

SENATE AGENDA

1:30 p.m., Friday, March 11, 2016
University Community Centre, Room 56

1. **Minutes of the Meeting of February 12, 2016**
2. Business Arising from the Minutes
3. Report of the President (A. Chakma)
4. Reports of Committees:
Operations/Agenda - **EXHIBIT I** (M. Milde)
Academic Policy and Awards - **EXHIBIT II** (S. Macfie)
University Planning - **EXHIBIT III** (B.A. Younker)
5. Report of the Academic Colleague - **EXHIBIT IV** (E. Chamberlain)
6. Discussion and Question Period
7. New Business
8. 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.

APPROVAL OF MINUTES

REPORT OF THE PRESIDENT

OPERATIONS/AGENDA COMMITTEE

FOR ACTION

Senate Membership – Faculty of Information and Media Studies Constituency
Board Report on Senate Agenda

FOR INFORMATION

Senate Orientation

SENATE COMMITTEE ON ACADEMIC POLICY AND AWARDS (SCAPA)

FOR ACTION

Faculty of Arts and Humanities:

Withdrawal of the Minor in National Cinemas

Revision to the Admission Requirements of the Diploma in French

School of Graduate and Postdoctoral Studies: Introduction of a 2+2 Agreement for a Doctoral Degree in Basic Medical Science between Soochow University, China and The University of Western Ontario

Faculty of Health Sciences, School of Health Studies and Brescia University College: Withdrawal of the Honors Specialization in Community Rural Health Development

Faculty of Information and Media Studies: Revisions to the Minor in Media, Information and Technoculture

Schulich School of Medicine & Dentistry: Revisions to the Progression Requirements of the MD Program and Revisions to the Admission Requirements of the DDS Program

Faculty of Science: Introduction of the Western Integrated Science Curriculum (WISc), “Integrated Science” as a New Subject Area and New Courses in Integrated Science

Faculty of Social Science, Department of Management and Organizational Studies and Western Centre for Continuing Studies: Introduction of the New Diploma in Human Resources

King’s University College: Revisions to the MOS Modules

Policy Revision – Evaluation of Academic Performance

FOR INFORMATION

New Scholarships and Awards

SENATE COMMITTEE ON UNIVERSITY PLANNING (SCUP)

FOR ACTION

Vicky Blair Fellowship in Vascular Surgery – Name Change

FOR INFORMATION

Update on Rapid Transit

Working Group on Information Security (WGIS) 2015 Annual Report

REPORT OF THE ACADEMIC COLLEAGUE

Report on a Meeting of the Council of Ontario Universities (COU)



MINUTES OF THE MEETING OF SENATE

FEBRUARY 12, 2016

The meeting was held at 1:30 p.m. in Room 56, University Community Centre.

SENATORS: 67

L. Allaer	G. Hunter	K. Olson
R. Andersen	L. Jackson	H. Orbach-Miller
N. Bhatia	C. Jones	W. Pearson
I. Birrell	R. Kennedy	C. Phelps
P. Bishop	G. Kopp	M. Salvadori
M. Blagrove	A. Kothari	V. Schween
J. Capone	G. Kulczycki	K. Siddiqui
T. Carmichael	D. Laird	Z. Sinel
A. Chakma	B. Leipert	R. Soulodré-La France
M. Cheesman	G. Lucas	C. Sprengler
K. Cole	S. Macfie	V. Staroverov
R. Collins	J. Malkin	C. Steeves
D. Coward	S. McClatchie	L. Sunseri
M. Crossan	M. McDayter	D. Sylvester
J. Cuciurean	L. McKivor	S. Taylor
J. Deakin	R. Mercer	M. Thomson
G. Dekaban	M. Milde	G. Tigert
N. Dyer-Witthford	J. Millaire	J. Toswell
J. Faflak	L. Miller	T. Townshend
K. Fleming	J. Mitchell	Z. Turner
J. Garland	D. Murdoch	B. Younker
A. Grzyb	V. Nielsen	
B. Hovius	V. Nolte	

Observers: K. Campbell, E. Chamberlain, J. Doerksen, M. Fox, L. Gribbon, T. Hinan, K. Hoffmann, J. Luker, J. McMullin, A. Weedon

By Invitation: J. Vance, C. Weijer, M. Steele

S.16-38 **MINUTES OF THE PREVIOUS MEETING**

The minutes of the meeting of January 22, 2016 were approved as circulated.

Business Arising from the Minutes

S.16-39 **Western's New Email Service – Office365** [S.16-03]

At the January Senate meeting a member had asked whether it was true that, under US privacy laws, data captured in emails becomes public after three years. The question was referred to the University's legal counsel and to the University's privacy officer. They did not find anything that would support such a contention.

Questions were asked about a response to UWOFA regarding delaying faculty account migration until Canadian centres are available and about whether the Microsoft contract might be made public. The Provost indicated that she would follow up.

S.16-40 **Interim Report of the Senate ad hoc Committee on Renewal** [S.16-34]

M. McDayter called on Senators to provide input to the Senate *ad hoc* Committee on Renewal as it continues its work on formulating recommendations on governance at Western.

S.16-41 **REPORT OF THE PRESIDENT**

The President reported that Western's United Way Campaign raised \$717,000 and is the largest contributor in the region.

He called upon G. Kulczycki to provide an update on London's rapid transit project. G. Kulczycki reported that meetings with the City and other stakeholders continue. Western is undertaking an extensive process of analysis and consultation with the campus community. These consultations will seek to inform the campus community about the City's proposal and how it impacts the campus and will provide an opportunity for students, faculty, staff and alumni to voice their opinions. Western has included a link to a Rapid Transit Initiative site:

http://www.uwo.ca/ipb/publicaccountability/rapid_transit.html to inform the community and seek feedback as the process moves forward. Comments can be submitted to transit@uwo.ca.

A member asked, given Western's purchase of the Philip Aziz house, whether Philip Aziz Road will be widened. G. Kulczycki reported that the city owns that road and has plans for improvements. She remarked that the highest volume crossing is at the intersection of Western and Sarnia Roads so improvements are needed.

REPORT OF THE OPERATIONS/AGENDA COMMITTEE [Exhibit I]

S.16-42 **Senate Membership: Faculty of Social Science Constituency**

It was moved by M. Milde, seconded by R. Andersen,

That Mitch Rothstein, representative of the Faculty of Social Science constituency, be granted a leave of absence while on sabbatical and that Diana Mok be elected to serve as his alternate on Senate from January 1 – June 30, 2016.

CARRIED

S.16-43 **Senate Nominating Committee – Alternate Member**

L.A McKivor was elected as an Alternate Member to the Senate Nominating Committee for a term to June 30, 2017.

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

S.16-44 **Faculty of Arts and Humanities, Department of Women's Studies and Feminist Research:
Renaming of Minors and Revisions to Module Requirements**

S.16-44a **Renaming of the Minor in Gender, Sexuality and Culture and Revisions to the Module
Requirements**

It was moved by S. Macfie, seconded by K. Olson,

That effective September 1, 2016 the Minor in Gender, Sexuality and Culture be renamed as the Minor in Sexuality Studies, and

That the module requirements be revised as shown in Exhibit II, Appendix 1, and

That students currently enrolled in the module be allowed to graduate with the old module name until September 1, 2019 upon fulfillment of the existing module requirements.

CARRIED

S.16-44b **Renaming of the Minor in Feminist Theory and Revisions to the Module Requirements**

It was moved by S. Macfie, seconded by K. Olson,

That effective September 1, 2016 the Minor in Feminist Theory be renamed as the Minor in Feminist, Queer, and Critical Race Theory, and

That the module requirements be revised as shown in Exhibit II, Appendix 2, and

That students currently enrolled in the module be allowed to graduate with the old module name until September 1, 2019 upon fulfillment of the existing module requirements.

CARRIED

S.16-45 **School of Graduate and Postdoctoral Studies: Dual-Credential Ph.D. Degree Agreement
between The Universidade Federal do Rio de Janeiro, Brazil and The University of Western
Ontario**

It was moved by S. Macfie, seconded by L. Miller,

That effective January 1, 2016 Senate approve the introduction of a Dual-Credential Ph.D Degree Agreement between The Universidade Federal do Rio de Janeiro, Brazil and The University of Western Ontario as shown in Exhibit II, Appendix 3.

CARRIED

S.16-46 **Revisions to the Policy on Accommodation for Medical Illness – Undergraduate Students**

It was moved by S. Macfie, seconded by H. Orbach-Miller,

That the policy on Accommodation for Medical Illness – Undergraduate Students be revised as shown in Exhibit II, Appendix 4, effective February 1, 2016.

CARRIED

S.16-47 **Revisions to the Policy on Evaluation of Academic Performance**

It was moved by S. Macfie, seconded by M. Cheesman,

That the policy on Evaluation of Academic Performance be revised as shown in Exhibit II, Appendix 5, effective February 1, 2016.

Several members asked for clarification of the use of the word “estimate” in the clause “... the student will receive an *estimate* of his or her standing in the course,” noting that it may be difficult to include an early evaluation step in upper-year courses because of course design. S. Macfie pointed out that for upper year courses, the policy was not being changed – the word estimate had been in use in this context for some time. The change was to make it mandatory that students in 1000 and 2000 level courses receive an assessment worth at least 15 percent of the final grade before the drop date. Her understanding was that “estimate” was meant to convey that students should have some understanding of how they are doing in a course prior to the drop date, without requiring that a formal mark be given by that date. Members of SCAPA agreed that this was not an unreasonable expectation for the professoriate and that it was important that all students have some appreciation of how they are doing in a course before it is too late for them to drop without penalty.

Members discussed the matter at some length, with some suggested changes of wording being proposed. It was agreed that the issue be referred back to SCAPA for further review.

A member noted that she had had some trouble finding the policy in the on-line academic calendar and had finally located it in the Academic Policy Handbook on the Secretariat’s website. S. Macfie noted that there was work underway to ensure that all academic policies are available in the on-line academic calendar.

S.16-48 **New Scholarships and Awards**

Senate was informed that SCAPA had approved the terms of reference for the new scholarships and awards shown in Exhibit II, Appendix 6, for recommendation to the Board of Governors through the Vice-Chancellor.

REPORT OF THE SENATE COMMITTEE ON UNIVERSITY PLANNING [Exhibit III]

S.16-49 **Beryl Ivey Chair in One Health – Renaming & Terms of Reference**

It was moved by B.A. Younker, seconded by P. Bishop,

That the name of The Beryl Ivey Chair in Ecosystem Health be changed to the Beryl Ivey Chair in One Health and that the terms of the Chair be updated as shown in Exhibit III, Appendix 1.

CARRIED

S.16-50 **Neil McKenzie Chair in Cardiac Care**

It was moved by B.A. Younker, seconded by M. Milde,

That the Neil McKenzie Chair in Cardiac Care be established with academic appointment in the Division of Cardiology in the Schulich School of Medicine & Dentistry, as shown in Exhibit III, Appendix 2.

CARRIED

S.16-51 **2016 Entrance Standards for Undergraduate First-Year Admissions**

It was moved by J. Deakin, seconded by P. Bishop,

That Senate approve the targets and processes for first-year, first-entry undergraduate enrolment for the Constituent University and Affiliated University Colleges as outlined in Exhibit III, Appendix 3.

CARRIED

Commenting on issues facing the Faculty of Arts and Humanities as a result of the decrease in enrolment, the Provost reported that a pilot project will be initiated during the remaining planning cycle which will allow up to 30 students to enrol with an 80-83.5 percent average. These students will be monitored over the years for performance and retention.

A member commented on the need to admit students on the basis of more than just grades. We should be looking at the whole individual. The Provost noted that, while she took the member's point, many of Western's students are fully-rounded individuals engaged in sports, leadership, and the arts. J. Doerksen noted that Western has long had a process for assessing and recognizing student performance outside of academics.

S.16-52 **Five-Year Enrolment Projections**

It was moved by J. Deakin, seconded by M. Milde,

That the five-year enrolment projections/plans presented in Exhibit III, Appendix 4, be used for University budget planning purposes.

CARRIED

The Provost noted that the total number of undergraduates remained relatively flat in the forecast; the total number of graduate students is based on targets set by the faculties. With respect to part-time enrolment, the numbers appeared to be increasing. However, this was a consequence of the change to the MTCU definition of what a full-time student is. The government has determined that, henceforward, full-time status requires enrolment in 4.0 courses.

S.16-53 **Report on Year One Class and Entering Averages**

Senate received for information the Report on Year One Class and Entering Averages detailed in Exhibit III, Appendix 5.

J. Deakin provided a brief overview of the report including statistical information regarding the size of the year one class, and entering averages globally and by program. Western continued to draw a significant proportion of students from the GTA. She noted a drop in year one international students for the constituent university which could be the result of changes to government regulations regarding visas. Western remained in second place in the country and the province for both retention and graduation rates.

S.16-54 **Performance Indicators Report**

The Performance Indicators Report, detailed in Exhibit III, Appendix 8, was received for information.

J. Deakin, provided an overview of the report using slides contained in [Appendix 1](#).

Responding to questions regarding the decrease in SSHRC funding, J. Capone said that while Western's success rate is high, fewer applications are being submitted. Also SSHRC changed its funding guidelines which may be a factor. A member suggested that capacity to utilize SSHRC

could be increased by being more strategic and using it, for example, to fund post docs. Dr. Capone suggested that these were issues that could be addressed by the URB Task Force on Support for SSAH Research.

In answer to a question about teaching awards, J. Deakin said that the Teaching Support Centre can and does assist faculty with the preparation of applications for internal and external teaching awards. Western receives a high percentage of 3M National Teaching Fellowships.

S.16-55

Provost's Update on Planning Process

J. Deakin provided an update on the planning process using slides contained in [Appendix 2](#). All faculty planning meetings were completed in December. The support unit planning meetings were completed at the beginning of February. She commented on university-wide budget issues facing Western including the library acquisition deficit, the need for more student learning space, costs of utilities, aging infrastructure, the need for a long term plan for parking, support unit needs, ever-increasing pressure for more IT support, and enrolment issues. The Turnover Recovery Policy will be suspended for the remaining three years of this budget cycle which will assist in aligning expenditures with revenues. Using slides related to Weighted Teaching Units, she noted where costs were rising because of drops in enrolment and which faculties were net contributors to teaching and were under-resourced. The budget would contain recommendations with respect to funding to address both issues, some base, some one-time.

Approximately 85 percent of Western's operating revenue is enrolment-related. The current legislated cap on tuition fee increases is three percent. It is unknown what might be allowed in 2016 and what the financial impact will be of the Ontario government's funding formula review.

S.16-56

Report from the Provost's Task Force on University Budget Models

Senate received for information the Report from the Provost's Task Force on University Budget Models detailed in Exhibit III, Appendix 6.

Referring to the decision not use a Responsibility Centre Management framework generally but to use a hybrid model, a member asked why the Ivey Business School continues to operate within a Responsibility Centre Management (RCM) framework. J. Deakin said that at the time that Dean Stephenson arrived at Ivey, they had a \$15 million deficit that had to be overcome. At the same time, there was tuition deregulation that led to dramatic increases in tuition for many professional programs and raising very different expectations and requirements for programming and services infrastructure. Using the RCM model, Ivey had the opportunity to grow the HBA enrolment and generate additional revenue through ancillary activities, including developing programming in Hong Kong. Reintegration into the hybrid model would not benefit Ivey. The School exists in a very highly competitive, volatile, high cost environment and RCM gives them the ability to compete internationally.

A member noted that the report was a clear rejection of the RCM model as appropriate for Western and its identity as a comprehensive university, which he welcomed. He also welcomed the attention that the report brings to the need for greater transparency in the budget process and budgetary decisions. The only criticism he would have is that the report's perspective remained top down in the treatment of budget issues faced by faculty and staff. J. Deakin clarified that the difficulties for administration alluded to in the report (recommendation 2) were highlighting the challenges involved in effective communication of budgetary matters, not a disavowal of the impact of budget decisions on faculty and staff.

S.16-57

Report of the Graduate Funding Subcommittee on the Provost's Task Force on Budget Models

Senate received for information the Report of the Graduate Funding Subcommittee on the Provost's Task Force on Budget Models detailed in Exhibit III, Appendix 7.

K. Campbell, Special Advisor to the Provost, said that the report on graduate funding attempts to lay out the complex funding strategies given that graduate student support packages may be assembled differently from Faculty to Faculty and from program to program. She noted that there is often a lack of understanding even within programs as to how the graduate funding dollars flow.

Recommendations contained in the report will be considered by a committee formed in February by the Graduate Education Council.

A member noted a suggestion in the report that the guaranteed minimum support for doctoral students should be revisited but there was no recommendation that aligned with that. K. Campbell explained that while the university publishes a guaranteed minimum, many students actually receive more than that. There was a question as to whether Western was putting itself at a competitive disadvantage by publishing a minimum. This was one of a number of issues that were identified that need further discussion and consideration within programs and at SGPS but that were not within the subcommittee's mandate to focus on the broad graduate funding model.

S.16-58

Policies and Processes for Naming - Update

Senate received for information, attached as Exhibit III, Appendix 9, a table that outlines the processes followed, and authority levels for various types of naming at Western. Naming of scholarships, chairs/professorships/fellowships, and collaborative research entities usually occurs at the same time that the entity concerned is established. If the naming occurs later, the same process followed for establishing the entity would be followed for the naming.

SCUP has asked the administration to review the circumstances under which a naming might be revoked, noting that while the Naming Policy states that the university has that right, there is no reference to what might trigger a revocation and how that would be done. SCUP also asked for consideration of whether there should be a regular review process for namings and if so, what types of namings and/or what level of donation might be subject to a review process.

K. Cole noted that some of these issues would require action by the Board of Governors, and consequently the Board's Fund Raising and Donor Relations Committee would also be asked for input.

A member said that he was glad that SCUP was reviewing the policies and processes, noting that the current procedures were not adequate to address ethical issues around accepting awards. It was suggested that some sort of over-arching ethics review committee might be needed. B. A. Younker noted that this concern would be included in SCUP's review.

REPORT OF THE UNIVERSITY RESEARCH BOARD [Exhibit IV]

S.16-59

Interim Report of the URB Task Force Steering Committee – Support for SSAH Research at Western University

Senate received for information the interim report of the URB Task Force Steering Committee – Support for SSAH Research at Western University detailed in Exhibit IV, Appendix 1.

DISCUSSION AND QUESTION PERIOD

S.16-60

Canada Research Chairs

K. Olson read an email she received regarding a recent Western News article about Western's new and renewed Canada Research Chairs (CRC) focusing on the fact that they are all white males. The writer asked whether the administration has a plan to enhance the diversity of participation in this program, perhaps, as other schools had done, by directing the positions to academic areas where there was more diversity. A. Weedon replied that universities were

accountable to the CRC program for ensuring that Chairs are filled through open competition with advertising sufficient to generate a large and diverse applicant pool. With respect to the allocation of chairs to Faculties and departments for filling by open competition, he noted that about one-third of them were reserved by the CRC program for NSERC disciplines which tended to have lower representation of women scholars. At Western, the chairs are allocated to Faculties and Departments through a competitive process of academic assessment, driven by the university's and the faculties' strategic academic priorities.

NEW BUSINESS

S.16-61

Notice of Motion- Governance Workshop for Senators

Senator Grzyb presented the following Notice of Motion:

That effective July 1, 2016 Senate institute a mandatory annual full-day training workshop on university governance for all elected and ex-officio senators. This workshop will be conducted annually prior to the first Senate meeting of the year.

The Chair agreed to refer the notice of motion to the Operations/Agenda Committee for consideration.

ADJOURNMENT

The meeting adjourned at 3:30 p.m.

A. Chakma
Chair

I. Birrell
Secretary

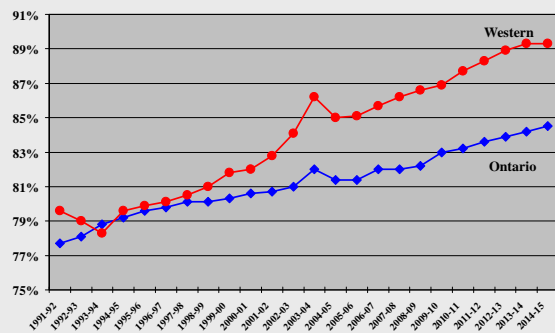
Annual Report on Performance and Activity Indicators

Senate
February 12, 2016

Metric A

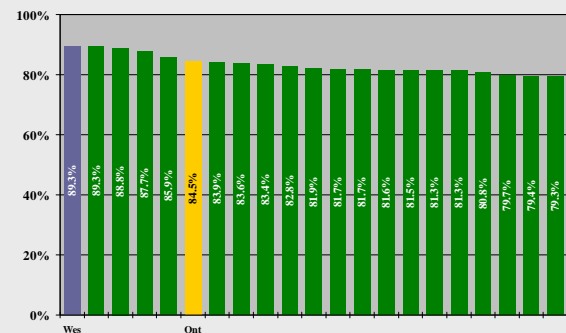
Attract the brightest students as demonstrated through the highest entering grade average and the highest number of students with external awards among Canada's leading research-intensive universities.

Average Entering Grades
of New Full-Time First-Year Ontario Secondary School Students



Source: Council of Ontario Universities and Western University

Ontario: 2014-15 Average Entering Grades of New Full-Time
First-Year Ontario Secondary School Students



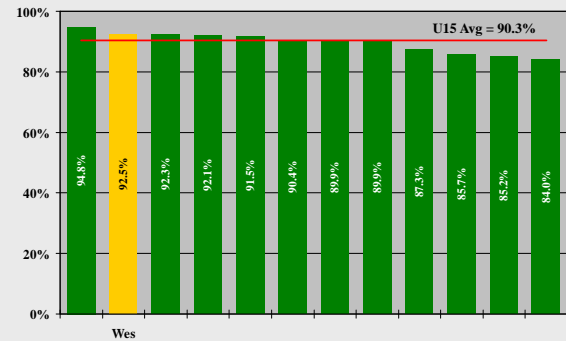
Source: Council of Ontario Universities

Metric B

Achieve the highest student retention and graduation rates among Canada's leading research-intensive universities.

