

NOTICE OF MEETING

There will be a meeting of the Senate on Friday, May 12, 2023, at 2:30pm Location: Room 203 Anthony P. Toldo Health and Education Centre

AGENDA

Land Acknowledgement

- 1 Approval of Agenda (Unstarring agenda items)
- 2 Minutes of the meeting of April 14, 2023
- **3** Business arising from the minutes
- 4 Outstanding Business/Action Items
- 5 Reports/New Business
 - 5.1 Program Development Committee
 - 5.1.1 Honours Biochemistry (Pharmacy Stream) Major Program Change (Form B)
 - *5.1.2 Program/Course Changes
 - (a) Sociology and Criminology Minor Program Changes (Form C)
 - (b) Bachelor of Information Technology Degree Completion Pathway (Form C1)
 - (c) Engineering (Graduate) Minor Program Changes (Form C)
 - (d) Engineering Minor Program Changes (Form C)
 - (e) Engineering New Course Proposals (Form D)
 - *5.1.3 Kinesiology Course Learning Outcomes

5.2 Academic Policy Committee

- 5.2.1 Office of Open Learning Annual Report
- *5.2.2 Computer Science Revisions to Standing Required for Continuation
- 5.3 Senate Governance Committee *5.3.1 Bylaw 1 – Review of Composition and Size

Lionel Walsh-Approval S230512-5.1.1

Approval S230414M

Lionel Walsh-Approval S230512-5.1.2a-e

Lionel Walsh-Information S230512-5.1.3

Isabelle Barrette-Ng-Information S230512-5.2.1

Isabelle Barrette-Ng-Approval S230512-5.2.2

> Jess Dixon-Information S230512-5.3.1

5.4	Senate	e Student Caucus	Dave Andrews-Information
5.5	Report	t from the Student Presidents	UWSA/GSS/OPUS-Information
5.6	Report	t of the Academic Colleague	Lisa Porter-Information S230512-5.6
5.7	Report	t of the President	Robert Gordon-Information
5.8	Report	t of the Provost	Patti Weir-Information S230512-5.8
	5.8.1	SET Task Force Update – Summary from the Senate Information Session	Dennis Jackson/Edwin Tam-Information
	5.8.2	Enrolment Management Update	Chris Busch-Information S230512-5.8.2
5.9	Report	t of Vice-President, Equity, Diversity, and Inclusion	Clinton Beckford -Information S230512-5.9
5.10	Report	t of Vice-President, Research, and Innovation	Chris Houser -Information S230512-5.10
Ques 6.1		riod/Other Business Associate Vice-President, Academic <i>(in camera)</i>	Rob Gordon-Discussion

7 Adjournment

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Please carefully review the 'starred' (*) agenda items. As per the June 3, 2004 Senate meeting, 'starred' items will not be discussed during a scheduled meeting unless a member specifically requests that a 'starred' agenda item be 'unstarred', and therefore open for discussion/debate. This can be done any time before (by forwarding the request to the secretary) or during the meeting. By the end of the meeting, agenda items which remain 'starred' (*) will be deemed approved or received.

5.1.1: Honours Biochemistry (Pharmacy Stream) – Major Program Change (Form B)

Item for: Approval

Forwarded by: Program Development Committee

MOTION: That the Honours Biochemistry (Pharmacy Stream) (with/without thesis) (with/without internship) be approved.^

^Subject to approval of the expenditures required.

- The major program change adds a new stream to the existing Honours Biochemistry program (with/without thesis and with/without internship) and has been approved by the Department of Chemistry and Biochemistry Council, the Science Program Development Committee (SPDC) (as delegated by the Faculty of Science Coordinating Council), the Provost, and the Program Development Committee.
- See attached.

A. Basic Program Information

Faculty(ies)	Science
Department(s)/School(s)	Chemistry and Biochemistry
Name of Program as it Will Appear on the Diploma (<i>e.g.,</i> Bachelor of Arts Honours Psychology with thesis)	Honours Biochemistry (Pharmacy Stream) Honours Biochemistry (Pharmacy Stream) with Thesis
Proposed Year of Offering* [Fall, Winter, Spring]: *(subject to timely and clear submission)	Fall 2023
· · ·	Regular on-campus courses, some with laboratories. Full-time and/or part-time
Planned steady-state Student Enrolment (per section B.4.2)	10
Normal Duration for Completion:	4 years
Will the program run on a cost-recovery basis?	No

B. Major Program Changes - Overall Plan

B.1 Objectives of the Program/Summary of Proposal (QAF section 2.1.2.1; Ministry section 3)

Please provide a rationale for the proposed change, including a brief statement about the direction, relevance and importance of the revised program. Describe the overall aim and intended impact of the revised program. Describe the consistency of the revised program with the institution's mission, goals and objectives as defined in its strategic plan. (to view the strategic plan go to: www.uwindsor.ca/president)

This Honours Biochemistry (Pharmacy Stream) (with/without thesis) is intended to appeal to students seeking a clear pathway to pharmacy, medicine, or graduate research in a chemical or health-related science. While students can already pursue these programs from various undergraduate backgrounds (including, but not limited to, Chemistry, and Biochemistry), a new stream is expected to increase the visibility of pharmaceutical-related courses/research at the University of Windsor, and be of interest to students who are undecided as to which science program to take.

Aim and Impact: This new stream in **Pharmacy** will offer students a prescribed pathway into professional school with a particular focus on Pharmacy. It has been noted that graduates from the University of Windsor Biochemistry program are particularly well suited for pharmacy and this stream will ensure that students are prepared for all Ontario professional pharmacy schools as well as those in Michigan.

Consistency with Institutional Goals: In keeping with the priorities of the University of Windsor strategic plan we have designed this stream to ensure an exceptional and supportive undergraduate experience that emphasizes independent learning, interdisciplinary opportunities, and successful year-to-year transitions.

Along with our existing undergraduate programs and streams in Biochemistry and Chemistry, we will continue to provide an exceptional undergraduate experience in the sciences. The proposed Honours stream builds on the strengths of the most research-intensive science department, with a rigorous curriculum with integrated laboratory (experiential) components and co-op/internship options.

Opportunities for enhanced research experiences are available for students in this new stream. Select students in the pharmacy stream may pursue an honours research project (which counts towards upper-year requirements in the proposed curriculum). It is expected that a number of the graduates from this stream will choose to pursue graduate studies in a related topic with a supervisor at the University of Windsor in Biology, Biomed or in Chemistry & Biochemistry, or at an external institution with similar areas of research interest, contributing to the scholarly advances made at this, or other, institutions.

B.2 Changes to Program Content (QAF Section 2.1.2.2)

Evidence that the revised curriculum is consistent with the current state of the discipline or area of study.

The proposed curriculum combines essential elements from the Biochemistry program and includes current fundamental courses in sciences relating to health and biomedical research. It allows students to complete the most common admission prerequisite courses for Ontario medical and pharmacy schools (as well as at Wayne State University, in Detroit) as part of their degree programs. (Most of the prerequisites are courses that meet specific science requirements, and there is room for other courses for the more unusual professional school requirements (e.g., for medical schools outside of Ontario). Additionally, the curriculum was designed by research faculty (including individuals carrying out pharmacological research) so that graduates will be prepared for graduate study in pharmacy related fields providing a necessary alternative career pathway.

B.2.1 Unique or Innovative Curriculum, Program Delivery, or Assessment Practices (QAF Section 2.1.1)

State the unique or innovative curriculum, program delivery, or assessment practices distinguishing the revised program from existing programs elsewhere, as appropriate.

The curriculum differs from other biomedical, or health sciences programs offered in Ontario, as it focuses on the pharmacological sciences in chemistry and biochemistry. The rigorous curriculum exposes the students to the fundamental and experiential knowledge both in chemistry and biochemistry in a suite of courses.

B.2.2 Indigenous (First Nations, Métis, or Inuit) Content, Perspectives, or Material

The University of Windsor is committed to building and sustaining stronger, more meaningful inclusive partnerships with Indigenous students, scholars, and communities. Indigenization of curriculum takes place in a larger context, including a requirement to respond to the four Calls to Action in education of the Truth and Reconciliation Report (2015) (page 1), the unique legal requirements of the Constitution Act 1982 (Sections 25, 35), the provincial legal requirements of the Ontario Human Rights Code, 1990, and provincial legislation Bill Pr36 (1967). In revising this program, how has consideration been given to incorporating Indigenous (First Nations, Métis, or Inuit) content, perspectives, or material into the curriculum?

Please consider these prompt questions and additional Resources including disciplinary examples:

- What **process** has your department/Faculty used to consider Indigenization?
- How have you considered the importance or relevance to the course/program?
- How has your department or faculty approached raising awareness for Indigenous knowledges in your area?
- What do the <u>TRC</u> and <u>University Principles</u> documents suggest relevant to your course?
- What have other similar courses/programs done that might be relevant to your course/program?
- In what ways could your course/program have flexibility to include new ways of learning, or content for Indigenous approaches or knowledges?
- What is your awareness of the history or background to approaches you are considering, such as the land acknowledgement? How have you developed your awareness?
- Which literatures, sources, or Indigenous Knowledge Holders have you consulted? (Please confirm you have permission to share any names, it may be helpful to have the person confirm the text if you will be submitting their name)
- Are you engaging in critical analysis of Settler Colonialism and/or Decolonization?
- Have you included the information in the other relevant areas in the PDC form such as learning outcomes and/or in the syllabus where appropriate?

Inclusion of Indigenous content, perspectives, and material is an ongoing and evolving exercise integrally involving the department leadership.. We have started discussions with Jaimie Kechego. The early discussions have been extremely fruitful and through these discussions we have identified points both within program delivery and the PDC process that could be improved. Our discussions will continue and be expanded to assist with the development of a database of Indigenous chemistry/biochemistry content as a resource for internal and external instructors. We are currently seeking an Indigenous science student who can be hired to facilitate this initiative. The student will review literature and engage with Indigenous Knowledge Keepers to gather information. The simple compilation of knowledge is not Page 5 of 68

enough. The student and department leadership will work with CTL to make sure details on how to present the data effectively and appropriately is included in the database.

Individual instructors within the Department of Chemistry and Biochemistry have reviewed course materials and identified areas where Indigenous content can be integrated to provide a holistic perspective of a topic. Concrete steps have already been taken for courses within the proposed program. For example, BIOC-3030, Natural Health Products and Their Mechanisms of Actions, now includes as part of its learning outcomes: Appraise the value of cultural knowledges from different traditions including First Nation's, and Ayurvedic practices and Discuss and relate the knowledge of traditional medicine of Canada's first people.

Finally, leadership within the Department is engaged at the national research level. For example, Marquardt leads a national co-organization that is organizing a research panel with CIFAR with speaker Bob Watts (Nuclear Waste Management Organization) – "Building Expertise through Inclusion: EDI and Indigenous Issues". Although this is not directly related to teaching, the subject matter helps further build knowledge and awareness of Indigenous issues.

B.3 Changes to Program Name and Degree Designation/Nomenclature (QAF Section 2.1.2.1; Ministry section 1)

Explanation of the appropriateness of the proposed new name and degree designation for the program content and current usage in the discipline

The proposed name for the new stream, **Honour Biochemistry – Pharmacy stream** recognizes both the subject area of study and the area specific educational experiences will students receive within this stream. Therefore, we believe the name is representative of the program content and current usage in the discipline.

B.4 DEMAND FOR THE MODIFIED PROGRAM

B.4.1 Student and Market Demand/Societal Need (Ministry section 1)

Describe the tools and methodology used to conduct the market assessment and/or societal need assessment in support of the proposed program revisions, where appropriate.

Provide quantitative evidence of student and market demand for the revisions to the program, both within and outside the local region (e.g., responses/statistics from surveys, etc.), where appropriate.

Provide evidence of societal need for graduates of the revised program, including expert input. Proposers should consider, where appropriate, the:

- 1) dimensions of the societal need (e.g., socio-cultural, economic, scientific, or technological),
- 2) the geographic scope of the societal need (e.g., local, regional, provincial, or national), and/or
- 3) the anticipated duration of, and trends in societal need.

Append any comments or letters solicited from potential employers and/or relevant professional associations regarding the need for graduates of the revised program within their organization and field of endeavour.

Based on our experience with student requests for specific types of programs, the student demand for health-related programs has been increasing over the past decade, primarily relating to student objectives of medical, dental, pharmacy and other professional programs centred on health. We have seen a doubling of student registration in biology and biochemistry programs over the last decade, which is a significant indication of demand in these areas. On this campus, these are the closest analogues to a health or life science program. At recruitment events (e.g., the Ontario University Fair, University of Windsor Open House), inquiries from potential students and parents are common regarding biomedical, health, pre-medical and pre-pharmacy programs.

Anecdotally, former students have stated how under prepared for Pharmacy they were in the biomedical and health centred degree programs. Pharmacy is a chemistry and biochemistry heavy vocation and proper preparation in the chemical sciences is required. According to the Government of Canada, the job opportunities for pharmacists is good in Ontario as well as several other provinces.

Pharmacist in Canada

1 National Oc	cupational Clas	ssification u	pdate						
					National Occupation 1) to the group Pha			is means that t	the
i≣ Summary	E Description	\$ Wages	Prospects	III Jobs	Requirements	f⊞ Skills	Q Search		

Explore current and future job prospects for people working as a "pharmacist" in Canada.

Job opportunities over the next 3 years

Note that these outlooks are based on the 2016 version of the NOC. Learn more about our methodology.

Breakdown by province and territory

Explore future job prospects by province and territory.

Legend			
습습습습습	Undetermined	含含含合合	Moderate
會会会会会	Very limited	含含含含合	Good
會會合合合	Limited	****	Very good

Location A	Job prospects
Alberta	★★★★☆ Good
British Columbia	★★★☆☆ Moderate
Manitoba	★★★★★ Very good
New Brunswick	★★★★☆ Good
Newfoundland and Labrador	★★★☆☆ Moderate
Northwest Territories	☆☆☆☆☆ Undetermined
Nova Scotia	★★★☆☆ Moderate
Nunavut	☆☆☆☆☆ Undetermined
Ontario	★★★★☆ Good
Prince Edward Island	★★★★★ Good
Quebec	★★★☆☆ Moderate
Saskatchewan	★★★★★★ Good
Yukon Territory	会会会会会 Undetermined

Labour Market Information Survey

Date modified: 2022-11-06

B.4.2 Estimated Enrolments (Senate Co-op Policy)

Provide details on projected enrolments for the first five years of operation of the revised program in the following table. (If the program is in operation, use actual and projected data.)

For Co-op programs: normally an annual intake of a minimum of 20 students is required for new co-op programs or programs with other experiential learning component.

	First Year Operation		Second Y Operation		Third Yea Operation	-	Fourth Ye Operation		Fifth Year of Operation/ -state enro overall)	/Steady
	Domesti c	Int'l	Domesti c	Int'l	Domesti c	Int'l	Domesti c	Int'l	Domestic	Int'l
In the regular program (non-co-op)	6		10		10		10		10	
In the co-op/ experiential learning stream (if applicable)										

B.4.3 Duplication (Ministry section 3)

Indicate whether the revised program is in a new area of study or delivery for the institution. List similar programs at the same credential level offered by other institutions in the Ontario university system. Resources to identify similar programs offered in Ontario include <u>https://www.ontariouniversitiesinfo.ca/programs</u> and <u>https://www.universitystudy.ca/search-programs/</u>. Also, list similar programs in the geographically contiguous area, e.g., Michigan/Detroit. If the revised program is similar to others in the Ontario university system, demonstrate that societal need and student demand justify the duplication. Identify innovative and distinguishing features of the revised program in comparison to similar programs

Although chemistry and biochemistry programs are offered at nearly all universities, most institutions have developed streams or degree programs in Health Sciences or Biomedical Sciences:

Ontario universities offering

Biomedical Science programs: Brock University University of Guelph Laurentian University University of Ottawa Queen's University ("Life Sciences") Ryerson University York University

Health Science programs:

Western University Wilfred Laurier University of Ontario Institute of Technology

The curriculum for this stream includes <u>more</u> chemistry and biochemistry than other programs, which will give graduates additional options for graduate and professional schools. In particular, the proposed stream will be suitable for students who are not only interested in medical school, but also those who are considering pharmacy programs, (which tend to feature a greater number of chemistry pre-requisites), or other medical pursuits. Compared to similar programs, this stream offers much more flexibility in terms of course selection. Students may concentrate their efforts on sub-specialties such as biochemistry, medical physics, or microbiology, leading them to career goals beyond

medicine. Most importantly, the availability of a Health and Biomedical Sciences program in Windsor will allow students in the Windsor-Essex area to attend university locally in the discipline of their choice.

