholarship (Health Sciences, Nursing)
Awarded annually to a full-time graduate student in a Nursing program at the Masters or Doctoral level who is a current holder of an Ontario Graduate Scholarship (OGS), based on academic achievement and research merit. The School of Graduate and Postdoctoral Studies will select the recipient in cooperation with the graduate program in the School of Nursing. If during any year, there are no Nursing students receiving an OGS then a non-OGS Nursing student will receive the funding. This scholarship was made possible by a generous gift from Mrs. Katherine J. Little (BScN ’54).

Value: 1 at $5,000*
Effective Date: May 2018

*OGS funding ensures a 2:1 match through the Provincial Government, increasing the value of the scholarship to $15,000 each.

Gordon Jeffery Strings and Chamber Music Graduate Award (Don Wright Faculty of Music)
Awarded annually to full-time graduate students entering a Master’s degree program in the Don Wright Faculty of Music. Students must demonstrate outstanding performance ability with preference given to orchestral string players (violin, viola, cello, bass). The Graduate Scholarship and Awards Committee in the Don Wright Faculty of Music will select the recipients. At least one member of the committee must hold membership in the School of Graduate and Postdoctoral Studies. These awards were made possible by a generous bequest from the Estate of Gordon Jeffery (BA ’40).

Value: 4 at $2,000
Effective Date: May 2018

Gordon studied Law at Osgoode Hall in Toronto and upon admission to the bar in 1942, joined his family's law firm, Jeffery & Jeffery, in London, ON. Gordon's true passion was music, studying organ in New York and forming a long association with St. Peter's Cathedral in London, serving as occasional organist. He had an extensive collection of musical instruments including Stradivarius violins, grand and upright pianos and organs. He contributed anonymously to support many young musicians and donated his violins to Western through his Estate. Gordon died in 1986 at the age of 67.
Dr. Lazarus Loeb Medical Award (Schulich School of Medicine & Dentistry)
Awarded annually to an undergraduate Doctor of Medicine (MD) student entering fourth year, based on demonstrated financial need and clinical excellence. Preference will be given to an Indigenous student (First Nations, Inuit or Metis). Online financial assistance applications are available through Student Center and must be submitted by September 30. Final selection will be made by the Progressions and Awards Committee in the Schulich School of Medicine & Dentistry after the Registrar’s Office has assessed financial need. This award was made possible by a generous donation from Mrs. Jacqueline Loeb in memory of her husband, Dr. Lazarus Loeb (MD ’54).

Value: 1 at $2,000
Effective Date: 2018-2019 academic year

Dr. Lazarus Loeb (MD, FRCPC, FACP, FCCP, FAAAAI, FACAAI) earned his medical degree while he lectured his own medical class in bacteriology. He graduated cum laude earning five awards in addition to AOA Honor Medical Society. His specialty training was taken under the guidance of Dr. Robert A. Cooke of New York and Dr. Bram Rose of Montreal. Returning to Ottawa to practice allergy, Dr. Loeb established what eventually became a five doctor clinic of board certified allergists. His accomplishments include being head of the Department of Allergy at the University of Ottawa, President of the Canadian Academy of Allergy, President of the Ontario Medical Association, and a lifetime membership award in the Canadian Society of Allergy and Clinical Immunology. He and Mrs. Loeb migrated to Fort Worth, Texas in 1980 where Dr. Loeb practiced and taught until his death in 2005. Dr. Loeb’s credo was ‘Always listen to the patient.’ As a teaching professor he believed in only doing for the patient what you could justify to the student. As a dedicated physician for 46 years, he was not above making house calls or meeting distressed patients at his office late at night. He avidly kept abreast of developments in medical practice and therapeutics. Dr. Loeb lived to practice medicine; he relished challenging medical problems and had a gift for diagnosis. It is his wife’s hope, that the recipient of this award demonstrates clinical excellence like her husband, and takes that knowledge and skill back to their community.

John S. Millar Field Course Prize (Science, Biology)
Awarded annually to full-time undergraduate students in any program who intend to take a field course within continental North America through the Ontario Universities Program in Field Biology, based on academic achievement and financial need. Students must submit a one-page statement to the Department of Biology field course coordinator outlining their field course plans and travel costs, and submit an online financial assistance application through Student Center by February 28th that precedes their field course. The awards committee in the Department of Biology will select the recipients after the Registrar’s Office assesses financial need. This prize was established by Alumni of the Department of Biology, in honour of Professor John S. Millar.

Value: 2 at $500
Effective Date: 2018-2019 to 2024-2025 academic years (with value to be reviewed after this)

Professor John (Jack) S. Millar was the former Head of the Department of Biology at Western University and retired in 2015. He was an outstanding educator and biologist. One of Jack’s enduring impacts on Biology undergraduate and graduate students was his insistence on the importance of experiential learning in the form of participation in field courses and field work in natural environments.
# REPORT OF THE SENATE COMMITTEE ON UNIVERSITY PLANNING  
( SCUP )

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## FOR APPROVAL

1. **Peter F.J. Miller Fellowship in Media and Journalism**

   **Recommended:** That the Peter F.J. Miller Fellowship in Media and Journalism, shown in Appendix 1, be established with academic appointment in the Faculty of Information and Media Studies.

   **Background**

   See Appendix 1.

2. **John M. Thompson Fellowship in Engineering Leadership**

   **Recommended:** That the John M. Thompson Fellowship in Engineering Leadership, shown in Appendix 2, be established and appointed within the Faculty of Engineering.

   **Background**

   See Appendix 2.

## FOR INFORMATION

3. **Performance Indicators Report**

   See Appendix 3.

4. **Annual Report of the University Librarian**

   See Appendix 4.


   See Appendix 5.

6. **Report on Promotion and Tenure**

   See Appendix 6.
PETER F. J. MILLER FELLOWSHIP IN MEDIA AND JOURNALISM

FOR APPROVAL

Recommended: That the Peter F. J. Miller Fellowship in Media and Journalism be established with academic appointment in the Faculty of Information and Media Studies.

Donor and Funding: Peter F. J. Miller left a bequest to Western of approximately $170,000 to be used to support the Faculty of Journalism, which is now part of the Faculty of Information and Media Studies. The Dean of the Faculty of Information and Media Studies, in consultation with the Provost and Vice-President (Academic) have allocated $160,000 of this contribution to support a limited two-year position to be known as the Peter F. J. Miller Fellowship in Media and Journalism.

Effective Date: May 1, 2018

Purpose: The holder of this Fellowship will assist in the planning and instruction of undergraduate and graduate programs in the Faculty of Information and Media Studies, with special emphasis on courses related to new media, technology and media, the relation of media to environmental social crises, political and international reporting, health and medical journalism, and media law and ethics.

The administration of the spending of resources will be the responsibility of the Dean of the Faculty of Information and Media Studies.

Criteria: Appointments to the Fellowship will be conducted in accordance with University policies and procedures.

Reporting: No donor reporting is required.