U15: Year 1 to Year 2 Retention Rates
2013-14 Entering Cohort

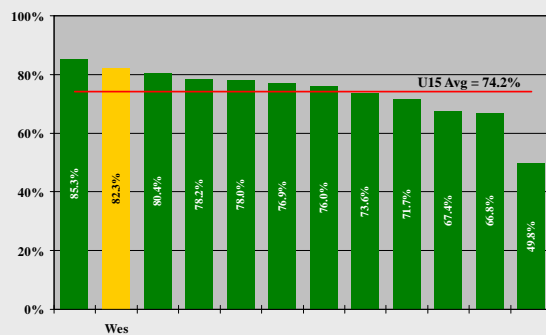
Figure 5, Page 9



Source: August 2015 CSRD Peer Institutional Reports. Excludes Alberta, Laval, and Saskatchewan

U15: Undergraduate Student Graduation Rates
2008-09 Entering Cohort -- Six Years After Entry

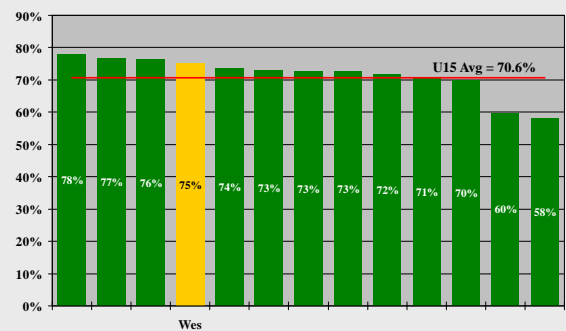
Figure 7, Page 11



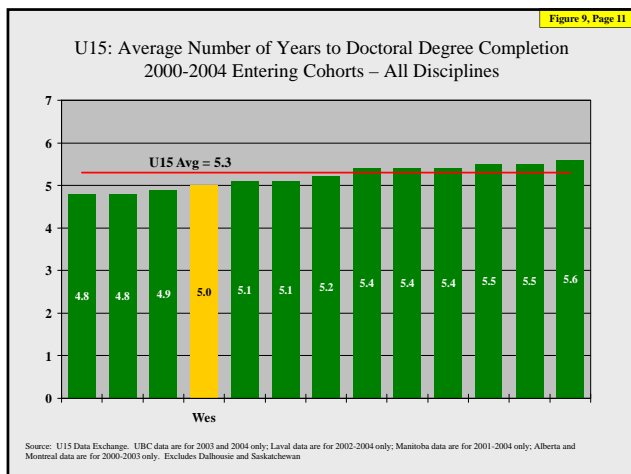
Source: August 2015 CSRD Peer Institutional Reports. Excludes Alberta, Laval, and Saskatchewan

U15: Doctoral Degree Completion Rates
2000-2004 Entering Cohorts -- All Disciplines
at Nine Years After Entry

Figure 8, Page 13

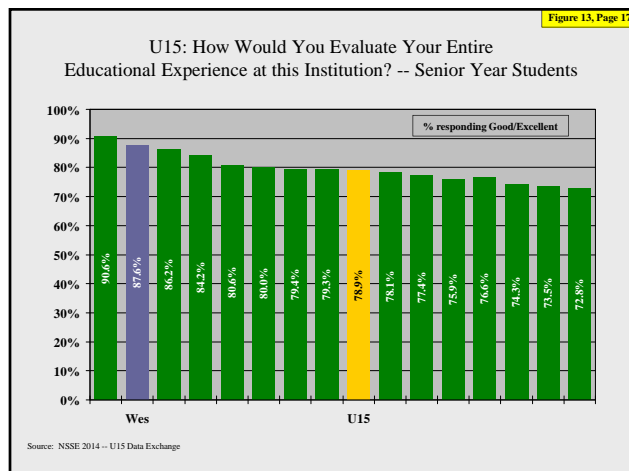
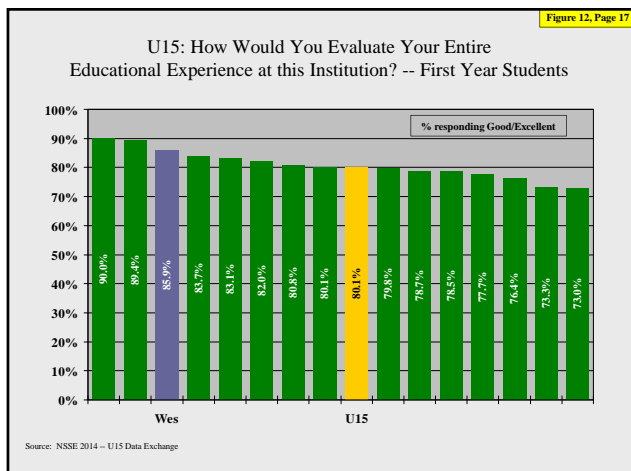


Source: U15 Data Exchange. UBC data are for 2003 and 2004 only; Laval data are for 2002-2004 only; Manitoba data are for 2001-2004 only; Alberta and Montreal data are for 2000-2003 only. Excludes Dalhousie and Saskatchewan



Metric C

Enhance the learning experience by providing a community-based experiential learning opportunity, an international learning opportunity, or a research learning opportunity for all undergraduates who wish to pursue one as part of their degree.

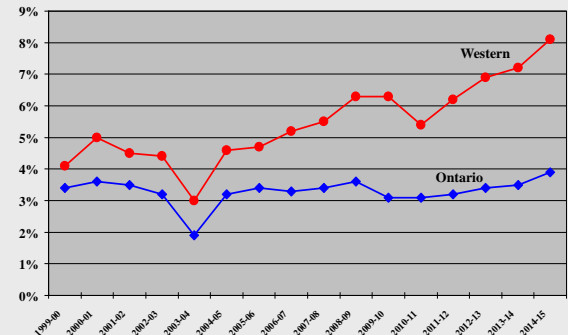


Metric D

Increase international undergraduate student enrolment to at least 15% and domestic out-of-province student enrolment to at least 10% of the undergraduate student body.

Figure 15, Page 21

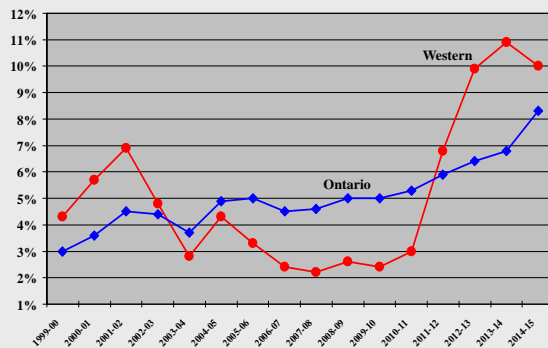
Proportion of First-Year Students from Other Canadian Provinces



Source: Council of Ontario Universities and Western University

Figure 16, Page 21

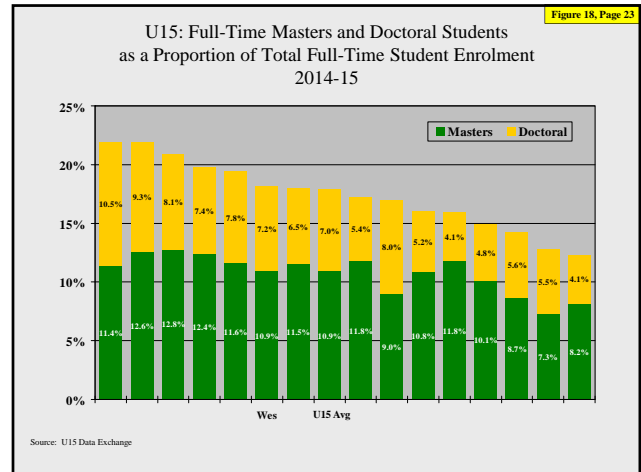
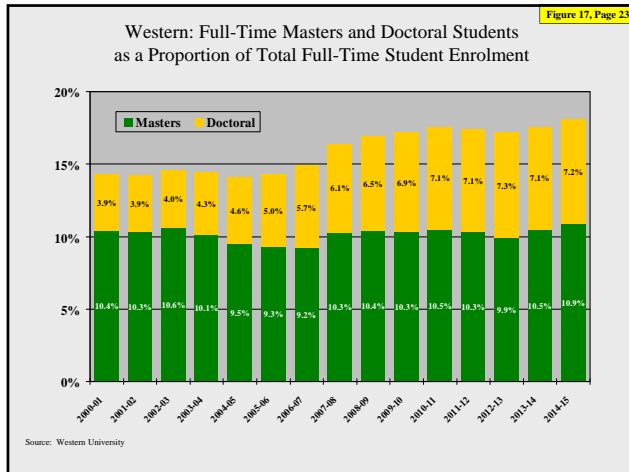
International Students as a Proportion of Total First-Year Students



Source: Council of Ontario Universities and Western University

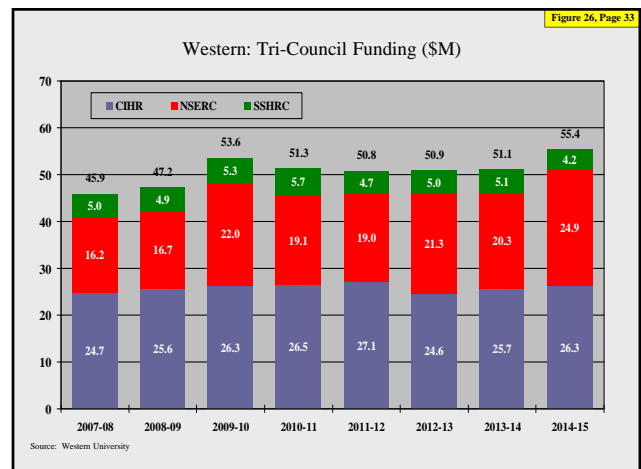
Metric E

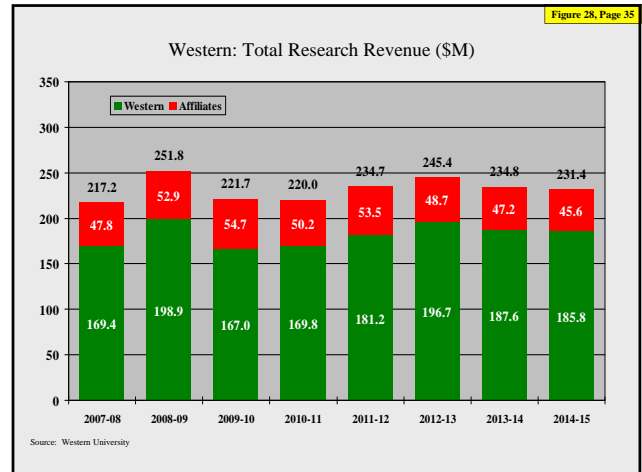
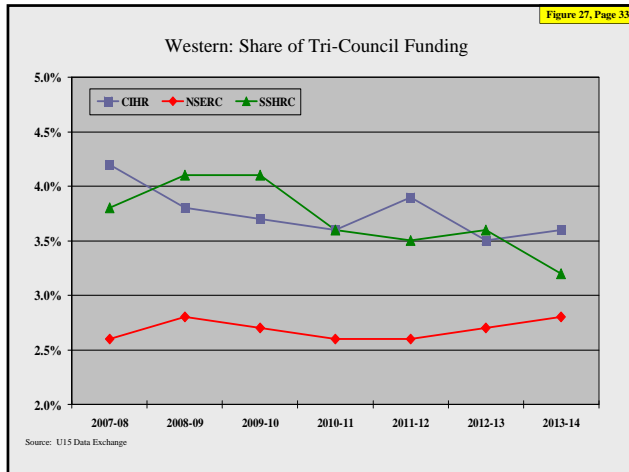
Increase graduate student enrolment to at least 20% of the total student body.



Metric H

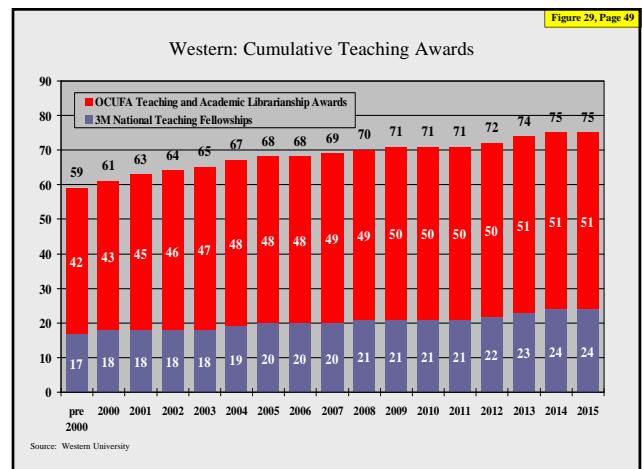
Increase our national share of funding awarded from each of the Federal Tri-councils.

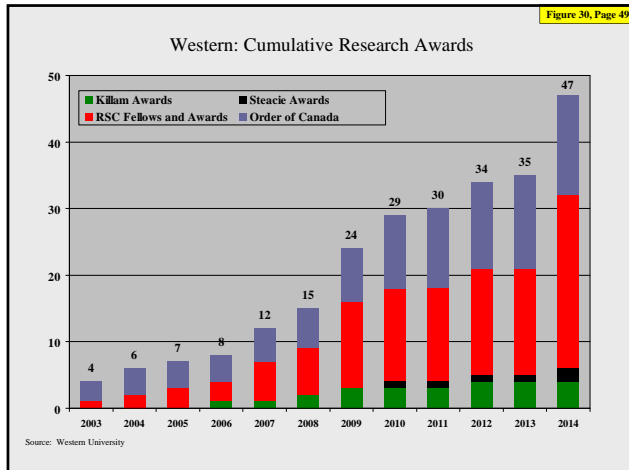




Metric I

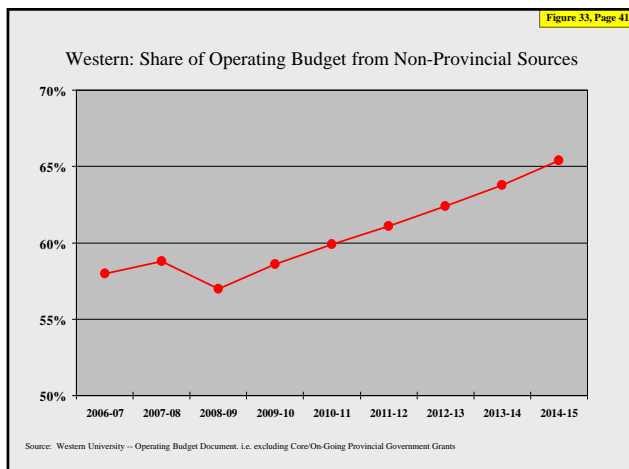
Increase the number of faculty members who have won national and international teaching /research awards and similar distinctions.





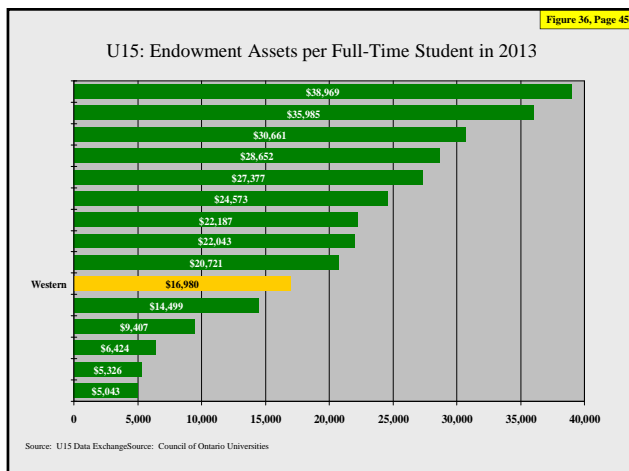
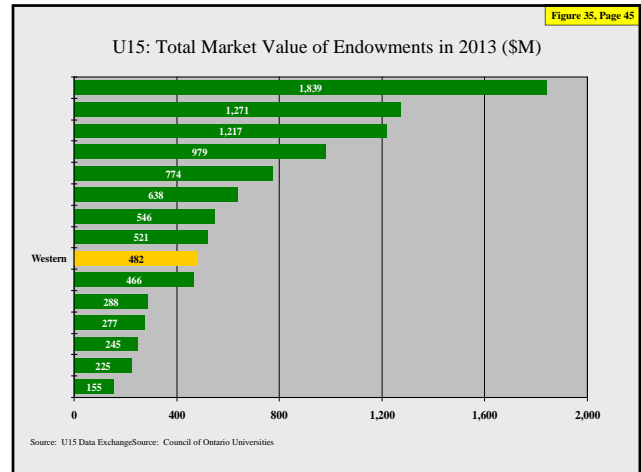
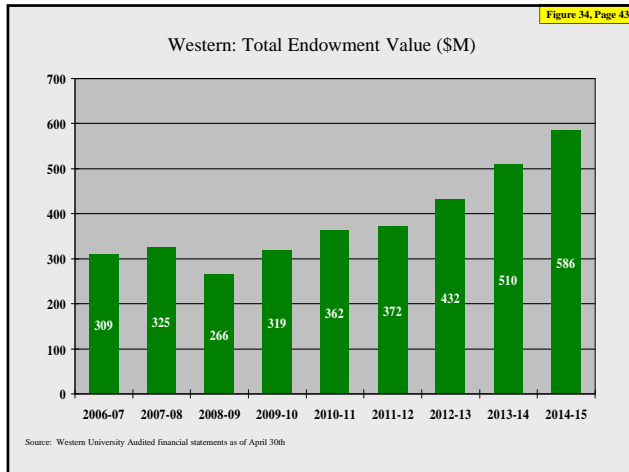
Metric K

Increase share of operating budget from non-Provincial sources by 1% per year.



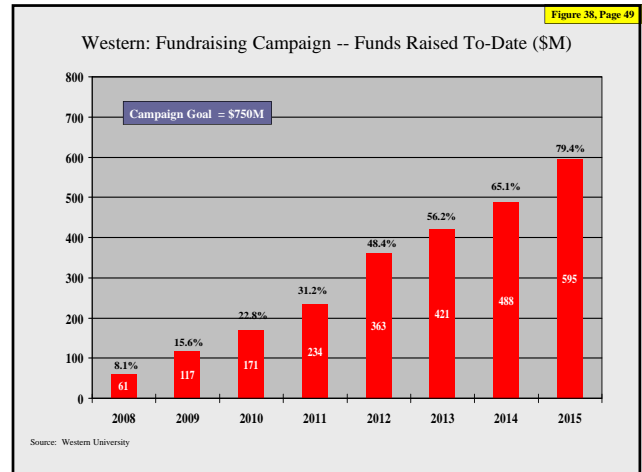
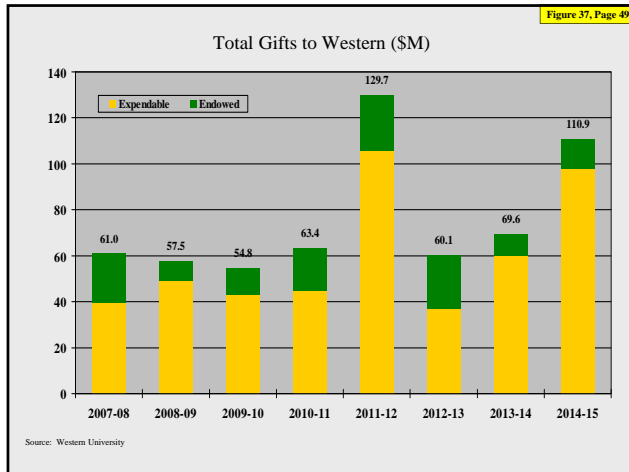
Metric L

Surpass our \$750-million “Be Extraordinary” fundraising campaign goal and grow the university’s endowment to at least \$500 million by 2018.



Metric M

Build institutional capacity to sustain fundraising beyond the current campaign, with an eventual goal of increasing annual fundraising achievements to \$100 million.