B.5 RESOURCES

[The resource impact of a proposal is almost never neutral. Note: Proposers must also complete and submit the attached **Budget Summary** (Appendix A) with the revised program proposal.]

B.5.1 Resources Available

B.5.1.1 Resources In Support of the Revised Program and Resource Implications for Other Campus Units or Programs (QAF section 2.1.2.6)

Describe, in general terms, all faculty and staff resources (e.g., administrative, teaching, supervision) from all affected areas/departments currently available and actively committed to support the revised program. Please do <u>not</u> name specific individuals in this section. Describe the impact of the planned utilization of existing human, physical and financial resources (within and outside the unit) on other existing programs in the department or at the university. Provide an assessment of the reliance of the revised program on existing resources from <u>other</u> campus units and include evidence that there are adequate resources available and committed to the revised program to sustain the quality of scholarship produced by undergraduate students as well as graduate students' scholarship and research activities. Consider, for example: faculty resources (within and outside the unit), existing courses (within and outside the unit), equipment or facilities outside the proposer's control, external resources requiring maintenance or upgrading using external resources, staff support, library, teaching and learning support, information technology support, laboratory access, student support services, space, equipment, facilities, GA/TA

Courses within this new stream are offered regularly within the current academic calendar, such that there are no anticipated additional resources required to offer this new stream beyond what is associated with natural enrollment growth over time. The vast majority of courses are offered from the Department of Chemistry and Biochemistry, which has capacity for growth and will be able to accommodate the projected increases in enrollment. Students will also complete two courses in Physics, three courses in Mathematics and Statistics, Integrated Biology and one course from Biomedical Sciences (depending on their college electives). These programs can also accommodate the projected growth in enrollment. The core university courses required are regularly offered by faculty members within departments within Science. Faculty teaching courses within this stream have current knowledge and expertise that are central to the program curriculum. Administrative tracking will be provided within the UWinsite Student system. Academic advising will occur within the Department of Chemistry and Biochemistry. The advisor responsible for the Honours Biochemistry will also advise students on matters related to the new stream, including appropriate sequencing and course selection.

B.5.1.1a Faculty Expertise Available and Committed to Supporting the Revised Program (QAF section 2.1.2.6; 2.1.2.7; 2.1.2.8)

Assess faculty expertise available and actively committed to supporting the revised program. Provide evidence of a sufficient number and quality of faculty who are qualified to teach and/or supervise in and achieve the goals of the revised program and foster the appropriate academic environment, and of the appropriateness of this collective faculty expertise to contribute substantially to the revised program including student mentoring. Include:

- evidence of the quality of the faculty (e.g., qualifications, funding, honours, awards, research, innovation and scholarly record)
- evidence that faculty have the recent research or professional/clinical expertise needed to sustain the revised program, promote innovation, and foster an appropriate intellectual climate
- any other evidence that the revised program and faculty will ensure the intellectual quality of the student experience

All courses from the University of Windsor are offered from the Department of Chemistry and Biochemistry, Department of Physics, Integrated Biology, Biomedical Sciences or Department of Mathematics and Statistics (depending on college electives). These courses are offered regularly within the undergraduate calendar and are already taught by expert faculty. As such, there is already a sufficient number of highly qualified faculty to support Page 9 of 68

this new stream. The faculty teaching these courses are specialists in the area who have expertise in the subjects that are central to the new pharmacy stream. These expert faculty have published in leading national and international journals on topics (or similar topics) to the courses offered within the program.

B.5.1.1b Extent of Reliance on Adjunct, Limited-term, and Sessional Faculty in Delivering the Revised Program (QAF section 2.1.2.6)

Describe the area's expected reliance on, and the role of adjunct, limited-term, and sessional faculty in delivering the revised program and the associate plans to ensure the sustainability of the revised program and quality of the student experience.

There is no anticipated reliance on adjunct, limited-term, or sessional faculty beyond what is already being used.

B.5.1.1c Graduate Faculty Qualifications and Supervisory Loads (FOR GRADUATE PROGRAMS ONLY) (QAF section 2.1.2.7)

Explain how supervisory loads will be distributed, and describe the qualifications and appointment status of faculty who will provide instruction and supervision in the revised program.

N/A

B.5.1.1d Financial Assistance for Graduate Students (where appropriate) (FOR GRADUATE PROGRAMS ONLY) (QAF section 2.1.2.7)

Where appropriate to the revised program, provide evidence that financial assistance for graduate students will be sufficient to ensure adequate quality and numbers of students.

N/A

B.5.1.2 Anticipated New Resources (QAF sections 2.1.2.6)

List all **anticipated new resources** originating from within the area, department or faculty (external grants, donations, government grants, etc.) and committed to supporting the revised program.

N/A

B.5.1.3 Planned Reallocation of Resources and Cost-Savings

Describe all opportunities for <u>internal reallocation of resources and cost savings</u> identified and pursued by the area/department in support of the revised program. (e.g., streamlining existing programs and courses, deleting courses, etc.)

N/A

B.5.1.4a Additional Resources Required – Resources Requested (QAF section 2.1.2.6f)

Describe all **additional faculty, staff and GA/TA resources** (in all affected areas and departments) required to run the revised program. If not applicable, write n/a.

Faculty:	No change beyond what is expected from normal enrollment growth
Staff:	No change beyond what is expected from normal enrollment growth
GA/TAs:	No change beyond what is expected from normal enrollment growth

B.5.1.4b Additional Institutional Resources and Services Required by all Affected Areas or Departments (QAF section 2.1.2.6f)

Describe all **additional institutional resources and services** required by <u>all affected</u> areas or departments to run the revised program, including library, teaching and learning support services, student support services, space and facilities, and equipment and its maintenance. If not applicable, write n/a.

Library Resources and Services:	No change
Teaching and Learning Support:	No change
Student Support Services:	No change
Space and Facilities:	No change
Equipment (and Maintenance):	No change

C. Program Details

C.1 Admission Requirements (QAF section 2.1.2.5)

Describe new or changes to

- program-specific admission requirements,
- selection criteria,
- credit transfer,
- arrangements for exemptions or special entry, and
- alternative admission requirements, if any, for admission into the program, such as minimum average, additional language requirements or portfolios, recognition of prior work or learning experience (and how this will be assessed), etc.

Admission Requirements: Advanced Functions/MHF4U, Chemistry/SCH4U, Biology/SBI4U, English/ENG4U. MCV4U is strongly recommended. Physics/SPH4U is recommended.

Minimum Average:

A minimum 70% average of all attempted science and math courses is also required.

Note: Biochemistry-Pharmacy stream (with/without thesis) students may apply to the coop internship courses in third year (CHEM-3909 Internship I and CHEM-4908 Internship II).

Students will be able to apply directly into the pharmacy stream from high school. Students may also transfer in and out of the stream as this was considered carefully in the overall curriculum design.

Exemptions and credit transfer will be handled as is the current practice for existing Biochemistry and Chemistry programs. Students transferring in from other institutions to upper levels of the program will be handled as currently managed by the Registrar's office.

C.1.1 Admission Requirements and Attainment of Learning Outcomes (QAF section 2.1.2.5)

Demonstrate that admission requirements for the revised program are sufficient to prepare students for successful attainment of the intended learning outcomes (degree level expectations) established for completion of the program.

The proposed admission requirements are equivalent to the admission requirements for Biochemistry, reflecting the rigour of the new stream.

C.2 Program Curriculum Structure/Program of Study (QAF sections 2.1.2.3 and 2.1.10)

NB: For graduate programs, provide evidence that each graduate student in the revised program is required to take a minimum of two-thirds of the course requirements from among graduate-level courses. Include course requirements with course numbers and course names. Identify in BOLD and STRIKETHROUGH the changes to program requirements.

Honours Biochemistry (Pharmacy Stream)

Total courses: forty (40)

Degree requirements:

(a) 20 Courses: CHEM-1100, CHEM-1110, CHEM-2200, CHEM-2300, CHEM-2310, CHEM-2400, CHEM-2410, CHEM-2500, CHEM-2510, CHEM-3210, BIOC-2010, BIOC-3100, BIOC-3110, BIOC-3130, BIOC-3581 (6-credit, 2 semester course), BIOC-3310, BIOC-4050 and two additional CHEM/BIOC courses at the 3XXX or 4XXX level (CHEM-3310 is recommended).

(b) 10 Courses: BIOL-1101, BIOL-1111, BIOL-2111, BIOL-2071, BIOM-2131, MATH-1720, MATH-1730, PHYS-1400, PHYS-1410 and STAT-2910;

(c) 4 Courses: ENGL-1001 and three courses from Arts, Languages or Social Sciences; CMAF-2100 strongly recommended

(d) 6 courses from any area of study; BIOM-2021, BIOL-2040, BIOL-2050 strongly recommended.

Note: An internship option is available.

Honours Biochemistry (Pharmacy Stream) with Thesis

Total courses: forty (40)

Degree requirements:

(a) 20 Courses: CHEM-1100, CHEM-1110, CHEM-2200, CHEM-2300, CHEM-2310, CHEM-2400, CHEM-2410, CHEM-2500, CHEM-2510, CHEM-3210, BIOC-2010, BIOC-3100, BIOC-3110, BIOC-3130, BIOC-3581 (6-credit, 2 semester course), BIOC-3310, BIOC-4050 and CHEM-4900 (6-credit, 2 semester course).

(b) 10 Courses: BIOL-1101, BIOL-1111, BIOL-2111, BIOL-2071, BIOM-2131, MATH-1720, MATH-1730, PHYS-1400, PHYS-1410 and STAT-2910;

(c) 4 Courses: ENGL-1001 and three courses from Arts, Languages or Social Sciences; CMAF-2100 strongly recommended

(d) 6 courses from any area of study; BIOM-2021, BIOL-2040, BIOL-2050, CHEM-3310 strongly recommended.

Note: An internship option is available.

Courses used to calculate the major average are:

Courses used to calculate the major average are: courses listed under requirement (a), and any courses taken in the major area(s) of study.

Description of thesis option (if applicable):

Qualified students who find a willing supervisor may complete CHEM-4900 towards their degree program. This is not a requirement.

CHEM-4900. Research:

Original laboratory research under the direction of a faculty member. Student must present three seminars discussing their research project. (1 lecture, 12 laboratory hours per week over two terms; 6 credit hours.) (Only open to students in Chemistry Honours, Biochemistry Honours; please consult the "Program Requirements" section above.) (Prerequisites: major average of 72% and a cumulative average of 72%.)

C.2.1 Co-op/Experiential Learning Component (if applicable)

Provide requirements for the co-op/experiential learning component, including length of co-op/experiential learning component and credit weight, and explain how they differ for students who complete the experiential learning option and those who opt not to.*Ensure that learning outcomes for the co-op/experiential learning component have been included in the learning outcomes table. (C.4)

Students can apply to the coop internship courses in third year (CHEM-3909 Internship I and CHEM-4908 Internship II).

Is the completion of the experiential learning/co-op component a requirement of the revised program?

C.2.2 Suggested Sequencing for Revised Program (Optional)

Provide suggested program sequencing for each year of the revised program (including any work/study/placement sequencing), ensuring that all pre-requisites are met in the sequencing. For Co-op programs: The proposed work/study sequence or alternative arrangement should allow for year-round availability of students for employers (if appropriate) and, wherever possible, should meet the guidelines for co-operative education as set out by the Canadian Association for Co-operative Education (see Policy on Co-op Programs).

ten courses, including BIOL-1101, BIOL-1111, CHEM-1100, CHEM-1110, MATH-1720,
MATH-1730, PHYS-1400, PHYS-1410, ENGL 1001 and one other course.
ten courses, including BIOL-2111, BIOM-2131, CHEM-2300, CHEM-2310, CHEM-2400,
CHEM-2410, CHEM-2500, CHEM-2510, BIOC-2010 and one other course.
twenty courses, including CHEM-2200, CHEM-3210, BIOC-3100, BIOC-3110, BIOC-3130,
BIOC-3581 (6-credit, 2 semester course), BIOC-4050, BIOL-2071, STAT-2910 and two
additional CHEM/BIOC courses at the 3XXX or 4XXX level.

C.2.3 Program Structure/Requirements and Attainment of Learning Outcomes (QAF section 2.1.2.6)

Describe how the structure and requirements of the revised program are sufficient to prepare students for successful attainment of the intended program-level learning outcomes and the associated undergraduate or graduate degree level expectations.

The structure parallels the already rigorous, successful and Canadian Chemical Society Accredited Biochemistry program delivered by the Department of Chemistry and Biochemistry.

C.3.1 For Graduate Program ONLY (QAF sections 2.1.2.3; Senate Co-op Policy)

C.3.1.1 Normal Duration for Completion

Provide a clear rationale for program length that ensures that the revised program requirements can be reasonably completed within the proposed time period.

N/A

C.3.1.2 Program Research Requirements

For research-focused graduate programs, provide a clear indication of the nature and suitability of the major research requirements for completion of the revised program.

N/A

C.3.1.3 New or Changes to Fields in a Graduate Program (optional)

Where fields are contemplated, provide the following information: The master's program comprises the following fields: ...[list, as applicable] The PhD program comprises the following fields: ...[list, as applicable]

N/A

C.3.2 For All Program Proposals

C.3.2.1 New or Changes to Standing Required for Continuation in Program

Minimum average requirements for continuation in the program. Must conform to the regulations for standing required for continuation in the program as set out in Senate policy. Specify new or changes to standing required for continuation in the experiential learning option or co-op option of the revised program, where applicable.

Same as Honours Biochemistry and Biochemistry with Thesis programs:

Honours Biochemistry (Pharmacy Stream)

Cumulative average requirement: 60%; major average requirement 60%.

Honours Biochemistry (Pharmacy Stream) with Thesis

Cumulative average requirement: 70%; major average requirement 70%.

C.3.2.2 New or Changes to Standing Required for Graduation

Minimum average requirement to graduate in the program. Must conform to the regulations for standing required for continuation in the program as set out in Senate policy.

Specify new or changes to standing required for graduation in the experiential learning option or co-op option of the revised program, where applicable.

Same as Honours Biochemistry and Biochemistry with Thesis programs:

Honours Biochemistry (Pharmacy Stream)

Cumulative average requirement: 60%; major average requirement 70%.

Honours Biochemistry (Pharmacy Stream) with Thesis Cumulative average requirement: 70%; major average requirement 70%.