Background: The Fellowship has been funded Peter Frederick James Miller (Dip ’67, Journalism) who left a bequest to Journalism and Media Studies at Western out of a personal interest in this area. The Faculty has also established a scholarship in his name, Peter F.J. Miller Entrance Scholarship

Reputational Risk: None.
JOHN M. THOMPSON FELLOWSHIP IN ENGINEERING LEADERSHIP

FOR APPROVAL

Recommended: That the John M. Thompson Fellowship in Engineering Leadership be established and appointed within the Faculty of Engineering.

Donor and Funding: Dr. John M. Thompson pledged $3 million in 2013 to support various projects at the Faculty of Engineering and the Ivey Business School, including academic positions, curriculum development funding and student awards. Of this pledge, $500,000 was directed to establish the John M. Thompson Fellowship in Engineering Leadership. Of this amount, $450,000 will be endowed and $50,000 will be used to support the Fellowship on an expendable basis in the first year it is offered.

Effective Date: May 1, 2018

Purpose: The creation of this Fellowship will allow the Faculty of Engineering to enhance the impact of the Centre for Engineering Leadership & Innovation. Research and activities to be undertaken by the holder of the Fellowship will be determined by the Dean of the Faculty of Engineering, in consultation with the holder of the John M. Thompson Chair in Engineering Leadership & Innovation.

It is anticipated that the Fellow will be appointed at Western on a visiting basis. They will be formally appointed within the Faculty of Engineering, and will also work collaboratively with Ivey Research Centres, such as the Ian O. Ihnatowycz Institute for Leadership, Pierre L. Morrissette Institute for Entrepreneurship or Centre for Building Sustainable Value or others that may be created in the future that are within the scope and mandate of Engineering Leadership & Innovation.

The amount of the Fellowship will vary based on funds available, and will meet the minimum requirements for a fellowship at the University. A portion of the funding available will be directed to the compensation of the holder of the Fellowship and will be in keeping with the offer letter associated with the appointment. The remaining portion of the funding available will be allocated for associated travel and expenses. The administration of the spending of resources will be the responsibility of the Dean of the Faculty of Engineering.

Criteria: Appointments to the Fellowship will be conducted in accordance with University policies and procedures.

Reporting: The University, through the Faculty of Engineering will report to Dr. John M. Thompson regarding the activities of the Fellow. In addition, the Fellow will submit a summary report by August 30th each year to the Dean of the Faculty of Engineering and the Dean of the Ivey Business School, which describes the Fellow’s activities and achievements.

Background: The Fellow has been funded Dr. John M. Thompson, University Chancellor from 2008 to 2012.

Reputational Risk: None.
Western’s Annual Performance and Activity Indicators Report: 2018

May 23, 2018

- Since 2005, Western has published an Annual Performance and Activity Indicators Report.

- In 2016, the report was modified to align the indicators with the University’s most recent strategic plan – *Achieving Excellence on the World Stage*. The indicators shown in the document were chosen from the best available data that align with the fourteen metrics in the Strategic Plan.

- It is important to note that this report is not intended as a promotional document. While some indicators do illustrate significant achievement, others identify areas where improvements are necessary.

- Starting in 2017 (presented to SCUP in September 2017), the report is being presented electronically – rather than a printed version. The report is now a series of dashboards that allow for more flexibility in display options. The report can be found at: [http://www.ipb.uwo.ca/pi/](http://www.ipb.uwo.ca/pi/)

- The main page displays 8 broad categories of metrics – and each category contains multiple indicators. The structure of the indicators follows the format in the print version from previous years – with an explanation of the calculation, relation to the strategic plan, and commentary.

- Individual metrics may be downloaded and printed by clicking the “download” icon that appears on the top-right corner of each page.
Message from Catherine

Each academic year Western Libraries’ librarians, archivists and staff make valuable contributions to the University’s teaching, learning and research mandates and provide excellent service. This report will highlight key initiatives, activities, and select accomplishments for 2017/18. The major organizational initiatives for this period have been: continued implementation of the Western Libraries strategic plan; the Organizational Renewal Initiative transition and implementation; facilities enhancements and the completion of the Space Master Plan; and, continuation of an acquisitions cost mitigation strategy and serials review process. I hope you enjoy this opportunity to learn more about our activities and how we are evolving to meet the needs of the Western community and beyond.

Catherine Steeves, Vice-Provost & Chief Librarian


All of the activities and service developments of Western Libraries are guided by the following Strategies of Excellence in the strategic plan:

- Manage world-class print and digital collections and resources
- Advance 21st century literacies
- Partner in and support research to advance research excellence
- Champion open access and transform scholarly communication
- Cultivate purposeful partnerships on campus and beyond
- Provide user-centred spaces and technologies
- Actively engage with our communities
- Deliver service excellence to library users and the University

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Organizational Renewal

We continued to advance our Organizational Renewal Initiative (ORI) throughout 2017/18. Significant developments include the release of the new organizational model and structure in June of 2017 and the subsequent development of a new user service model, transition strategy and implementation plan. We are introducing elements of the new model incrementally, in anticipation of a formal launch at the start of the fall semester.

The new integrated service model and organizational framework is designed to support research and academic outcomes. It features five core user-centred services or functions: research and scholarly communication; teaching and learning; content management discovery and access; archives and special collections; and, user experience and student engagement. This system-wide transformation is a shift away from a distributed library-by-library model. By working together, Western Libraries can seamlessly deliver services across virtual and physical locations, ensuring Western students, faculty, researchers and alumni connect with the services they need, when and where they need them. Users will continue to benefit from existing relationships with Western Libraries staff, while having the advantage of access to a broader range of knowledge and expertise and the opportunity to build new relationships and contacts. The new model affords the necessary flexibility to adapt to unique and new service requirements. As our users’ needs evolve, so too can the kinds of support and services offered.

By working together, Western Libraries can seamlessly deliver services across virtual and physical locations, ensuring Western students, faculty, researchers and alumni connect with the services they need, when and where they need them.

We developed a staff transition strategy, in consultation with Human Resources, Faculty Relations, UWOFA, and UWOSA, to establish a proper plan and process that respects policies, good practice and employee agreements. We have completed multiple internal librarian/archivist competitions for new positions and leadership opportunities. Five Heads have been appointed and four specialized librarian roles have been filled from the internal pool. We held individual reassignment discussions with each librarian and archivist and they have just recently transitioned to their new functional teams. For the rest of Western Libraries’ staff, work assignment discussions are underway and they will transition to the new functional teams for the start of the fall semester. We’ve provided several personal development, team development, leadership, and change management workshops to assist and support library staff and leaders through the transition. Similarly, we are providing training and professional development to support the acquisition of new skills and knowledge related to changing responsibilities.
Space Master Plan and Facilities Enhancements

Each year Western Libraries undertakes renovation and facility projects of varying sizes and complexity to improve physical learning spaces and overall student experience. The most significant achievement this year was the completion of the Space Master Plan (SMP) in collaboration with Facilities Management and the Office of Institutional Planning & Budgeting and with the direction of the architectural firm Perkins+Will. Over 2016/17, as outlined in last year’s report, the focus of the project was stakeholder engagement, programmatic design, and structural review. Over the first half of 2017/18 the gross cost estimation was completed and the final report written and presented to university administration and library staff. The SMP provides a long-term vision and guide for evolving aging library spaces in ways that are technology-rich and enable learning, knowledge creation and scholarly communication within individual, collaborative and community spaces. It builds a case for reinvestment in our libraries and demonstrates both the need and the opportunities a rejuvenation of our spaces present. Plans for the two major libraries have been broken down into multiple projects to provide flexibility in the development of funding strategies and execution. The plan will soon be available on the Western Libraries website.