Update on Planning Process

Senate
February 12, 2016

Planning Process Status

- Planning Guidelines Issued on September 29/2015
- Planning Meetings started late November – and ended on January 28/2016
- 11 Faculty Meetings
 - Faculty Leadership, VPs, Vice-Provosts, AVP-IPB
- 23 Support Unit Meetings
 - Unit Leaders, VPs, AVP-IPB
- Provost's review and recommendations currently underway

What we heard: University-wide Issues

- Increased pressure to Align Expenditures and Revenues
 - Overall Enrolment Level approaching Steady-State
 - Revenue Growth moving to a Lower Trajectory
 - Differential Enrolment Demand across Faculties
- Weak Canadian Dollar adding to Cost Pressures
 - e.g. Library Acquisitions, IT, Capital, Research Equipment
- Need additional Student Learning and Study Spaces
- Utilities Infrastructure under Pressure
- Need to develop Longer-term Plan for Parking

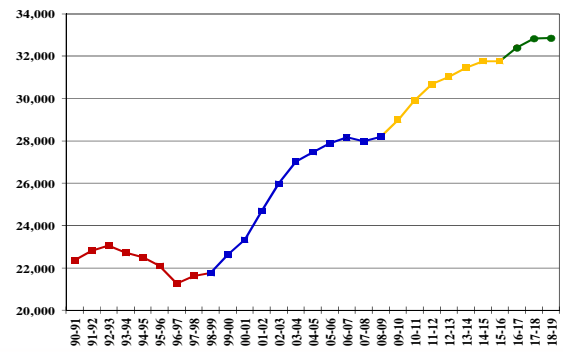
What we heard: Unit-Specific Issues

- Faculties
 - Differential Enrolment Demand across Faculties
 - Need to Align Revenues and Expenditures in Faculties with declining enrolments
 - Expansion in areas of High Demand
 - Significant Capital/Equipment Infrastructure needs
 - Information Technology needs
- Support Units
 - Increased Service Demand Pressures – and the need to maintain staffing levels
 - Information Technology needs
 - Library Acquisitions Budget under pressure
 - Need to improve Pedestrian Safety on Campus

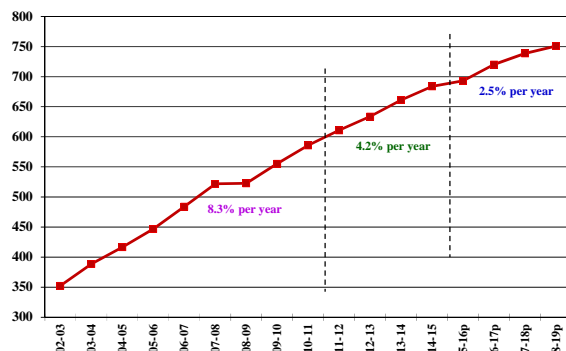
Budgetary Context

- We're moving into a Period of Constrained Revenues and Continued Increases in Cost Pressures
- Enrolments Reaching Steady-State
- Government Grant Reductions continue
 - Funding Formula Review Underway
- Tuition Capped at 3% Overall – up to 2016-17
- Costs Continue to Increase
 - Employee Salaries
 - Non-Salary Items: Utilities, IT Infrastructure, Deferred Maintenance
 - **Library Acquisitions**

Western: Constituent University FTE Enrolment



Operating Revenues (\$M)



Provost's Recommendations: University-wide Issues for the 2016-17 Budget

- Expansion of Student Learning and Study Spaces
- Library Acquisitions – additional investments and budget management in the future
- Support for Scholarship Initiatives in the SSHRC Disciplines
- Suspension of Faculty Turnover Recovery Policy
 - For the remaining 3 years of this cycle
 - To assist Faculties in aligning expenditures with revenues
- Pedestrian Friendly and Campus Safety Initiatives

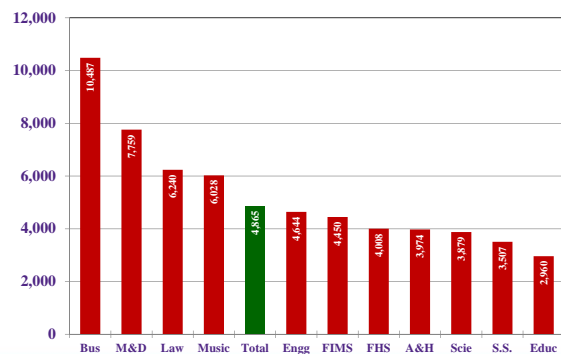
Provost's Recommendations: Faculty-specific Issues

- Faculties with Declining Enrolments/Teaching
 - APF one-time support for recruitment initiatives
 - One-time transition support to align expenditures with revenues
- Engineering Expansion – multi-year plan underway
- Some Faculties are under-resourced – relative to other similar Faculties
 - Additional base funding under consideration
- Space/Capital and Equipment Infrastructure Renewal Needs in many Faculties

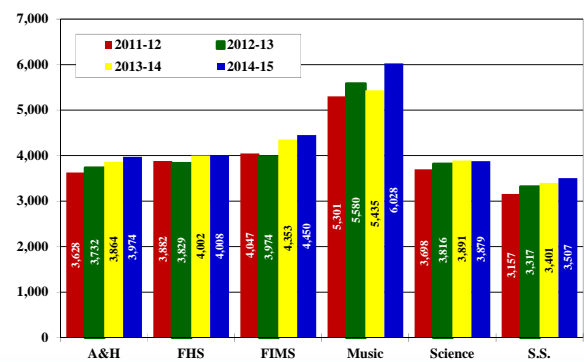
Context for Provost's APF Recommendations

- Based on Advice from Vice-Provosts
- Recommendations based on consideration of:
 - Faculty's overall resource situation relative to enrolments/teaching
 - Undergraduate and graduate program expansion or development of new programs
 - Projected Revenue Sharing Allocations
 - Resources relative to similar programs/Faculties
 - Cost Structure Variations among disciplines/Faculties
 - Relationship between resources, enrolments, and faculty/staff complements
 - Scholarship/research activities and new initiatives – including interdisciplinary or cross-Faculty initiatives

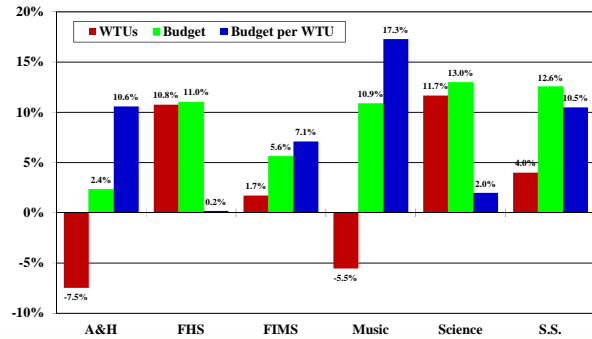
Budget per WTU: 2014-15



Budget per WTU: Direct-Entry Faculties



Direct Entry Faculties: WTUs, Budgets, and Budget per WTU
% change -- 2014-15 over 2010-11



Next Steps

- Review Support Unit recommendations – and inform Unit Heads by early March
- IPB to finalize University-level budget forecasts in mid-March
- Followed by Provost's University-level recommendations – based on available resources
- Budget comes to Senate on April 8th
- And to the Board on April 21st

REPORT OF THE OPERATIONS AGENDA COMMITTEE

**Senate Membership: Faculty of Information and Media Studies Constituency
Board Report on Senate Agenda
Senate Orientation**

FOR APPROVAL

1. **Senate Membership: Faculty of Information and Media Studies Constituency**

Recommended: That Edward Comor be elected to replace Carole Farber on Senate as a representative of the Faculty of Information and Media Studies Constituency for a term to June 30, 2016.

2. **Board Report on Senate Agenda**

Recommended: That a Report from the Board of Governors be added as a standing item to Senate agendas.

Background:

One of the issues identified by the Board's Governance Review Task Force last year was the need to improve the information flow between Senate and the Board. It was noted that the Board routinely receives a report from Senate as part of every agenda. Sometimes those reports contain items that the Board must approve, but for the most part, the reports are for information only. There is no reciprocal report from the Board to Senate. The Chair of the Board asked that the Operations/Agenda consider adding such a report, for information, as a standing item on Senate's agenda.

The Operations/Agenda Committee concurs that this would be a useful step in improving communications between the two bodies. The intent is that the reports would be similar to those provided by the COU Academic Colleague. That is, they would be on the Senate agenda for the meeting subsequent to each Board meeting, would provide a high level summary of the issues dealt with by the Board, and would be presented by one of the two Board-appointed members of Senate.

FOR INFORMATION

3. **Senate Orientation**

(a) Notice of Motion – Annual Governance Workshop

(b) Joint Orientation Session for Board and Senate

At the last meeting of Senate, Senator Amanda Grzyb presented the following notice of motion:

That effective July 1, 2016, Senate institute a mandatory annual full-day training workshop on university governance for all elected and ex-officio senators. This workshop will be conducted annually prior to the first Senate meeting of the year.

Coincidentally, the Chair of the Board wrote to the Chair and Vice-Chair of Senate suggesting that consideration be given to developing a governance orientation session that might be commonly available to new members of the Board and of Senate. This, too, arose out of the recommendations of the Governance Review Task Force.

One of the issues noted in the interim report of the Senate Ad Hoc Committee on Renewal is the need for more comprehensive orientation for senators. The Operations/Agenda Committee has, therefore, referred both the notice of motion and the Board's request to the ad hoc committee for its consideration.

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

Faculty of Arts and Humanities, Department of Film Studies: Withdrawal of the Minor in National Cinemas

Faculty of Arts and Humanities, Department of French Studies: Revisions to the Diploma in Practical French (Diplome de Francais Pratique)

School of Graduate and Postdoctoral Studies: Introduction of a 2+2 Agreement for a Doctoral Degree in Basic Medical Science between Soochow University, China and The University of Western Ontario

Faculty of Health Sciences, School of Health Studies and Brescia University College: Withdrawal of the Honors Specialization in Community Rural Health Development

Faculty of Information and Media Studies: Revisions to the Minor in Media, Information and Technoculture

Schulich School of Medicine & Dentistry: Revisions to the Progression Requirements of the MD Program and Revisions to the Admission Requirements of the DDS Program

Faculty of Science: Introduction of the Western Integrated Science (WISc) Program and New Modules; Introduction of "Integrated Science" as a New Subject Area and New Courses in Integrated Science

Faculty of Social Science, Department of Management and Organizational Studies and Western Centre for Continuing Studies: Introduction of the New Diploma in Human Resources

King's University College: Revisions to the Management and Organizational Studies Modules

Revisions to the Policy on Evaluation of Academic Performance

New Scholarships and Awards

Report of the Subcommittee on Teaching Awards (SUTA) *(will be distributed by email)*

1. Faculty of Arts and Humanities, Department of Film Studies: Withdrawal of the Minor in National Cinemas

Recommended: That effective September 1, 2016, the Minor in National Cinemas be withdrawn.

CURRENT CALENDAR COPY
<http://www.westerncalendar.uwo.ca/2015/pg219.html>

Background

As part of ongoing curriculum reform, the Department of Film Studies would like to withdraw the Minor in National Cinemas. To date, there has been no sustained interest in this module and currently no students are enrolled in it.

2. **Faculty of Arts and Humanities, Department of French Studies: Revisions to the Diploma in Practical French (Diplome de Français Pratique)**

Recommended: That effective September 1, 2016, the Diploma in Practical French be revised as shown below.

REVISED CALENDAR COPY
<http://www.westerncalendar.uwo.ca/2016/pg306.html>

DIPLOME DE FRANÇAIS PRATIQUE

Admission:

Any student who has graduated with a 3 or 4-year undergraduate degree may apply to be admitted to the Diploma program, subject to prerequisites and general university admission requirements. Contact the Faculty of Arts and Humanities Academic Counselling Office to apply.

~~Completion of French 1900E or 1910 with a mark of at least 60%.~~ **Permission of the Department of French Studies based on an interview.**

Progression and Graduation Requirements

The core language courses must be taken in sequence. To progress in and to complete the Diploma program, students must achieve and maintain a minimum average of 60% in the 4.0 required courses.

Program

4.0 courses

1.0 course from: French 2905A/B, 2906A/B, 2907A/B (or French 2900), or French 2101.

~~1.0 course: French 2102A/B, 2104A/B.~~

1.0 course from: French 3905A/B, 3906A/B, 3907A/B, 3908A/B (or French 3900) or French 2103.

~~1.0~~ **2.0** courses in French at **2300** level and above.

Note: At least 3.0 of the 4.0 credit courses must be taken at Western.

Background

The proposed changes mirror the changes already approved in the Certificate in Practical French in January 2015 (see Senate Agenda: http://www.uwo.ca/univsec/pdf/senate/minutes/2015/a15jan23sen_all.pdf). Just as with the Certificate, students interested in enrolling in the Diploma program typically have some proficiency in French already and thus require course substitutions. Therefore, it is proposed that the current admission requirements (courses) be replaced by an interview. Students will gain admission into the Diploma program by receiving permission from the Department based on the interview. The 1.0 Oral French course requirement was also replaced by one additional course at the 2300 level or above.

3. **School of Graduate and Postdoctoral Studies: Introduction of a 2+2 Agreement for a Doctoral Degree in Basic Medical Science between Soochow University, China and The University of Western Ontario**

Recommended: That effective March 1, 2016 Senate approve the introduction of a 2+2 Agreement for a Doctoral Degree in Basic Medical Science between Soochow University, China and The University of Western Ontario as shown in **Appendix 1**.

Background

The proposed program's details (attached as **Appendix 1**) were developed by the School of Graduate and Postdoctoral Studies, with involvement from the Office of the Vice-Provost (International).

4. Faculty of Health Sciences, School of Health Studies and Brescia University College: Withdrawal of the Honors Specialization in Community Rural Health Development

Recommended: That effective September 1, 2016, admissions in the Honors Specialization in Community Rural Health Development be discontinued, and

That students currently enrolled in the module be allowed to graduate until September 1, 2020, upon fulfillment of the requirements, and

That effective September 1, 2020 the module be withdrawn.

REVISED CALENDAR COPY

Faculty of Health Sciences: <http://www.westerncalendar.uwo.ca/2016/pg409.htm> |

Brescia University College: <http://www.westerncalendar.uwo.ca/2016/pg1041.html>

Effective September 1, 2016, admission to this module will be discontinued. Students registered in the module prior to September 1, 2016 will be permitted to continue in the module with the understanding that they must complete the requirements prior to September 1, 2020. Effective September 1, 2020, the module will be withdrawn.

Background

The Honors Specialization in Community Rural Health Development is being withdrawn due to low enrollment levels and lack of alignment with current teaching expertise and resources in the School of Health Studies. The module had one Health Studies student graduate in 2014 and one Health Studies student graduate in 2015. Brescia University College currently has one student enrolled in the module. The one Health Studies faculty member who specialized in rural health retired in 2007. Although full-time probationary appointments have been made in the School of Health Studies since that time, these positions have been aligned with other areas of specialty within the School.

5. Faculty of Information and Media Studies: Revisions to the Minor in Media, Information and Technoculture

Recommended: That effective January 1, 2016, the Minor in Media, Information and Technoculture be revised as show below.

REVISED CALENDAR COPY

<http://www.westerncalendar.uwo.ca/2016/pg1808.html>

MINOR IN MEDIA, INFORMATION AND TECHNOCULTURE

Enrolment in all modules in Media, Information and Technoculture is limited. Meeting the minimum requirements does not guarantee that students wishing to enter any module in Media, Information and Technoculture will be offered enrolment.

Admission Requirements

Completion of first-year requirements, with an average of at least 65%.

Completion of 0.5 course from Media, Information and Technoculture 1050A/B is recommended.

Note: Admissions decisions for the Minor in MIT are finalized after students have completed a first year program.

Module:
4.0 courses

4.0 courses selected from Media, Information and Technoculture courses numbered 2150-2195.

Note: The Minor ~~is intended for students who are not in the Faculty of Information and Media Studies and~~ may not be combined with Honors Specialization or Major modules in Media, Information and Technoculture or Media and the Public Interest.

Background

The Minor was originally introduced effective September 1, 2014 with the intention to open up the field of media studies to a new group of students and promote a robust interdisciplinary exchange that will enrich the scholarly experience for both FIMS and non-FIMS students. The removal of the note will ensure that going forward FIMS is able to officially grant a three-year degree with a double minor.

6. Schulich School of Medicine & Dentistry: Revisions to the Progression Requirements of the MD Program and Revisions to the Admission Requirements of the DDS Program

6a. Revisions to the Progression Requirements of the MD Program

Recommended: That the MD program's Progression Requirements in the Schulich School of Medicine & Dentistry be revised as set out in [Appendix 2](#), effective September 1, 2016.

Background

As a result of a recent curriculum review, four courses have been withdrawn, and two new courses have been added to the MD program. A number of areas have been re-worded in the policy to provide clarification and to emphasize the importance of attendance at mandatory sessions, and the significance of professional conduct and patient safety. In addition, standard wording regarding immunization (COFM Immunization Policy) approved by the Council of Ontario Faculties of Medicine (COFM) has been added.

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 3](#), effective March 1, 2016.

Background

Effective with the application cycle beginning in September 2017 applicants must meet the minimum 80% in each of the two best undergraduate years with a full course load of 5 full or equivalent courses (30 credit hours) taken between September and April. Each of the two best years used for GPA consideration must also have at least 3 full course equivalents whose published level is at or above the year level of study. In addition, applicants will also need to obtain a minimum grade of B or 74.5% in the prerequisite courses, in order to be considered for admission into the DDS program. Currently, a 50% passing grade is acceptable which ensures only that the student has a minimal knowledge or understanding of the material taught in the mandatory prerequisite courses.

The changes will be included in the current policy starting in March 2016, in order to provide advanced notice to students intending to apply to the DDS program in 2017.

7. Faculty of Science: Introduction of the Western Integrated Science (WISc) Program and New Modules; Introduction of “Integrated Science” as a New Subject Area and New Courses in Integrated Science

7a. Introduction of the Western Integrated Science (WISc) Program and New Modules

Recommended: That the Western Integrated Science (WISc) program be introduced in the Faculty of Science effective September 1, 2016, contingent upon Quality Council approval, and

That effective September 1, 2017 the following modules in Integrated Science be introduced as shown in [Appendix 4](#):

Honors Specialization in Integrated Science with Biology
Honors Specialization in Integrated Science with Chemistry
Honors Specialization in Integrated Science with Computer Science
Honors Specialization in Integrated Science with Earth Sciences
Honors Specialization in Integrated Science with Environmental Science
Honors Specialization in Integrated Science with Genetics
Honors Specialization in Integrated Science with Mathematics
Honors Specialization in Integrated Science with Physics

Background

The fundamental goals of the Western Integrated Science Curriculum are to: (1) make Science at Western a destination of choice for more high school students with an interest in pursuing a career in science or mathematics, thus diversifying the Faculty of Science student body; (2) provide a forum where first-year students will be exposed to a greater diversity of scientific disciplines, thus creating more balance between departments in program enrollment in senior years; and (3) offer a program that provides students the skills and aptitudes required for the interdisciplinary approaches necessary to tackle today's most pressing issues, and in so doing, leaving them better prepared for both the workplace and graduate school.

As a first-entry program, students apply for admission into WISc through the ES (Science) link of the Ontario Universities' Application Centre. Admission will be based on high school grades and a supplemental written submission. It is expected that intake will be approximately 60 first-year students each year, starting in 2016.

The Western Integrated Science (WISc) Program contains unique and highly innovative features. First year students will take 5.5 courses, rather than the usual 5.0, thus students graduating from a WISc module will require 20.5 courses to complete the program. The additional 0.5 course is in the form of a seminar course, Integrated Science 1000Z, that spans the fall and winter terms of first year. This course will help to build a community in the incoming WISc students while they take a more traditional suite of Science courses and it will provide an introduction to the program to ensure that students are comfortable with the transition to the less traditional 2.0 course, Integrated Science 1001X, in the second term. It is not anticipated that the overload will cause significant difficulties for the students as the instructor will arrange the workload to avoid busy times in other courses.

First-year students will take 2.5 courses in “Integrated Science” and 3.0 courses *not* in Integrated Science, so the diversity of subjects studied will be unchanged from current practice. In 2017 a new course, Integrated Science 1001X, will be introduced which will be a 2.0-credit course taken in the second term.

At this time, only eight Honor Specializations in Integrated Science modules have been developed. These represent what are perceived to be the most popular modules. The introduction of additional modules that encompass a greater diversity of Science disciplines will be coming in the near future.

The program was sent for an External Review by SUPR-U in September 2015. The results of the Review are attached as [Appendix 5](#).

7b. Introduction of “Integrated Science” as a New Subject Area and New Courses

Recommended: That “Integrated Science” be introduced as a new subject area effective September 1, 2016, and

That new courses in Integrated Science be introduced with sequential start dates, as shown in [Appendix 6](#).

Background

These new courses will be introduced over the span of 4 years to support the WISc program.

8. Faculty of Social Science, Department of Management and Organizational Studies and Western Centre for Continuing Studies: Introduction of the New Diploma in Human Resources and New Diploma Courses

Recommended: That effective March 1, 2016 a Diploma in Human Resources be introduced by the Faculty of Social Science, Department of Management and Organizational Studies in collaboration with the Western Centre for Continuing Studies, and

That new Diploma courses be introduced as shown in [Appendix 7](#).

Background

The new Diploma in Human Resources, offered in partnership with the Faculty of Social Science, Department of Management and Organizational Studies and developed in collaboration with the Human Resources Advisory Committee, will serve as an opportunity for non-business students to work toward a career in Human Resources. Offered in a blended format, students will develop the theoretical, practical and professional competencies required in the field of Human Resources. Each course will be 13 weeks in length and will prepare students for the CKE exam required for the CHRP and CHRL designations. As more Universities seek to offer Diploma programs, it has become increasingly apparent that Human Resources is a substantial post-degree program gap at Western Continuing Studies. The program will run May - April (similar to the current Diploma in Public Relations and Diploma in Marketing), with the first intake in May 2016. These courses have already been approved by the HRPA Educational Standards committee for recognition toward the CHRP and CHRL designations. HURS 6001-6005 will be offered in the first term, followed by HURS 6006-6009 in second term. The practicum will encompass the third term and can be taken concurrently with an optional non-credit CKE preparation course that will be offered through WCS. Courses will be available for individual enrolment for students who 1) have completed an undergraduate program within the last 0-5 years and/or 2) have less than one year of professional experience.

9. King’s University College: Revisions to the Management and Organizational Studies Modules

Recommended: That effective September 1, 2016, the modules

Honors Specialization in Accounting
Honors Specialization in Finance and Administration
Honors Specialization in Global Commerce
Honors Specialization in Organizational and Human Resources

Major in Accounting
Major in Global Commerce
Major in Organizational and Human Resources

Specialization in Accounting
Specialization in Finance and Administration
Specialization in Global Commerce
Specialization in Organizational and Human Resources

in Management and Organizational Studies be revised as shown in [Appendix 8](#).

Background

These changes represent a certain “tidying up” effort. They also reflect an attempt to rationalize the integrity of the MOS modular structure at King’s, and adapt to changes in MOS modules at DAN program at Western. They represent the inclusion, where applicable, of some of the MOS courses that have been developed and approved in the last few years. In addition, students requiring Math 0110A/B and/or Writing 0002F/G may include those courses as part of their admission requirements into the module with permission from the department.

10. Revisions to the Policy on Evaluation of Academic Performance

Recommended: That the policy on Evaluation of Academic Performance be revised as shown below, effective February 1, 2016.

REVISED CALENDAR COPY

http://www.uwo.ca/univsec/pdf/academic_policies/exam/evaluation_undergrad.pdf

The first part of the policy is unchanged

EVALUATION OF UNDERGRADUATE ACADEMIC PERFORMANCE

As a guideline for departments (or faculties where applicable), the last day of scheduled classes in any course will be the last day on which course assignments will be accepted for credit in a course.

At least one week prior to the deadline for withdrawal from a course without academic penalty, students will receive assessment of work accounting for at least 15% of their final course grade.

~~As a guideline for departments (or faculties where applicable) assigned work will be distributed in such a way that approximately half way through the course the student will receive an estimate of his or her standing in the course.~~

The rest of the policy is unchanged

Background

In order to support student success and to help students make informed academic decisions, it is proposed that providing an assessment of work at an earlier date will help students to determine their academic progress in a course at an earlier point. Consequently, students will have the opportunity to withdraw from a course without receiving academic penalty.

FOR INFORMATION

11. 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.