C.4 NEW OR CHANGES TO LEARNING OUTCOMES (Degree Level Expectations)(QAF section 2) COMPLETE THIS TABLE FOR UNDERGRADUATE PROGRAMS

In the following table, provide the specific learning outcomes (degree level expectations) that constitute the overall goals of the Combined program or Concurrent offering (i.e., the intended skills and qualities of graduates of this program). Link each learning outcome to the <u>Characteristics of a University of Windsor Graduate</u>" by listing them in the appropriate rows. A learning outcome may link to more than one of the specified Characteristics of a University of Windsor Graduate. All University of Windsor programs should produce graduates able to demonstrate each of the nine characteristics. Program design must demonstrate how students acquire all these characteristics. All individual courses should contribute to the development of one or more of these traits: a program in its entirety must demonstrate how students meet all of these outcomes through the complete program of coursework. Proposers are strongly encouraged to contact the Centre for Teaching and Learning for assistance with the articulation of learning outcomes (degree level expectations). For Combined Programs and Concurrent Offerings:

The program learning outcomes would include the outcomes for the two standalone programs with a few additional outcomes to reflect the benefits of pursuing the two disciplines in an integrated manner. [For learning outcome A, the integration of knowledge can be within a program and between the two programs.]For programs with an *Experiential Learning or Co-op Option*: Include learning outcomes for the program with a few additional outcomes highlighted to reflect the benefits of pursuing the experiential learning/co-op option.

Program Learning Outcomes (Degree Level	Characteristics of a	
Expectations)	University of Windsor	COU-approved Undergraduate
This is a sentence completion exercise. Please provide	Graduate	Degree Level Expectations
a minimum of 1 learning outcome for each of the	Graduate	
boxes associated with a graduate attribute.		
	A UWindsor graduate	
At the end of this program, the successful student	will have the ability to	
will know and be able to:	demonstrate:	
A. Explain and apply the major theories and concepts	A. the acquisition,	1.Depth and Breadth of
of chemistry and biochemistry pharmacology. (Also	application and	Knowledge
applies to D.)	integration of	2.Knowledge of Methodologies
Explain and apply the scientific method as it relates	knowledge	3. Application of Knowledge
to biochemistry research and societal issues. (Also		5.Awareness of Limits of
applies to B, C, H, I.)		Knowledge
B. Operate standard and modern laboratory	B. research skills,	1. Depth and Breadth of
instruments for solving biochemical/drug related	including the ability to	Knowledge
problems.	define problems and	2. Knowledge of Methodologies
(Also applies to C.)	access, retrieve and	3. Application of Knowledge
Collect, read, evaluate, and analyze relevant scientific	evaluate information	5. Awareness of Limits
literature to address a specific biochemistry area.	(information literacy)	Knowledge
(Also applies to C, D.)		i i i i i i i i i i i i i i i i i i i
C. Access and effectively utilize the primary research	C. critical thinking and	1. Depth and Breadth of
literature for solving chemical, biochemical and drug	problem-solving skills	Knowledge
problems. (Also applies to D.)		2. Knowledge of Methodologies
Correctly interpret experimental data and the		3. Application of Knowledge
accuracy of the results. (Also applies to D.)		5. Awareness of Limits of
		Knowledge
D. Write formal scientific papers and reports with the	D. literacy and numeracy	4. Communication Skills
correct structure (e.g., include proper citations,	skills	5. Awareness of Limits of
references, etc.)	Skiis	Knowledge
E. Effectively use safe laboratory practice (e.g use	I '	5. Awareness of Limits of
and handling of chemicals).	to self, others and	Knowledge
	society	6. Autonomy and Professional
		Capacity
F. Produce effective oral and written communication	F. interpersonal and	4. Communication Skills
on a scientific subject.	communications skills	6. Autonomy and Professional
		Capacity
Qualitatively summarize and objectively present		
data.		
Prepare written laboratory reports using		
conventional scientific style.		

Program Learning Outcomes (Degree Level Expectations) This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.	Characteristics of a University of Windsor Graduate	COU-approved Undergraduate Degree Level Expectations
At the end of this program, the successful student will know and be able to:	A UWindsor graduate will have the ability to demonstrate:	
G. Participate constructively and cooperatively in small group activities.	G. teamwork, and personal and group leadership skills	 Communication Skills Autonomy and Professional Capacity
H. Describe examples that illustrate the functionality and diversity of chemistry and biochemistry.Design innovative solutions to demonstrate scientific concepts (also relevant to C and I).	H. creativity and aesthetic appreciation	 2. Knowledge of Methodologies 3. Application of Knowledge 6. Autonomy and Professional Capacity
I. Apply organizational, problem-solving and mentoring skills to engage in self-directed learning and professional development activities	 the ability and desire for continuous learning 	6. Autonomy and Professional Capacity

C.4.3 Mode of Delivery (QAF section 2.1.2.2)

Demonstrate that the proposed modes of delivery are appropriate to facilitate students' successful attainment of the new or revised program learning outcomes. Discuss online vs. face-to-face (e.g., lecture, seminar, tutorial, lab) modes of delivery, as well as specialized approaches intended to facilitate the acquisition of specific skills, knowledge, and attitudes.

Courses primarily rely on face-to-face offerings and delivery may vary according to instructor. Approaches may include: standard lectures with active learning techniques embedded (e.g., discussions), laboratories, tutorials, presentations, and written assignments. The modes of delivery and the teaching methods used will provide students with a variety of learning experiences and assist them in developing the knowledge, skills, and abilities to meet the learning outcomes.

D. MONITORING AND EVALUATION (QAF section 2.1.2.4)

Describe and explain the appropriateness of the proposed methods of assessing student achievement given the new or revised intended learning outcomes and degree level expectations.

Current assessment methods are used within existing Honours programs in Chemistry and Biochemistry (which have similar learning outcomes/expectations to the proposed stream). There is an annual academic standing consideration given to all students in all programs on campus. Additional monitoring will occur in this particular program through the efforts of the program coordinator.

D.1 Plan for Documenting and Demonstrating Program Quality and Student Performance (QAF section 2.1.2.4)

Describe the appropriateness of the plans to monitor and assess:

- the overall quality of the revised program;
- whether the revised program is achieving in practice its proposed objectives;
- whether its students are achieving the program-level learning outcomes;
- the perceived student workload and student experience; and
- how the resulting information will be documented and subsequently used to inform continuous program improvement.

As the stream evolves, student success and performance level will be tracked through consultation, student feedback, and grades. The academic advisor within the Department of Chemistry and Biochemistry will be responsible for monitoring student progression and responding to student questions regarding the stream. All courses will contribute to students' attainment of the program learning outcomes.

We designed the course audit based on program requirements at the Ontario and Wayne State University (Appendix B)

E. <u>NEW OR REVISIONS TO EXPERIENTIAL LEARNING/CO-OP COMPONENT ONLY</u> (Senate Co-op Policy)

[Complete this section ONLY if the program change includes new or revisions to the experiential learning/co-op component involving paid or unpaid placements.]

N/A. Note: There are no new or revised experiential learning components.

The following appendices are filed in the University Secretariat: Appendix A: Budget Summary Sheet

APPENDIX B – ONTARIO PHARMACY REQUIREMENTS

Waterloo (https://uwaterloo.ca/pharmacy/future-pharmd-students/required-courses-pharmd-admissions)

	• Biology
	 Introductory Cell Biology – BIOL 1101 or BIOL 1400 or BIOL/55-141
	○ Genetics* – BIOL 2093 or BIOL/55-212
	 Fundamentals of Microbiology* - BIOL 2070, BIOL 2071 or BIOL/55-237
*Yo	ou may complete these BIOL course equivalents OR any 300 or 400-level BIOL course.
	• Chemistry
	$\circ~$ Physical and Chemical Properties of Matter – CHEM 1100 or CHEM/59-140
	\circ Chemical Reactions, Equilibria and Kinetics – CHEM 1110 or CHEM/59-141
	 Introductory Biochemistry – BIOC 2010 or CHEM/59-261; BIOC2015 or CHEM/59-263
	 Basic Organic Chemistry 1 – CHEM 2300 or CHEM/59-230; CHEM 2305 or CHEM/59-232
	• Math
	 Calculus 1 for the Sciences – MATH [1720 + 1730], MATH/62-[140 + 141], MATH [1760 + 1730], MATH/62-[139 + 141]
	 Introductory Statistics for Scientists – STAT 2910 or STATISTICS/65-205
	• English
	 ENG/26-120, ENG/26-140, ENG/26-205, ENGL 1001, ENGL 1005, ENGL 1409, ENGL 2320, ENGL 2330, ENGL 2520, MGMT 1000 or PSYCH-3220

	BIOL1111 + 1101	CHEM1100 + 1110 + 2300	(MATH 1720 or
Windsor	or former 55-140 + 141	or former Chem59 -140 +	1760 + 1730)
		59-141 + 59-230	or former 62-139 or
			62-140 + 62-141

Wayne State University (https://cphs.wayne.edu/pharmd/admissions-prerequisites.php)

Effective for the Fall 2023 admission cycle:

- BIO 1510 Basic Life Mechanisms (NSI)
- BIO 2270 & 2271 or BIO 2200 (NSIL) Introductory Microbiology & Lab
- BIO 2870 + BIO 3200 Six credits of Anatomy & Physiology with at least three at the 3000-level or higher
- CHM 1100 & 1130 or CHM 1220 & 1230 General Chemistry I & Lab (NSIL)
- CHM 1140 & 1150* General Chemistry II & Lab
- CHM 1240 & 1250 Organic Chemistry I & Lab
- CHM 2220 & 2230 Organic Chemistry II & Lab
- CHM 5600 Biochemistry
- MAT 2010 Calculus I (QE)
- PHY 2130 & 2131 General Physics I & Lab (NSIL)

*CHM 1140/1150 is not required for applicants who completed CHM 1220/1230 at <u>WSU</u> or CHM 1240/1250 at any college or university prior to Fall 2022.

Six year prerequisite waiver

If any of the science courses were completed more than six years before the time of application submission, you may request a <u>six year prerequisite waiver</u> from the <u>WSU PharmD</u> program — as long as you earned a grade of 2.0 or higher in the science course.

Waiver requests must include: (a) the name, course number, and institution name of the course(s) to be waived and (b) a detailed explanation that describes how your employment experience or recent academic coursework demonstrates mastery of the prerequisite course content. Include a detailed account of the principles and objectives and the prerequisite course content along with specific employment duties or academic achievements. Attach your transcripts showing the grade for the course to the form. Unofficial transcripts are fine for waiver reviews.

Six-year prerequisite waivers are valid for one application cycle. Applicants reapplying to the <u>PharmD</u> program must submit a new waiver request because they do not roll over from one application cycle to the next.

Non-science prerequisites

The following prerequisite courses — or their equivalent — must be completed by August 31 of the year for which you are applying. (To begin the program in Fall 2023, these courses must be completed by August 31, 2023.)

- ENG 1020 Introductory College Writing (BC)
- COM 1010 Oral Communication (OC)* Exam option
- STA 1020 Elementary Statistics (QE)

EQUIVALENCY CHART FOR UNIVERSITY OF WINDSOR SCIENCE PREREQUISITE COURSES

Wayne State course	Windsor course	Clinical Lab Science	Mortuary Science	Occupational Therapy	Pharmacy	Physical Therapy	Radiologic Technology	Radiation Therapy Tech.
BIO 1500	BIOL 1111							X
BIO 1510/1511	BIOL 1101	х	х	x	х	х	x	x
BIO 2200 or BIO 2270/2271	BIOL 2071	х			х			
BIO 2870	BIOM 2021+BIOL 2040	х	х	х	X (3)	х	x	х
BIO 3200	BIOL 2050 (3)				X (3)		x	
300/3000 level Biology Class	Various					X (1)		
CHM 1000	No equivalent		х					
CHM 1020	No equivalent					X (2)		x
CHM 1030	BIOC 1303					X (2)		
CHM 1220/1230 or CHM 1100/1130	CHEM 1100	х			х	X (2)		
CHM 1140/1150	CHEM 1110	х			X (4)	X (2)		
CHM 1240/1250	CHEM 2300	х			х	X (2)		
CHM 2220/2230	CHEM 2310+BIOC 2010				х	X (2)		
CHM 5600	BIOC 3100+3130				х			
KIN 3580	KINE 2240			x				
College Algebra	No equivalent	х						
MAT 1800	No equivalent						X	X
MAT 2010	MATH 1720 or MATH 1760				Х			
Pathophysiology	No equivalent							
PHY 1020	No equivalent						x	
PHY 2130/2131	PHYS 1300				х	х		X
PHY 2140/2141	PHYS 1310					х		x

(1) For the physical therapy program, biology course must be taken for 3 credits. Course cannot be a duplicate of course(s) that fulfill a prerequisite. Biochemistry, Kinesiology, Athletic Training or Sports Medicine are not accepted. (Not required for students completing a bachelor's degree by program start)

(2) The physical therapy program only requires two chemistry courses with at least one lab and topics do not overlap. Options include CHM 1020, CHM 1100/1130, CHM 1140/1150 or 1220/1230, CHM 1030 or CHM 1240/1250 or CHM 2220/2230.

(3) For the pharmacy program, you must have at least six semester credit hours of anatomy and physiology with at least three semester credit hours of anatomy of physiology at the 3000-level or higher. BIOL 2040 is accepted for BIO 3200.

(4) Effective for the Fall 2023 admission cycle, CHM 1140/1150 is not required for Pharmacy applicants who completed CHM 1220/1230 or CHM 1240/1250 prior to Fall 2022. Revised-8/16/2022

EQUIVALENCY CHART FOR UNIVERSITY OF WINDSOR NON-SCIENCE PREREQUISITE COURSES

Wayne State course	Windsor course	Clinical Lab Science	Mortuary Science (5)	Occupational Therapy	Pharmacy	Physical Therapy	Radiologic Technology	Radiation Therapy Tech.
Business Course	See item (6) below		X					
COM 1010	CMAF 2100	х	х	Х	х		Х	X
COM 2200	No equivalent		Х					
CLS 2080	No equivalent	Х						
CLS 3330	No equivalent	Х	Х					
CSC 1000	COMP 1000 or COMP 1047						Х	
ENG 1020	ENGL 1001	Х	X	X	Х	X	Х	X
ENG 3010/ICN	See Gen Ed	Х	х	Х			Х	X
PH 2100	No equivalent		Х					
PHI 1050	PHIL 1600 or PHIL 1620		X (1)				X (1)	X (1)
PHI 2320	PHIL 2210						Х	
PS 1010	POLS 2320			Х				X
PSY 1010 or PSY 1020	PYSC 1150 or PSYC 1160		х	х		х	х	х
PSY 2300	PSYC 1070							X (4)
PSY 2400	No equivalent			Х			х	(4)
PSY 2410	PSYC 3390							(4)
PSY 3310	PSYC 2280			X				
STA 1020	STAT 2910 or STAT 2950 or KINE 2690	х		x	х	x	х	
SOCIAL INQUIRY	See Gen Ed		Х	X (2)				
Two 3000-level courses	See (3) below					X (3)		

(1) You have the option of either taking PHI 1050/Critical thinking as course work or you can take the Critical Thinking Competency Exam. To make arrangements to take this exam, contact Wayne State University's Office of Testing, Evaluation, and Research Services at www.testing.wayne.edu

(2) For the Occupational Therapy program, you need to take a social inquiry course. Look at the next page under "General Education Requirements" for information that can assist with the fulfillment of this prerequisite. P \$ 1010 or equivalent cannot be used to fulfill social inquiry requirement. (3) For the Physical Therapy program, you need to take two 3000-level or higher courses in the same discipline. For example, two 3000-level or higher courses in biology or two 3000-level or

higher courses in psychology.
 For the Radiation Therapy Technology program, you can take either PSY 2300, PSY 2400 or PSY 2410.

(5) For the Mortuary Science program, please visit http://cphs.wayne.edu/mortuary-science/admissions.php to review the difference in prerequisite requirements for those who have already earned a bachelor's degree vs. those who have not.

(6) For the Mortuary Science program, one course in a business field (ACC, BA, ECO, MGT, FIN, etc.)