The priority for renovation is The D.B. Weldon Library (Weldon Library) – now just over 45 years old. Built in a different era, it was designed as a closed stacks facility. As a study, research and learning environment, it does not meet the current needs of our students and faculty. We greatly appreciate that the University has recognized renovating Weldon Library as a major capital project priority in the 2018/19 operating budget and allocated $15 million toward this end. We are in the process of developing the tender for the architectural design and renovation of the building and should be able to achieve some significant transformations with this first investment. Over 2017/18, we implemented planned and other facilities renovations, which included the front entrance and, on the lower and ground floors, the installation of new flooring and additional student study space. An update of the Kellogg instruction room in 2018/19 will complete the multi-phased Taylor renovation project begun at the start of this four-year budget cycle. The renovation of the former Gustav Mahler-Alfred Rosé room in the Music Library into a Music Lab, available to the Faculty and the library, was completed. We also developed a rejuvenation plan for the Education Library to revitalize the library by creating an inviting, inspiring space for collaborative learning and research through improved interior design, new furnishings and equipment.

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Teaching and Learning

Western Libraries’ contributions to teaching and learning and to student success are many and varied. We contribute to the student experience by providing teaching and learning spaces, collaborative and independent study environments, scholarly resources and information technologies, and research help services.

Our librarians, archivists and staff provide instruction in information literacy and research skills in support of our academic and research programs. This past year, a team of library staff spearheaded a digital literacies outreach initiative, consisting of pop-up literacy workshops using games and online tools to share tips on how to strengthen passwords, protect privacy, and spot fake news. A key collaboration between Western Libraries and the Teaching Support Centre involves work on the Western Degree Outcomes (WDO) project. In 2016/17, we created Information Literacy Learning Outcomes, that complement the WDOs and a guide for their use in teaching important information and digital literacy skills is currently under development.

Western Libraries has moved to leverage the impact of peer mentorship on student learning through participation in the Learning Skills Centre Peer Assisted Learning (PAL) program. This popular program trains students to teach their peers various types of learning skills to help them succeed academically. This year, peer mentors received training from librarians on library resources and services available to support student success and how to refer students to these tools. Initial assessment of this collaboration indicates peer mentors know about library resources and services and are able to connect students to the library when needed.

We also develop and integrate e-learning strategies for information literacy and create online learning modules and research guides.

We continue our collaboration with the Teaching Support Centre (TSC) and WTS on the Supported Course Redesign (SCoRe) project, with librarians providing both general curriculum and discipline-specific support. Over 2017/18, the integration of Research Guides into OWL sites has reached 86 per cent.

Western Libraries partnered with both the TSC and University Students Council to advance campus understanding, adoption and creation of open educational resources (OER) at Western. Increased use of OER is a key priority of the current student government. In addition to helping organize the program for Open Education Day, Western Libraries provided a session on finding and evaluating open educational resources. Western Libraries, with the Teaching Support Centre, is co-chairing the Open Education Working Group to investigate current attitudes toward open education at Western and avenues to support the open dissemination of teaching and learning resources such as lectures and modules.

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Acquisitions and Collections

We continue to monitor the acquisitions budget closely and deploy cost-effective strategies for providing access to the resources required by faculty and students. Annual publisher increases continually out-pace acquisitions budget increases, and our costs are vulnerable to currency fluctuations. Fortunately, the Office of Institutional Planning & Budgeting’s pegged-rate adjustment for the acquisitions budget (at 1.25) allows for planned predictability in subscription expenditures and moderates the impact of dollar value fluctuations. We are piloting evidence-based acquisition of resources, such as monographs and streaming video, which is proving to be a viable alternative, making a large quantity of selected material available for minimum cost. We are also near to completing consultations with faculty, which is the final step after consideration of citation and usage data, in a project to develop a list of priority journal titles to inform collections decisions moving forward. In addition, the Libraries’ anticipated move to the Ontario Council of University Libraries (OCUL) Collaborative Futures Shared Library Services Platform will allow us to explore ways to build and manage collections collaboratively with partner institutions in the province.

Western Libraries has been an active participant in regional, national and international conversations related to library acquisitions and the sustainability of the scholarly publishing model.

We are active in the Canadian Research Knowledge Network (CRKN) participating on the License Transition Task Group, the Content Strategies Committee, and the Executive Committee. In addition, Western has lead an informal US5 working group (including Université de Montréal, Dalhousie, and Laval with input from CRKN and Canadian Association of Research Libraries (CARL)) in the development of a brief and presentation on responses to escalating journal costs and movement toward a sustainable scholarly publishing model.

Copyright

The Copyright Office promotes copyright literacy and campus understanding of copyright legislation, educational fair dealing and the responsible use of copyright-protected materials in teaching, research, personal study, and publication. Copyright literacy sessions are available to departments and Facilities upon request and incorporated into various campus orientations. The 2017/18 academic year marked an enhanced national conversation on copyright as the government implements the statutory review of the copyright act mandated by the 2012 Copyright Modernization Act. This includes potential challenges to the educational fair dealing right, which could have significant impact on Western faculty and students. Fair Dealing Week provided an occasion to raise awareness of the copyright review and our team ran a series of Educational Fair Dealing Pop-Ups to engage faculty and students on the issue.

We have monitored events in Ottawa, advocated “on the hill,” and maintained a discussion with Western’s Copyright Governance Group, as well as with our national and consortial partners, such as Universities Canada, the Canadian Association of Research Libraries, and the Canadian Research Knowledge Network. Western applied to speak before the legislative review committee and will provide a written submission.

Archives and Special Collections

Western Libraries’ digitization agenda for special and unique collections benefits both local and international researchers across the disciplines. This year’s standout project is the partnership between Labatt Breweries and Western Archives to develop a major virtual exhibit, intended to celebrate Canada’s 150th and Labatt’s 170th anniversaries, the exhibit uses over 500 digital images from the Labatt Brewing Company Collection to document and interpret the evolution of the nation and the company. The project also supported students, as funding from Labatt enabled us to hire two FIMS co-op students who gained valuable work experience, and public history students incorporated work on exhibit content as part of a course project. The exhibit has garnered national attention and Labatt recently received a prestigious award from the Archives Association of Ontario.

Among the most notable new archival and special collections acquisitions this past year are the Dr. Frank Hayden fonds (the “Father of the Special Olympics”); the Jan Eisenhardt fonds (pioneer in national fitness programs); the Wright Lithography Company fonds; and World War One German East Africa aviation maps.

A special highlight this year was the receipt of a Canadian cultural property designation for the “Canadian Whites”; the World War Two era Canadian comic book collection previously donated by Dr. Eddy Smet, which includes a very rare copy of the first Canadian comic book, Better Comics #1.