12. Report of the Subcommittee on Teaching Awards (will be distributed by email)

2 + 2 AGREEMENT FOR A WESTERN DOCTORATE DEGREE IN

BASIC MEDICAL SCIENCE

BETWEEN

THE UNIVERSITY OF WESTERN ONTARIO, CANADA

AND

SOOCHOW UNIVERSITY, P. R. CHINA

WHEREAS The University of Western Ontario ("Western") and Soochow University ("Suda") wish to enter into an agreement to establish programs wherein eligible students from Suda may be accepted into a PhD program at Western and a certificate program at the Institutes of Biology and Medical Sciences at Suda (herein referred to as the "Program") and upon successful completion of the Program be awarded a doctorate degree from Western and a certificate from Suda;

THEREFORE the parties agree as follows:

1. Purpose

The purpose of this Agreement is to establish 2+2 Doctoral Degree Programs in Basic Medical Science at Western and set out the rules, rights and obligations of the parties with respect to the implementation of the Programs. Students who meet the requirements of a Program will graduate with a doctorate degree from Western and a certificate from Suda.

2. Degree Programs at Western

This Agreement covers doctoral programs in the following Departments in Western's Schulich School of Medicine & Dentistry: Anatomy & Cell Biology, Biochemistry, Epidemiology and Biostatistics, Medical Biophysics, Microbiology and Immunology, Physiology and Pharmacology, and Pathology and Laboratory Medicine, and also the interdisciplinary doctoral program in Neuroscience.

3. Eligibility, Admission and General Requirements

3.1. Students who have successfully completed a master's degree in a science department at Suda with a minimum of 80% overall standing or equivalent may apply for acceptance into a Program under this Agreement. Students who are qualified to transfer to a PhD program after one year in the Master's program at Suda may also apply.

3.2. Applicants whose native language is not English must meet the English-language requirement for admission of graduate students at Western.

3.3. Students must meet Western's admission standards and Western is responsible for the final admission decisions to a Program. Admission decisions are made by the relevant graduate program at Western and Western's School of Graduate and Postdoctoral Studies.

3.4. Students admitted to a Program will be registered at both Universities throughout the duration of the Program. Students must meet the progression requirements of both Suda and Western while registered in the Program.

3.5. Except as set out herein, the maximum length of a Program is 4 years. Students will spend a cumulative, not necessarily continuous, residency of 2 years each at Suda and Western. The order and pattern of residency shall be set by the participating doctoral program at Western. An extension of the length of the

Program may be granted by Western in extraordinary circumstances but students are not eligible for funding from Western after Year 4.

3.6. Each University shall provide a safe learning environment for the students while they are studying at their institution and shall provide them with necessary resources, such as laboratory space, comparable to the resources provided to other graduate students enrolled in comparable programs at their institutions.

3.7. Students shall be responsible for paying the required tuition and ancillary fees of the University at which they are studying during the Program. Students will be required to pay tuition and ancillary fees to only one University at any time.

3.8. Students admitted to a Program will be supervised by a supervisor from Western who shall be the primary supervisor under the Program. Suda shall appoint a faculty member acceptable to Western as a co-supervisor to perform supervisory functions during the agreed period that a student is resident at Suda.

3.9. Western's School of Graduate and Postdoctoral Studies' administrative and academic policies, procedures and regulations and degree requirements shall apply to students enrolled in this Program. In addition, a signed, individual agreement between Western (specifically, the participating graduate program and the School of Graduate and Postdoctoral Studies), Suda, and the student is required for each student admitted to a Program (see **Appendix A**). The individualized agreement outlines details of the student's program and research supervision, registration, required residency periods at each institution, tuition and fees, and health coverage.

4. Additional Rights and Responsibilities of Western

4.1. Where appropriate, Western will recognize equivalent work completed at Suda for students admitted to a Program. Western is solely responsible for determining what work will be considered to be equivalent to its own courses. The eligible courses, maximum recognizable credits, and eligibility for Western's degree requirement fulfilment are determined by the participating programs at Western.

4.2. Western may provide financial support in the form of a teaching assistantship (TA) to students admitted to a Program during their period of residency at Western for a maximum period of two years.

4.3. Western is responsible for reviewing and evaluating the student's progress in the Program and determining if the student is meeting the progression requirements. If Western determines that there has been a failure to meet progression requirements, the student shall be required to withdraw from the Program. The Suda Coordinator shall receive timely notification of Western's decision.

4.4. Western shall grant a Ph.D. degree to students enrolled in the Program who successfully complete the degree requirements of the Program, including successful defense of the doctoral thesis, which will be conducted in accordance with Western's internal regulations and procedures.

5. Additional Rights and Responsibilities of Suda

5.1. Suda is responsible for making its students aware of the Program in order to attract the highest calibre of students.

5.2. Suda is responsible for pre-selection of students according to the qualification criteria set by Western.

5.3. Suda shall, where possible, create opportunities for, and encourage, applicants to take part in extracurricular English language training while in China.

5.4. Suda shall provide Western with sufficient information relating to its courses, including typical exam questions and student responses, to allow Western to determine which Suda courses qualify for course recognition (see 4.1).

5.5. Suda shall provide Western with full information about the student's academic progress in the Program, including grades, during the time periods that the student is at Suda.

5.6. Suda shall confer a certificate of study to the students who have successfully completed degree requirements at Western.

5.7. Suda shall provide full financial support to eligible students during the two years that they are resident at Western. Such support shall include tuition at Western, UHIP coverage, travel to and from Canada, and living expenses. The details of this financial support, including the minimum amount payable annually to the student for living expenses, is set out in **Appendix A**. It is agreed if a student receives financial support from Western in the form of a teaching assistantship, the support from Suda may be reduced by the amount the student receives from Western.

6. Administrative Procedures

6.1. Suda and Western will each appoint a staff or faculty member as the Coordinator or equivalent who will oversee the administration of the Agreement. The Coordinators shall ensure that the necessary approvals are in place, and facilitate matters related to the students' academic welfare.

6.2. The deadlines for applications, supporting documents, as well as admission criteria and procedures, are determined by the graduate programs at Western and will be communicated annually to Suda.

6.3. At least annually, each University agrees to provide the other University, through the Coordinators, the performance evaluations of the students, including but not limited to grades for courses taken and information on any academic or non-academic discipline.

6.4. A maximum of 5 students shall be enrolled at any time in Programs under this Agreement. This number may be revised with the agreement of both Universities.

6.5. While at Western, students in a Program must purchase health insurance coverage from the University Health Insurance Program (UHIP).

7. Intellectual Property

7.1. All intellectual property held by one of the parties prior to entering into this Agreement or disclosed or introduced in connection with a Program under this Agreement and all materials in which such intellectual property is held, disclosed or introduced shall remain the property of the party introducing or disclosing it. Each party grants the Student and/or the other party a licence to use such intellectual property for the purposes of the Program, subject to any prior third party rights.

7.2. All rights, titles and interests in any studies, reports or materials, graphic or otherwise, prepared by either University will belong to that University and may not be made use of except with that University's prior written consent.

7.3. Where the Universities jointly develop intellectual property, inventions and innovations as a result of the research work of the Student working under the supervision of the primary supervisor or the co-supervisor the terms with respect to title and exploitation of such intellectual property, inventions and innovations (including but not limited to trademarks, copyright, patents, know-how designs and confidential information on the subject of such intellectual property, inventions and innovations) will be negotiated on a case-by-case basis having due regard to the nature, quality and extent of the contributions by each University and the terms imposed by any funding or granting agencies or organizations.

8. Confidentiality

8.1. Each University agrees to protect the confidentiality of any information disclosed to it by the other University, which the other University has identified as confidential, and it shall use such information only for the purposes for which it was disclosed. Each University shall ensure that its faculty, staff and students are aware of what information is subject to this confidentiality requirement.

8.2. The Universities agree to share academic and other information about Students enrolled in a Program under this Agreement as set out herein. Each University shall keep confidential all Student information provided to it by the other University and shall use the information solely for the purposes of the Program. Such information shall not be disclosed to third parties without the consent of the University that provided the information.

9. Term and Termination

This Agreement shall commence on the date that it has been signed by both parties and it shall continue in force for a period of 5 years. Either Western or Suda may terminate this Agreement by providing three months' written notice to the other provided however that if students are currently in a Program under this Agreement as of the date of notice, the Agreement shall not terminate until the students have completed or left the Program.

This agreement may be renewed, extended or amended by mutual written agreement.

10. Dispute Resolution

All disputes in connection with this Agreement shall be settled by negotiation between the two Universities following Western's and Suda's established policies and guidelines.

11. Independent Institutions

Nothing contained in this Agreement should be construed to create or imply a joint venture, partnership, principal-agent or employment relationship between Western and Suda.

12. Language

A translation of this Agreement may be prepared in another language, but the parties agree that this English language version is the official and binding agreement between the parties.

REVISED CALENDAR COPY

http://www.uwo.ca/univsec/pdf/academic_policies/registration_progression_grad/profprog_medicine.pdf

Doctor of Medicine (MD) Program - Schulich School of Medicine & Dentistry

PROGRAM REQUIREMENTS & PROGRESSION

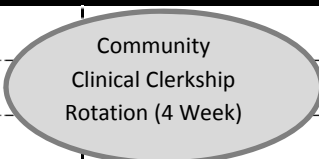
The Doctor of Medicine (MD) program is a four year program. Year One and Year Two involve didactic lectures, laboratory experiences, small group instruction, **individual and team based mentoring**, case based learning, simulation and supervised clinical experiences. The curriculum is designed to provide foundational learning in both the basic and clinical sciences.

Year Three is a 52-week integrated clerkship (one course) where learners become an active member of the clinical care team in the following medical disciplines: Family Medicine, Medicine, Obstetrics & Gynaecology, Paediatrics, Psychiatry and Surgery. Under the supervision of faculty and senior house-staff, Clinical Clerks are given graded responsibility in diagnosis, investigation, management of patient care in hospital, clinic and outpatient settings and professionalism. Students in Year Three are required to complete a community Clinical Clerkship rotation for a minimum of four weeks.

The curriculum in Year Four (Term One) Clinical Science Electives (16 weeks) is arranged entirely by the students in any area of medicine at the Schulich School of Medicine & Dentistry, as well as centres within Canada and **at approved sites** abroad. The curriculum in Year Four (Term Two) Integration & Transition (16 weeks) is designed to assess cognitive, affective and psychomotor learning and a student-centered and student-directed manner which requires the command, analysis and synthesis of knowledge and skills.

CURRICULUM OVERVIEW

<u>Year One Courses</u>	<u>Year Two Courses</u>
Introduction to Medicine (Medicine 5115)	Digestive System & Nutrition (Medicine 5203)
Blood (Medicine 5121)	Endocrine & Metabolism (Medicine 5202)
Infection & Immunity (Medicine 5116)	Reproduction (Medicine 5205)
Skin (Medicine 5117)	Musculoskeletal System (Medicine 5218)
Heart & Circulation (Medicine 5120)	Emergency Care (Medicine 5208)
Respiration & Airways (Medicine 5119)	Neurosciences, Eye & Ear (Medicine 5206)
Genitourinary System (Medicine 5104)	Psychiatry & the Behavioral Sciences (Medicine 5207)
Physician as Leader (Medicine 5222)	Health Care Systems (Medicine 5209)
Population Health (Medicine 5105)	Key Topics in Family Medicine (Medicine 5210)
Epidemiology (Medicine 5107)	
Social Medicine (Medicine 5150)	Professional Identity (Medicine 5250)
Medical Ethics & Humanities (Medicine 5130)	
Professional Portfolio (Medicine 5140)	

Patient Centered Clinical Methods (Medicine 5139)	Patient Centred Clinical Methods (Medicine 5246)
<u>Year Three Course</u>	
Clerkship (Medicine 5475)	
Rotation: Family Medicine (6 Week)	Rotation: Medicine (12 Week)
Rotation: Obstetrics & Gynaecology (6 Week)	Rotation: Paediatrics (6 Week)
Rotation: Psychiatry (6 Week)	Rotation: Surgery (12 Week)
<div style="text-align: center;">  </div>	
<u>Year Four Courses</u>	
Clinical Science Electives (Medicine 5401)	Integration & Transition (Medicine 5402)

PROGRAM REGULATIONS

Attendance

It is expected that students will attend all scheduled learning sessions.

Attendance in small-group learning sessions is mandatory. **At the discretion of the Associate Dean or Course Chair, certain learning sessions (outside of small-group learning) may be identified as mandatory.** Failure to attend mandatory sessions (without approval) may result in remediation of and/or a grade of "fail" in a Course. Attendance in Clerkship and in Clinical Sciences Electives is mandatory. Failure to attend scheduled clinical obligations may result in remediation of and/or a grade of "fail" on a rotation, of Clerkship or of an elective. **The Attendance Policy is reviewed annually and available to students on the program website. No exceptions to the Attendance Policy will be made.**

Professionalism

Medicine is a professional academic program. A breach of personal professional behaviour or patient safety in any course, rotation or elective may result in remediation of and/or a grade of "fail."

Immunization

Upon Admission, students are required to provide immunization documentation as it relates to the Council of Ontario Faculties of Medicine Policy on Immunization.
<http://cou.on.ca/papers/immunization-policy/>

This policy applies to all medical learners (undergraduate medical students and postgraduate residents and fellows) attending an Ontario medical school and performing clinical activities in Ontario. Undergraduate medical learners who do not comply with the immunization policy may be excluded or suspended from clinical activities. Ontario medical learners doing international clinical placements will require an additional assessment. A travel medicine consultation should take place at least eight weeks before their placement. Additional immunizations may be necessary depending on the location of their placement

Police Checks

Students in the MD program are exposed to many areas of patient care, including vulnerable sectors during the course of their learning. In order to fulfill legal obligations and support patient safety, students will be required to submit their police record checks and vulnerable sector checks upon admission to the program and at the beginning of Year 3 and Year 4 to the Learner Equity & Wellness Office. Students are not permitted to commence their studies in Year 3 and Year 4 if they do not submit required documentation. Students must consult the Learner Equity & Wellness Office about procedures to follow in the case of a failed check. **The Statement on Police Checks and Vulnerable Sector Screening is found on the MD program website here:**
https://www.schulich.uwo.ca/medicine/undergraduate/docs/policies_statements/statements/1-3-16-Police-Checks.pdf

Time Limitation for Completion of the MD Program

The Doctor of Medicine (MD) Program is a full-time, four year academic program. Students with extenuating circumstances may be granted a leave of absence while enrolled in the program. The MD program must be completed within six years of the original date of entry. Under no circumstances may (a) a student withdraw and re-enter the program or (b) exceed the maximum program length of six years. A student who fails to complete the program in six years, for any reason, must withdraw from the medical program. Students enrolled in the combined MD-PhD program may request an additional year to complete their graduate research for a maximum of seven years.

ASSESSMENT

The principal function of student assessment in the MD Program is to determine competence and provide feedback for student learning. For the purpose of reporting performance, a Pass/ Fail grade is used for each course. Letter or percentage grades may be used for the purpose of enhancing feedback at the course level. Students' attitudes and ethics also form part of the assessment and **unethical behaviour** **unprofessional behaviour** or irresponsible and inappropriate conduct may constitute grounds for a failing grade.

Assessment throughout the curriculum takes two forms:

1. **Formative Assessment For Feedback:** These evaluations are designed to help students assess their progress and to provide feedback on strengths and weaknesses. Such sessions may take the form of informal verbal feedback, individual and group assignments, or written and oral examinations provided for practice. They may occur at any time.
2. **Summative Assessment For Progression:** These assessments must be successfully passed in order for the student to progress to the next level of study. For these assessments, **students will be graded as Pass or Fail- students receive a numerical grade, which is a component of the overall course grade reported on the academic transcript as pass/fail.**

During Year 1 and Year 2

1. Assessment for feedback occurs in the review of group participation, written examinations, written or oral presentations, and laboratory practical evaluations.
2. Assessment for progression occurs a number of times throughout each course with a final examination period each term. Assessment **will- may** include an evaluation of the quality of each student's group participation.

During Year 3

1. Assessment for feedback and assessment for progression occur daily during Clerkship as the clerk interacts with house staff and clinical faculty. Frequent observation during patient care activities forms the basis for such feedback.

During Year 4

1. Assessment for feedback occurs daily in Clinical Science Electives as the learner interacts with house staff and clinical faculty. Frequent observation during patient care activities forms the basis for such feedback.
2. Assessment for progression in Clinical Science Electives is tested via the Year 4 Objectives Structured Comprehensive Examination (OSCE). The OSCE will test students' mastery of the overall objectives of the clerkship and clinical electives. This **evaluation examination** will assess students' knowledge, clinical skills, professional conduct and clinical reasoning using real and simulated clinical settings.
 - a. Students will complete the OSCE while enrolled in Integration & Transition.
 - b. Successful completion of the OSCE is required (an overall grade of PASS) to pass Clinical Science Electives and to graduate from the Doctor of Medicine Program.
 - c. A student who receives a grade of FAIL on the OSCE may be offered remediation at the discretion of the Course Chair.
 - d. As per the Program Requirements above, remediation in the Doctor of Medicine program is a privilege and may not be offered upon failure of the OSCE.
 - e. Failure on the OSCE without remedial privilege will require a student to withdraw from the program.
 - f. If remediation is offered, and a score of FAIL is achieved on the remediation, a student will be asked to withdraw from the program.
3. Assessment for feedback occurs in Integration & Transition through the review of group participation, written examinations, and written or oral presentations.
4. Assessment for progression occurs in Integration & Transition throughout the course using tests, assignments and **evaluation of** a student research project.

PROGRESSION

Satisfactory Progression

To satisfactorily complete each year, and to progress to the next year or to graduation, a student must meet the following requirements:

1. For Year 1, students must pass all course work, assignments, examinations of each course in the year, as defined by the Course Chair(s).
2. For Year 2, students must pass all course work, assignments, examinations of each course in the year, as defined by the Course Chair(s).
3. For Year 3 (Integrated Clinical Clerkship), students must pass all Clinical Rotations
4. For Year 4, students must pass the Observed Structured Clinical Exam (OSCE), all Clinical Science Electives and must meet the requirements of the Integration & Transition Course (final 12 weeks of the program) **to pass Year 4.**

Course Weights

Course Length	Course Weight
0 - 60 hours	0.5
61 - 160 hours	1.0
161 - 260 hours	2.0
261 - 360 hours	3.0
361 - 460 hours	4.0
52 weeks Clinical Clerkship	8.0
Clinical Science Electives	1.5

Conditional Progression & Remediation Privileges

In some instances, a student who fails a course, single rotation, the Clerkship or an elective may be provided with remediation at the discretion of the Progression & Awards Committee. Remediation of a course, single rotation, the Clerkship or an elective may only be provided once. A student who does not successfully pass after remediation will be required to withdraw from the program.

1. A student who has failed a single six-week clinical rotation in Year 3 and has been granted permission to remediate, will do so during Clinical Science Electives in Year 4.
2. A student who fails the Observed Structured Clinical Exam (OSCE) and has been granted permission to remediate will do so at the conclusion of the Integration & Transition.
3. Permission for remediation and supplemental examination will be considered only when following conditions both exist:
 - a. The total of all failures (FAI) during the Doctor of Medicine program, including failures for which supplemental examination remediation was previously granted, does not exceed three course weights, and:
 - b. One of the following is true regarding performance in the current Year:
 - i. At the end of the first semester in Year 1 and/or the end of Year 1, the student has received grades of PAS in all but one course weight;
 - ii. At the end of the first semester in Year 2 and/or the end of Year 2, the student has received grades of PAS in all but one course weight;
 - iii. At the end of Year 3 (Integrated Clinical Clerkship), the student has received grades of PAS in all but one Clinical Rotation;
 - iv. At the end of Year 4, the student has:
 1. Met all of the objectives for Integration & Transition and Clinical Sciences Elective Rotations with a grade of FAI on the OSCE, or;
 2. Met all of the objectives for Integration & Transition with a grade of PAS on the OSCE but with a grade of FAI on no more than one Clinical Science Elective Rotation, or;
 3. Met all of the objectives for Clinical Science Elective Rotations with a grade of PAS on the OSCE but with a grade of FAI on Integration & Transition.

4. A student who fails more than one of Clinical Science Elective Rotations, the OSCE, and/or Integration & Transition will be required to repeat Year 4. A student required to repeat Year 4 must be able to do so within the maximum program length of 6 years or will be required to withdraw.
4. The maximum period of remediation will be:
 - i. **Years 1, 2:** Supplemental examination(s) (when granted) must be successfully completed by the student within six weeks of the end of the academic year.
 - ii. **Year 3 Integrated Clinical Clerkship:** Supplemental examination(s) (when granted) must be successfully completed within eight weeks of the commencement of Clinical Science Electives.
 - iii. **Year 4 Clinical Science Electives:** Supplemental examination(s) (when granted) must be successfully completed by the student within four weeks, to be completed after the end of Year 4.
 - iv. **Year 4 Integration & Transition:** Supplemental examination(s) (when granted) must be successfully completed by the student within two weeks, to be completed after the end of Year 4.
 - v. **Year 4 OSCE:** Supplemental examination(s) (when granted) must be successfully completed by the student within four weeks, to be completed after the end of Year 4.
5. Students who are required to do remedial work at the end of Year 4 may be required to graduate in the subsequent academic year.
6. Achievement of pass in a supplemental examination remediation does not delete the original grade from the student record. A grade of SRP (Supplemental Examination/Remedial Work Passed) will be separately recorded on the student record.

Requirement to Withdraw

A student who has not met the requirements listed under "Satisfactory Progression" or passed after completion of "Conditional Progression & Remediation Privileges" shall be required to withdraw from the medical program for any of the following reasons:

- i. The student has not met the conditions listed under "Conditional Progression" and, therefore, is not eligible for supplemental examination;
- ii. The student has met the conditions listed under "Conditional Progression" but permission for supplemental examination is not granted;
- iii. The student fails a supplemental examination granted under "Conditional Progression".
- iv. The student has met the requirements under "Satisfactory Progression" may be required to withdraw under the University penalties for Scholastic Offenses or violation of the Student Code of Conduct (Western).
- v. The student has met the requirements under "Satisfactory Progression" but has demonstrated unprofessional or unethical behaviour as defined by the Policies of the of the College of Physicians and Surgeons of Ontario and the Canadian Medical Association Code of Ethics.
- vi. **The student has not met the requirements for Immunization and/or Police Record Check/Vulnerable Sector Screening resulting in suspension of clinical privileges, thus failure to complete academic requirements.**
- vii. **The student has failed to remit tuition or student fees and has been sent to collection, resulting in the suspension of clinical privileges, thus failure to complete academic requirements.**
- viii. **The student has met the requirements under "Satisfactory Progression" but has not adhered to the "Program Regulations" identified in this document, including (but not limited to) absenteeism and professional conduct.**

Appeals

Students wishing to appeal against a decision of the Schulich School of Medicine & Dentistry should refer to the Undergraduate Medical Education Program Statement on Appeals http://www.schulich.uwo.ca/medicine/undergraduate/docs/policies_statements/linked/1-3-7-Statement-on-Appeals.pdf which defers to the process as outlined in the Senate Policy on Academic Rights and Responsibilities.