Revised-8/16/2022

*5.1.2a: Sociology and Criminology – Minor Program Changes (Form C)

Item for: Approval

Fowarded by: Program Development Committee

MOTION: That the Minor in Forensics and Cultural Anthropology be deleted.[^]

^Subject to approval of the expenditures required.

- The change has been approved the Department of Sociology and Criminology Council, the Faculty of Arts, Humanities, and Social Sciences Coordinating Council, and the Program Development Committee.
- Supporting documentation for the proposed changes can be accessed by contacting the University Secretariat at ext. 3325, or through the April 21, 2023 Combined Program Development Committee PDF meeting file posted on the PDC website at: <u>http://www.uwindsor.ca/secretariat/377/pdc-agendas-and-minutes</u>. To access this item, go to item 5.3.

University of Windsor Senate

5.1.2b: Bachelor of Information Technology – Degree Completion Pathway (Form C1)

Item for: Approval

Fowarded by: Program Development Committee

MOTION: That the Bachelor of Information Technology for Graduates from Chitkara University degree completion pathway be approved. ^

^Subject to approval of the expenditures required.

- This pathway has been approved by the School of Computer Science Council, the Science Program Development Committee (SPDC) (as delegated by the Faculty of Science Coordinating Council), and the Program Development Committee.
- Supporting documentation for the proposed changes can be accessed by contacting the University Secretariat at ext. 3325, or through the April 21, 2023 Combined Program Development Committee PDF meeting file posted on the PDC website at: <u>http://www.uwindsor.ca/secretariat/377/pdc-agendas-and-minutes</u>. To access this item, go to item 5.4.

University of Windsor Senate

*5.1.2c: Engineering (Graduate) – Minor Program Changes (Form C)

Item for: Approval

Forwarded by: Program Development Committee

MOTION: That the degree requirements for Master of Engineering and the Master of Engineering (Automotive) be changed in accordance with the program/course change forms.[^]

^Subject to approval of the expenditures required.

- The changes have been approved by the Faculty of Engineering Coordinating Council, the Faculty of Graduate Studies Council, and the Program Development Committee.
- Supporting documentation for the proposed changes can be accessed by contacting the University Secretariat at ext.
 3325, or through the April 21, 2023 Combined Program Development Committee PDF meeting file posted on the PDC website at: http://www.uwindsor.ca/secretariat/377/pdc-agendas-and-minutes. To access this item, go to item 5.5.

University of Windsor Program Development Committee

*5.1.2d: Engineering – Minor Program Changes (Form C)

Item for: Approval

Fowarded by: Program Development Committee

MOTION: That the degree requirements for Bachelor of Applied Science in Mechanical Engineering programs be changed in accordance with the program/course change forms.[^]

^Subject to approval of the expenditures required.

- The changes have been approved by the Department of Mechanical, Automotive, and Materials Engineering Council, the Faculty of Engineering Coorindating Council, and the Program Development Committee.
- Supporting documentation for the proposed changes can be accessed by contacting the University Secretariat at ext. 3325, or through the April 21, 2023 Combined Program Development Committee PDF meeting file posted on the PDC website at: <u>http://www.uwindsor.ca/secretariat/377/pdc-agendas-and-minutes</u>. To access this item, go to item 5.6.

*5.1.2e: Engineering – New Course Proposals (Form D)

Item for: Approval

Forwarded by: Program Development Committee

MOTION:	MOTION: That the following courses be approved:		
	GENG-2101	Engineering II	
	GENG-2102	Programming and Algorithms	
	GENG-2201	Engineering Design II	
	GENG-3201	Engineering Design 3	
	MECH-4211	Deformation, Fracture, and Failure Prevention	

^Subject to approval of the expenditures required.

- These courses have been approved by the Civil and Environmental Engineering Council, Electrical and Computing Engineering Council, Mechanical, Automotive, and Materials Engineering Council, the Faculty of Engineering Coordinating Council, and the Program Development Committee.
- Supporting documentation for the proposed changes can be accessed by contacting the University Secretariat at ext. 3325, or through the April 21, 2023 Combined Program Development Committee PDF meeting file posted on the PDC website at: <u>http://www.uwindsor.ca/secretariat/377/pdc-agendas-and-minutes</u>. To access this item, go to item 5.7.

*5.1.3: Kinesiology – Course Learning Outcomes

Item for: Information

Forwarded by: Program Development Committee

This document contains learning outcomes for: KINE 1110. Principles of Mental Skills Training KINE 3030. Imagery Effects on Performance

See attached.

KINE 1110. Principles of Mental Skills Training (These are new learning outcomes)

Course Learning Outcomes This is a sentence completion exercise.	Characteristics of a University of Windsor Graduate
At the end of the course, the successful student will know and be able to:	A U of Windsor graduate will have the ability to demonstrate:
A. Explain topics, theories, and concepts related to a specific area of sport psychology. (Also relevant to C)	 A. the acquisition, application and integration of knowledge
Describe research findings related to a specific area of sport psychology.	
Identify relevant academic and/or non-academic sources relating to current trends in sport psychology. (Also relevant to B, I)	
B. Interpret sport psychology concepts.	 B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
Interpret quantitative and qualitative findings in sport psychology literature. (Also relevant to D)	
C. Analyze current issues and problems within the field of sport psychology.	C. critical thinking and problem-solving skills
D.	D. literacy and numeracy skills
E. Recognize the diversity of experiences in sport and exercise. (Also relevant to H)	E. responsible behaviour to self, others and society
F. Communicate sport psychology topics, theories, and concepts, in both oral and written formats.	F. interpersonal and communications skills
Display key issues in a specific area of sport psychology using a knowledge mobilization platform. (Also relevant to B)	
G. Work successfully and respectfully with peers, university personnel and community organizations, both independently and as a team member.	G. teamwork, and personal and group leadership skills
H. Apply innovative solutions to current issues in sport psychology.	H. creativity and aesthetic appreciation
I.	 the ability and desire for continuous learning

KINE 3030. Imagery Effects on Performance

(Note: Learning outcomes were last updated October 11, 2013. These are revised learning outcomes.)

Course Learning Outcomes This is a sentence completion exercise. At the end of the course, the successful student will know and be able to:	Characteristics of a University of Windsor Graduate A U of Windsor graduate will have the ability to demonstrate:
A. <u>Critique topics, theories, and concepts related to imagery and</u> <u>performance. (Also relevant to B, C)</u>	 A. the acquisition, application and integration of knowledge
Identify various domains in which imagery may have a beneficial effect on performance. Demonstrate knowledge of imagery use in various domains and how it can be beneficial to performance.	
B. Synthesize scholarly research related to a specific area of performance imagery. (Also relevant to A, D)	 B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
Evaluate quantitative and qualitative research findings in sport, exercise, and performance imagery. (Also relevant to D) Critically review literature, draw on personal experience; and relate information to topics introduced in lecture. Demonstrate critical and reflective awareness of imagery and its effects on performance.	
C. <u>Analyze current issues and trends within the field of performance</u> <u>imagery. (Also relevant to B)</u> <u>Relate and make connection between their sport/physical activity</u>	C. critical thinking and problem-solving skills
experiences and their personal use of imagery. Critique findings from studies examining the effect of imagery on performance.	
D. Examine, interpret and evaluate the results from academic studies examining the effects of imagery on performance.	D. literacy and numeracy skills
E. Investigate the various uses of performance imagery in diverse populations. (Also relevant to H) Adhere to accepted principles of academic integrity.	E. responsible behaviour to self, others and society
F. <u>Report imagery concepts, theories, and topics in both oral and</u> <u>written formats. (Also relevant to B, F)</u>	F. interpersonal and communications skills
Participate in critical discussion of readings during lecture. Communicate concepts related to beneficial effects of imagery, both verbally and in writing, and recognize how one may use imagery to benefit their own performance.	
G. <u>Collaborate with peers and community members with respect and an</u> <u>appreciation of different opinions (Also relevant to F)</u>	G. teamwork, and personal and group leadership skills

Course Learning Outcomes This is a sentence completion exercise. At the end of the course, the successful student will know and be able to:	Characteristics of a University of Windsor Graduate <u>A U of Windsor graduate will have the</u> <u>ability to demonstrate:</u>
Demonstrate an understanding of the importance of their role as a kinesiologist in the transfer of knowledge to the general public. Work in small groups to further one's understanding of imagery on performance (applied interventions for a performer in any domain).	
H. <u>Generate innovative solutions to current issues in performance</u> <u>imagery.</u> Develop creative solutions to improving one's imagery to enhance performance.	H. creativity and aesthetic appreciation
I. Demonstrate an understanding of the importance of mental skills (imagery) towards performance and recognize how imagery training could facilitate their own performance.	 the ability and desire for continuous learning

University of Windsor Senate

5.2.1: Office of Open Learning Annual Report (2021-2022)

Item for: Information

Forwarded by: Academic Policy Committee

See attached.



1. Executive Summary

Please see full 2021-22 annual report for more detail.

A. Introduction

The Office of Open Learning (OOL) is a leader in digital, hybrid and open learning. Our expertise has been crucial to achieving the University's mission in navigating the disruption of the pandemic, graduated return to campus, and cybersecurity attack. We contribute to achieving Strategic Mandate Agreement (SMA) outcomes, as well as strategic institutional priorities, and those of the Provincial Virtual Learning Strategy. OOL fosters a teaching and learning environment that empowers educators and learners to explore, innovate, and excel in their fields, and which recognises and utilises the power of a highly connected digital society. In a world characterised by uncertainty and rapid change, we engage with faculty, staff, and students in addressing challenging questions of equity, accessibility, digital ethics, and sustainability in teaching and learning. We advocate for, explore, implement and support emerging technologies and pedagogical approaches. With just 7 full-time employees, the Office of Open Learning continues to support and initiate activities that have campus-wide impact on teaching and learning, while our work and expertise is also sought after at the provincial, national, and international levels. We are key collaborators and partners in pursuit of transformative educational experiences on campus and beyond.

B. Goals and Objectives of Reporting Year

1. Provide an exceptional undergraduate experience

- a. COVID Pandemic and Transition Support
- b. LMS Renewal
- c. Champion Open Practices
- d. Support digitally-enabled teaching and learning
- e. Students as Partners
- f. Equitable, Accessible, and Inclusive teaching and learning
- g. Indigenization

2. Pursue strengths in research and graduate education

- a. Scholarship of open and online teaching and learning
- 3. Recruit and retain the best faculty and staff
 - a. Funding for curricular innovation and exploration
 - b. Educational technologies support and exploration
 - c. Post-pandemic future of education

4. Engage and build the Windsor and Essex County community through partnerships

- a. Microcredentials
- 5. **Promote international engagement**

C. Key Successes

- In partnership with CTL and ITS, provided critical support to instructors and students during the cyber attack as they rapidly transitioned to alternative delivery modes for teaching and assessment
- Continued to play a key role in supporting instructors and students to navigate pandemic disruptions and the return to campus
- Welcomed at least **1242** participants in **130** courses, workshops and invited events, as well as open events where participants were not required to register; co-facilitated an additional 10 workshops in collaboration with CTL
- Provided over 3,000 consultations with faculty, sessional instructors, GAs/TAs, students, staff and externals
- Completed the **LMS Review** and developed a procurement process for the next UWindsor LMS in partnership with CTL, ITS, and other campus stakeholders. OOL led the push to develop a process that considered digital

ethics, equity, accessibility, Indigeneity and decolonization in procurement for the first time in educational technology at UWindsor

- **Funding:** As outlined below, OOL members are leads or collaborators on funded projects worth **\$3,239,915** during the reporting period
 - eCampus Ontario grants: Supported faculty in successful completion of 19 Virtual Learning Strategy (VLS 1) grants worth a total of \$1.447m in funding (awarded in 2021 for completion by February, 2022). At the same time, supported development of applications and submission process for an additional 18 VLS2 grants (January, 2022) competing for a significantly reduced and focused funding pool (<\$2m across all colleges, Universities, and Indigenous Institutes) and were awarded funding for two OOL-led projects worth \$183,205
 - Training Equipment Renewal Fund (TERF): In 2021, OOL and ITS led the development and submission of a TERF grant proposal that was successful in securing \$548,325 in funding from the province, along with \$585,721 in matching funds from the University to complete a highly ambitious project of transformation of 12 learning spaces across campus to flexible, active, collaborative, and technology-enabled learning spaces (work to be substantially complete by March 31, 2022).
 - Student Partners: OOL supported projects directly employed at least 113 student partners in 2021-22, including 17 co-op students (funded by a \$69,674 subsidy from the Federal Government's Student Work Placement Program (SWPP)), 2 Ignite and part-time students, 12 PALS leaders, and 82 student partners who worked on eCampus Ontario and OOL projects. In total, OOL's student partnerships in 2021- 2022 supported \$609,517 in work integrated learning opportunities for students
 - **CIHR:** Collaborator on a successful CIHR grant with psychology, nursing, and CTL developing simulated training for nurses to prepare them for healthcare crises (\$405,990)
- **OERs:** Authored, co-authored, and supported the development of **30 OERs**, open textbooks, and interactive media resources that were visited by **166,661 people for 251,905 views**
 - Partnered on the development of the award-winning <u>Liberated Learners</u> open textbook, a collaboration across six Ontario universities and colleges that was awarded the <u>2022 Open</u> <u>Education Global Award for Best OER</u> which has had 5,967 visitors and 19,700 views to date
- Indigenization: Received funding from eCampus Ontario and provided matching funding to hire an Indigenous Learning Designer for an initial 3-year LTA role to assist in the decolonization and Indigenization of digital spaces, and Indigenizing curricula in online and hybrid courses; Collaborated with CTL to develop a module on Indigenous pedagogies in a larger OOL-led, eCampus-funded open eBook on Universal Design for Inclusion, Diversity, Equity,
- Led the implementation of YuJa enterprise video creation and management platform (integrated to the LMS), and Panorama accessibility support, as well as supporting BetterExaminations online assessment platform
- Led the successful **migration of 40,340** Blackboard Collaborate recordings from Blackboard's native storage to YuJa to enable long-term management, reuse, and reduction in storage costs for the institution
- Strongly advocated for ethical, compassionate, and equitable use of technology and online pedagogies
- OOL staff contributed to multiple UWindsor, provincial, national and international committees and initiatives supporting the pandemic response
- OOL collaborated with CTL to staff the successful Bb Café virtual drop-in support centre, address support tickets submitted through TDx, and offer workshops
- Continued to expand and support **ePortfolios**, with **6,925** users and **6,242** sites; hosted 57 workshops with 880 attendees and 76 drop in sessions; added new SOCA course and all students from MSTHS program
- Continued to expand PALS sessions online during the pandemic, including in graduate level courses in Engineering, both firsts for Supplemental Instruction globally; **762 students** attended a minimum of one PALS sessions in the reporting period; co-presented peer-reviewed article with student SI leader at the International Conference on Supplemental Instruction
- Awarded **18 OOL Strategic Development grants** worth a total of \$50,000 to projects in human kinetics, environmental science, medical biotechnology, microbiology, physics, and education to support adoption and creation of open educational resources (OERs), new online courses, simulations, virtual labs, and Scholarship of Teaching and Learning projects

- Over 130 microcredentials offered primarily through Continuing Education are now approved for OSAP eligibility; the Microcredentials Working Group continues to refine a framework for development, approval, and quality assurance of these credentials
- OOL team members sit on 50 institutional and 16 external committees, working groups, and boards
- Since Feb 2020, OOL has hosted a weekly meeting of online learning centre directors and staff to support provincial planning, sharing of best practices, problem solving, and community building
- Contributed to UWindsor reputation by presenting 22 scholarly presentations (including 7 invited or keynote presentations) at 18 local, national and international conferences, 3 peer-reviewed journal publications, 15 open books as authors or co-authors, published 34 blog posts, membership of 16 external committees and boards, and support and collaborate on 60 internal and external grants (see full report for list of these scholarly activities)