Several wonderful exhibitions for the John A. Schultzer Gallery and Weldon display cases were curated from our archival and special collections including: Bacon Sherman and Bucke: The Untold Story; 18th Century Treasures from the Music Library Special Collections; Dr. Frederick G. Banting; Holodomor: Ukrainian Famine/Genocide 1932-1933; Canada and the Two World Wars; Dr. Charles Drake; Prohibition in London; and the French Department’s 50th Anniversary: Language, Literature and Linguistics. And, similarly our materials went on exhibition in the broader community, examples include the Middlesex Centre and City of London Heritage Fairs, the annual Ting Comic and Graphic Arts Festival, and the exhibition of Shakespeare’s “Fourth Folio” at the 2017 London Words Festival.
Research

Western Libraries is contributing to the advancement of research excellence by fostering new modes of scholarly communication; stewarding research collections; through statistical and geo-spatial data services and collections; and by providing research skills workshops and research consultations, including literature searches and systematic reviews, research data management, and research metrics analysis. Our librarians and archivists conducted 532 advanced research consultations over 2017/18. They also provided 117 research workshops and instructional sessions for graduate students, post-docs and faculty.

Scholarship@Western, our open access institutional repository, supports the dissemination and discovery of Western’s scholarly output including online journals, scholarly papers, and electronic theses and dissertations. It continues to expand in both content and impact. In 2017/18, we have selectively rolled out full-service assistance in depositing papers, articles, and other research materials to make it easier to comply with the Tri-agency Open Access Policy. Other quality control measures relating to the accuracy of metadata, copyright checking, accessibility requirements, and locating perma-links have been built into the service.

This year, we began investigating the feasibility of moving to a new repository platform. Elsevier acquired Bepress, the company that produces our current platform Digital Commons. Some users raised concerns about Elsevier’s commitment to open access and potential implications for content ownership, as well as, the likelihood of substantial increases in costs based on their aggressive commercial practices.

Part of this investigation has borne fruit for our Journal Publishing services, and we have migrated many of Western Libraries hosted journals over to Open Journal Systems, an open source system developed by the Public Knowledge Project and hosted by the Ontario Council of University Libraries. However, while we are actively exploring new repository services, and are preparing to run a pilot with Ubiquity Press, given the complexities and interdependencies between the repository, the school of graduate studies, and other Western stakeholders we have not yet determined when any such move will be possible.

Research Data Management (RDM) continues to be important to researchers, and is becoming increasingly salient to Canadian research funding bodies. With Potential RDM requirements on the horizon, Western Libraries, in partnership with Research Western, ran a RDM requirements survey, with the aim of assessing the RDM needs of our various Faculties. While response rates were low, we were able to identify some broad trends across the Faculties, most notably that there is a desire for Western Libraries to assist in research data management activities.

Similarly, a qualitative research project titled “Libraries as the Commons of the University: Identifying and Engaging Faculty Needs to Support New and Impactful Research and Publishing,” focusing on how an academic library can best meet researcher needs is currently ongoing. Please contact Bobby Glushko if you wish to participate. These two studies will inform the work of the new Research and Scholarly Communications functional team as they set their priorities and begin working in the new organizational structure.

In response to the findings of the first survey, we have developed and run several workshops on various RDM tools and platforms, including ODESI, Scholars Portal Dataverse and Portage. While we recognize there is no one size fits all for RDM, and the problem is not scalable for us to offer a hands on solution to every researcher, we have developed and are continuing to develop RDM resources such as web tutorials, libguides, and other materials to help support researcher needs. Additionally, in support of this, Western Libraries has presented, and is available to present, at the Faculty or departmental level on services to support the RDM needs of our communities.

Looking Ahead

There is a lot on the horizon for Western Libraries in 2018/19. We will continue to implement the Western Libraries 2015-2020 Strategic Plan, along with the new organizational model and structure to align our organization with academic priorities and user-centred functions, we will engage an architectural firm to plan the Weldon Library renovation as imagined in the Space Master Plan, and continue the acquisitions and serials review and cost management processes. Our librarians, archivists, and staff will continue to contribute to teaching, learning and research through information literacy, community engagement, service excellence and, development and management of research, special and archival collections, and the provision of research services and consultations.

With the new organizational model in place, we’re excited to see what we can accomplish together in 2018/19.
Western University
The Working Group on Information Security (WGIS)
2017 Annual Report

WGIS is a multi-disciplinary team representing a broad cross-section of the University community. The primary role of WGIS is to pursue proactive strategies to manage security risks to our information and the information systems that safeguard them – and to provide advice to WTS on implementing cyber security initiatives.

Oversight over a number of information security related initiatives is provided by WGIS, including observance of Cyber-Awareness month in October, risk assessments of Western’s Faculties/Departments/Support Units, raising awareness about Western’s data classification policy, and review of and recommendations regarding cyber-security incidents.

WTS, with advice from WGIS, continued a number of ongoing initiatives including Multi-Factor Authentication (MFA), self-phishing initiatives, password management practices, and expansion of use of the Security Incident & Event Management (SIEM) system.

In 2018, WGIS will continue to focus on systematically reviewing cyber security risks within the campus environment.
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Summary of Activities

1. Risk Assessment

WGIS uses a Risk Management Framework from the National Institute of Standards and Technology (NIST) to identify the greatest threats to Western’s information security environment. The following improvements were identified:

- Need for a consistent approach to securing information shared within the University community.
- Requirement for formal information security programs and awareness within Faculties and Support Units – to build on existing unit-specific ad-hoc procedures that are better suited for traditional media than digital information.
- Need for an institutional cyber-security framework and strategy.

During 2018, WGIS will address a number of these information threats through activities that are described in this report, continue to discuss information security risks with departments, advancing the risk assessment interviews and monitoring upcoming trends.

In 2017, risk assessment interviews were conducted for 11 units as follows:

1. Student Health Services
2. Research and Development Services
3. Faculty of Science
4. McIntosh Gallery
5. Faculty of Health Sciences
6. Western Libraries
7. Western International
8. University Students’ Council
9. Faculty of Law
10. School of Graduate and Post-Doctoral Studies
11. Richard Ivey School of Business

These interviews are a necessary step in the risk assessment process to identify critical information systems. This process will result in the development of an institutional inventory of critical information systems that exist across the campus.
In 2018, we plan to conduct interviews with the following units:

1. Housing and Ancillary Services
2. Faculty of Information and Media Studies
3. Faculty of Engineering
4. Faculty of Social Science
5. Office of the Registrar
6. Student Experience
7. Brescia University College
8. Huron University College
9. King’s University College
10. Windermere Manor
11. Faculty Association
12. Book Store

2. Policies, Procedures, and Best Practices

Security Policy Review (Data Classification Standards)

Final approval from University’s governance was received in 2017 and the introduction of the new MAPP 1.13 was communicated by way of broadcast updates through Web, mass email, targeted information presentations, and updates to key groups across campus.