Grading Scales

The criteria for receiving a "passing" grade will be clearly identified at the start of each course. While percentage grades or letter grades may be used within courses for the purpose of student feedback, a Pass/Fail system is used to identify performance for progression and graduation.

The key to this grading scheme is as follows:

PAS - Clear competency with regards to all criteria considered essential for the completion of that specific course. On any evaluation this will be determined by achieving a minimum of 60%.

CR – Credit

FAI - An inability to meet the minimal acceptable standards for a specific course. Less than 60%

INC – Incomplete

IPR – Course in Progress

SRP - Supplemental Examination/Remedial Work passed

Admission - Dentistry

Please note that the admission policy is reviewed annually and the admission requirements from previous years may not apply. The University reserves the right to review and change the admission requirements at any time, without notice.

ADMISSION REQUIREMENTS

Admission to Dentistry is based on academic ability and personal qualities, as evidenced by scholastic records, aptitude test results, autobiographical sketch and presentation at interview. Because facilities for preclinical and clinical instruction are limited, it is necessary to restrict enrolment to applicants who are best qualified to meet the mental and physical demands of the curriculum, and are most likely to successfully complete the full course of study. The presentation of the minimum requirements for admission will not assure guaranteed acceptance.

Internationally-trained dentists are not eligible to apply or enter into the 4-year Doctor of Dental Surgery (DDS) Program.

For more detailed information on all of the below Admission Requirements, visit the [DDS Admission webpage](#).

Competitiveness

In order to be considered, candidates must have achieved at least 80% or higher in two undergraduate level years by the end of the academic year prior to application. Past class statistics have indicated that most successful applicants have a mid to high 80s average over their two most competitive years. Although primary consideration will be given to the most competitive two academic years and the DAT scores, overall academic performance (consistency, trend) and graduate education can also be used as selection criteria.

For applicants who have completed an undergraduate degree and who are in the final year of (or who have recently completed) a subsequent undergraduate degree, grades earned during the previous degree(s) will not be considered. The most recent degree must be equivalent to a four-year degree. Courses taken during the application cycle are not considered towards GPA.

Applicants are ranked on a compiled score representing academics, DAT score, and interview. The quality of the applicant pool in which one is considered for entry could raise the minimum academic competitive level, and will determine the minimum DAT score.

A limited number of positions are available for international students who maintain their international status at graduation. Please see the [International Applicants](#) webpage for further details.

Special consideration will be given to applicants self-identify as Indigenous. One position is set aside each year for competitive applicants with official documentation of indigenous status or ancestral Indigenous origin. For more information, please visit the [Indigenous Applicants](#) webpage.

Effective the application cycle beginning on October 1, 2017, applicants must meet the following criteria:

Competitiveness

In order to be considered, candidates must have achieved at least 80% or higher in each of the two best undergraduate years with a full course load of 5.0 full or equivalent courses (30 credit hours) taken between September and April. Each of the two best years used for GPA consideration must also have at least 3.0 full course equivalents whose published level is at or above the year level of study. Past class statistics have indicated that most successful applicants have a mid to high 80s average over their two most competitive years. Although primary consideration will be

given to the most competitive two academic years and the DAT scores, overall academic performance (consistency, trend) and graduate education can also be used as selection criteria

For applicants who have completed an undergraduate degree and who are in the final year of (or who have recently completed) a subsequent undergraduate degree, grades earned during the previous degree(s) will not be considered. The most recent degree must be equivalent to a four-year degree. Courses taken during the application cycle are not considered towards GPA.

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Special consideration will be given to applicants self-identify as Indigenous. One position is set aside each year for competitive applicants with official documentation of indigenous status or ancestral Indigenous origin. For more information, please visit the [Indigenous Applicants](#) webpage.

Scholastic Records

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. It is 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. It is to their advantage to have successfully completed 1.0 laboratory course in biology, chemistry, and physics.

Effective the application cycle beginning on October 1, 2017, applicants must meet the following criteria:

Scholastic Records

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. 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. 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

NEW CALENDAR COPY

Western Integrated Science (WISc) Program

The Western Integrated Science (WISc) program is a first entry, four-year program administered by the Faculty of Science. It is designed to provide select students with the diverse science education necessary to address the interdisciplinarity of today's major scientific challenges (e.g., climate change, world hunger, alternative energy). WISC combines unique Integrated Science courses with traditional discipline-specific courses. In Year 2, WISC students will enroll in an Integrated Science Honors Specialization module administered jointly by the Faculty of Science and individual Science departments.

WISC offers the following modules:

Honors Specialization in Integrated Science with Biology
Honors Specialization in Integrated Science with Chemistry
Honors Specialization in Integrated Science with Computer Science
Honors Specialization in Integrated Science with Earth Sciences
Honors Specialization in Integrated Science with Environmental Science
Honors Specialization in Integrated Science with Genetics
Honors Specialization in Integrated Science with Mathematics
Honors Specialization in Integrated Science with Physics

Students who complete WISC Program will graduate with an "Honors Bachelor of Science in Integrated Science with (specific discipline)."

Admission Requirements

Admission into WISC is competitive, limited and open only to students who apply to Western through the ES stream of the Ontario Universities' Application Centre. In addition to the Grade 12 requirements, a personal statement is required and will be used as part of the adjudication for admission. See the Western Faculty of Science website (http://www.uwo.ca/sci/undergrad/future_students/index.html) for details about the admission selection process.

First Year of Program

0.5 course: Integrated Science 1000Z
0.5 course: Calculus 1000A/B or 1500A/B
1.0 course: Chemistry 1301A/B, Physics 1301A/B or 1501A/B
0.5 course: Additional Science course*
2.0 courses: Integrated Science 1001X
1.0 course: Course(s) from categories A and/or B

Note: Year 1 consists of 5.5 courses

*Students who want to enroll in the Honors Specialization in Integrated Science with Biology, the Honors Specialization in Integrated Science with Environmental Science, or the Honors Specialization in Integrated Science with Genetics are required to take Biology 1001A. Students who want to enroll in the Honors Specialization in Integrated Science with Mathematics are required to take Mathematics 1600A/B.

Second Year of Program

1.0 course: Integrated Science 2001F, 2002B.
0.5 course from: Philosophy 2033A/B, 2035F/G, 2078F/G, 2702F/G, 2370F/G.
3.5 courses: See the requirements of the chosen Integrated Science Honors Specialization module.

Third Year of Program

1.0 course: Integrated Science 3001F/G, 3002A/B
0.5 course: Science 3377A/B
3.5 courses: See the requirements of the chosen Integrated Science Honors Specialization module.

Fourth Year of Program

2.0 courses: Integrated Science 4001A/B, 4999E

3.0 courses: See the requirements of the chosen Integrated Science Honors Specialization module.

Progression Requirements

First year requirements must be completed with no mark less than 60% in any principal course and an overall average in principal courses of 70%. See particular Integrated Science module for what constitutes principal courses. For progression into 4th year of the program, students must maintain an overall average of 70% with no mark less than 60% in any course required in the module. Students who do not meet the progression requirements, or chose not to continue in the program, may be able to continue their studies in a traditional module. Students should consult an academic counsellor in the Department that administers their chosen module.

NEW CALENDAR COPY

Honors Specialization in Integrated Science with Biology

Admission Requirements

Completion of first year requirements with no failures. Students must complete the following courses with an average of at least 70%, with no individual course mark below 60%:

0.5 course: Integrated Science 1000Z;

0.5 course: Calculus 1000A/B or 1500A/B

1.0 course: Chemistry 1301A/B, Physics 1301A/B or 1501A/B;

0.5 course: Biology 1001A

2.0 course: Integrated Science 1001X.

Module

13.0 courses

2.5 courses: Integrated Science 2001F, 2002B, 3001F/G, 3002A/B, 4001A/B.

0.5 course from: Philosophy 2033A/B, 2035F/G, 2078F/G, 2370F/G.

0.5 course: Science 3377A/B.

1.5 course: Integrated Science 4999E.

0.5 course: Biochemistry 2280A.

2.5 courses: Biology 2290F/G, 2382B, 2483A, 2581B, 2601A/B.

0.5 course: Chemistry 2213A/B.

0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B.

4.0 additional course at the 3000 level or above, chosen from the Department of Biology and the Basic Medical Sciences disciplines*, of which at least 3.0 courses must be chosen from the Department of Biology. At least 1.5 of these 4.0 courses must have a laboratory component.

*Basic Medical Sciences Disciplines: Anatomy and Cell Biology, Biochemistry, Epidemiology and Biostatistics, Medical Biophysics, Microbiology and Immunology, Pathology, Physiology, and Pharmacology.

NEW CALENDAR COPY

Honors Specialization in Integrated Science with Chemistry

Admission Requirements

Completion of first year requirements with no failures. Students must complete the following courses with an average of at least 70%, with no individual course mark below 60%:

0.5 course: Integrated Science 1000Z;
0.5 course: Calculus 1000A/B or 1500A/B;
1.0 course: Chemistry 1301A/B, Physics 1301A/B or 1501A/B;
2.0 course: Integrated Science 1001X.

Module

13.0 courses

2.5 courses: Integrated Science 2001F, 2002B, 3001F/G, 3002A/B, 4001A/B.
0.5 course from: Philosophy 2033A/B, 2035F/G, 2078F/G, 2370F/G.
0.5 course: Science 3377A/B.
1.5 course: Integrated Science 4999E.
6.0 courses: Chemistry 2271A, 2272F, 2273A, 2374A, Chemistry 2281G, 2283G, 2384B, Chemistry 3370A/B, 3371F, 3372F/G, 3373F, 3374A/B.
0.5 course: Chemistry 3391A/B or Chemistry 4493A/B.
1.5 courses: (at least 1.0 of which must be at the 4000 level, or 0.5 course at the 4000 level if Chemistry 4493A/B is chosen from the list above) from: Chemistry 3300F/G, 3320A/B, 3330F/G, 3364A/B, 3391A/B, 3393A/B, 4400A/B, 4404A/B, 4441A/B, 4444A/B, 4466B, 4471A/B, 4472A/B, 4473A/B, 4474A/B, 4481A/B, 4483A/B, 4493A/B, 4494A/B.

NEW CALENDAR COPY

Honors Specialization in Integrated Science with Computer Science

Admission Requirements

Completion of first year requirements with no failures. Students must complete the following courses with an average of at least 70%, with no individual course mark below 60%:

0.5 course: Integrated Science 1000Z;
0.5 course: Calculus 1000A/B or 1500A/B;
1.0 course: Chemistry 1301A/B, Physics 1301A/B or 1501A/B;
2.0 course: Integrated Science 1001X.

Module

13.0 courses

2.5 courses: Integrated Science 2001F, 2002B, 3001F/G, 3002A/B, 4001A/B.
0.5 course from: Philosophy 2033A/B, 2035F/G, 2078F/G, 2370F/G.
0.5 course: Science 3377A/B.
1.5 course: Integrated Science 4999E.
0.5 course: Computer Science 2121A/B.
3.5 courses: Computer Science 2208A/B, 2209A/B, 2210A/B, 2211A/B, 2212A/B/Y, 3305A/B, 3307A/B/Y.
0.5 course from: Computer Science 2214A/B, Mathematics 2155F/G or the former Mathematics 2155A/B.
3.5 additional courses from: Mathematics 2156A/B, Computer Science courses at the 3000 level or above.

NEW CALENDAR COPY

Honors Specialization in Integrated Science with Earth Sciences

Admission Requirements

Completion of first year requirements with no failures. Students must complete the following courses with an average of at least 70%, with no individual course mark below 60%:

0.5 course: Integrated Science 1000Z;
0.5 course: Calculus 1000A/B or 1500A/B;
1.0 course: Chemistry 1301A/B, Physics 1301A/B or 1501A/B;
2.0 course: Integrated Science 1001X.

Module

13.0 courses

2.5 courses: Integrated Science 2001F, 2002B, 3001F/G, 3002A/B, 4001A/B.
0.5 course from: Philosophy 2033A/B, 2035F/G, 2078F/G, 2370F/G.
0.5 course: Science 3377A/B.
1.5 course: Integrated Science 4999E.
3.0 courses: Earth Sciences 2200A/B, 2201A/B, 2206A/B, 2250Y, 2260A/B, 2265A/B.
0.5 course from: Earth Sciences 3313A/B, 3314A/B, 3315A/B.
1.0 course from: Earth Sciences 2123A/B*, 2130Y, 2220A/B, 2230A/B, 2240F/G or 2241A/B.
1.5 additional courses in Earth Sciences at the 2000 level or above.
2.0 additional courses in Earth Sciences at the 3000 level or above.

*If Earth Sciences 1023A/B has been taken, Earth Sciences 2123A/B cannot be taken.

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Honors Specialization in Integrated Science with Environmental Science

Admission Requirements

Completion of first year requirements with no failures. Students must complete the following courses with an average of at least 70%, with no individual course mark below 60%:

0.5 course: Integrated Science 1000Z;
0.5 course: Calculus 1000A/B or 1500A/B;
1.0 course: Chemistry 1301A/B, Physics 1301A/B or 1501A/B;
0.5 course: Biology 1001A;
2.0 course: Integrated Science 1001X.

Module

13.0 courses

2.5 courses: Integrated Science 2001F, 2002B, 3001F/G, 3002A/B, 4001A/B.
0.5 course from: Philosophy 2033A/B, 2035F/G, 2078F/G, 2370F/G.
0.5 course: Science 3377A/B.
1.5 course: Integrated Science 4999E.
0.5 course: Biology 2483A.
0.5 course: Chemistry 2210A/B.
1.0 course: Environmental Science 3300F/G, 3350F/G.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
0.5 course: Geography 2220A/B (strongly recommended) or a Geography half-course from the Environmental Science Course List.
0.5 course at the 2000-level from Earth Sciences courses in the Environmental Physical Science Courses List.

0.5 course from: Environmental Science 4949F/G, Biology 4230A/B, 4243G, 4405F/G, the former 4932F/G, Earth Sciences 4431A/B.

2.5 additional courses from Environmental Science 4970F/G or the Environmental Science Course List, including at least 0.5 course from each of the 3 subject areas.

1.5 additional courses at the 3000 level or above from the Environmental Science Course List.

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Honors Specialization in Integrated Science with Genetics

Admission Requirements

Completion of first year requirements with no failures. Students must complete the following courses with an average of at least 70%, with no individual course mark below 60%:

0.5 course: Integrated Science 1000Z;

0.5 course: Calculus 1000A/B or 1500A/B;

1.0 course: Chemistry 1301A/B, Physics 1301A/B or 1501A/B;

0.5 course: Biology 1001A;

2.0 course: Integrated Science 1001X.

Module

13.0 courses

2.5 courses: Integrated Science 2001F, 2002B, 3001F/G, 3002A/B, 4001A/B.

0.5 course from: Philosophy 2033A/B, 2035F/G, 2078F/G, 2370F/G.

0.5 course: Science 3377A/B.

1.5 course: Integrated Science 4999E.

1.5 courses: Biology 2290F/G, 2382B, 2581B.

0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B

0.5 course: Biochemistry 2280A.

0.5 course: Biology 3596A/B.

0.5 courses from: Biology 3594A, 3595A, 3597A/B.

1.5 courses (not already taken above) from: Biology 3466B, 3592A, 3593B, 3594A, 3595A, 3597A/B.

1.0 course from: Biology 4289A/B, 4540G, 4560B, 4561F, 4562B.

1.0 course: Biology 4582.

1.0 additional courses from Biology listed above but not already taken.

Notes:

1. Biology 3596A/B requires a minimum mark of 70% in each of Biology 2581B and 2290F/G.

2. Biology 3595A requires a minimum mark of 70% in Biology 2581B.

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Honors Specialization in Integrated Science with Mathematics

Admission Requirements

Completion of first year requirements with no failures. Students must complete the following courses with an average of at least 70%, with no individual course mark below 60%:

0.5 course: Integrated Science 1000Z;

2.0 course: Integrated Science 1001X;

0.5 course: Calculus 1000A/B or 1500A/B;

1.0 course: Chemistry 1301A/B, Physics 1301A/B or 1501A/B;

0.5 course Mathematics 1600A/B.

Module

13.0 courses

2.5 courses: Integrated Science 2001F, 2002B, 3001F/G, 3002A/B, 4001A/B.

0.5 course from: Philosophy 2033A/B, 2035F/G, 2078F/G, 2370F/G.

0.5 course: Science 3377A/B.

1.5 course: Integrated Science 4999E.

2.5 courses: Calculus 2502A/B, 2503A/B, Mathematics 2120A/B, Mathematics 2122A/B, 3020A/B.

2.0 additional courses in Mathematics, Actuarial Science, Applied Mathematics, Financial Modelling or Statistical Sciences at the 2100 level or above.

2.5 additional courses in Mathematics at the 3000 level or above.

1.0 additional courses in Mathematics at the 4000 level.

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Honors Specialization in Integrated Science with Physics

Admission Requirements

Completion of first year requirements with no failures. Students must complete the following courses with an average of at least 70%, with no individual course mark below 60%:

0.5 course: Integrated Science 1000Z;

2.0 course: Integrated Science 1001X;

0.5 course: Calculus 1000A/B or 1500A/B;

1.0 course: Chemistry 1301A/B, Physics 1301A/B or 1501A/B.

Students must complete Mathematics 1600A/B with a minimum mark of 55% by the end of Term 1 in Year 2.

Module

13.0 courses

2.5 courses: Integrated Science 2001F, 2002B, 3001F/G, 3002A/B, 4001A/B.

0.5 course from: Philosophy 2033A/B, 2035F/G, 2078F/G, 2370F/G.

0.5 course: Science 3377A/B.

1.5 course: Integrated Science 4999E.

1.0 course: Calculus 2502A/B (preferred) or Calculus 2302A/B, Calculus 2503A/B (preferred) or Calculus 2303A/B.

0.5 course: Applied Mathematics 2402A.

2.0 courses: Physics 2101A/B, 2102A/B, 2110A/B, 2910F/G.

1.0 course from: Astronomy 2201A/B, 2801A/B, Physics 2600A/B, 2810A/B.

0.5 course from: Physics 3900F/G/Z, 3926F/G.

1.0 course from: Physics 3151A/B, 3200A/B, 3300A/B, 3400A/B.

2.0 additional courses from: Applied Mathematics 3815A/B, any Physics or Astronomy course not yet taken numbered 3000 or above.

Students must also complete Physics 2950Y, 3950Y (non-credit seminar courses).

Final Assessment Report

Name of Program

Western Integrated Science Program

Degrees Offered

Honors Specialization in Integrated Science with Biology
Honors Specialization in Integrated Science with Chemistry
Honors Specialization in Integrated Science with Computer Science
Honors Specialization in Integrated Science with Earth Sciences
Honors Specialization in Integrated Science with Environmental Science
Honors Specialization in Integrated Science with Genetics
Honors Specialization in Integrated Science with Mathematics
Honors Specialization in Integrated Science with Physics

External Consultants

Carolyn Eyles, Professor and Director, Integrated Sciences Program - School of Geography & Earth Sciences, McMaster University
Peter Crib, Senior Lecturer and Associate Dean (Students), Faculty of Science - Department of EECS, Lassonde School of Engineering, York University

Internal Reviewers

Tracy Isaacs, Professor and Associate Dean (Academic) - Faculty of Arts and Humanities, Western

Date of Site Visit

January 8, 2016

Evaluation

Approved to Commence

Approved by SUPR-U

February 24, 2016

Approved by SCAPA

Executive Summary

The external reviewers both brought a wealth of expertise to the table, enabling them to ask important and relevant questions and to make helpful suggestions and recommendations.

The overall sense was that the Faculty and Departments are enthusiastic about the proposed program, designed to offer an alternative to the Medical Science stream, for students who may be seeking something different. Several departments remarked that they view the program as a positive opportunity for them to attract students. Western Libraries clearly has the resources and willingness to support the new program. The students too had some great ideas that prompted the external reviewers to encourage the program co-directors and working group to consult with students as they continue to develop the program.

The result of the review is a positive report. Though not without their recommendations, the external reviewers have an overall positive impression, reporting that "the conceptualization of, and planning for, the program is well thought out and at an appropriate stage of advancement for both the planned Sept 2016 first cohort and phased implementation in subsequent years. The structure, curriculum and learning outcomes, both program and degree-level, are well aligned. Resources, both utilization of existing and new, are also well-planned and at a suitably advanced stage for the phased implementation."

The Dean noted that the impact of the overload in first year will be minimized because it is spread out over two terms. First year Scholars' Electives also have an overload of 0.5, so there is precedent. The WISc program will have a lot of control over students' timetables, so should be in a position to manage the workload appropriately. About the 4000-level course in peer-mentoring, the Dean noted the suggestion for formal instruction concerning how to be a good peer mentor and noted further that there is plenty of time to develop an excellent curriculum for the course, since its first iteration is not until 2019-20.

Concerning the other recommendations, both the Dean and the co-directors were amenable to most, indeed, had already given some thought to these issues. The one recommendation that poses a challenge for the future (but is not integral to the success of the WISc program itself) is number four which recommends introducing an integrated science course for non-WISc students. The challenge is how to expand this approach, tailored towards a smaller group and a cohort experience, to benefit and engage more students. The first priority will be getting the program up and running. As the Dean points out, the first year course, aimed at 50 students, is too resource intensive to meet the needs of 1500 students. However, the Faculty will continue to discuss ways of making some interdisciplinary curriculum available to students not in WISc.