D. Key Challenges

- 1. Ongoing impact of COVID-19 pandemic and return to campus exacerbated by the cybersecurity attack
- 2. **Implementation of next LMS** on a very tight timeline and associated replacement of additional educational technology (virtual classroom, similarity checker)
- 3. Supporting the application development, submission and management of a large number of **provinciallyfunded projects** with tight, overlapping deadlines across multiple agencies
- 4. Ongoing **skill gap** in technical areas exacerbated by inability to hire due to inflexible working requirements
- 5. Lack of space in our current building to house all OOL, CTL, and QA staff 4 AAS faculty are currently hoteling in shared offices. Additionally, no specialized space on campus for development of eLearning content.
- 6. No formally adopted institutional **definitions of course delivery modes** leading to inconsistency in practice and student experience
- 7. Diversifying external funding sources to offset unpredictability of provincial funding

2. Report

A. Area's Goals and Objectives and the University's Strategic Plan

- 1. Provide an exceptional undergraduate experience:
- a. Educational technologies support and exploration
 - Supported instructors and students (in collaboration with CTL and ITS), who had to pivot away from Blackboard and other campus systems that were unavailable during the cybersecurity attack; identified and tested alternatives for teaching and administering assessment, and developed workshops, advice, and web resources to support the transition within 24 hours; updated open resources including the open book <u>Teaching with MS Teams</u>.
 - Led complex multi-stage migration and archiving of all Blackboard Collaborate recordings to YuJa when Blackboard started to charge for storage (collaboration with ITS and CTL)
 - a. 43,760 hours of recordings, 40,340 files, 9.8Tb of data successfully migrated
 - Led implementation of YuJa Enterprise Video System, including collaboration with CTL and ITS on integration to the LMS and single-sign-on
 - a. During the reporting period (first year of full availability), 436 instructor and 1655 student accounts created in the system, 850 media captures created
 - b. Created a dedicated website and 14 tutorial videos for using YuJa, along with Wiki articles (in collaboration with CTL)
 - Promoted ethical and critical selection and use of educational technologies that respect privacy, safety, accessibility, and sound, evidence-informed pedagogies.
 - a. Successful grant application (\$74,500) to develop a guide to Ethical, Equitable and Sustainable Procurement of Educational Technology that will form the basis of a companion microcredential
 - Support and enhance existing educational technologies including Blackboard Collaborate, MS

Teams for teaching WordPress ePortfolios, Pressbooks open publishing system, H5P interactive learning tools, Blackboard Learn and other specific tools

- Wordpress ePortfolios: 711 new users published 659 new ePortfolio sites;
 - ePortfolios integrated into both the new Master of Science in Translational Health Sciences (MSTHS) program in the Faculty of Science, and the Seminar in Secondary Music Education (MUSC-4850) course in the School of Creative Arts.
 - b. Hosted 57 workshops with 880 attendees and 76 drop in sessions
 - c. Facilitated the *I'm Going to Google You: UWindsor Wordpress ePortfolios* workshop for graduate students, offered annually through the office of Career Development and Experiential Learning Propel workshop series; 50 student attendees, from across 4 faculties, and 13 unique departments

b. COVID Pandemic and Transition Support

- Support instructors, students, and administrators in planning which aspects of teaching and learning to revive, revise, and revolutionise as restrictions are lifted and a return to campus is possible
- Provided pedagogical support and regular training for instructors teaching hy-flex classes, as per the collective agreement requirements for training in alternative delivery modes (collaboration with CTL and ITS)
 - a. Offered 38 workshops targeted for various hyflex stakeholders faculty (in person and online), designated Hyflex GAs, regular GAs/TAs, and for specific departments as needed
- Developed videos and how-to guides
- Support campus planning for effective, responsible, and safe return to campus, including hybrid and hy-flex approaches; Continue to work with faculty to design and develop online, hybrid, and hy-flex learning environments in the transition back to pre-COVID programming
 - a. Developed eBooks, sprints and workshops and provided virtual and in-person consultations for instructors
- Hired 19 Co-op, Ignite, and part-time students to support instructors and students during the transition
- Led the implementation of additional core educational technologies: YuJa (Video/lecture recording and management), Panorama (accessibility assistant), and BetterExaminations (assessment platform)), in collaboration with CTL, ITS and other stakeholders, to enhance digital capacity in teaching and learning

c. LMS Renewal – Partnership with CTL and ITS

- Initiated review of the LMS when Blackboard announced the end of support for self-hosting
- Collaborated with leaders in CTL and ITS to develop a governance structure to support the review process and eventual procurement process for the next LMS
- Review undertook extensive consultation with campus stakeholders, including specifically with equity deserving groups, collecting 2,000 survey responses that were used to inform the development of a Request for Proposals for the next LMS for UWindsor.
 - a. This RFP was the first technology procurement at UWindsor to explicitly incorporate considerations of Indigeneity, decolonization, inclusion, accessibility, and sustainability, and has since become a model for other institutions as a result.
 - b. Developed over 400 technical requirements, a series of short responses, and additional complex scenarios that vendors had to address, followed by topics the shortlisted vendors had to address in public presentations (providing targeted information, rather than an open sales pitch)
 - c. Collaborated with Indigenous colleagues and the office of the VP-EDI to develop questions that surface experiences of minority groups in using the technology
 - d. Almost 100 people provided feedback on the vendor presentations and 750 requested access to the sandbox sites for testing, providing an additional 500+ survey responses on their experience in the systems
- Advisory committees reviewed the systems for privacy, security, accessibility, equity, diversity and

inclusion elements, Indigeneity, and integrations with existing third-party tools

• Provide leadership in development and implementation of a process to facilitate renewal of this critical system

d. Champion Open Practices

- The OOL is committed to championing and modelling Open Educational Practices (OEPs) in all aspects of our work, including open publishing in open journals, practicing open scholarship and open peer review, supporting open publishing, and creation and adaptation of Open Educational Resources (OERs)
- During the reporting period, OOL members authored, co-authored, and supported the development of 30 OERs, open textbooks, and interactive media resources
 - a. Collectively, during the reporting period these resources were visited by 166,661 people for 251,905 views (*Note: data is not currently available for 11 of the 30 resources we are working to retrieve this data*)
- Received funding from eCampus Ontario to hire an OER specialist to support development, curation, and promotion of UWindsor OERs, but was unable to hire due to restrictions (most people in these roles work remotely) and timelines
- Support open publishing e.g. open textbooks and other open educational resources (OERs)
- Curate and enhance visibility of existing UWindsor-created OERs
- Support and practice open scholarship

e. Students as Partners

- Engaging students as true partners in the educational journey is a core value of OOL; we ensure that students are involved in all our projects as critical partners
- Partnered with 113 students during the reporting period programs including Ignite, Co-Op, the Federal government's Student Work Placement Program (SWPP), and grant-specific resource development with student leadership and involvement; Received \$69,674 in SWPP funding to support 17 co-op students, plus 2 Ignite students working to enhance and teaching and learning across campus
 - a. Student projects included developing OERs, producing how-to guides, video production, consultation and course site review
 - b. The student-created <u>Students Helping Students</u> site includes 20 blog posts on topics ranging from online learning and organization to UWindsor-specific topics relating to helpful links for students and finding connections online and off. The site also features helpful summaries and links to two open eBooks authored by the co-op students and OOL Learning Specialists. <u>Making Open</u> <u>Educational Resources: A Guide for Students by Students</u> guides students through finding, using, and even creating open educational resources (OERs), and Learning to Learn Online (eBook)
- Virtual Learning Strategy (VLS) grant-funded projects employed 82 student partners partners across 18 projects
- Continue to expand and refine Peer Assisted Learning Sessions (PALS), with 24 PALS leaders hired across the year; 762 students attended at least one session (Fall 2021 = 507, Winter 2022 = 255), with an average of more than 3 sessions per attendee.

f. Support digitally-enabled teaching and learning

- As we emerge from the emergency situations encountered since 2020, we continue to evolve our core
 programming to support digitally-enabled teaching and learning that is inclusive and accessible. We
 advocate for contemporary, evidence-based learning space designs that enhance flexibility and
 support multiple pedagogical approaches, provide reliable access to educational technology, and help
 to facilitate active, collaborative, and technology-enhanced learning
- **Training Equipment Renewal Fund (TERF)**: Secured \$548,325 in funding from the provincial TERF, along with \$585,721 in matching funds from the University to complete a highly ambitious project of transformation of many learning spaces across campus including:
 - a. Reimagining and redesigning five traditional classrooms to become flexible, accessible, comfortable and welcoming and active learning spaces, ranging from smaller 20-30 seat flexible

learning spaces (EH1114 and 1115 and DH365 and 367), to the larger (60 seat) Active and Collaborative Learning Space in Chrysler Hall North G100, which has 7 technology-enabled pods, sound mitigation, and flexible, accessible furniture. **Instructors and students were involved in the visioning and design of these spaces for the first time ever**.

- b. Upgrades to AV and furniture in two teaching spaces in Windsor Hall (WH110 and 116), and extended hy-flex capabilities in 4 classrooms (HEC204, EH 3123, CHS51 and CHS53) with addition of instructor confidence monitors so they can easily see the online audience, additional cameras, and ceiling microphones to capture the audience and share it to those online
- c. AV and other upgrades to two computer labs in nursing (HEC108 and HEC114)
- Co-facilitated the first Online Mobile Summer Institute (MoSI) in the Faculty of Science. This is training extends over 5-days and immerses faculty in active learning, peer evaluation, and effective assessment practices in the sciences.
- OOL Learning Specialist, Dave Cormier, was contracted to develop a curriculum for the Organisation for Economic Co-Operation and Development 's (OECD) <u>Center for Educational Research and</u> <u>Innovation (CERI)</u> teaching pre-service teachers how to integrate creativity into the online classroom

g. Equitable, accessible, and inclusive teaching and learning

- The OOL aims to apply this lens to all our work and as such, it is woven through all our activities.
- OOL is in the process of designing a new microprogram in <u>Humanizing Digital Learning</u> that will launch in 2023. The program will consist of 6 stackable microcredentials exploring student engagement, assessment practices, accessibility, EDI, decolonization and Indigenization, ethical educational technology usage, plus an introductory course and a capstone where participants can explore an issue or initiative in their digital teaching.
- OOL team members sit on three institutional accessibility committees (Accessible Information and Communications Committee (AICC), Accessible Post-Secondary Education Committee (Co-Chair), and Accessibility Coordinating Committee) and provide strong advocacy for equitable practices
- Successfully co-led (with Mohawk College; CTL was also a collaborator) a \$200,000 grant project with
 10 universities and colleges across Ontario developing an open educational resource on <u>Universal</u>
 <u>Design for Learning (UDL) for Inclusion, Diversity, Equity, and Accessibility (IDEA)</u>; this includes
 creating content for a microcredential to be implemented locally to address UDL and Accessibility for
 Ontarians with Disabilities Act (AODA) accessible education training compliance requirements; OHREA
 and CTL also collaborated at UWindsor
- Supported two VLS projects developing open resources for learning about LGBTQS+ in healthcare, and a new course on Empowering Bystanders Against Anti-Black Racism
- Leading a cross-institutional project to develop a guide to Ethical, Equitable and Sustainable Procurement of Educational Technology that will form the basis of a companion microcredential; these principles were also embedded in the recent LMS procurement process
- Delivered a workshop on <u>accessible technology tools</u> during the annual Accessibility Awareness Days, as well as workshops throughout the year on accessibility support tools throughout the year, accessible use of the LMS, alternative assessment approaches, creating accessible video and interactive learning supports and more.
- Led the implementation and support of the new Panorama accessibility checking tool from YuJa, and supported and trained faculty and students in the use of Read&Write and Equatio
- Regularly consulted with instructors, students and SAS staff in providing solutions to support equitable, accessible and inclusive learning designs, and achieve accommodation needs, including capturing and utilizing media
- Continue to advocate strongly through the committees and bodies we are members of for curricular approaches that improve access to education for all learners.

h. Indigenization

- We aim to model commitment to Indigenization and responding to the TRC Calls to Action in our practice
- Co-developed the first open resource on the relationship between Indigenous pedagogies and

Universal Design (co-authored by Jaimie Kechego (CTL) and Lorie Stolarchuk (OOL))

- Received funding from eCampus Ontario and provided matching funding to hire an Indigenous Learning Designer for an initial 3-year LTA role to assist in the decolonization and Indigenization of digital spaces, and Indigenizing curricula in online and hybrid courses
- Continuing to develop Gikinoo'amaadiwag (They teach each other) Cross-Cultural Instructional Skills Workshop (GCCISW) (funded by CTL and the office of the VP External with Lorie Stolarchuk as project lead and team member; Ashlyne O'Neil as project team member)
- Successfully completed the VLS project <u>Indigenous Lifeways in Canadian Business</u>. Led by Russell Evans, Indigenous Scholar in Odette School of Business, the project created openly licenced video vignettes with Indigenous entrepreneurs and business owners telling their stories through an Indigenous lens
- Successfully completed development of an open module on <u>Indigenous Knowing Methodologies</u> for a VLS project led by Dr. Kara Smith, with the module authored by Elder David Plain (Mts, Aamjiwnaang First Nation).
- Continue to explore and support meaningful engagement in Indigenization and decolonization of curricula, teaching practices, spaces, and technologies

2. Pursue strengths in research and graduate education

a. Scholarship of open and online teaching and learning

- OOL faculty and staff continue to be active in scholarship, often partnering with faculty and grad students to present their scholarship at local, national, and international conferences, or work towards publications
- The team presented 22 conference sessions during the reporting period, as well as numerous invited presentations and workshops for local, provincial, national and international audiences
- Offered grants to support scholarship of online, open and technology enabled education
- Promote and support scholarly approaches to online and technology-enabled teaching and learning

3. Recruit and retain the best faculty and staff

- a. Funding for curricular innovation and exploration
 - OOL support campus partners to successfully apply for and complete externally funded (e.g. eCampus Ontario, Ministry of Colleges and Universities) teaching and learning focused grant projects
 - In the 2021-22 eCampus Ontario Virtual Learning Strategy grants that were awarded prior to the current reporting period but completed during it, OOL worked with 62 faculty partners to submit a record number of 51 applications, 19 of which were funded (higher than the provincial average) totalling \$1,447,645 in funding. OOL was also a partner on 3 large collaborative VLS grants led by other Ontario institutions
 - In the 2022-23 round of funding, which was awarded in the current period and will be completed in the next, the funding available was much smaller and highly targeted. OOL supported the submission of 18 applications, of which two OOL-led proposals were funded for \$183,205
 - Following a hiatus during the early part of the pandemic, OOL's Strategic Development grants were revised and relaunched in 2022. These are small internal grants to support open, online, and technology-enabled teaching and scholarship. 31 Expressions of Interest were submitted, with 18 projects ranging from OER creation to research ultimately funded.
 - Offered a total of 82 formal workshops and courses for instructors and GAs/TAs in 2021-22, along with bespoke workshops for departments and programs, and over 3,000 hours of consultations with faculty, students and administrators

b. Post-pandemic future of education

- OOL aims to assist campus stakeholders in envisioning, exploring, and planning for post-pandemic
 opportunities for evolving teaching and learning toward more inclusive, equitable, and sustainable
 practices
- The re-imagined certificate program, *Humanising Digital Learning*, (formerly the Certificate in Online and Open Learning (COOL)) is intended to help instructors explore, extend their knowledge, and plan

the next steps in their digital teaching journey

- The OOL team are members of several of the COVID response committees, including those considering academic and return to campus issues
- The OOL team has been highly engaged and involved in shaping the new Aspire Strategic Plan through committee membership, contributions to data gathering activities, and advocacy
- OOL has begun planning for a Future Challenges Institute exploring futures of higher education, with an application for SSHRC funding to support the activity
- OOL also partnered with the with Ontario Tech University, Trent University, and Durham College in an eCampus Ontario funded project to develop the *Introduction to Higher Education Management Certificate Program (IHEM)*. The IHEM program is designed to close the skills gap and to provide the foundations necessary to become more effective managers and quality leaders in higher education.