This new MAPP 1.13 Computing, Technology, and Information Resources policy achieves the following:

- Consolidation of the previous MAPP Policies; 1.13 (Code of Conduct), 1.20 (Computing Resources Security), 1.21 (Wireless Networking), and 1.45 (Email) into a more cohesive and accessible format.
- Formally incorporates Data Classification Standards into Western’s IT Policy framework as part of our ongoing shift toward an information (rather than technology) oriented cyber security strategy.
- Positions the University to be more agile with implementation of detailed procedures (supplemental to this overarching Policy) that may arise due to new or emergent technologies.
3. Cyber Protection

Information Security Awareness – CyberSmart

In 2017, the CyberSmart Committee continued to focus on how we can raise awareness within the Western community on the importance of information security. The CyberSmart committee worked on two initiatives:

- The CyberSmart Committee began work on an online Information Security awareness training course. The plan is to have this awareness course available through OWL and to make it mandatory for all faculty and staff at Western with requirement to complete (i.e. renew) every 3 years. To-date, we have consulted with the Teaching Support Centre on best practices for delivering an online course, discussed ideas for using media to deliver the course via OWL, brainstormed course topics, and began to compile content for some of the topics. The next year will focus on finalizing the course materials, working to develop the course, and working with Human Resources to include the training in their suite of online training modules. This will be a key element to Western’s overall Cyber Security strategy.

- Awareness-raising Campaign. On October 30, 2017, WTS and the CyberSmart Committee ran a Halloween-themed information booth in the UCC where we engaged with students, faculty, and staff. Visitors to the booth were encouraged to “Spin to Win” to find out if they were cyber smart and to win candy or another prize (see below for an image of the Spin to Win wheel). Each prize had a cyber security message attached to it (see below). Along with the booth, paper and Visix cyber awareness posters were posted around campus and information was shared via newspaper articles and social media posts.
Delete emails from unknown senders. Never open emails or attachments from people you don’t know. They might infect your computer with a virus or spyware. Delete these emails immediately.
Find out more at CYBERSMART.UWO.CA

Don’t get phished.
To identify a phishing attack look for emails with:
- Bad spelling or odd formatting
- Requests for passwords and personal information
- Links with suspicious web addresses
- Threats to close an account if you don’t act immediately
Find out more at CYBERSMART.UWO.CA

Don’t get hacked.
Protect your identity by using different usernames and passwords for different accounts. Make passwords hard to guess by combining letters and numbers, and changing them regularly.
Find out more at CYBERSMART.UWO.CA

Keep your anti-virus software up to date. Viruses and malware are created all the time. Your scanning software is only as good as its database, get in the habit of updating it regularly.
Find out more at CYBERSMART.UWO.CA
Security Incident Event Management Tool (SIEM)

For the last few years, Western has employed a SIEM tool which combines real-time analysis of security alerts generated by network hardware and applications with security event management. As our expertise with the tool has grown, additional data sources have been included – thus increasing the capability of the SIEM. Additional investment was made to accommodate this increase in capacity and performance. This tool has introduced a tremendous capability to track and proactively manage security and event information.

Use of this tool has improved our understanding of phishing attacks and it assists in identifying members of Western’s community who have fallen victim to spam/phishing. It also provides greater insight into the environment through the development of various security related statistics such as:

Average Number of Phishing Victims / day – 8.4
Average Number of Machines Locked (for security reasons) / month – 6.75

Multi-Factor Authentication (MFA)

The MFA initiative started in 2017 with purchase of a license for a product called “DUO” and now extends the MFA solution into our PeopleSoft systems (Human Resources, Finance, and Student systems) by licensing for a product called “ERP Firewall” for all faculty and staff. The DUO solution was implemented in WTS for access to Western ROAMS (an application that provides secure access to our network from off campus) and to other key WTS servers.

A prototype for deployment of MFA within PeopleSoft systems was also completed. The prototype demonstrated that Western could enable various levels of MFA in those systems. MFA could be required for only selective high-risk circumstances (e.g. changing your payroll bank account) or for every login to the HR system based on user level of access or dependent on where the user is located. During 2018, MFA (DUO and ERP Firewall) will be deployed in PeopleSoft HR and Finance. A strategy and change management plan is being developed to deploy first to those with elevated system access, then to other PeopleSoft users of self-service option. In addition, a complete strategy for deployment of MFA at Western will be developed.
Ongoing “Phishing” Attack Mitigation Efforts

A series of activities to mitigate the effect of Phishing on our community were undertaken in 2017.

- Implementation of a self-phishing process to test responses to phishing attacks. Batches of 500 emails were sent out. Typical response rates were as follows: 36% of recipients opened the email, 10% actually clicked on link, 6.2% of recipients provided their userid/password and would have had accounts compromised if these were actual Phishing emails. This indicates more work around phishing awareness needs to be done.

- Reducing the number of aged passwords process started in January 2017 to get passwords older than 5 years changed which included 8683 accounts. Weekly, we are currently reaching out to holders of oldest passwords (100 users per week) to assist with and force (if necessary) password changes. At end of 2017, about 2500 individuals received notification to change their password.

- The Multi-Factor Authentication (MFA) initiative was piloted in 2017 as mentioned above – though it will not actually mitigate phishing on larger scale until further deployment in 2018.

![Daily Disabled Accounts - 2017](image_url)
Email and SPAM Management

The migration to Microsoft Office 365 (O365) has significantly improved Western’s email capabilities. We are pleased to report that the move of Western’s online Exchange environment to Canadian Data Centres was completed on Dec 12, 2017. Mail for staff, students, and faculty already in Office 365 is now in Canada. In early 2018, we will be in a position to begin the process of moving faculty who deferred their mail migration to Office 365. We will also look to replace List Guardian, our mailing list management application – in order to improve our ability to better manage SPAM generated through email lists.

Phishing via email continues to be the most prominent attack vector against our credentials. As stated in the SIEM section, the tool detects an average of 8.4 accounts per day as being compromised. The SIEM can assist in electronically detecting compromise of account before a user is aware that their account has been compromised.

Western uses several techniques to detect and block approximately 95% of incoming messages identified as spam. This equates to tens of millions of message per month. Robust spam management minimizes the phishing threat because it prevents high risk emails from being delivered to an inbox where it has the potential to be acted upon.

Unauthorized access to individual’s credentials allows perpetrators to gain access to Western’s resources like Library on-line journals, provides a venue to conduct fraud through the Human Resources system, etc. Due to these serious consequences, it is critical that we address this risk through technical and non-technical (i.e. CyberSmart campaign) mechanisms.

Financial Information Protection: Payment Card Industry (PCI) Compliance

Several WGIS members are actively involved with PCI compliance through the Western Bank Card Committee. Because of this engagement, WGIS remains informed of new developments and security practices in the payment card industry. Emerging payment technologies, new e-commerce solutions on campus, and a changing payment card security standard require that Western’s payment card environment be reviewed regularly to determine the implications to Western’s PCI status.

In 2017, Western achieved Level 1 compliance under version 3.2 of the Payment Card Industry Data Security Standards (PCI DSS). This was the second successful validation of compliance for Western, the first being in 2010. Western is one of two Canadian universities to attest, at the highest level, compliance with these stringent standards.