Significant Strengths of Program

The program's significant strengths include:

- a strong commitment to interdisciplinary curriculum (consistent with explicit goals articulated in Western's Strategic Plan) community-based and experiential learning opportunities (consistent with explicit goals articulated in Western's Strategic Plan)
- a competitive opportunity aimed at high-achieving students, thus furthering Western's goal of attracting "the brightest students"
- exposes students to areas of study, such as Earth Science, to which they likely have not yet been introduced, thus increasing the range of options available to them
- the Honors Specializations "with X" allow students to specialize within an interdisciplinary, integrated science model
- theme-based approach provides a focus for teaching and research activities. The three themes are "Sustainability and the Environment," "Big Data and Mathematical Modeling," and "Materials and Biomaterials"
- clear and convincing mapping of learning outcomes with the expectations outlined in the OCAV guidelines.
- dedicated lab space and student space
- strong commitment to excellence in teaching, including the hiring to two full-time LT faculty members with a strong expertise in science pedagogy and the scholarship of teaching in science, promises a rewarding intellectual experience for students
- opportunities for peer mentoring
- it has significant support from the Faculty, Departments, Libraries, senior administration, and students in the Faculty of Science

Suggestions for improvement & Enhancement

In addition to their formal recommendations, the externals made a few other suggestions:

- that attention be paid to managing the impact of the 0.5 course overload in first year -- the Dean addressed this concern but it will be important to keep it front of mind when designing the first year curriculum in detail.
- that if possible, the Faculty should consider increasing the 0.5 lab technician position to allow more involvement in the development of new lab experiments, which is likely to take place outside of the actual teaching term
- that the program should be flexible concerning the ideal of co-supervision for each student in IS 4999E Integrated Science Research Project, recognizing that at times it may be challenging to find 100 co-supervisors (assuming 50 fourth year students)

Recommendations required for Program Sustainability:

Recommendation	Responsibility	Resources	Timeline
Continued collaboration with the Libraries and the librarians.	Program co-directors and course instructors/developers.	Western Libraries	Ongoing
Ensure the assignment of excellent teachers to WISc courses	The Dean and Associate Dean (Academic), the program co-directors, and Department Chairs.	Faculty of Science	Ongoing, since it is about the place of the program within the Faculty and the sense of its position as an overall benefit.
Develop theoretical framework and assessment strategies for peer mentorship course (Integrated Science 4001Y)	WISc Instructors		In advance of fourth year enrollments in WISc program, 2019-20

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<http://www.westerncalendar.uwo.ca/2015/pg882.html>

<http://www.westerncalendar.uwo.ca/2015/pg81.html>

Add "Integrated Science" to the list of subject areas and under Category C subjects.

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Starting on September 1, 2016

Integrated Science 1000Z: Evolution of the Scientific Process

A focused analysis of classic experiments and how the scientific process has changed over time. Students will engage in understanding seminal discoveries by learning the underlying science and studying experimental design. The course will also discuss how complex and challenging problems facing humanity today require an integrated approach.

Prerequisite: Enrolment in Year 1 of the Western Integrated Science program.

2 lecture hours, 2 tutorial hours, 0.5 course.

Starting on January 1, 2017

Integrated Science 1001X: Exploring the Landscape of Science

Foundational topics of biology, chemistry, computer science, earth science and physics learned through an integrated problem-based approach. Small-group interactions and integrated laboratory experiments will foster teamwork and develop problem-solving and critical-thinking skills. The importance of mathematical approaches and the use of statistics will be emphasized throughout the course.

Prerequisite: Enrolment in Year 1 of the Western Integrated Science program and a minimum of 60% in each of Calculus 1000A/B or 1500A/B, Chemistry 1301A/B, and Physics 1301A/B or 1501A/B.

Antirequisites: Chemistry 1302A/B; Physics 1029A/B, 1302A/B, and 1502A/B; Biology 1002A/B; Mathematics 1225A/B, and Calculus 1301A/B and 1501A/B.

12 lecture hours and 12 laboratory/tutorial hours per week

2.0 courses

Starting on September 1, 2017

Integrated Science 2001F: Sustainability and the Environment

An exploration of socio-scientific issues facing humanity, including climate change, world hunger, energy/water availability and habitat loss. The interdisciplinary nature and interconnectivity of these issues will be discussed. Students will access the scientific literature and government reports, critically evaluate the data presented and use it to develop cogent arguments.

Prerequisite: Enrolment in Year 2 of the Western Integrated Science program.

Antirequisite: Environmental Science 1021F/G

3 lecture hours, 1 tutorial hour, 0.5 course.

Starting on January 1, 2018

Integrated Science 2002B: Big Data and Mathematical Modelling

Introduction to the tools and techniques used to manage, process and analyze large data sets enabling scientists to identify relevant information more quickly. Data visualization and mathematical modeling techniques will also be discussed. Assignments will use data from research programs at Western and local companies helping them address important questions.

Prerequisite: Enrolment in Year 2 of the Western Integrated Science program.

Antirequisites: Computer Science 2034A/B, 2035A/B

2 lecture hours, 2 tutorial hours, 0.5 course.

Starting on September 1, 2018

Integrated Science 3001F/G: Materials and Biomaterials

An examination of the properties and applications of materials that are important to modern society. This includes both natural materials and synthetics including alloys, polymer/nanoparticle composites and optical and electronic materials. Team-based projects will investigate a problem related to the development, manufacture or analysis of a new material or biomaterial.

Prerequisite: Enrolment in Year 3 of the Western Integrated Science program.

Antirequisites: Chemistry 3364B

2 lecture hours, 2 tutorial hours, 0.5 course.

Starting on January 1, 2019

Integrated Science 3002A/B: Science in the Community

This experiential learning course will foster interaction between students and community partners regarding a specific project. Students will mobilize their classroom and laboratory knowledge in order to address questions of relevance to a local company or non-profit organization.

Prerequisites: Enrolment in Year 3 of the Western Integrated Science program.

2 lecture, 2 tutorial hours, 0.5 course

Starting on September 1, 2019

Integrated Science 4001A/B: Peer Mentoring and Leadership

Mentorship and leadership skill development for senior WISc students. Through both formal and informal interactions with students in the first and second year of WISc, students in the course will refine a range of interpersonal and collaborative skills. Students will also attend workshops on professional development and leadership.

Prerequisites: Enrolment in Year 4 of the Western Integrated Science program.

3 lecture hours, 0.5 course, pass/fail course

Starting on January 1, 2020

Integrated Science 4999E: Integrated Research Project

A major experimental or theoretical project that integrates at least two scientific disciplines. Key aspects of the project will include experimental design, instrumentation, collection and analysis of data, and communication of results. Projects require co-supervision by at least two faculty members, at least one of whom must be from the Faculty of Science.

Antirequisites: Biology 4970F/G, 4999E, Chemistry 4491E, Earth Sciences 4490E, Computer Science 4490Z, Physics 4999E.

Prerequisites: Enrolment in Year 4 of the Western Integrated Science program.

1.5 courses

NEW CALENDAR COPY

Diploma in Human Resources

Human resources professionals serve an important function within all organizations. Working in the public, non-profit and private sector, human resources professionals ensure that employee rights, legislation and internal procedures are effectively communicated and upheld within an organization. Collective bargaining, hiring, compensation, financial management and training and development are some of the many facets within this dynamic field. The ideal candidate has a passion for business management, strong interpersonal skills, values ethics and integrity, and upholds a high degree of professionalism. The Diploma will consist of 9 diploma-credit 0.5 courses and 1 practicum course. The program is completed in one full year and is designed for full-time study only.

Admission Requirements:

This is a competitive program with limited enrolment. Once accepted, students in the program will be required to maintain a minimum average of 70% in all courses in the Diploma in Human Resources program with no single final grade below 65% (as per HRP standards). Students must have completed Bachelor's Degree with a minimum of 15.0 credits from a recognized university or degree granting institution to apply for the program.

Module

10.0 Courses (7.0 Credits):

HURS 6001: Introduction to Human Resources Management

HURS 6002: Strategic Human Resources Planning

HURS 6003: Introduction to Occupational Health and Safety

HURS 6004: Organizational Behaviour

HURS 6005: Finance and Accounting

HURS 6006: Training and Development

HURS 6007: Labour Relations

HURS 6008: Talent Acquisition (Recruitment and Selection)

HURS 6009: Compensation

HURS 6101: Human Resources Practicum

Students who have already taken HRP approved courses at another institution can receive advanced standing for up to 4 courses (2.0 credits) upon departmental approval.

Completion of these courses will not qualify for transfer credit, or recognition towards modules offered through the Department of Management and Organizational Studies, Faculty of Social Science.

New Diploma Courses

HURS 6001: Introduction to Human Resources Management (0.5 credits)

This thirteen-week course will provide students with an overview of the various aspects of the management of human resources. Topics include: strategic importance of human resources, job analysis and design, human resource planning, legal requirements and managing diversity, recruitment, selection, orientation, training and development and career planning, performance management, compensation management, employee benefits and services, health and safety in the workplace, and employee and labour relations.

Learn the concepts and practices that are essential to human resource management. The importance of a human resource strategy will be addressed in this course with a focus on guidelines for effective human resource planning, recruitment, selection, compensation, and training. Examine the history of the evolving role of human resource management and how it can improve your company's productivity.

HURS 6002: Strategic Human Resources Planning (0.5 Credits)

This course is designed to show how human resources supply and demand, needs forecasting, performance management and career management topics will come together to effect a competitive advantage for the firm. Students will understand the implications for various human resource functions as a result of strategic options such as restructuring, mergers, outsourcing and international ventures. Other topics include management succession, development planning and individual career planning.

This blended course is designed in the philosophy of active learning and uses individual reflection, group discussions, peer assessment, written exercises, case studies and a presentation to support the process of learning.

HURS 6003: Introduction to Occupational Health and Safety (0.5 Credits)

An introduction to the expansive and varying field of Occupational Health and Safety and the vital leadership role that HR Professionals provide in areas of workplace health, safety and workers compensation.

The course is designed to rely heavily on active student involvement and will use group and individual discussion and reflection, self-assessments, case-studies and presentations, and team assignments in the process of learning

HURS 6004: Organizational Behaviour (0.5 Credits)

This course introduces the fundamental characteristics of organizational behavior (OB) and looks at how human behaviours influence the advancement and operations of an organization. Over thirteen weeks, participants will explore OB at three levels: the individual level such as personalities, attitudes, and motivations; the group level such as collective and interpersonal dynamics, conflict and decision-making; and, the organizational level such as structure, technology, and environment.

This blended course is designed in the philosophy of active learning and uses individual reflection, group discussions, peer assessment, written exercises, case-studies and a presentation to support the process of learning.

HURS 6005: Finance and Accounting (0.5 Credits)

HR managers must be familiar with the financial information systems of an organization to align decision making with the business. This course provides a basic understanding of financial statements, accounting theory and the structure of accounting systems.

HURS 6006: Training and Development (0.5 Credits)

This course provides students with an overview of the role of Training and Development in organizations, as part of the mandate of Human Resource Management. You will learn about needs analysis, program design, development, learning administration and program evaluation. Topics include adult learning theory, transfer of training, training techniques, and trends in training to support talent development.

This blended course is designed in the philosophy of active learning and uses individual reflection, group discussions, written exercises, case-studies and a presentation to support the process of learning.

HURS 6007: Labour Relations (0.5 Credits)

the complex and changing field of labour relations. This course enables you to explore the history, current status and challenges of labour relations, as well as look at directions and possibilities for the future. Looking at the establishment and maintenance of bargaining rights, contract negotiations and the administration of collective agreements, this course will provide insight into the effects of union on union and non-union organizations.

HURS 6008: Talent Acquisition (Recruitment and Selection) (0.5 Credits)

This course introduces students to the appropriate tools needed to recruit and select employees, identify related competencies, identify performance appraisal methods, and evaluate the effectiveness of these programs within the context of our Canadian legal framework. Other topics include job analysis and manpower planning, human rights legislation in Canada, decision-making strategies in personnel recruitment and selection, and the many means of assessing performance once a person is actually on the job.

This blended course is designed in the philosophy of active learning and uses individual reflection and assignments, group discussions, case-studies and presentations in the process of learning.

HURS 6009: Compensation (0.5 Credits)

Gain an understanding of the process, issues and techniques involved in developing and administering a compensation system. The course should enable understanding of (a) the theoretical and applied aspects of the compensation function, (b) the linkage between the compensation function and the organizational management process, and (c) the compensation system design necessary to attract, retain and motivate the required workforce. Topics include: the strategic and behavioural framework of compensation, the various components of compensation, job evaluation, evaluating the labour market and performance, design and development of performance pay plans and indirect pay plans.

The course is designed to rely heavily on active student involvement and will use group and individual discussion and reflection, case-studies and presentations, and individual assignments in the process of learning.

HURS 6101: Human Resources Practicum (2.5 Credits)

This graded course will provide an opportunity for students to apply their course knowledge in a practical setting. Students will participate in a full-time, 560-hour placement, which will be secured through an interview process between the student and prospective practicum site supervisors. All sites must be approved by the Placement Coordinator.

Note the final grade for this course is calculated into the overall average as per designated progression/completion requirements.

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<http://www.westerncalendar.uwo.ca/2016/pg1576.html>

HONORS SPECIALIZATION IN ACCOUNTING

Admission Requirements

Enrolment in the Honors Specialization in Accounting is limited. Meeting of minimum requirements does not guarantee admission.

Students may not apply to the MOS Honors Specialization in Accounting when they apply for admission to the University.

After first year, students may apply for admission upon completion of first-year requirements with no failures. Students must have an average of at least 73% and no grade less than 60% in the 3.0 principal courses.

First-Year Requirements

5.0 first-year courses, including 3.0 principal courses:

1.0 course: Business Administration 1220E.

0.5 course from: Calculus 1000A/B, Mathematics 1225A/B.

0.5 course from: Calculus 1301A/B, 1501A/B, Mathematics 1229A/B, 1600A/B.

1.0 course: Economics 1021A/B and 1022A/B.

2.0* additional courses **in any subject numbered 1000-1999** (MOS 1033A/B is ~~highly~~ **strongly** recommended).

***Students requiring Math 0110A/B and/or Writing 0002F/G may include those courses with permission from the department.**

After second year, students applying for a MOS Honors Specialization in Accounting must:

- a) have achieved an average of at least 73% on the last 5.0 courses;
- b) have achieved an average of at least 73% on the 3.0 principal courses (as noted above) required for the module;
- c) have obtained a minimum grade of 60% in each course required for the module;
- d) have obtained a passing grade in each elective course; and,
- e) have a minimum cumulative average of 65%.

Note: Students admitted to the University without the Mathematics prerequisites for the first-year Mathematics courses for this program must fulfill the Mathematics prerequisite requirements before attempting these courses.

Module

11.5-11.0 courses:

1.0 course normally taken in second year: Business Administration 2257.

1.0 course from: Economics 2222A/B and 2223A/B or Statistical Sciences 2035 (with a minimum grade of 70%); **or a 2000-level Statistics half-course approved by the Department and MOS 2242A/B.**

0.5 course from: MOS 2155A/B, 2181A/B.

1.0 course: MOS 2275A/B and 2285A/B.

3.5-1.5 courses: **normally taken in third year:** MOS 3310A/B, 3320A/B, 3330A/B, **3360A/B, 3361A/B, 3372.**

3.0-4.5 courses: **normally taken in fourth year:** MOS **3360A/B, 3361A/B, 3362A/B, 3363A/B, 3370A/B, 4471A/B (the former MOS 3371A/B),** 4410A/B, 4462A/B, 4465A/B, **4466A/B.**

0.5 course: MOS 4422F/G

1.0 course: **normally taken in fourth year from: MOS 3401F/G MOS 3367A/B, MOS 4467A/B,**

~~Philosophy 2074F/G, 2075F/G, 2700F/G.~~

Students require 1.0 Category B (Arts and Humanities) if not already completed, and 2.0 designated essay courses including 1.0 numbered 2000-4999, prior to graduation.

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<http://www.westerncalendar.uwo.ca/2016/pg1261.html>

HONORS SPECIALIZATION IN FINANCE AND ADMINISTRATION

~~Module~~ First-Year Requirements

5.0 first-year courses, **including 3.0 principal courses:**

1.0 course: Business Administration 1220E.

0.5 course from: Mathematics 1225A/B; Calculus 1000A/B, ~~1100A/B.~~

0.5 course from: Calculus 1301A/B, 1501A/B; Mathematics 1229A/B, 1600A/B.

1.0 course: Economics 1021A/B and 1022A/B.

~~1.0 course from: History, Political Science, Psychology, Sociology, Philosophy (1000-1999).~~

~~1.0 course from: 1000-1999.~~

~~1.0~~ **2.0* additional courses from: in any subject numbered 1000-1999 (MOS 1033A/B is strongly recommended).**

***Students requiring Math 0110A/B and/or Writing 0002F/G may include those courses with permission from the department.**

Note: ~~Students are encouraged to take MOS 1033A/B.~~

~~Module~~

~~12.5 senior~~ **12.0** courses:

1.0 course normally taken in second year: Business Administration 2257.

1.0 course normally taken in second year from: Economics 2220A/B and 2221A/B.

0.5 course from: MOS 2181A/B, ~~or~~ 2155A/B.

1.0 course from: Economics 2222A/B and 2223A/B or Statistical Sciences 2035 with a minimum mark of 70%; ~~or MOS 2242A/B and 0.5 2000 level Statistics course.~~

0.5 course: MOS 2285A/B.

~~1.0 course normally taken in third year from: MOS 3360A/B, 3361A/B, 3362A/B or 3372.~~

~~1.0~~ **2.0** courses from: MOS 3310A/B, **3320A/B, 3330A/B,** and Economics 2300A/B.

0.5 course: MOS 3320A/B.

0.5 course: MOS 3330A/B.

1.0 course from: MOS 3401F/G, **MOS 3367A/B,** MOS 4467A/B. ~~Philosophy 2074F/G, 2075F/G, 2700F/G.~~

0.5 course normally taken in fourth year: MOS 4410A/B.

1.0 course: Actuarial Science 2053.

0.5 course from: MOS 3312A/B, ~~or~~ MOS 3395A/B.

0.5 course: MOS 4310A/B.

0.5 course: MOS 4422F/G.

~~1.5~~ **2.0** courses from: Economics ~~2184A,~~ 2260A/B, 2261A/B, **3320A/B,** 3352A/B, 3370A/B, 3371A/B, **3381A/B,** 3386A/B; MOS 2275A/B, **3360A/B, 3361A/B, 3362A/B, 3363A/B, 3370A/B,** **3401F/G, 4471A/B (the former MOS 3371A/B),** MOS Special Topics at 3000 level or above; Political Science 2211E.

Students require 1.0 Category B (Arts and Humanities) if not already completed, and 2.0 designated essay courses including 1.0 numbered 2000-4999, prior to graduation.

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HONORS SPECIALIZATION IN GLOBAL COMMERCE

Module

5.0 first-year courses **including 3.0 principal courses:**

1.0 course from: Business Administration 1220E.
0.5 course from: Mathematics 1225A/B, Calculus 1000A/B, **1100A/B**.
0.5 course from: Calculus 1301A/B, 1501A/B; Mathematics 1229A/B, 1600A/B.
1.0 course: Economics 1021A/B and 1022A/B.
~~1.0 course: Political Science 1020E.~~
1.0-2.0* additional courses in any subject numbered from: 1000-1999 (MOS 1033A/B and Political Science 1020E are strongly recommended).

***Students requiring Math 0110A/B and/or Writing 0002F/G may include those courses with permission from the department.**

12.0 senior 11.5 courses:

1.0 course normally taken in second year: Business Administration 2257.
1.0 course from: Economics 2222A/B and 2223A/B; or Statistical Sciences 2035 **(with a minimum grade of 70%)**; ~~or MOS 2242A/B and 2000-level Statistics.~~
0.5 course: MOS 2285A/B.
1.0 course ~~from:~~ Economics 2220A/B, **and** 2221A/B.
0.5 course from: MOS 2181A/B, **or** MOS 2155A/B.
0.5 course normally taken in third year: MOS 2220F/G.
~~1.0 course from: MOS 3360A/B, 3361A/B, 3372.~~
1.5 courses ~~from:~~ MOS 3310A/B, 3320A/B, 3330A/B.
1.0 course ~~from:~~ Economics 2260A/B, **and** 2261A/B.
1.0 course: Economics 3352A/B, 3370A/B.
1.0 course normally taken in fourth year: MOS 4404A/B, 4410A/B.
2.0 courses **s** from: Economics 2162A/B, 3317A/B, **3320A/B**, 3343F/G, **3352A/B**, **3381A/B**, **3367A/B**, **3370A/B**; Political Science 2231E; **MOS Special Topics at 3000 level or above. MOS 4422F/G, 4490-4492A/B. Note: At least 1.0 must be from the 3000 level.**
~~1.0-0.5 course from: MOS 3401F/G; MOS 4467A/B; Philosophy 2074F/G, 2075F/G, 2700F/G.~~

Students require 1.0 Category B (Arts and Humanities) if not already completed, and 2.0 designated essay courses including 1.0 numbered 2000-4999, prior to graduation.

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HONORS SPECIALIZATION IN ORGANIZATIONAL AND HUMAN RESOURCES

Module

5.0 first-year courses:

- 1.0 course from: Business Administration 1220E.
- 0.5 course from: Mathematics 1225A/B; Calculus 1000A/B, 1100A/B.
- 0.5 course from: Calculus 1301A/B, 1501A/B; Mathematics 1229A/B, 1600A/B.
- 1.0 course: Psychology 1000.
- 1.0 course from: Sociology 1020, 1021E.
- 1.0 course from: Economics 1021A/B and 1022A/B.

11.5 **senior** courses:

- 1.0 course normally taken in second year: Business Administration 2257.
- 1.0 course normally taken in second year from: MOS 2242A/B and 2000 level Statistics course **Economics 2222A/B, 2223A/B**, or Statistical Sciences 2035 **(with a minimum grade of 70%)**.
- 0.5 course from: MOS 2155A/B, **or** 2181A/B.
- 0.5 course normally taken in third year: MOS 2220F/G.
- 0.5 course: MOS 2285A/B.
- 4.5 2.0** courses normally taken in third year: MOS 3310A/B, 3320A/B, 3330A/B, **3370A/B**.
- 1.0** course from: MOS 3360A/B, 3361A/B, 3372.
- 1.5 courses from: MOS 3352F/G, 3383A/B, 3384A/B.
- 1.5 courses normally taken in fourth year: MOS 4410A/B, 4470A/B, 4485F/G.
- 4.5 2.5** courses normally taken in fourth year from: MOS **3341A/B**, 3342A/B, 3343A/B, 3344F/G, **3355A/B, 3356A/B**, 4422F/G, **MOS Special Topics at 3000 level or above**.
- 1.0 0.5** course from: MOS 3401F/G, 4467A/B; Philosophy 2074F/G, 2075F/G, 2700F/G.