4. Engage and build the Windsor and Essex County community through partnerships

- a. Microcredentials
 - Continued to chair and expand the Microcredentials Working Group to include more campus stakeholders to develop a framework for microcredentials at UWindsor
 - Collaborate with academic and non-academic units on campus to explore opportunities for offering new microcredentials under the framework that meet needs of local industry, non-profits, and community members
 - Engage with provincial, national, and international groups in developing understanding of microcredentials
 - a. In 2022, OOL members were engaged in multiple provincial working groups and co-authored the eCampus Ontario Microcredentials Toolkit
 - b. In 2022, OOL members were engaged in multiple working groups that developed a framework and ultimately co-authored an open <u>toolkit</u> on microcredentials that outlines how to navigate opportunities and challenges of developing micro-credentials around three core themes: collaboration, structures, and recognition. <u>eCampusOntario's Micro-credential Toolkit</u> offers practical suggestions and considerations for the development of microcredentials at post-secondary institutions throughout Ontario.
 - Partnered with the Faculty of Science's FISHCast team on an application (unsuccessful in this round) to Ontario's Microcredential Challenge Fund to develop a non-traditional microcredential program as a value-add to their graduate program. OOL has continued to support the team in their development of a robust badging and microcredential program that develops discrete skills in fisheries graduate students
 - *b.* Partnered with Continuing Education to pilot eCampus Ontario's BCDiploma Blockchain based digital credential system for microcredentials

5. Promote international engagement

- a. Continue institutional membership in international organisations such as the Open Education Consortium
 - OOL funds UWindsor's institutional memberships to the International Consortium of Distance Educators (ICDE), the Open Education Global (OEGlobal) Consortium, and the Association for Learning Technologies (ALT)
- b. Foster international relationships, recognition, and connection
 - OOL is actively seeking Visiting Fellows to bring international perspectives, experience, and ideas to our context and co-funds (with CTL) an apartment on campus for fellows
 - Staff of the OOL were involved in 16 external committees and boards during the reporting period
 - In the reporting period, OOL's Twitter presence was as follows: 15,638 impressions in 2021-2022 (average 1,303/mth), 1001 followers

B. Future Actions and Initiatives: 2022-23

An overarching theme for OOL's strategic initiatives in the current year and for 2023-24 will be the response to and implementation of the Aspire Strategic Plan, including the development of an institutional Teaching and Learning Plan. Another will be aligning activities to a Service Level Agreement approach. The following actions will be viewed through that lens.

1. Brightspace implementation and associated digital technology renewal: Partner with stakeholders to complete and embed Brightspace and build on the capabilities of the new system.

2. **Artificial Intelligence:** Critical exploration, policy, and practical advice on the emerging field of Generative and Generalized Artificial Intelligence in academic practice.

3. Equitable, accessible, and inclusive teaching and learning: Foster a focus on inclusion, accessibility, equity and anti-racism, particularly in technology-enabled environments. Accelerate planning and action towards achieving the AODA Accessibility PSE Standards.

4. Indigenization and decolonization: Continue to work towards Indigenizing digital learning environments and curriculums, and our own work; begin to build relationships with local communities and seek opportunities for reciprocity.

5. **Support digitally-enabled teaching and learning:** Digitally enabled teaching and learning is critical to the success of our institution and our students, and should be a pillar of strategic planning for teaching. Support instructors to explore the possibilities of digital teaching, and become leaders in this space. Support development of critical digital literacy across campus.

6. Educational technologies support and explorations: Continue to provide support and critical evaluation of educational technologies, both established and emerging. Promote and support ethical and critical use of educational technologies in teaching that respect privacy, safety, accessibility, and sound, evidence-informed pedagogies.

7. **Open Educational Practices:** Continue to provide support and incentives for open publishing (e.g. OERs, open textbooks). Create, curate, and celebrate open resources. Raise the profile of Windsor-created OERs. Support and practice open scholarship.

8. **Students as partners:** Enhance student partnerships in all areas of our work and advocate for a partnership approach across campus. Incentivize adoption of Students as Partners through programming and funding. Continue to expand and refine Peer Assisted Learning Sessions (PALS) for the maximum impact.

9. Expanding and adapting core programming to support strategic directions: Launch Humanizing Digital Learning microcredential program and expand range of developmental programming in line with the new strategic plan. Enhance awareness and visibility of OOL programming, and focus on reaching beyond our historical audience.

10. **Microcredentials:** Continue to engage Microcredentials Working Group and stakeholders to develop a framework for microcredentials at UWindsor. Explore opportunities to pilot microcredential approaches. Engage with provincial, national, and international groups in developing understanding of microcredentials.

11. Employee engagement and team development: Collaboratively develop and implement a plan to address the Employee Engagement Survey.

12. Community engagement: Build relationships with community, leveraging open practices.

13. Data informed practice: Encourage data informed teaching, including using open data sources. Encourage consistent collection and use of data about one's own teaching. Identify metrics and data that reflect OOL's values and work.

14. Scholarship of open and digital teaching and learning: Promote and support scholarly approaches to online and technology-enabled teaching and learning.

C. Recommendations for Senate Consideration

- Review the impact of COVID19 policy changes on student success and determine what should be kept or modified
- 2. Begin to prepare for policy changes that will be critical to achieving the AODA's Accessibility Standards for Post Secondary Education

*5.2.2: Computer Science – Revisions to Standing Required for Continuation

Item for: Approval

Forwarded by: Academic Policy Committee

MOTION: That the proposed revisions to the Policy on Standing Required for Continuation and for Graduation (Undergraduate) be approved.

<u>Proposed Revisions:</u> [revisions are in bold and strikethrough]

Standing required for continuation in the Honours Bachelor of Information Technology: Non-Co-op option: 60% cumulative average and 70% **60%** major average Co-op option: 60% cumulative average and 70% **65**% major average

Standing required for graduation in the Honours Bachelor of Information Technology: Non-Co-op option: 60% cumulative average and 70% major average Co-op option: 60% cumulative average and 70% major average

Rationale:

• The major average required for continuation in the Bachelor of Information Technology (with/without Co-op) was erroneously listed at 70%, at the time of the approval of the program. The proposed revision is in-line with standing requirements for other Computer Science programs and most of the programs in the Faculty of Science.

*5.3.1: Bylaw 1 – Review of Composition and Size

Item for: Information

Forwarded by: Senate Governance Committee

Bylaw 1 requires that Senate's composition and size be reviewed every 5 years. The last two reviews (2012/2013; 2017/2018) resulted in the maintenance of the status quo.

Members are reminded that the 2009/2010 review resulted in an extensive proposal, which sought to restructure and reduce the size and composition of Senate, keeping in mind the requirements of the Act and based on a strict interpretation of the purpose and role of Senate as the ultimate academic decision-making body. Senate rejected this proposal.

For the 2022/2023 review, the Bylaw Review Committee once again sought feedback from Senate on whether:

- 1. the size of Senate should be reduced, maintained, or increased;
- 2. some *ex-officio* positions should be eliminated or added, keeping in mind the requirements of the Act;
- 3. some positions should be designated non-voting members, allowing those without strict academic functions within the university to maintain a liaison service to Senate and their constituencies.

Twenty-six responses were received. Responses were mixed between reducing and maintaining the size of Senate. Some favoured reducing the number of *ex-officio* positions, others called for a more significant decrease overall – in *ex officio*, faculty and student numbers, and others still suggested maintaining and, in one case, increasing the size and composition. Very few supported designating some positions as non-voting. This mirrors the feedback from the last two reviews. A handful of responses noted that, if it is decided to open the Act, a more complete and intentional review of the composition and size of Senate should be undertaken.

Given this lack of consistency and direction, the Senate Governance Committee/Bylaw Review Committee is not recommending any change to Senate's composition and size at this time.

5.6: Report of the Academic Colleague

Item for: Information

Forwarded by: Dr. Lisa Porter

Academic Colleagues met in a hybrid format on April 4 and 5, 2023.

Evening meeting, April 4, 2023, 6:00 - 8:30 pm

A Land Acknowledgement was provided by Jennifer Shore, Royal Military College of Canada.

Introductions around the table.

Presentation. Dr. Isabel Pedersen, Ontario Tech University Digital Life Institute

Dr. Pedersen provided a detailed discussion about ChatGTP and AI assisted technology in general. Her presentation covered what is AI, what is generative AI or autonomous content generation, what are the issues, controversies, and harms, and what are best practices for dealing with AI in the classroom. The colleagues then discussed how generative AI (like ChatGTP) challenge traditional roles for writing.

The colleagues had suggestions to require students to understand the ethics behind different AI themes such as the use of AI in the promotion of human values, professional responsibility, human control of technology, fairness, and non-discrimination. There was a suggestion that professors provide guidance and framework around writing with AI technologies. Dr. Pedersen provided some examples from different disciplines regarding how to use AI in modules and assignments. She also provided some of her early thinking into how to connect AI usage with learning outcomes. We discussed how technology has evolved over the decades and how at each stage we must adjust our teaching and thinking. There was good conversation about the challenges for specific disciplines with a focus on English and the Humanities that teach students how to write. There were discussions about the potential for some disciplines to be alienated and to fall behind if they are not supported in the uptake of ChatGTP.

One summary point that will be delivered to the Exec Heads: There is a realization that there are both pros and cons of AI and that this affects different disciplines differently. Regardless, AI is here to stay, and it will continue to improve and hence we need to consider both the operational and pedagogical way forward. Operational: Do we support AI tools and training on them? Who keeps up on AI technologies and educates and supports the faculty? How does this impact academic integrity offices? Pedagogical: How do we implement AI into coursework? How do we deliver learning outcomes in a way that is leveraging the positives of AI without compromising student overall learning and that supports the vision and advance of the discipline?

Morning meeting. April 5, 9:00-12:00 pm

Reports from the colleagues on senate meeting issues. Across the board there is a lot of concern about budget, the need to increase numbers of international students and graduate student funding. Several schools are in bargaining and dealing with bill 124. A few schools noted faculty morale being low and some conflict between administration/faculty. Several schools noted that there is significant concern with how academically behind many incoming students are. Nipissing U discussed a treaty that the University is establishing with Indigenous peoples. Trent discussed this "Momentous Change Campaign" that they are rallying around to raise \$100M dollars – they have

already raised \$42M to 'empower students, vitalize campuses and enable world-changing research'. York is building a new campus in Markham.

COU update: Steve Orsini updated about the full court press that COU held about tuition and the University grants. He said that there is a recognition that the Universities have been absorbing costs for the past 5 years. COU took the position that tuition caps should be lifted and accompanied with appropriate OSAP supports for those without financial means.

The provincial government has announced the creation of a blue-ribbon panel of experts that will provide advice and recommendations on ensuring the financial sustainability of the post-secondary education sector, promoting positive student experiences, and supporting economic growth and innovation.

Some of the focus of the Blue-Ribbon Panel to date: A significant focus on Tuition. They are working with the colleges to find common points of advocacy. There has been free tuition provided for areas of demand (ie nursing). Steve asked about two possibilities for feedback from the colleagues: 1. Do we advocate across the board for investment in Universities? Or, 2. Do we advocate for select areas of demand? (During discussions the colleagues largely favoured putting efforts toward the first option).

COU are putting efforts toward creating efficiencies to save University budgets. COU space standards review has been collecting data about infrastructure and space needs; this has been conducted in collaboration with the colleges. Are there procurement opportunities that we can create efficiencies? Looking at centralized services that already exist and how we can further centralize and save on operational efficiencies.

As an aside: I attended COU workshop 9 on university space. The goal of this is to provide a report on the 'average' space usage, challenges, and needs across the sector. One of the foci is how to create more 'agile' research and study spaces, merging and sharing spaces for research. There was a lot of discussion, one of my points was the need for students to have a sense of space for student experience and for us to not lose sight of the needs of accessibility. Whether this exercise will truly create efficiencies and budget savings for the Universities is not clear to me.

Steve discussed the importance of protecting institutional autonomy. He noted that while we want more government investment, we also need to be sure that the government is not micromanaging what Universities are doing. Allowing Universities to deliver on their mission.

There was a discussion about governments challenging the value that Universities deliver to society, and the heavy emphasis on skilled trades. It was acknowledged that there is a lack of community understanding about how Universities are funded and operate, and this is also not helping the tuition situation. Steve noted that University graduates have higher employment rates than colleges and emerge more resilient, and that these types of facts need to be clear to the government. He re-emphasized that the government needs to see that tuition is about investment into future and human capital. COU has worked on reports about good governance practices and financial reporting/metrics tied to an action plan to help on these advocacy efforts.

There was a brief discussion about state of research budget – the province is focused on industrialization and commercialization and not coming to match of federal research dollars. COVID has shown that we need to invest in societal issues and discovery-based research and not just commercialization.

Council Meeting April 6, 2023

The colleagues presented a summary of our conversations about AI to Executive Heads. The underlying message – we need to come together to find the way forward and how to use these tools to make Universities even more relevant. Steve Orsini had a great point about how COU can help to create efficiencies and to move forward a coordinated response. There were suggestions from some of the Exec Heads to involve other groups including the school boards and governments. It was a discussion point that it is particularly difficult for older faculty to pivot, and they require support. The chair of the AC committee gave an update about what we have been covering and discussing. She covered discussions on EDI, mental health, and AI.

Respectfully Submitted

L. Porter, Academic Colleague.

5.8: **Report of the Provost**

Item for: Information

Forwarded by: Patti Weir

1. SET Score Task Force

Information session held Friday May 5, 2023.

2. Term 1 – Brightspace – E. Kustra

The University has successfully completed the transition of its Learning Management System (LMS) to Brightspace. Turnitin was integrated in the new system, and Blackboard was fully retired on April 28, 2023. We would like to thank everyone involved for the tremendous work to provide a smooth campus transition to Brightspace. 18,750 users have migrated to the new platform and in the Winter 2023 term there were 1598 active course sites.

From January 1 to April 30, the CTL supported 427 visits to the Brightspace drop-in support, with a majority being served virtually. 579 Brightspace help-tickets were completed during that same period. The CTL facilitated 37 Brightspace workshops during the Winter semester (Jan 1 to April 30), with 127 attendees.

Verbal feedback has largely been positive, and a survey for systematic feedback and recommendations will be circulated in May to continue improvements.

The <u>Brightspace Faculty Champions</u> have been valuable contributors to the implementation of Brightspace, and will be available for instructors learning and exploring Brightspace for the upcoming Summer and Fall terms. CTL virtual and in-person drop-ins are continuing through the summer semester to prepare those teaching in the summer and planning for the Fall term. Many additional resources are found on our <u>Brightspace support website</u>.

3. Office of Open Learning grants - N. Baker

Information about the two grant programs can be found at: https://www.uwindsor.ca/openlearning/513/funding

Digital, Open, and Online Learning Grants

The Office of Open Learning call for proposals for Digital, Open, and Online Learning Grants closes Friday, May 5th.

Themes for the 2023 funding round include (but are not limited to):

- Supporting the priorities of the Aspire Strategic Plan
- Supporting and exploring flexible, hybrid teaching and learning
- Exploring the potential impacts of Artificial Intelligence (AI) in education
- Indigenization and decolonization of digital learning
- Equitable and ethical assessment practices
- Microcredentials

Proposals can request up to \$4000 for individuals and up to \$8500 for collaborative projects.