In 2018, the Bank Card Committee will continue to ensure Western remains PCI compliant, review processes associated with the Western ONE card, and review the Bank Card Policy.
4. Incident Response & Investigations

In 2017, the University was attacked on average 778,000 times per day as measured by the firewall. Generally, Western experienced a decrease in the overall number of security incidents it managed from 30 in 2016 to 24 in 2017. Of these, the following were assessed as serious:

- There were instances of low level identity theft where compromised Western identities were used to propagate targeted phishing or contact media outlets.
- Western’s video-conferencing infrastructure was compromised – resulting in theft of long distance services.
- Western’s network experienced a number of low impact service outages and Western was attacked by Distributed Denial of Service Attacks – all of which had minor operational impact.
- There were a few breaches of physical security where key-loggers (devices that capture keyboard activity) were placed in classroom computers. Generally, these key-loggers were identified quickly by WTS’s classroom management group but the trend is worrisome.

5. 2018 Plans

WGIS will focus on the following initiatives in 2018.

- Primary initiative going forward in 2018 is the creation of a Cyber Security Strategy for Western. This will start with engagement of external resources to assist in the assessment of the current state and creation of a plan to implement the new strategy. Included in this will be a review of current cyber insurance coverage and creation of a security incident response framework.

- Building on the MFA initiative which started in 2017, we will be deploying “ERP Firewall” in the PeopleSoft Human Resource and Finance systems in 2018. Early deployment will target those users with elevated system access and then to other users of self-service options. Concurrently, a complete MFA strategy for deployment at Western will be developed – by prioritizing the services for deployment.

- Risk Assessment and Data Classification in the Faculties and Support Units will continue. In 2017, we completed 11 units and plan to complete another 12 in 2018 – which will allow for completion of the initial assessments with all units in 2019. We will continue to look for opportunities to accelerate the process. Discussion includes security priorities and providing advice on best way to protect the critical information housed in the units and identification of “Crown Jewel Assets”.

- WGIS will conclude the review/discussion of its role to ensure it remains able to provide critical advice and perspective to WTS on issues of information security. Growing sophistication and evolution of the cyber threat combined with the
distributed nature of Western’s operations make security of information extremely challenging. We must leverage the skills and knowledge of WGIS members and their familiarity with the operating issues in their respective units.

- Continued improvements to Cyber Security education and awareness. These improvement activities will include implementation of a mandatory cyber security training program for the members of our community building on the initiative which began in 2017 in the CyberSmart Committee.
## Appendix A – Current WGIS Members (as of end of 2017)

<table>
<thead>
<tr>
<th>Name</th>
<th>Faculty/Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glen Tigert (Chair)</td>
<td>University Registrar</td>
</tr>
<tr>
<td>Erica Basile</td>
<td>Research Ethics</td>
</tr>
<tr>
<td>Rob Brennan</td>
<td>Western Technology Services</td>
</tr>
<tr>
<td>James Ciesla</td>
<td>Schulich School of Medicine &amp; Dentistry</td>
</tr>
<tr>
<td>Jim Duncan</td>
<td>Housing and Ancillary Services</td>
</tr>
<tr>
<td>Paul Eluchok</td>
<td>General Counsel, Privacy Officer</td>
</tr>
<tr>
<td>Aleks Essex</td>
<td>Faculty of Engineering</td>
</tr>
<tr>
<td>Sharon Farnell</td>
<td>Internal Audit</td>
</tr>
<tr>
<td>Jeff Gardiner</td>
<td>Western Technology Services</td>
</tr>
<tr>
<td>Dave Ghantous</td>
<td>Western Technology Services</td>
</tr>
<tr>
<td>Ed Gibson</td>
<td>Western Technology Services</td>
</tr>
<tr>
<td>Lisa Latif</td>
<td>Office of Registrar</td>
</tr>
<tr>
<td>Scott May</td>
<td>Communications and Public Affairs</td>
</tr>
<tr>
<td>Geoff Pimlatt</td>
<td>University Students’ Council</td>
</tr>
<tr>
<td>Chris Wedlake</td>
<td>Robarts Research Institute</td>
</tr>
<tr>
<td>Dan Redmond</td>
<td>Campus Community Police Service</td>
</tr>
<tr>
<td>Julie Whitehead</td>
<td>Faculty of Health Sciences</td>
</tr>
<tr>
<td>Ed Zuidema (Scribe)</td>
<td>Western Technology Services</td>
</tr>
</tbody>
</table>
Attached you will find reports summarizing the information requested on the designated group status of those individuals considered for Promotion and/or Tenure under the Collective Agreements for 2017/2018.

As in previous years, the data is provided with the following notes:

- The information related to the designated groups – with the exception of gender – was provided by Equity & Human Rights Services (EHRS).
- The information provided by EHRS is in aggregate form only and was drawn from the employment equity database.
- All information in the database is obtained through self-identification surveys sent to employees; therefore, information is only available for those individuals who have completed surveys.
- Where the information is unknown, it is considered to be a “no” response (i.e. not a member of designated group).
- For reasons of confidentiality, the information provided by EHRS is suppressed in cases where there are fewer than 5 individuals in the group considered for Promotion and/or Tenure and/or where deemed necessary by EHRS.
### 2017-18 REPORT ON PROMOTION AND/OR TENURE CASES CONSIDERED UNDER THE FACULTY COLLECTIVE AGREEMENT

(as required under Clause 21 in the Article Promotion and Tenure)

#### Total cases considered for Promotion and/or Tenure

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
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<th>Aboriginal</th>
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<th>Person with Disability</th>
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<tbody>
<tr>
<td></td>
<td>38</td>
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#### Probationary Assistant Professors considered for Promotion and Tenure

<table>
<thead>
<tr>
<th>Process initiated by Dean in the last year - Clause 15.1</th>
<th>Process initiated by Dean in any year before the last year - Clause 15.3</th>
<th>Process initiated by Member by March 1 of 3rd year for consideration in the 4th year - Clause 15.4</th>
<th>Positive Committee recommendation - Clause 17</th>
<th>Negative Committee recommendation - Clause 17</th>
<th>Positive Provost decision - Clause 18</th>
<th>Negative Provost decision - Clause 18.3</th>
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<tbody>
<tr>
<td>Male</td>
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<td>2</td>
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<td>2</td>
</tr>
<tr>
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#### Probationary Associate Professor considered for Promotion or Granting of Tenure

<table>
<thead>
<tr>
<th>Process initiated by the Dean in the last year of the appointment - Clause 15.2</th>
<th>Process initiated by Dean in any year before the last year - Clause 15.3</th>
<th>Positive Committee recommendation - Clause 17</th>
<th>Negative Committee recommendation - Clause 17</th>
<th>Positive Provost decision - Clause 18</th>
<th>Negative Provost decision - Clause 18.3</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Female</td>
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<tr>
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<tr>
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<tr>
<td>Person with Disability</td>
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#### Tenured Associate Professors considered for Promotion

<table>
<thead>
<tr>
<th>Process initiated by Dean - Clause 15.5</th>
<th>Process initiated by Member no earlier than three years after promotion to Associate Professor - Clause 15.6</th>
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<th>Negative Committee recommendation - Clause 17</th>
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<th>Negative Provost decision - Clause 18.3</th>
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<tbody>
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#### Limited-Term Assistant and Associate Professors Considered for Promotion