Students require 1.0 Category B (Arts and Humanities) if not already completed, and 2.0 designated essay courses including 1.0 numbered 2000-4999, prior to graduation.

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MAJOR IN ACCOUNTING

(Note: Restricted to students registered in BMOS (Honors) Double Major; students may only apply after completion of first-year, and must also register in another Major module from an area other than MOS.)

Admission Requirements

Completion of first-year requirements, including 3.0 principal courses with a minimum average of 70%, with no grade less than 60%:

- 1.0 course: Business Administration 1220E.
- 0.5 course from: Mathematics 1225A/B, Calculus 1000A/B, 1100A/B; **or the former Mathematics 030.***
- 0.5 course from: Mathematics 1229A/B, Calculus 1501A/B, 1301A/B; Mathematics 1600A/B; **or the former Linear Algebra 1600A/B; or the former Mathematics 030.***
- 1.0 course: Economics 1021A/B and 1022A/B.

Admission Requirements After Second Year

Students applying for the BMOS (Honors) Double Major after second year must have completed the principal courses listed above, and have a minimum average of 70% on the last 5.0 courses completed, with no grade less than 60%, and a minimum cumulative average of 65%. Admission requirements for second Major module must also be met.

Notes:

* Students should choose courses from this section based on the requirements of courses in their chosen MOS Major module, and their second Major module.

In the selection of first year courses, it is strongly recommended that students take a first year essay course 1000-1999(F, G or E), in order to meet their Essay degree requirement of 2.0 Essay courses, 1.0 of which must be 2000 level or higher. Students will also need to complete 1.0 from Category B (Arts and Humanities).

~~***All Honors Double Major students must complete 1.0 "Ethics" requirement, as part of the BMOS Honors Double Major degree. If the requirement is not satisfied within the modules, it must be taken as an "option" course.~~

All Honors Accounting Double Major students must complete 0.5 "Ethics" requirement, as part of their degree. MOS 4467A/B should be used for the 0.5 "Ethics" requirement as the course is also required for Western's Graduate Diploma in Accounting and the CPA designation. Students considering pursuing Western's Graduate Diploma in Accounting or their CPA certification should take all MOS Accounting courses listed in the "2.5 from" list and this may limit the options as to which other Honors Major Module can be selected for study.

Module

7.0 courses:

1.0 course: Business Administration 2257.

1.0 course from: Economics 2222A/B and 2223A/B or **Statistical Sciences 2035 (with a minimum grade of 70%).** ~~MOS 2242A/B and 0.5 2000 level Statistics course.~~

0.5 course from: MOS 2181A/B, or MOS 2155A/B.

1.5 courses: MOS 3310A/B, 3320A/B, 3330A/B.

~~3.5~~ **2.5** courses from: MOS 3310A/B, 3320A/B, 3330A/B, MOS 3360A/B, 3361A/B, **3362A/B, 3363A/B, 3367A/B, 3370A/B, 3372, 4462A/B, 4465A/B, 4467A/B, 4471A/B.**

~~1.0~~ **0.5** course: MOS 4410A/B ~~and 4465A/B.~~

Students require 1.0 Category B (Arts and Humanities) if not already completed, and 2.0 designated essay courses including 1.0 numbered 2000-4999, prior to graduation.

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(Note: Restricted to students registered in BMOS (Honors) Double Major; students may only apply after completion of first-year, and must also register in another Major module from an area other than MOS.)

MAJOR IN GLOBAL COMMERCE

Admission Requirements

Completion of first-year requirements, including 3.0 principal courses with a minimum average of 70%, with no grade less than 60%:

1.0 course: Business Administration 1220E.

0.5 course from Mathematics 1225A/B, Calculus 1000A/B, **1100A/B; or the former Mathematics 030*.**

0.5 course from: Mathematics 1229A/B, Calculus 1501A/B, 1301A/B; Mathematics 1600A/B **or the former Linear Algebra 1600A/B; or the former Mathematics 030.***

1.0 course: Economics 1021A/B and 1022A/B.

~~1.0 course: Political Science 1020E needs to be part of the 5.0 first year courses.~~

Admission Requirements After Second Year

Students applying for the BMOS (Honors) Double Major after second year must have completed the principal courses listed above, and have a minimum average of 70% on the last 5.0 courses completed, with no grade less than 60%, and a minimum cumulative average of 65%. Admission requirements for second Major module must also be met.

Notes:

* Students should choose courses from this section based on the requirements of courses in their chosen MOS Major module and their second Major module.

** In the selection of first year courses, it is strongly recommended that students take a first year essay course 1000-1999(F, G or E), in order to meet their Essay degree requirement of 2.0 Essay courses, 1.0 of which must be 2000 level or higher. Students will also need to complete 1.0 from Category B (Arts and Humanities).

*** All Honors Double Major students must complete 1.0 0.5 "Ethics" requirement, as part of the BMOS Honors Double Major degree. If the requirement is not satisfied within the modules, it must be taken as an "option" course.

Political Science 1020E is recommended in First Year.

Module

7.0 courses:

1.0 course: Business Administration 2257.

1.0 0.5 course from: Economics 222A/B and 2223A/B; or MOS 2242A/B and 0.5 2000 level Statistics course.

0.5 course: MOS 2285A/B.

0.5 course: MOS 2220F/G.

2.0 courses from: MOS 3310A/B, 3320A/B, 3330A/B, and MOS 2181A/B or 2155A/B.

0.5 course from: MOS 2181A/B, 2155A/B.

1.5 courses: MOS 3310A/B, 3320A/B, 3330A/B.

1.0 course: Economics 3352A/B, 3370A/B.

1.0 course: MOS 4404A/B, 4410A/B.

1.0 0.5 courses from: Economics 2162A/B, 2220A/B, 2221A/B, 2260A/B, 2261A/B, 3317A/B, 3320A/B, 3343F/G, MOS Special Topics at 3000 level or above 3352A/B, 3370A/B; MOS 3401F/G, 3370A/B; MOS 3401F/G, 3390A/B, 4470A/B; Political Science 2231E.

Students require 1.0 Category B (Arts and Humanities) if not already completed, and 2.0 designated essay courses including 1.0 numbered 2000-4999, prior to graduation.

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MAJOR IN ORGANIZATIONAL AND HUMAN RESOURCES

(Note: Restricted to students registered in BMOS (Honors) Double Major; students may only apply after completion of first-year, and must also register in another Major module from an area other than MOS.)

Admission Requirements

Completion of first-year requirements, including 3.0 principal courses with a minimum average of 70%, with no grade less than 60%:

1.0 course: Business Administration 1220E.

0.5 course from Mathematics 1225A/B, Calculus 1000A/B, 1100A/B; or the former Mathematics 030.*

0.5 course from: Mathematics 1229A/B, Calculus 1501A/B, 1301A/B; Mathematics 1600A/B or the former Linear Algebra 1600A/B; or the former Mathematics 030.*

1.0 course: Economics 1021A/B and 1022A/B.

Admission Requirements After Second Year

Students applying for the BMOS (Honors) Double Major after second year must have completed the principal courses listed above, and have a minimum average of 70% on the last 5.0 courses completed, with no grade less than 60%, and a minimum cumulative average of 65%. Admission requirements for second Major module must also be met.

Notes:

* Students should choose courses from this section based on the requirements of courses in their chosen MOS Major module, and their second Major module.

** In the selection of first year courses, it is strongly recommended that students take a first year essay course 1000-1999(F, G or E), in order to meet their Essay degree requirement of 2.0 Essay courses, 1.0 of which must be 2000 level or higher. Students will also need to complete 1.0 from Category B (Arts and Humanities).

*** All Honors Double Major students must complete 1.0 0.5 "Ethics" requirement, as part of the BMOS Honors Double Major degree. If the requirement is not satisfied within the modules, it must be taken as an "option" course.

Module

7.0 courses:

1.0 course: Business Administration 2257.

0.5 course from: MOS 2155A/B, 2181A/B.

0.5 course from: Economics 2222A/B; MOS 2242A/B.

0.5 course: MOS 2220F/G.

1.5 courses: MOS 3310A/B, 3320A/B, 3330A/B.

0.5 course: MOS 4470A/B.

1.0 course: MOS 4410A/B, 4485F/G.

1.5 courses from: MOS 2240A/B, 3401F/G, 3341F/G, 3342A/B, 3343A/B, 3344F/G, 3352F/G, 3355F/G, 3356F/G, 3370A/B, 3383A/B, 3384A/B, 4404A/B, 4422F/G, MOS Special Topics at 3000 level or above. Sociology 3316F/G.

Students require 1.0 Category B (Arts and Humanities) if not already completed, and 2.0 designated essay courses including 1.0 numbered 2000-4999, prior to graduation.

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SPECIALIZATION IN ACCOUNTING

Module

5.0 first-year courses:

1.0 course: Business Administration 1220E.

1.0 course from: Mathematics 1225A/B, 1228A/B, 1229A/B; Calculus 1000A/B, 1301A/B, 1501A/B, or the former 1100A/B; Mathematics 1600A/B or the former Linear Algebra 1600A/B; Statistical Sciences 1024A/B; or the former Mathematics 030*.

1.0 course: Economics 1021A/B and 1022A/B, or the former Economics 1020.

2.0** additional courses in any subject numbered 1000-1999** (MOS 1033A/B is strongly recommended).

Notes:

*Students wishing to transfer to a BMOS Honors degree must have the proper Mathematics prerequisites for advanced economics courses i.e., 0.5 from Calculus 1000A/B, or the former 1100A/B or Mathematics 1225A/B and 0.5 from Calculus 1301A/B, 1501A/B, Mathematics 1600A/B or 1229A/B.

****Students requiring Math 0110A/B and/or Writing 0002F/G may include those courses with permission from the department.**

****MOS 1033A/B is strongly recommended.**

10.5 11.0 senior courses:

1.0 course normally taken in second year: Business Administration 2257.
0.5 course normally taken in second year from: MOS 2275A/B.
1.0 course normally taken in second year from: Economics 2122A/B or 2222A/B and 2123A/B or 2223A/B or Statistical Sciences 2035.
0.5 course from: MOS 2155A/B, or 2181A/B.
0.5 course from: MOS 2285A/B.
1.0 course normally taken in third year from: MOS 3360A/B and 3361A/B (MOS 3360A/B and 3361A/B are prerequisites for the former MOS 4465A/B and 4466A/B).
1.0 course normally taken in third year from: MOS 3370A/B, 4471A/B (the former 3371A/B) and 3374A/B.
1.0 1.5 courses normally taken in third year: MOS 3310A/B, 3320A/B, 3330A/B.
0.5 course from: MOS 3401F/G, 3390A/B-3392A/B, 4422F/G, MOS 4467A/B, Philosophy 2074F/G, 2075F/G, 2700F/G.
1.0 0.5 course normally taken in fourth year: MOS 3330A/B, MOS 4410A/B.
0.5 course normally taken in fourth year: MOS 4465A/B
1.0 3.0 course normally taken in fourth year: MOS 3362 A/B, 3363A/B, 3367A/B, 4422F/G, 4462A/B, 4465A/B, 4463A/B, 4464A/B, 4466A/B, MOS Special Topics at 3000 level or above
1.0 course normally taken in fourth year: MOS 3362A/B, 3390A/B-3392A/B, or MOS 3000-level or above.

Notes:

1. Selected MOS Special Topics courses for the Specialization must be approved for relevancy prior to enrolment.
2. All BMOS students must complete 1.0 designated essay course at the senior level, and 1.0 Category B course. Students require 1.0 Category B (Arts and Humanities) if not already completed, and 2.0 designated essay courses including 1.0 numbered 2000-4999, prior to graduation.

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SPECIALIZATION IN FINANCE AND ADMINISTRATION

Module

5.0 first-year courses:

1.0 course: Business Administration 1220E.
1.0 course from: Mathematics 1225A/B, 1228A/B, 1229A/B; Calculus 1000A/B, 1100A/B, Calculus 1301A/B, 1501A/B; Mathematics 1600A/B or the former Linear Algebra 1600A/B; Statistical Sciences 1024A/B; or the former Mathematics 030*.
1.0 course: Economics 1021A/B and 1022A/B, or Economics 1020.
2.0** additional courses: in any subject numbered 1000-1999** (MOS 1033A/B is strongly recommended).

Notes:

*Students wishing to transfer to a BMOS Honors degree must have the proper Mathematics prerequisites for advanced economics courses ie., 0.5 from Calculus 1000A/B, 1100A/B or Mathematics 1225A/B and 0.5 from Calculus 1301A/B, 1501A/B, Mathematics 1229A/B or 1229A/B.

**Students requiring Math 0110A/B and/or Writing 0002F/G may include those courses with permission from the department.

**MOS 1033A/B is strongly recommended

11.0 10.0 senior courses:

1.0 course normally taken in second year: Business Administration 2257.
1.0 course normally taken in second year from: Economics 2150A/B, or 2260A/B and 2152A/B or 2220A/B.
1.0 course normally taken in second year from: Economics 2122A/B or 2222A/B and 2123A/B or 2223A/B or Statistical Sciences 2035.
0.5 course from: MOS 2155A/B, or 2181A/B.
0.5 course from: MOS 2285A/B.
1.0 course normally taken in third year from: MOS 3372 or 3360A/B and 3361A/B (MOS 3360A/B and 3361A/B are prerequisites for the former MOS 4460A/B and 4461A/B).
1.5 courses normally taken in third year: MOS 3310A/B, 3320A/B, 3330A/B.
1.0 course from: Actuarial Science 2053; Economics 2154A/B, 2156A/B, 2159A/B, 2160A/B, 2165F/G, 2180A/B, 2184A/B; MOS 3312A/B.
1.0 0.5 course from: MOS 3401F/G; MOS 3367A/B, MOS 4467A/B, Philosophy 2074F/G, 2075F/G, 2700F/G.
0.5 course normally taken in fourth year: MOS 4410A/B.
2.0 2.5 courses from: Economics 2162A/B, 2163A/B, 2164A/B; History 2125F/G, (the former History 2213F/G), History 2127F/G, (the former 2217F/G); MOS 2275A/B, 2290A/B-2292A/B, 3363A/B, 3372 (MOS 3372 must be completed in year 4 if not taken in year 3), MOS 3390A/B-3392A/B, 3395A/B-3398A/B, 3360A/B, 3361A/B, 3363A/B, 3370A/B, 4404A/B, 4422F/G, 4465A/B, 4471 A/B (the former MOS 3371A/B), MOS Special Topics at 3000 level or above 4466A/B; Political Science 2211E, 2246E.

Notes:

1. **Selected MOS Special** Topics courses for the Specialization must be approved for relevancy prior to enrolment.
2. **All BMOS students must complete 1.0 designated essay course at the senior level, and 1.0 Category B course. Students require 1.0 Category B (Arts and Humanities) if not already completed, and 2.0 designated essay courses including 1.0 numbered 2000-4999, prior to graduation.**

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SPECIALIZATION IN GLOBAL COMMERCE

Module:

5.0 first-year courses:

1.0 course: Business Administration 1220E.
1.0 course from: Mathematics 1225A/B, 1228A/B, 1229A/B; Calculus 1000A/B, 1100A/B, 1301A/B, 1501A/B; Mathematics 1600A/B (the former Linear Algebra 1600A/B); Statistical Sciences 1024A/B; or the former Mathematics 030*.
1.0 course: Economics 1021A/B and 1022A/B. **or Economics 1020.**
1.0 Political Science 1020E
1.0 2.0 additional courses in any subject numbered 1000-1999 (A/B or F/G)** (MOS 1033A/B and Political Science 1020E are strongly recommended).**

Notes:

*Students wishing to transfer to a BMOS Honors degree must have the proper Mathematics prerequisites for advanced economics courses. ie., 0.5 from Calculus 1000A/B, 1100A/B or Mathematics 1225A/B and 0.5 from Calculus 1301A/B, 1501A/B, Mathematics 1229A/B or 1229A/B.

****Students requiring Math 0110A/B and/or Writing 0002F/G may include those courses with permission from the department.**

**** Note: MOS 1033A/B is strongly recommended**

13.0 11.0 senior courses:

- 1.0 course normally taken in second year: Business Administration 2257.
- 1.0 course normally taken in second year from: Economics 2150A/B, or 2260A/B and 2152A/B or 2220A/B.
- 1.0 course normally taken in second year: Political Science 2231E.
- 0.5 course normally taken in second year from: MOS 2155A/B, or 2181A/B.
- 0.5 course from: MOS 2285A/B.
- 1.0 course normally taken in second year from: Economics 2122A/B or 2222A/B and 2123A/B or 2223A/B or Statistical Sciences 2035.
- 3.0 2.0 courses normally taken in third year: MOS 2220F/G, 3310A/B, 3320A/B, 3330A/B, 3372.
- 1.0 1.5 courses normally taken in third year from: Economics 2124A/B, 2125A/B, 2138F/G, 2139F/G, 2151A/B or 2261A/B, 2153A/B or 2221A/B, 2162A/B, 2163A/B, 2164A/B.
- 1.0 0.5 course from: MOS 3401F/G, MOS 4467A/B, Philosophy 2074F/G, 2075F/G, 2700F/G.
- 1.0 course normally taken in fourth year: MOS 4404A/B, 4410A/B.
- 2.0 courses normally taken in fourth year from: MOS 2290A/B-2292A/B, 3390A/B-3392A/B, **Special Topics at 3000 level or above; Economics 2124A/B, 2125A/B, 2151A/B, 2153A/B; Political Science 2241E, 2225E, 2235E, 2231E, 2245E.**

Notes:

1. **Selected Special** Topics courses for the Specialization must be approved for relevancy prior to enrolment.
2. **All BMOS students must complete 1.0 designated essay course, and 1.0 Category B course. Students require 1.0 Category B (Arts and Humanities) if not already completed, and 2.0 designated essay courses including 1.0 numbered 2000-4999, prior to graduation.**

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SPECIALIZATION IN ORGANIZATIONAL AND HUMAN RESOURCES

Module:

5.0 first-year courses:

- 1.0 course from: Business Administration 1220E.
- 1.0 course: Psychology 1000.
- 1.0 course from: Sociology 1020, 1021E.
- 1.0 course from: Mathematics 1225A/B, 1228A/B, 1229A/B; Calculus 1000A/B, 1100A/B, 1301A/B, 1501A/B; Mathematics 1600A/B (the former Linear Algebra 1600A/B); Statistical Sciences 1024A/B; or the former Mathematics 030*.
- 1.0** course: **in any subject numbered 1000-1999 (A/B or F/G)** (MOS 1033A/B is strongly recommended).**

Notes:

*Students wishing to transfer to a BMOS Honors degree must have the proper Mathematics prerequisites for advanced economics courses. ie., 0.5 from Calculus 1000A/B, 1100A/B or Mathematics 1225A/B and 0.5 from Calculus 1301A/B, 1501A/B, Mathematics 1229A/B or 1229A/B.

****Students requiring Math 0110A/B and/or Writing 0002F/G may include those courses with permission from the department.**

****MOS 1033A/B is strongly recommended**

11.5 senior-courses:

1.0 course normally taken in second year: Business Administration 2257.
1.0 course normally taken in second year from: **Economics 2122A/B, 2123A/B Sociology 2205A/B, 2206A/B; Social Work 2205; Statistical Sciences 2035.**
0.5 course normally taken in second year from: MOS 2155A/B, **or** 2181A/B.
0.5 course: MOS 2285A/B.
2.0 2.5 courses normally taken in third year: MOS 2220F/G, 3310A/B, 3320A/B, 3330A/B, **3370A/B.**
1.0 0.5 course from: MOS 3401F/G, **MOS 4467A/B,** Philosophy 2074F/G, 2075F/G, 2700F/G.
0.5 course normally taken in fourth year from: **MOS 4485F/G.**
1.0 1.5 courses normally taken in fourth year: MOS 4410A/B, 4470A/B, **4485A/B.**
3.0 courses from: **MOS 3342A/B, 3343A/B, 3344A/B, 3352A/B, 3383A/B, 3384A/B.**
3.0 1.0 courses from: **History 2125F/G (the former History 2213F/G), History 2127F/G (the former 2217F/G); MOS 2275A/B, 2290A/B-2292A/B, 3341F/G, 3342A/B, 3343A/B, 3344F/G, 3352F/G, 3355F/G, 3356F/G, 3372, 3383A/B, 3390A/B-3392A/B, MOS Special Topics at 3000 level or above; Psychology 2061A/B, Political Science 2211E, 2246E; Sociology 3308F/G, 2145A/B, 3314F/G, 3315F/G, 3316F/G.**
Students require 1.0 Category B (Arts and Humanities) if not already completed, and 2.0 designated essay courses including 1.0 numbered 2000-4999, prior to graduation.

Notes:

1. Selected Topics courses for the Specialization must be approved for relevancy prior to enrolment.
2. All BMOS students must complete 1.0 designated essay course at the senior level, and 1.0 Category B.
3. Courses required for the Canadian Human Resource Profession (CHRP) designation may be taken as part of this module. See BMOS Academic Counselling for further information.

New Scholarships and Awards

Costco Wholesale Student Continuing Award (Social Science, Management and Organizational Studies)
Awarded to a full-time student entering Year 1 in any module in the DAN Management and Organizational Studies (MOS) program, with demonstrated financial need and a minimum 70% average. Preference will be given to a student who has graduated from a London, Ontario high school. Online financial assistance applications are available through Student Center and must be submitted by September 30th. This award will continue into Year 2, 3 and 4 provided that the recipient continues in the MOS program, maintains a 70% average, and continues to demonstrate financial need. If the student fails to retain, another student in the same year will be selected. Only one student will hold this award during any year. The Office of the Registrar will select the recipient. This award was established by a generous donation from Costco Wholesale.

Value: 1 at \$2,000 (continuing Year 1, 2, 3 and 4)
Effective Date: 2016-2017 academic year

Vladimir and Mary Ann Hachinski Master of Public Health Scholarship (School of Graduate and Postdoctoral Studies, Master of Public Health)

Awarded annually to a graduate student entering the Master of Public Health Program, with academic achievement and financial need. Preference will be given to a student who has work or volunteer experience in the field of stroke or dementia. The Admissions committee in the MPH Program will select the recipient. At least one member of the committee must hold membership in the School of Graduate and Postdoctoral Studies. This scholarship was established with a generous gift from Dr. Vladimir Hachinski and Mrs. Mary Ann Hachinski.