Microcredentials Pilot Fund

A call for proposals for the Microcredentials Pilot Fund will be announced soon. The fund aims to support the development and launch of a small number of microcredentials from across campus to test and refine the draft University of Windsor Microcredentials Framework and provide a proof of concept before a broader launch of the framework.

Successful applicants will be provided with funding, instructional design support, administrative support (enrollment, fee collection and disbursement, marketing, digital credential issuing, and access to appropriate institutional systems for learners (equivalent to Continuing Education student limited access). Applicants will develop and launch a microcredential in the 2023/24 academic year using the draft framework, and will provide feedback to inform the refinement of the framework and processes. Successful students in the mircrocredentials will receive digital credentials issued using the institutional digital credential platform.

4. Head Start – P. Lam

Lead by the Office of Student Experience in partnership with academic Faculties and student support offices, a total of six Head Start events will be held, five in-person one virtual day. Changes for this year include greater involvement of student societies, engagement with the BIDE Institute and full integration of sessions for General & Mature, Transfer and Part-time students through the assistance and support of Academic Advising to make a truly inclusive event.

Friday, July 7th: FAHSS & Education Saturday, July 8th: Science, Nursing & Education Friday, July 28th: Engineering, Business & HK Saturday, August 12th: General & Mature, Transfer, Part Time Wednesday August 16th: Virtual session for mature transfer part time students - 12pm to 2pm

5.8.2: Enrolment Management Update

Item for: Information

Forwarded by: Chris Busch, AVP Enrolment Management

[1] Undergraduate Conversion

Conversion activities are crucial to address yield, the percentage of admitted students who enroll in the institution. Institutions must work hard to attract and retain the best-fit students in today's competitive higher education landscape.

Conversion activities help prospective students better understand the institution's unique offerings and values, which can increase their likelihood of enrolling. Moreover, conversion activities help build relationships between the institution and prospective students, leading to greater engagement and trust.

A comprehensive list of planned conversion activities can be found in Appendix I.

[2] Fall 2023 Enrolment

Midterm/final grades for 4U/M courses and interim grades for full-year courses were due to OUAC at the end of April and received by May 4th, and adjudication will occur shortly after that. Applications continue to be evaluated for admissibility at least every week, along with ongoing manual reviews.

Applicants not admissible to their initial choice are now being considered for alternative programs within their faculty. Student recruitment provides advising support to these students, which is critical to their and the university's success. This support helps students to find their academic path, succeed academically, and remain engaged with the university.

We are now transitioning to the enrolment stage of our student life cycle journey, which involves admitted students deciding whether to enrol in the institution and completing the necessary steps and requirements to secure their spot in the program. We continue to see positive enrolment indicators for the fall, especially on early confirmations (see below).

Fall 2023 Enrolment Dashboard (as of May 3, 2023)

		Applicants		ΔF23-		Admits			(Confirmation	IS	
Category (new entrants)	F23	F22	F21	F22	F23	F22	F21	ΔF23-F22	F23	F22	F21	ΔF23-F22
Undergraduate, Domestic												
Tri-County Region	2899	2877	2798	1%	2430	2249	2085	8%	958	789	771	21%
GTA	2789	2546	2399	10%	1996	1843	1574	8%	79	62	63	27%
Ontario (Other)	2032	2160	2198	-6%	1475	1560	1434	-5%	151	114	119	32%
Outside Ontario	291	497	571	-41%	126	219	218	-42%	21	29	35	-28%
Undergraduate, Domestic Total	8011	8080	7966	-1%	6027	5871	5311	3%	1209	994	988	22%
Undergraduate, International	2885	2396	1525	20%	1580	1096	787	44%	327	194	140	69%
Graduate, Domestic	1350	1370	1374	-1%	466	424	463	10%	410	344	392	19%
Graduate, International	6422	5974	6020	7%	2684	2888	2781	-7%	2140	2180	2168	-2%

[3] "Aspire for Student Success^{*}" – The University of Windsor's 2023 – 2038 Strategic Enrolment Management Plan - Update

An all-day in-person enrolment goals workshop has been scheduled for May 18th. The session's objective is to bring stakeholders from various departments together to collaboratively explore, discuss, and define the institution's enrolment goals, priorities, and strategies for the future. This workshop ensures that the SEM plan aligns with the institution's mission, values, and long-term objectives. Participation includes executive, decanal, academic, and student success leadership. Over 75+ individuals are anticipated to attend.

[4] Virtual Open Day – May 11, 2023

Virtual Open Day is an excellent way for prospective students to learn about programs they are interested in and see the campus and accommodations (virtually). Participants can attend information sessions on scholarships and awards, how to complete their application and more. Much of the content is repurposed from our in-person spring open house.

Our professional staff, student ambassadors, admissions professionals, and in-country representatives facilitate the platform; while the primary audience is international, we have a sizable portion of domestic registrants. As it is a virtual online platform, we will support all degree levels and student groups, but some inquiries will be triaged and referred.

Registration is trending above Fall 2022, with 1,300+ registrants (as of May 3, 2023).

In another first, we elected to have a current student, Chelsea, welcome prospective in the virtual lobby – see her video here: <u>https://f.io/K3Jngspo.</u>

Registration can be found here: <u>https://uwindsor.swoogo.com/springvirtualopenday.</u>



[5] International Recruitment Partners (Agents)

We work with qualified pre-screened educational representatives, commonly called "agents," to help promote the institution abroad. They advise prospective students on educational opportunities, assist with the application and visa process, facilitate communications with the institution, promote the institution, provide logistical support, and work closely to help expand our global reach and attract a diverse range of students. Agents are directly supported by in-country recruitment staff and governed by a robust agent management framework that guides contracting, training, and performance.

For 22/23, to support our enrolment goals, we sought to increase representation across all regions outside of India and implement a robust quality assurance and monitoring mechanism that collected feedback from our students. The results of the team's efforts can be found below (see Figures 1 & 2).

Figure	1:
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Agent Distribution				
Region	2018	2020	2023	
Middle East & North Africa	32	55	76	
South Asia	54	61	68	
Sub-Saharan Africa	17	27	87	
East & Southeast Asia	29	56	127	
Latin America & Caribbean	14	21	47	
Russia & Central Asia	7	37	33	
Europe	9	13	24	
South Pacific	5	5	7	
Global (Online)	4	5	6	
Total	139	226	475	

Figure 2:



* - Based on International Student Satisfaction Surveys (S22, F22, W23)

5.9: **Report of the Vice-President, Equity, Diversity, and Inclusion**

Item for: Information

The VPEDI is away pursuing humanitarian work in Tanzania. A more detailed report on the work of the Office of the VPEDI will be provided at the next May meeting, including a detailed update and presentation on turning the Employee Engagement Survey results into action.

University of Windsor Senate

5.10: **Report of the Vice-President, Research and Innovation**

Item for: Information

Forwarded by: Chris Houser

Research, scholarship, and creative activity are critical to the reputation of the University of Windsor and have a significant influence on our ability to recruit and retain undergraduate and graduate students.

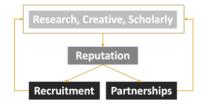
Canada Research Chairs: As discussed at an earlier Senate meeting, the University of Windsor has several open (3) and expiring (4) Canada Research Chairs (CRCs) available over the next couple of years. A request for proposals was distributed to the campus community in Fall 2022 and the 29 submitted proposals were reviewed and ranked by the Executive Leadership Team (ELT), Deans, Associate Deans of Research and the Office of Research and Innovation Services. Based on this review, the following 3 CRCs were deemed to be a strategic opportunity for the University of Windsor:

- Health Disparities and Public Health- Faculty of Arts, Humanities and Social Sciences
- Health Biostatistics- Faculty of Human Kinetics
- Environmental/One Health Genomics- Faculty of Science

These CRCs leverage on the of the Windsor-Essex County Health Unit (WECHU) to campus next year. The searches will start in July 2023 so that the incoming Vice President for Research can chair the search committees. The successful proposals for the remaining (expiring) chairs will be announced by the incoming VPRI next fall.

WE-SPARK Think Tank: The WE-SPARK Health Institute hosted a Think Tank with the Windsor-Essex County Health Unit (WECHU) on April 21st. A summary of the Think Tank Outcomes is provided in the adjacent graphic.

Lean Audit of Research: As previously noted, we conducted a Lean Audit of research services, to ensure that our research process, from the announcement of a grant to the closure of a research account is effective and supports research, creative and scholarly activity. Faculty from across campus with different levels and types of research were invited to participate in a workshop to determine how we can further support research and ensure that our processes are effective. The outcomes of the Lean Audit are appended to this report, and it will guide the incoming VPRI on how to improve research services in the future.







Research Administration Process Focus Group Report

Marcela Ciampa M.A., B.Ed. Director, Organizational & Leadership Development

April 2023

Office of the Vice-President, Equity, Diversity and Inclusion

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Introduction

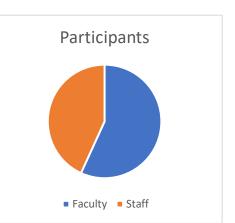
Dr. Chris Houser, Interim Vice-President, Research and Innovation, requested the design and facilitation of focus groups to identify opportunities to enhance the efficiency and supports associated with the research administration process. The research administration process provides a range of grant facilitation supports/services to scholars at the University of Windsor from the identification of funding opportunities through to post-award administration. **Appendix A** includes a high-level overview of the activities in the form of a research administration flowchart.

Focus groups were designed and facilitated by Marcela Ciampa, Director, Organizational & Leadership Development in the Office of the Vice-President, Equity, Diversity and Inclusion.

Goals of the Focus Groups

The focus groups were designed to:

- Take stock of bottlenecks, pressure points, and challenges associated with the current research administration process.
- Identify opportunities to build a more supportive research culture.



Participants:

A total of 25 faculty members at various stages of their careers

and 19 staff from Research Finance, Office of Research & Innovation Services (ORIS), Office of the Vice-President, Research and Innovation, Animal Care, Research Ethics, and Research Finance Research Ethics, Animal participated in 6 focus groups that were held in February and March 2023 (4 faculty focus groups, 2 staff focus groups).

Methodology:

The focus groups consisted of the following key activities:

- 1. A flowchart of the research administration process was posted on the wall.
- 2. Participants were provided 10 Post-It notes and asked to write on each a pressure point, bottleneck, and/or challenge associated with any of the steps of the Research Administration Process flowchart and to post them on the wall below the relevant step of the flowchart.
- 3. Participants participated in a roundtable discussion to share 1 of the pressure points, bottlenecks, or challenges that they had posted.
- 4. Participants were then provided 4 dot stickers and asked to review the items posted and place the dots on the items that from their perspective were the most critical.
- 5. Participants were then asked to identify strategies/supports to tackle current challenges and/or enhance a supportive research culture.

Please note that the first focus group with researchers followed a slightly modified facilitated process.

Data Analysis

A thematic analysis of the data emerging from the 6 focus group activities was conducted. As part of this process, broad categories/themes were identified. Ideas were then summarized and grouped by theme, duplicate items were removed, and like items combined.

This report includes the data emerging from the data analysis.

Section 1 – Research Administration Process – Current Realities

Participants were provided with Post-It notes and asked to write on each one a pressure point, bottleneck, and/or challenge associated with any of the steps of the Research Administration Process flowchart and to post them on the wall under the corresponding step of the process flowchart. This was followed by a priority-setting exercise using dot stickers to identify the areas that participants felt were the most critical.

This section presents a summary of the analysis of the data gathered through the activities conducted at the focus group sessions organized by step of the Research Administration Process and divided by participant group (Researchers, Staff).

Research Administration Process Step	Emerging Theme	Summary of Theme Descriptors
Identify funding opportunities	Need for enhanced supports to identity and diversify funding opportunities.	 Inadequate support to build research collaborations/teams to apply for grants and to identify funding opportunities in general. Not receiving the required information to apply for large grants. Not receiving funding deadline reminders. Not enough support to connect humanities to funding opportunities. Lack of influence/connections with Tri- Council and other government agencies. Not pursuing major gifts, fundraising to fund research. University's reputation impacting ability to secure grants. Lack of an industrial liaison to connect researchers to industry/private sector to expand research funding opportunities. Too much focus on the 'big three' funding sources (SSHRC, CIHR, NSERC). Not focusing on international grants.
Develop and submit the	Need for more specialized and other supports to	Lack of a dedicated team of grant writers to

1. Focus Groups - Researchers

Research	Emerging Theme	Summary of Theme Descriptors
Administration		Summary of meme Descriptors
Process Step		
funding proposal	prepare competitive funding proposals.	 provide enhanced assistance to preparing funding proposals. Lack of critical feedback on proposals submitted. Internal deadlines are too early. Delays in confirming course releases and capping releases to 1 per year even for large collaborative grants. Lack of specialized support to develop collaborative/team/multi-institutional grants. Insufficient support for coordinating the administrative components of applications, including lack of templates that researchers can use to streamline these components of applications. Lack of assistance with CCV submission to funding agencies. Redundant forms/paperwork. Securing 'in kind' contributions is inconsistent/unclear. No support for securing certifications required for some grant funding.
Receive notification that proposal was successful	Lack of notification and public funding announcement protocols and lack of alignment with opening of accounts.	 No notification protocols for external grants. No alignment between notification of funding and opening of accounts. Lack of clarity regarding public announcements.
Set up the research project	Insufficient mentorship and training, increased workload and backlogs, and lack of integration of systems and suitable space for conducting research.	 Lack of mentorship and training provided beyond grant development. Increased workload: administrative tasks consume a large portion of time. Lack of clear and consistent course release policies across faculties and departments. Space restrictions: lack of space for personnel and/or inappropriate space. Backlogs across the various components of the research administration process negatively impacting short-term grants particularly. Lack of integration and technical support for systems associated with research administration (I.e., ORACLE, ERSO, Centre Suite).

Research	Emerging Theme	Summary of Theme Descriptors
Administration Process Step		
	Establish the Grant: Research Finance processes and system create challenges.	 Delays in opening grant accounts resulting in late payroll and/or missing deadlines. Lack of Research Finance transparency and accuracy of reports. Large percent overhead charged. Issues associated with the handling of MITACS and escrow. Challenges associated with UWinsite Finance system and associated processes increasing administrative workload. No easy way to distribute funds over multiple
	Hire Personnel: Need for enhanced hiring supports and streamlined recruitment and hiring processes.	 grants. Hiring processes are not streamlined and are too complex. Lack of clear processes and steps for completing hiring processes (i.e., how to hire on contracts, how to hire research employees for longer term, information on labour policies, roles, taxes, immigration/visa, etc.). Barriers/challenges paying individuals for services provided (i.e., short contracts, Indigenous Elders, community members). Tuition fees make UWindsor less competitive, and therefore it is difficult to attract research associates, graduate students, etc. Lack of support for increasing salaries of highly qualified personnel (HQP), including research-based international graduate students. Lack of support to orient and train new hires. Challenges recruiting research personnel particularly in fields that are of high demand
	Purchase Materials: Delays with purchasing of materials, reimbursements, lack of guidance and administrative processes associated with UWinsite Finance.	 (i.e., nursing). Delays with purchasing-related processes and travel reimbursement. Issues with expense reimbursement approval process and delays at the faculty/department level. Lack of guidance regarding reimbursing travel for graduate students. Restrictions on spending leading to inability to spend all research funds. P-Card challenges, including limits on

Research	Emerging Theme	Summary of Theme Descriptors
Administration		
Process Step		
	<u>Meet Compliance</u> Requirements:	 purchases, allocation of expenditures to accounts, etc. Challenges associated with RFQ process, including control over purchasing large items and sole-source purchases. Lack of dedicated administrative support to navigate systems and processes and process expenses. Insufficient training to enhance proficiency in UWinsite Finance. Need a shift in culture – from compliance culture to more of a research supportive
	Compliance requirement delays, lack of clarity and supports.	 culture. REB process challenges (i.e., clearance delays, lack of transparency, consistency, clarity, accessibility, irrelevant revision requests). Too many audits. Insufficient safety and research security guidance provided. Little support to obtain Health Canada /Government of Canada certifications. Research Safety Committee delays, overly detailed process.
Manage/monitor research grant	Accuracy and timeliness of finance reports to support managing/monitoring grants.	 Not receiving regular financial updates and inability to easily access all transaction details. Inaccurate balance of accounts: financial statements provided are either not up-to - date or are incorrect. Long delays in the allocation of funds and difficulties getting up-to-date financial data close to the end of grants, resulting in unspent funds. Issues associated with inter and intra university fund management and transfers negatively affect University reputation with partners. Lack of clarity of Research Finance policies: no consistent answers provided. No support for grant amendments.
Disclose IP and manage commercialization	Lack of information/education and discipline-specific support.	 No IP-related education provided. IP disclosure is easy but advancement to patent slow.