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<tr>
<th>Process initiated by Dean - Clause 15.5.1</th>
<th>Process initiated by Member - Clause 15.4.2</th>
<th>Process initiated by Member - Clause 15.6.1</th>
<th>Positive Committee recommendation - Clause 17</th>
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<th>Positive Provost decision - Clause 18</th>
<th>Negative Provost decision - Clause 18.3</th>
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<tbody>
<tr>
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<tr>
<td>Female</td>
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</tr>
<tr>
<td>Aboriginal</td>
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<tr>
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<tr>
<td>Person with Disability</td>
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<td>s</td>
</tr>
</tbody>
</table>

#### Total cases considered for Promotion and/or Tenure

| Total cases considered for Promotion and/or Tenure | 63 |

The information related to the designated groups - with the exception of gender - was provided by Equity & Human Rights Services. This information was provided, in aggregate form only, from the Employment Equity database. All information in this database is obtained through the self-identification surveys sent to employees. Therefore, information about membership in a designated group is only available for individuals who completed the equity survey. Those who have not completed a survey and who were considered for tenure and/or promotion are counted as not being members of a designated group. For reasons of confidentiality, with the exception of gender, equity data is suppressed (s) in cases where there were fewer than 5 individuals considered in a group (i.e. under a given Clause). The equity data for the total cases considered has not been suppressed.
### Total cases considered Promotion or Continuing Appointment

<table>
<thead>
<tr>
<th>Gender</th>
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<th>Female</th>
<th>Aboriginal</th>
<th>Visible Minority</th>
<th>Person with Disability</th>
</tr>
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<tbody>
<tr>
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</table>

### Probationary Appointees and/or Members holding Continuing Appointments considered for Promotion

<table>
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<tr>
<th>Gender</th>
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<th>Female</th>
<th>Aboriginal</th>
<th>Visible Minority</th>
<th>Person with Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process initiated by the Vice Provost and Chief Librarian or Dean</td>
<td>0</td>
<td>2</td>
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</tr>
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<tr>
<td>Negative Committee recommendation</td>
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</table>

### Probationary Appointees considered for Continuing Appointment

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<tr>
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<th>Female</th>
<th>Aboriginal</th>
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<th>Person with Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process initiated by the Vice Provost and Chief Librarian or Dean</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>4</td>
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<tr>
<td>Positive Committee recommendation</td>
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<td>13</td>
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<td>13</td>
</tr>
<tr>
<td>Negative Committee recommendation</td>
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</tr>
</tbody>
</table>

### Total cases considered for Promotion and Continuing Appointment

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
<th>Aboriginal</th>
<th>Visible Minority</th>
<th>Person with Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
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</table>
REPORT OF THE UNIVERSITY RESEARCH BOARD
(URB)

<table>
<thead>
<tr>
<th>Contents</th>
<th>Consent Agenda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revisions to MAPP 7.10 Standardized Training in Animal Care and Use</td>
<td>Yes</td>
</tr>
</tbody>
</table>

FOR APPROVAL

1. Revisions to MAPP 7.10 Standardized Training in Animal Care and Use

Recommended: That Senate approve and recommend to the Board of Governors, changes to the Standardized Training in Animal Care and Use (Institutional Animal User Training Program) (MAPP 7.10) policy as set out in Appendix 1.

Background

Revisions to the policy were made to achieve compliance and better alignment with Canadian Council on Animal Care (CCAC) guidelines.

Substantive changes to the policy include:
- The title of the policy was revised from “Standardized Training in Animal Care and Use” to “Institutional Animal User Training Program”;
- A “Definitions” section was included in the policy for clarity;
- The policy was expanded to include sections regarding responsibilities for animal user training and care at the institution;
- The policy now provides specific details about the required training for all involved in animal research, as well as describes how potential exemptions from training could be granted.

Revised procedures are attached as Appendix 2. The link to the current policy and procedure is located here: http://www.uwo.ca/univsec/pdf/policies_procedures/section7/mapp710.pdf
POLICY 7.10 – Institutional Animal User Training Program

Policy Category: Research

Subject: Standardized training in animal care and use

Approving Authority: Board of Governors

Responsible Officer: Vice-President (Research)

Responsible Office: Animal Care & Veterinary Services Department

Related Procedures: Procedures for the Institutional Animal User Training Program

Related University Policies: MAPP 7.12 – Policy and Procedures for the Use of Animals in Research and Teaching

MAPP 7.0 – Academic Integrity in Research Activities

MAPP 7.15 – Post Approval Monitoring Program (PAM)

Effective Date: November 26, 2015 21JUN2018


I. PURPOSE & SCOPE

The purpose of this policy is to apply CCAC’s guidelines for the training of Animal Users; and to outline the associated roles and responsibilities for the Animal User Training Program associated with Western’s Research Community.

II. DEFINITIONS

Animal Users – all individuals who either use in animal-based science, or are employed to care for ‘animals,’ as defined by the Canadian Council on Animal Care (CCAC).

Western’s Research Community – institutions and their departments involving animal-based scientists having Animal Use Protocols under the jurisdiction of Western’s Animal Care Committee, the ACC

Competency – as per CCAC, the ability to effectively perform a particular task in relation to the care, maintenance or use of animals, while ensuring their welfare is protected as far as possible within the constraints of any approved AUPs.¹

Three Rs Tenet – Replace – avoid or replace the use of animals wherever possible; Reduce – utilize strategies that reduce the number of animals used while maintaining experimental design; Refine – modify procedures and/or practices to reduce animal stress or pain.

¹ Canadian Council on Animal Care. CCAC Guidelines on: training of personnel working with animals in science. P.5
III. POLICY

1. Animal User Training Program elements must engender a culture of respect for animal life and must be designed to align with the Three Rs, as per CCAC’s guideline on: training of personnel working with animals in science (2015).
   a. All Animal Users must demonstrate their understanding of ethics associated with the humane use of animals, including the Three R’s tenet of replacement, reduction and refinement.

2. Institutional senior administration must ensure adequate resources are available to facilitate the delivery of an up-to-date and relevant Animal User Training Program that supports the knowledge and skills required for undertaking ACC-approved Animal Use Protocols and institutional roles of Animal Care/Husbandry personnel and aligns with current veterinary standards of animal care.

3. The Animal User Training Program must be administered centrally by the Department of Animal Care & Veterinary Services (ACVS), which is responsible to: determine Animal User training requirements; establish training competency benchmarks; develop and maintain training program content and training platforms; and maintain training records.
   a. Other Animal User trainers will be pre-approved by ACVS and will follow the centralized training program elements.
   b. The ACC via its Executive must be apprised of any significant changes to the Animal User Training Program.

4. Animal Users must complete the following CCAC-mandated animal training prior to undertaking animal-based science or animal care work, as outlined within ACC-approved Animal Use Protocols (AUPs) and/or associated with institutional roles:
   a. Western’s Basic Animal Care and Use online ethics course, or an ACVS-approved alternative; and,
   b. As required by the Animal User’s role, hands-on animal workshops / training sessions and their associated online course prerequisites.
   c. Exemption from the training requirements outlined in 4.a-b may be requested and will be considered by the ACC based upon documented and/or demonstrated evidence that an equivalent course or experience has been obtained elsewhere (See Procedures for the Institutional Animal User Training Program).