Value: 1 at \$1,000
Effective Date: May 2016

Bob and Velma Howie Award in Medicine (Medicine)

Awarded annually to an undergraduate student in Year 3 of the Doctor of Medicine (MD) Program with academic achievement and demonstrated financial need. Online financial assistance applications are available through Student Center and must be submitted by September 30th. The Progression and Awards Committee, Schulich School of Medicine & Dentistry, will select the recipient after the Office of the Registrar has assessed the financial need. This award was established through a generous estate gift from Bob and Verna Howie, long-time friends and supporters of Western.

Value: 1 at \$12,000
Effective Date: 2016-2017 academic year

Peter F.J. Miller Entrance Scholarship (Information and Media Studies)

Awarded annually to a graduate student entering the Master of Media in Journalism and Communication program, with academic achievement. The Scholarship Committee in the Faculty of Information and Media Studies will select the recipient. At least one representative of the committee must hold current membership in the School of Graduate and Postdoctoral Studies. This scholarship was established by Mr. Peter F.J. Miller (Dip '67, Journalism).

Value: 1 at \$1,000
Effective Date: May 2016 to April 2026 inclusive

Dr. Sampo Paunonen Graduate Psychology Scholarship (Social Science, Psychology)

Awarded annually to a full-time graduate student in a Masters or Doctoral program in Psychology, with academic achievement and research merit, whose research is based in the social sciences and humanities. The scholarship committee in the Graduate Psychology program will select the recipient. At least one representative of the committee must hold current membership in the School of Graduate and Postdoctoral Studies. This scholarship was established by the family, friends and colleagues of Dr. Paunonen (PhD '82, Psychology, BA '77) to honour and celebrate his life, and to recognize a student who shares Dr. Paunonen's qualities, values and interests. The hope is that future students will receive the assistance they require to fulfil their dreams and aspirations.

Value: 1 at \$1,000

Effective Date: May 2016

Dr. Paunonen was a long-time Faculty member in the Psychology Department at Western University and specialized in Personality and Measurement research. He died in 2015 at age 63.

REPORT OF THE SENATE COMMITTEE ON UNIVERSITY PLANNING
(SCUP)

Vicky Blair Fellowship in Vascular Surgery – Name Change

Update on Rapid Transit

Annual Report of the Working Group on Information Security (WGIS)

FOR APPROVAL

1. **Vicky Blair Fellowship in Vascular Surgery – Name Change**

Recommended: That the existing Vicky Blair Fellowship in Vascular Surgery established December 4, 2000 at the Schulich School of Medicine & Dentistry be renamed Bill & Vicky Blair Foundation Fellowship in Vascular Surgery.

Donors and Funding: This Fellowship was originally established by William H. Blair in 2000 through an expendable donation of \$105,000.

FOR INFORMATION

2. **Update on Rapid Transit**

An oral report will be provided by the Vice-President (Resources and Operations).

3. **Annual Report of the Working Group on Information Security (WGIS)**

See [Appendix 1](#).

Western University
The Working Group on Information Security (WGIS)
2015 Annual Report

WGIS is a multi-disciplinary team representing a broad cross-section of the University community. Information assets are critical to Western's operational success as a University. The primary objective of the WGIS group is to pursue proactive strategies to manage security risks to our information and the information systems that safeguard it.

WGIS provided oversight over a number of information security related initiatives including observance of Cyber-Awareness month in October, implementing improvements to the IT asset disposal process on Campus, and the development of a of a Cloud / Third-party Software Risk Assessment process. ITS also successfully implemented a new Security Incident Event Management (SIEM) tool which decreases Western's response time to critical cyber-incidents and increases Western's Cyber-Awareness about the environment.

In 2016, the Committee will continue to focus on restructuring Western's IT security policy and procedure framework, in addition to systematically reviewing cyber security risks within the Campus environment.

Table of Contents

Summary of Activities.....	3
1. Risk Assessment.....	3
Cloud Service Risk Assessment.....	4
2. Policies, Procedures, and Best Practices	4
Data Classification Standards.....	4
Controlled Goods Program.....	5
Improved Secure IT Asset Disposal.....	5
Security Policy Review.....	6
3. Cyber Protection.....	6
Information Security Awareness – CyberSmart	6
Security Incident Event Management Tool (SIEM).....	7
Ongoing “Phishing” Attack Mitigation Efforts	7
Email and SPAM Management.....	8
Service Protection.....	9
Financial Information Protection: Payment Card Industry (PCI) Compliance	9
4. Incident Response & Investigations.....	9
5. 2016 Plans.....	10

Summary of Activities

1. Risk Assessment

WGIS uses a risk assessment to identify the greatest threats to Western's information security environment and to identify activities that can reduce the threat. These activities are assigned to one of its standing sub-committees, or a group tasked with a specific project, or worked on directly by ITS. In 2014, WGIS identified Western's top information threats as:

- Leaks, losses or breaches of sensitive information from information systems that are not directly controlled by Western (i.e. cloud services), and mobile computing devices such as tablets or smart phones.
- Data leak or disclosure of sensitive information from information systems that are tagged for disposal or destruction due to a lack of formal destruction procedures and services.
- Unauthorized access or disclosure of sensitive information where the intended use is not clearly articulated in a data sharing agreement with other research partners or between departments, faculties, and research units.

Interviews that were held with departments in 2014 confirmed these threats and also identified that poor awareness of the Data Classification Standards and its application to protect information was another critical threat.

Therefore, in 2015, WGIS addressed a number of these information threats through activities that are described in this report, continued to discuss information security risks with departments, and monitored upcoming trends.

This year, the interviews confirmed that the implementation of information risk management processes and adoption of the Data Classification standards continues to be inconsistent across campus in 2015. In some cases, departments are not aware of where their sensitive information is located, nor are individuals aware of their responsibilities to protect the information. However, there does appear to be a desire from individual, including researchers, for increased assistance with and implementation support for these new Data Classification standards.

To address the risks identified through the assessment, WGIS worked on a number of projects including the development of a Risk Assessment that is to be used when evaluating a 'cloud' or third-party software solution, and secure process for the disposal of computer hard drives.

Cloud Service Risk Assessment

There is an increasing interest and adoption of “cloud” or other third-party software systems across campus. This introduces new risks to Western’s information environment. Individuals accountable and responsible for the implementation of these systems often do not have a sufficient understanding of the information security implications of utilizing these services.

In response to this, a task group with expertise in IT, legal, privacy, procurement, audit, and also including the user community was formed to develop a framework that can be used to evaluate the risks of third-party software systems.

The Cloud Service Risk Assessment Framework is published [here](#). The framework functions as a due-diligence process and is intended to be interactive where the information flow is based on user responses to a series of key questions that probe financial, legal, data, and other technical aspects of a particular solution under evaluation. Contact information for expert resources and other information supports are also provided to assist with the evaluation and implementation.

Initial feedback from the community on this tool has been positive and it has been successfully applied to a few large and small Campus IT projects. However, its adoption has not been universal and requires greater awareness. In 2016, WGIS plans to *assess the Framework to identify further enhancements and develop strategies to increase the awareness of the tool.*

2. Policies, Procedures, and Best Practices

Data Classification Standards

Western’s Data Classification Standards have been approved and published [here](#)

As was identified in the Risk Assessment, despite the approval and publication of the Standards, awareness of the Standards and its application to protect information is not well known across campus.

Annually efforts continue to broaden and deepen awareness of these Data Classification standards across the campus community through activities that are targeted at either individual departments or through specific events. For example, the Standards are discussed as part of the Risk Assessment process. ITS leverages opportunities to promote the Standards when advising departments on IT solutions and strategies, and the Standards are promoted as part of the Cyber Security Awareness Month.

In order to increase awareness across campus at a faster rate, a concerted effort is required to promote the existence and importance of these Standards and information management best practices and principles. The full adoption of these standards will require a fundamental shift towards an *information* oriented approach to security rather than the *technology device* based approach that has historically been used.

Controlled Goods Program

The Canadian Government's *Controlled Goods Program* strengthens Canada's defense trade controls by establishing Information Security through Controlled Goods Regulations, effectively extending the Government's own information classification and security policy to include its partners in securing the very sensitive information to which those partners have access. The policy does this by establishing minimum standards of Physical Security (PHYSSEC), Human Security (HUMSEC), Information Security (INFOSEC), and Operational Security (OPSEC) etc. There are several instances of highly sensitive research or enterprise at Western that is currently bound or covered by this legislation.

Western continues to receive highly sensitive information from the Government of Canada or foreign governments and is required to protect this data, some of which is classified SECRET or PROTECTED by specific Federal legislation.

As part of an internal succession planning effort, Procurement Services, Campus Police Services, Research Development Services, and ITS have reviewed roles and responsibilities for Western's Designated Officials for Controlled Goods handling. Plans to implement changes to these roles have been delayed to 2016 to align more effectively with the planned retirement of the current Designated Officer.

Improved Secure IT Asset Disposal

The secure disposal of computer hard drives was previously identified through the Risk Assessment as an area of concern.

In order to address this concern, ITS and Facilities Management have collaborated successfully to revamp and streamline the disposal of electronic waste on campus to incorporate a balance of security and environmentally responsible best practices. These best practices have been documented both on Western's Information Security and Environmental Sustainability sites [here](#) for greater visibility from either perspective. These procedures provide specific guidance to the community in terms of what to do with electronic waste materials with particular standards of care for secure disposal of hard drives and other mobile devices including cell phones. As an extension to the existing "Blue Box" recycling process on Campus, a subset of five (5) locations have been further identified as "Secure Media Disposal" locations. Special secure receptacles have been provisioned at each of these drop off locations for hard drives and other potentially information sensitive IT equipment. The equipment in these locations is then routed first to ITS where it is examined and "wiped" (degaussed) before

subsequently being routed to Facilities Management along with all other eWaste materials for environmentally appropriate disposal.

Security Policy Review

A working group including representatives from ITS, WGIS, Internal Audit, the University Secretariat, and Western Legal Counsel have now created an initial redraft of the current Security policy framework in alignment with MAPP 1.51 (Policy on University Policies). The scope of this work includes the following MAPP Policies; 1.13 (Code of Conduct), 1.20 (Computing Resources Security), 1.21 (Wireless Networking), and 1.45 (Email). The results of this work will need to be taken through the University's governance and approval process. The working group expects to have the revised draft of the policy prepared for this process early in 2016.

3. Cyber Protection

Information Security Awareness – CyberSmart

As identified in the Risk Assessment, increasing the level of general awareness around information security continues to be a high priority focus area for Western. As part of the Annual Security Awareness plan previously developed by the CyberSmart Sub-Committee, Western participated this year for the first time in International Cyber Security Awareness month (October). ITS, with support from WGIS and Communications & Public Affairs organized a series of media events including poster campaigns, social media blasts, as well as, Western Home Page articles that were profiled across Campus during the first week of October. The ITS Security Team also setup information booths in the UCC and in student residences where students were provided with Cyber Security information kits and had an opportunity to discuss and ask specific questions about Cyber Security best practices. Enclosed are samples of the media exhibits used in the campaign.

Figure 1:



ITS will also be using some of these materials in a Cyber Security session at the Annual Staff Conference in February 2016.

The objective of these activities is to sustain a high level of awareness of Cyber Security across Western's community in order to positively influence cyber behavior and to protect Western's cyber reputation. This plan continues to evolve and will incorporate additional Department and Faculty specific Cyber-Awareness efforts where appropriate.

Security Incident Event Management Tool (SIEM)

A SIEM is a tool that combines real-time analysis of security alerts generated by network hardware and applications with security event management. Western's procurement of a SIEM resulted in a project to construct and deploy this tool in the environment. This tool has introduced a tremendous capability to track and manage security and event information, constrained only by the amount of log information fed into the SIEM and disk space.

The tool has been used to improve our understanding of phishing attacks (see next section) and to identify 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 – **12.5**

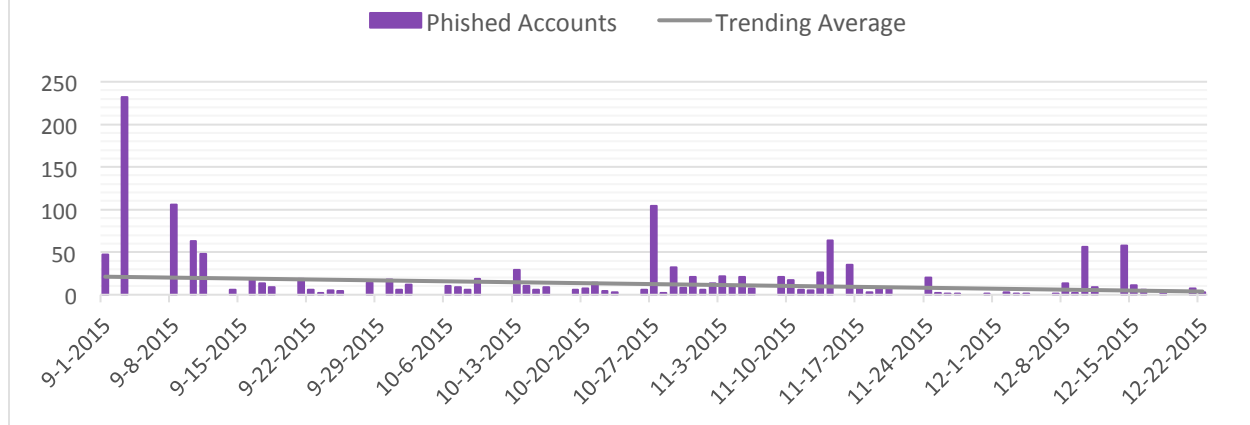
Average Number of Machines Locked (for security reasons) / month – **37.5**

Ongoing "Phishing" Attack Mitigation Efforts

Leveraging the Security Incident Event Management (SIEM) tool has allowed Western to obtain better visibility into the origin of Phishing attacks, their duration and intensity, as well as, to more effectively identify Phishing victims. This increased visibility combined with improved procedures for locking phished accounts and sustained education awareness activities have resulted in a general downward trend in the number of accounts being phished in our environment. Nevertheless, it is expected that Phishing attacks will continue to evolve in response to new opportunities and that ongoing diligence and attention to this threat will need to continue to be a high priority focus for Western.

Figure 2: Phishing Activity Summary

Accounts Compromised by Phishing



WGIS discussed and re-assessed the risk of leaving Western's Public Directory (<http://www.uwo.ca/directory.html>) public given the tendency of spammers to harvest victim email addresses in an automated way. As ITS had previously taken steps to obfuscate email addresses in the Directory the ongoing risk to Faculty & Staff is low. However, the question was raised whether having students included in the directory provided sufficient benefit to continue the practice of leaving their addresses publically available? WGIS concluded that the inclusion of students in the public directory was not appropriate or necessary. Consequently, ITS is in the process of defining and prioritizing a project which will require an authentication (i.e. User Id / Password) of Western credentials before someone can look-up and access student email credentials from the directory. This step will not only protect the email identities of our students, but will also, further restrict spammers from being able to access email addresses for Phishing purposes.

Email and SPAM Management

Email (via phishing) continues to be one of the most prominent attack vectors against our credentials. As stated in the SIEM section, the tool detects an average of 12.5 accounts per day as being compromised. (The SIEM can electronically detect compromised accounts before a user is aware that their account has been compromised).

Western also uses SPAM management to detect and block approximately 60% of incoming messages as spam. This equates to over 700,000 messages per month. SPAM minimizes the phishing threat because it prevents 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 the Libraries' on-line journals, provides a venue to conduct fraud through the Human Resources system, etc. Due to these consequences, it remains critical to address this risk through technical and non-technical (i.e. CyberSmart campaign) mechanisms.

Service Protection

Service protection continues to improve overall network security through more effective use of its network firewalls. All threats and vulnerabilities identified as 'high' or 'critical' continue to be blocked outright. This has reduced the number of Western machines reported to be involved in network based security attacks.

This reporting period concentrated on identifying all database deployments on campus, and distinguishing which of those databases needed to be globally accessible from outside of Western's network from those that required local network access only. With the exception of two where such access was required, direct external access to Western databases has now been eliminated entirely.

Financial Information Protection: Payment Card Industry (PCI) Compliance

Several WGIS members are actively involved with PCI compliance through the Western Bank Card Committee. As a result, WGIS remains informed of new developments and security practices in the payment card industry. In 2010, Western achieved Level 1 compliance under version 1.2 of the Payment Card Industry Data Security Standards (PCI DSS). 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. This year, we completed migrating networked payment card devices into separate logical networks to better protect and inventory them. The Bank Card Committee is currently pursuing compliance under the latest standard, PCI DSS version 3.1. Western will issue an RFP in the first quarter of 2016 to select a Payment Application Qualified Security Assessor (PA-QSA) and will complete its second audit by the end of 2016.

4. Incident Response & Investigations

While Western experienced a reduction in the overall number of security incidents it managed in 2015, there appears to be an increasing shift towards exploitation of user credentials and information systems for purposes of financial fraud and other matters of academic misconduct. As a result of this trend, Western needs to continue to focus on increasing cyber security awareness across its community, making the community

aware of the increasing relentless nature of these attacks and the means by which our members can protect their credentials as well as Western's systems.

5. 2016 Plans

In 2016, WGIS will focus on achieving 4 key objectives;

1. The CyberSmart Sub-Committee of WGIS will be revitalized. The CyberSmart committee, which includes staff and faculty members, will develop a plan to enhance IT security awareness across campus, beginning with orientation week. This will be followed by Cyber awareness week in October and finally the course registration period in January 2017. Through this work the committee will canvas the university community to identify issues that are locally relevant and propose action plans to WGIS to address the opportunities for improved Cyber Security education and awareness across Campus.
2. Risk assessment will also be a priority for WGIS in 2016. With a refined goal of completing risk assessments in all Faculties and business units over a 4 year period, a schedule of meetings will be assembled to identify local issues, risks and opportunities for improvement. ITS will lead this initiative but WGIS Committee members will also participate in the risk assessment reviews on a rotating basis. The hope is through this risk assessment process committee members will be able to link their observations and findings in the risk assessment process back to their own unit situations. The results of these risk assessments will also be warehoused in a central cyber security risk management repository.
3. In 2016-17 the WGIS Committee will also support the completion of a campus wide IT Policy currently being re-drafted. WGIS Committee members will be invited to make comments on the draft document, reflecting their own perspectives as well as other Faculty or business perspectives.
4. Finally WGIS will reflect on its mandate in 2016. WGIS provides critical advice and perspective to ITS on issues of information security at Western University. Since the formation of WGIS, risks associated with information security have evolved dramatically. New threats to Western's ability to protect sensitive information seem to occur daily. These new threats, combined with Western's distributed operations, make information security a particularly challenging goal. For these reasons, it is timely and relevant to reconsider the structure and effectiveness of the committee discussions and to look for additional value added improvement opportunities.

Appendix A – List of Current WGIS Members as of End of 2015

Glen Tigert (University Registrar)

James Ciesla (TUMS – Libraries)

Colin Couchman (TUMS – Education)

Chris Wedlake (TUMS – Robarts Research Institute)

Jeff Gardiner (ITS, Central Information Security Officer)

Ed Gibson (ITS, Technical Advisor)

Ed Zuidema (ITS, WGIS Scribe)

Dave Ghantous (ITS Designate, Associate Director Technical Services)

John Carson (Director, CCPS)

Julie Whitehead (Faculty of Health Science, eLearning Specialist)

Dr. Aleks Essex (Faculty, Engineering)

Lisa Latif (Registrar's Designate)

Peggy Wakabayashi (Housing Designate, Director of Residences)

Rob Brennan (Western Information Systems Group Designate, Director of WISG)

Scott May (Communications & Public Affairs, Advisor)

Mina Mekhail (Research Development Services)

Geoff Pimlatt (Ex-Officio, USC Communications Officer)

Sharon Farnell (Ex-Officio, Director of Internal Audit)

Paul Eluchok (Ex-Officio, Legal Counsel, Privacy Officer)

Jeff Grieve (Ex-Officio, Executive Director, ITS)

**Report to Senate of the Academic Colleague, Council of Ontario Universities
Erika Chamberlain, March 2016**

The Academic Colleagues met on 18-19 February 2016. The following items were discussed.

Funding Formula Review: the COU is in ongoing discussions with the provincial government on the funding formula review. Given the current stage of discussions, it is unlikely that there will be any major changes for the 2016-17 academic year.

Francophone University: Bill 104: An Act to create the Université de L'Ontario Français (introduced by NDP MPP France Gélinas) has been referred to the Standing Committee on Social Affairs. While the COU supports the development of university programming for Francophones, it believes that these needs can be (and have been) addressed by existing universities. There is concern that the creation of a new, full-service university is not an effective use of limited resources.

Credential Review: in January, the MTCU announced that it will undertake a public policy examination of the colleges' request for authorization to offer stand-alone nursing degrees. This may signal a re-opening of the June 2015 decision to confirm the collaborative delivery of nursing degrees. The COU will be escalating its advocacy efforts on this file.

Sexual Violence: the COU reference group has provided feedback on Ontario's Bill 132; it is anticipated that the legislation will be passed on International Women's Day (March 8). The COU's advocacy focuses on universities' full commitment to providing services, supports, response protocols and policy that are responsive to survivors' needs and are in line with research and best practices. Once the legislation is passed, universities will have six months to bring their policies into compliance.

Faculty at Work: the COU is planning the next "Faculty at Work" project, which will be expanded to include contract faculty.

Learning Outcomes: the next symposium on learning outcomes has been scheduled for 17-18 October 2016. The theme this year is "Learning Outcomes: Evolution of Assessment."

Experiential Learning: the Colleagues continued our discussion of experiential learning at Ontario universities, and heard from two guest speakers: one from IBM (to provide perspective from industry), and one from the University of Toronto's Centre for Community Partnerships (to provide perspective from the non-profit sector). We heard best practices for developing and sustaining community partnerships and communicating effectively with external organizations.

Provincial Ombudsman: as of January, the Ontario Ombudsman now has authority over complaints relating to universities. In the Ombudsman's January 29 newsletter, it was reported that 37 complaints relating to universities had been received since January 1.