5. Animal User training must be offered with adequate frequency and oversight by proficient trainers to ensure all animal users receive necessary knowledge, skills and competency prior to performing ACC-approved animal procedures independently.
   a. The responsibility for ensuring Animal Users are competent will be shared among ACC-approved trainers and supervisors of Animal User trainees, e.g. Principal Investigators, Animal Care facility supervisors.
   b. Until personnel have obtained competence to perform animal procedures, a competent individual must closely supervise their work with animals.
   c. When practical skills must be acquired, training should be timed in proximity to the timeframe when the skills are required.

6. Any concerns associated with respect to Animal User competency and/or the Animal User Training Program must be forwarded to the ACC Executive for consideration, as per UCAC’s Concerns Identification, Project Refinement and Corrective Response Policy (POL-004).
PROCEDURE FOR POLICY 7.10 – Institutional Animal User Training Program

I Animal User Training Program
1. The Department of Animal Care and Veterinary Services and other ACVS-approved Animal User Trainers will:
   1.1. Develop and/or contribute to the development of appropriate training programs that meet Institutional Animal User training needs, and that align with CCAC guidelines and current veterinary standards of animal care;
   1.2. Assess the training requirements of all personnel associated with Western’s Research Community that have been added to the Personnel Training Requirements section within Animal Use Protocol (AUP), and/or Protocol Modification forms, and those associated with Animal Care / Husbandry as employees of the University and its affiliates;
   1.3. Communicate training requirements and associated training processes to Animal User Trainees and their supervisors, e.g. Principal Investigator or other Supervisor;
   1.4. Provide access to training program resources, e.g. OWL online courses;
   1.5. Implement the Animal User Training Program (See training program flow chart, Appendix 1);
   1.6. Formally assess Animal User Trainee competencies via ACVS-approved training-specific Trainee Evaluation Checklists;
      1.6.1. Provide Animal User Trainees and their supervisors with written evaluations;
      1.6.2. Where concerns regarding Animal User competence arise, further individual training may be required before animal work may resume, as determined by an Institutional Veterinarian or ACC Executive.
   1.7. Maintain training records for all Animal Users using a centralized training database.

II Training Exemptions / Competency Assessments

Training Exemptions
1. Training exemptions from Institutional Animal User Training requirements may be considered if written documentation illustrating equivalent training obtained elsewhere is provided to the ACC Training Exemption Working Group, which has final authority for the granting of training exemptions.
2. An Animal User requesting exemption must electronically submit a Training Exemption Form (Appendix 2) with accompanying documentation outlining previous training history to training@uwo.ca.
3. The ACVS Animal User Trainer reviews and then forwards all related documents to the ACC working group requesting consideration of the exemption request.
4. The ACC working group reviews all provided material, determines the exemption request outcome, and emails the requestor outlining its decision, either:
   4.1. Exemption granted, or
   4.2. Competency assessment required, or
   4.3. Institutional training session required.
5. Any concerns associated with ACC decisions must be forwarded to the ACC Executive via
Competency Assessments

6. Principal Investigators may request a competency assessment for their research staff in lieu of hands-on training completion.

   6.1. Competency assessments are available only to individuals with extensive and demonstrated experience in animal care and use.

   6.2. In lieu of instruction, participants will be asked to demonstrate skills as outlined within their Animal Use Protocols.

   6.3. ACVS or the ACC Executive may request support from an arms-length individual with recognized expertise to assist in evaluating the Animal User’s competency.

       6.3.1. Individuals exempted through a competency assessment will receive a Certificate of Competence from the ACVS Animal User Trainer.

       6.3.2. The ACC may revoke a Certificate of Competence if evidence indicates that the individual has not demonstrated competence in a defined animal procedure. As directed by the ACC, the individual will be required to undertake related training before resuming hands-on animal work.
Procedure for Policy 7.10-Institutional Animal User Training Program

Appendix 1

Step 1: PI submits AUP form to add trainee. Post AUP approval, trainee receives Registration Package via email.

Step 2: Trainee logs in to OWL and registers for required ACVS Hands-On Training.

Step 3: Mandatory for ALL Trainee completes via OWL the animal ethics Basic Animal Care and Use Course 2018.

Step 3B: Trainee completes via OWL all required Technique/Species Specific Online Courses and Lectures.

Step 4A - Rodents: Trainee completes Basic Hands-On Workshop(s)
  - Research Basics
  - IP & SQ Injections
  - Anesthesia
  - Aseptic Principles of Surgery—All Species

Step 4A - Other Species: Trainee completes Basic Hands-On Workshop(s)
  - Aseptic Principles of Surgery—All Species

Step 4B - Rodents: Trainee completes Specialized Techniques Hands-On Workshop(s)
  - Blood Collection
  - Gavage
  - IV injections
  - Intracardiac Blood Collection
  - Cervical Dislocation

Step 4B - Other Species: Trainee completes Specialized Techniques Hands-On Workshop(s)
  - Tiered training with vet-approved Training Designates in PI lab or AC Facility

Step 4C - Other Species: Competency
  - Institutional Animal Health Professional (Vet or RVT) assesses skills

Step 5: Trainee receives evaluation and training certificate(s), as applicable.
Animal Care Committee
Institutional Animal User Training Program
Exemption Request Form

Name: Click or tap here to enter text.
Position: Click or tap here to enter text.
Email: Click or tap here to enter text.
Contact Number: Click or tap here to enter text.
Principal Investigator: Click or tap here to enter text.
Animal Use Protocol Number(s): Click or tap here to enter text.

Have you completed the Basic Animal Care and Use Course online OWL course?  Yes ☐  No ☐

Please list the online and/or hands on training workshops from which you are seeking exemption:

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<tr>
<th>Workshop Name</th>
<th>Reason For Exemption Request</th>
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Have you provided ACVS (training@uwo.ca) with past training certificates and workshop descriptions:  Yes ☐  No ☐

Please provide any other information that would be applicable to this request:
Click or tap here to enter text.

Please complete and submit this form along with past training information to ACVS:
Phone x80277 * Email training@uwo.ca * Subject line: Training Exemption Request

The request will be sent to the ACC Training User Group for consideration.
A confirmation email will be sent from auschair@uwo.ca following approval determination by the ACC.
Any questions? Please follow up with training@uwo.ca directly.
FOR INFORMATION

1. Canada 150 Funding Summary Report

Western Celebrates Canada’s Sesquicentennial

Two thousand and seventeen was a historic year for Canada – the 150th anniversary of Confederation, also known as the country’s sesquicentennial. A committee comprised of Western University staff, faculty and students ensured there were numerous ways for the Western community to celebrate through sponsored projects, scholarships, events, legacy pieces and creative campus initiatives.

A report has been produced, Canada 150 Funding Summary Report, which can be found at http://provost.uwo.ca/Canada%20150%20Report.pdf, which provides a detailed record of how Western University marked this significant milestone in Canada’s history.