Research Administration Process Step	Emerging Theme	Summary of Theme Descriptors
of technology		Lack of discipline-specific knowledge at ORIS to support IP and commercialization.
Close the grant/project	Lack of notifications and support to close grants and for knowledge mobilization.	 Lack of advance notification of deadlines, lack of clarity regarding handling of unspent funds, and no notification of end of contracts. Lack of support for knowledge mobilization Lack of assistance completing non-technical details of reports. Many grants are not closed by Research Finance and therefore stay "empty" in the system.

Of the theme descriptors outlined above, the following were brought forward the greatest number of times by participants.

- REB process challenges.
- Lack of up-to-date financial information (balance account and financial statements).
- Lack of notification of grant-related timelines and clarity regarding handling of unspent funds.
- Delays with purchasing and reimbursement of expenditures.
- Difficulty navigating hiring and other HR-related processes.
- Challenges associated with the UWinsite Finance system and related processes.

The following were identified as the top 3 in criticality through the priority-setting exercise:

- Challenges associated with UWinsite Finance system and associated processes increasing administrative workload.
- Hiring processes as not streamlined and complex. Lack of clear processes and steps for completing hiring processes (i.e., how to hire on contracts, how to hire research employees for longer term, information on labour policies, roles, taxes, immigration/visa, etc.).
- Delays in confirming course releases and capping releases to 1 per year even for large collaborative grants.

Research Administration Process Step	Emerging Theme	Summary of Theme Descriptors
General - applies to various steps	Lack of resources, policy interpretation alignment, and accountability.	 No consequences when processes/timelines are not followed. No policy interpretation alignment across research leadership. Lack of resources to properly support researchers post-award. Increase in number of faculty hired but not in the number of positions to support research activity.

2. Focus Groups – Staff

Research	Emerging Theme	Summary of Theme Descriptors
Administration		
Process Step		
Identify funding opportunities	Lack of diversity of funding opportunities, reliance on Tri-Agency, and lack of up- to-date information.	 Lack of time for ORIS staff to proactively search for funding opportunities beyond the Tri-Agency /University's focus on Tri-Agency. Inconsistent processes across faculties with respect to internal competitions and lack of UWindsor grant-eligibility policy. Inability of some faculty (typically women and racialized individuals) to apply for internal grants to build a track record for external grants. No longer hosting research town halls for new hires. Distribution lists are not up-to-date. Internal grant programs do not always loop in ORIS.
Develop and submit the funding proposal	Lack of support to develop proposals and inability to enforce deadlines.	 Inability to enforce internal deadlines to give research coordinators adequate time for a thorough review. Lack of support provided to researchers, including orientation to the research-administration process. Lack of consistent process for applying to grants and seeking internal review of applications.
Receive notification that proposal was successful Set up the research project	Notifications of approved funding not always communicated. Lack of orientation to the research-administration process.	 ORIS does not always receive notification of successful proposals. ERSO records are not created for sub-awards, research coordinator not always notified prior to submission. Lack of a checklist, orientation package, video, training, PPT to better support and guide researchers.
	Establish Grant: Lack of communication, database inefficiencies, and inaccurate information creating delays.	 Lack of clarity regarding processes such as non-disclosure agreements, material transfer agreements, etc. Backlogs associated with not opening grants until all required certifications are obtained. Lack of accurate grant information to open an account. Lack of communication between ORIS and Research Finance (i.e., internal funding accounts, transfers into lab accounts). Research Finance not properly resourced to

Research Administration	Emerging Theme	Summary of Theme Descriptors
Process Step		support research activity.
	<u>Hire Personnel:</u> Lack of knowledge of processes and requirements, challenging to navigate and lengthy hiring processes.	 Lack of understanding of hiring processes, completing hiring forms, timelines for submitting paperwork, understanding of maximum hours allowed, knowing where to start and who to contact. Hiring processes take too long. Students/staff often start working before hiring is finalized. Extremely challenging to navigate HR processes and advise faculty about it. No one person is responsible for helping researchers hire research personnel.
	Purchase Materials: Lack of knowledge of processes, allocation of expenditures, and other challenges.	 Lack of a transparent purchasing policy. Long backorders due to COVID. Expenditures posted are not always clear to Research Finance (i.e., expenses not always charged to the correct accounts). P- Card expenditures are not always allocated to appropriate accounts. Space/equipment challenges.
	<u>Meet Compliance</u> <u>Requirements:</u> Not enough resources and internal processes to support compliance requirements.	 Lack of orientation/education to understand evolving requirements. Lack of resources to support compliance checking, data management, enhanced security, and education. ERSO portal challenges (i.e., does not satisfy both REB and ORIS needs, time consuming, not user friendly, inadequate for current needs).
		 Reactive reporting (when issues arise) Research Finance and ORIS are not notified of approved certifications, leading to delays and/or holds on grant accounts. Lack of direction for applications that require REB, ACC, and RSC clearance. Lack of focus on research security. REB applications received are not always ready for review. Lack of researcher understanding of the REB
Manage/monitor	Lack of timely and accurate	 process. ORIS is not notified of the outcome of REB review. Researchers do not have access to accurate

Research Administration Process Step	Emerging Theme	Summary of Theme Descriptors
research grant	information and support staff to manage grants.	 information to review financial grant information, monthly reports are not timely or accurate. Faculty are not aware of who to contact to access funds, make account amendments, transfer money, etc. Not always clear who is responsible for postaward reporting to funders. Not enough staff to support project management.
Disclose IP and manage commercialization of technology	Knowledge and understanding of IP and commercialization process.	 Lack of knowledge and understanding of IP and commercialization process.
Close the grant/project	Lack of notification procedures and knowledge mobilization supports.	 Closure of grants and timelines are not clear. Lack of notifications to all involved. Funds are not always fully spent at the time of closure. No knowledge-mobilization supports provided.

Of the theme descriptors outlined above, the following were brought forward the greatest number of times by participants.

- ERSO portal inefficiencies.
- Lack of understanding of complexities associated with the hiring of research personnel.
- Lack of resources to properly support researchers throughout the research administration process and for knowledge mobilization.
- No accountability for adherence to timelines and processes.

The following were identified as the top 3 in criticality through the priority-setting exercise:

- Lack of understanding of hiring processes, completing hiring forms, timelines for submitting paperwork, understanding of maximum hours allowed, knowing where to start and who to contact.
- ERSO portal challenges (i.e., does not satisfy both REB and ORIS, time consuming, not user-friendly, inadequate for current needs).
- Lack of resources to properly support researchers post-award. Increase in number of faculty hired but not in the number of positions to support research activity.

Section 2 – Strategies/Suggestions to Create a More Research-Supportive Culture

Participants were asked to identify strategies/supports to tackle current challenges and to enhance a supportive research culture.

This section presents a summary of the analysis of the data gathered through the activities conducted at the focus-group sessions organized by participant group (Researchers, Staff).

1. Focus Group – Researchers

- Review all supports provided to ensure they advance a research supportive culture and shift from a compliance culture to a more supportive research culture.
- Enhance research grant-development supports/writing.
- Provide education and mentor researchers on all aspects of the research administration process and better support faculty to navigate the processes.
- Provide course-release time, particularly to support collaborative research grants. This would also help to recognize research efforts.
- Ensure clarity and transparency of Canada Research Chair process.
- Give researchers greater control over spending associated with their grants.
- Ensure that Research Finance is well resourced (personnel) to adequately support researchers.
- Address the issues associated with UWinsite Finance system and related processes.
- Address issues associated with REB process.
- Ensure reminders of grant deadlines.
- Provide permanent administrative research support within faculties/departments.
- Enhance financial support of research-based international students.
- Support knowledge mobilization.
- Promote research taking place across all faculties, not only high-profile research.
- Allocate more suitable space for research.
- Streamline hiring processes for research personnel.
- Move to a decentralized model (research administration managed by faculties)
- Provide incentives to increase research intensity.

2. Focus Group – Staff

- Invest in databases, tracking systems, research portals, and other software to better support research activity.
- Ensure offices associated with the research administration process are well resourced to enhance research support.
- Introduce accountability mechanisms (processes and timelines) and strict guidelines for researchers.
- Update policies and procedures and ensure accessibility.
- Introduce processes to ensure regular, timely, and consistent communication with all stakeholders.
- Ensure research-related websites are easy to navigate and include clear procedures and contacts.
- Improve internal forms (electronic).
- Provide training sessions and other information-sharing processes to provide researchers and research personnel with the knowledge required to navigate the research administration process.
- Establish a dedicated administrative position in ORIS to triage inquiries and connect the researcher to the correct position/department to address their inquiry and follow up on referrals.
- Enhance transparency of research processes and introduce a master checklist of all requirements.
- Ensure staff/departments are equally supported.

- Support the hiring of administrative staff at the faculty/department level to support administrative financial aspects of the research administration process and provide training on UWinsite Finance.
- Enhance collaboration between all offices reporting to the VPRI.
- Introduce a finance system that is appropriate for managing research grants.
- Provide professional-development opportunities for staff, enhance equity and access to promotion opportunities.
- Champion research as a critical revenue stream.

Section 3 - Additional Feedback

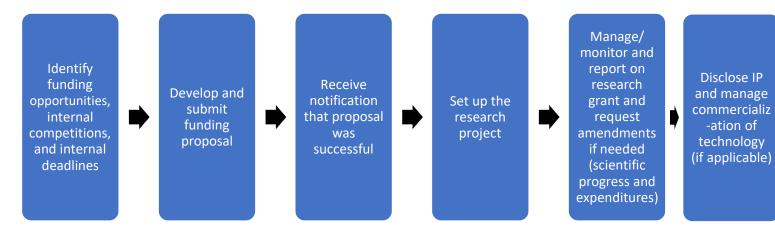
During some of the focus group sessions, participants expressed the desire to bring forward positive feedback. Below is a summary of items brought forward:

- The staff is excellent, committed but under resourced.
- Outstanding Scholars program
- Leadership response to questions and concerns
- Flexibility in paying and journalling for HQP.

Section 4 – Parking Lot

At the conclusion of each focus group session, participants were provided with an opportunity to bring forward items that were outside the area of inquiry but from their perspective needed to be considered in future discussions. The following is a summary of the items brought forward:

- Process for appointment of REB.
- Metrics to measure success.
- Celebrating achievements.
- Meaningful engagement of researchers in the Research and Innovation strategic plan.
- Establishing a clear mission, vision, and guiding principles for ORIS.
- Incentives for doing research.
- Incoming VPRI listening exercise and staff engagement.
- Communication between faculties and VPRI.
- Animal facility space.
- Inadequacy of office space for ORIS and Research Finance staff.
- Office location of VPRI (negative optics not being located at Assumption with other VPs)



A Deeper Look at Each of the Steps in the Flowchart

Step	Summary of Key Actions	
Identify funding opportunities, internal competitions, and internal deadlines.	ORIS communicates call and internal deadlines for the submission of proposals to Research Coordinators, Plugged into Research newsletter and/or through social media as well as instructions for proposal/notice of intent submission to relevant faculty via mass email.	
Develop and submit funding proposal.	 Faculty confirm space availability for research program (HQP) and associated infrastructure. Faculty confirm need for and secure cash and in-kind contributions as well assubmit ORIS External Funding Checklist approved by Department Head and Dean via the ERSO Researcher Portal by the internal deadline with draft proposal attached (in case of contracts, the ORIS External Checklist is submitted with contract signed by designated University representative). Faculty submit draft proposals to Research Coordinator for review by internal deadline. Research Coordinators provide feedback to faculty, including suggestions for strengthening project outlines, budgets, and budget justifications. Faculty make suggested revisions to the proposal and resubmit to Research Coordinator for follow-up review. Faculty or Research Coordinator (where required) submit final proposal to funding agency. 	
Receive notification that proposal was successful.	 If researcher has received the Notice of Award directly, they notify the respective Research Coordinator. Research Coordinator coordinates announcement of award where applicable. 	
Set up the research project	 Establish grant (open research account) Upon receipt of the Notice of Award, ORIS coordinates with Research Finance to establish grant(s) based on approved budget. Separate accounts are established for agency and internal-match funding. Research Finance notifies faculty of grant account number. Hire Personnel Faculty determines the correct avenue to appoint personnel (students, post-docs, research assistants, etc.) using their grant funding. 	

Step	Summary of Key Actions	
	Faculty recruit candidates and submit student appointment forms to HR for any registered UWindsor student.	
	 Faculty submit Request for Research or Postdoc Appointment Form and accompanying documentation for authorization for any non-student (where the position is primarily engaged, not simply supporting, research) to the Department Head, Dean, Research Finance, and OVPRI. Faculty submit all required forms and documentation at least one month 	
	 prior to start of appointment. OVPRI issues letter of appointment to appointee. Appointee returns signed form and required documentation to HR before appointment takes effect. Where the individual is a foreign national and a work permit is required, the faculty member submits additional information to the OVPRI and provides funding to support submission of an Offer of Employment to Immigration, Refugee, and Citizenship Canada (IRCC). The OVPRI sends the appointee information needed to apply for a work permit, and the appointee applies for and submits a work permit to HR before appointment takes effect. Faculty member contacts OVPRI in the event of any changes or concerns relating to the appointment or appointee. Faculty member begins renewal process at least one month prior to the end of the appointment where applicable. Faculty member contacts HR, develops job description, has position evaluated, submits required requests, confirms funding, interviews, and hires candidate for UNIFOR full- and part-time positions that are clerical and administrative in nature or CUPE full-time positions that are technical in nature steps necessary to on-board appointees, including 	
	requesting an UWin ID and email address, keys, and telephone and computer access.	
	 Purchase materials, supplies and equipment. Faculty member submits Grant Signing Authority Form to Research Finance to add research team members who can approve expenditures from their grant account. Faculty member applies charges to grant account via UWinsite Finance, including expense reports related to travel and supplies, payment of invoices, and purchase orders. Faculty member may apply for a Purchasing Card attached to their grant or, where faculty member already possesses a purchasing card, move expenses to their grant via CentreSuite. 	
	 Meet compliance and certification requirements. Following receipt of Notice of Award, faculty member applies for all required algorithms. 	
	 clearances: <u>Animal Care</u>: Faculty member submits an Animal Utilization Project Proposal (AUPP) and any other required forms to the Animal Care Committee for review. Faculty and all members of the research team complete Animal 	
	Training Modules and, where applicable, Laboratory Animal	

Step	Summary of Key Actions
Step	 Student Training, and provide proof of completion prior to final approval of AUPP. Animal Care Committee or, where AUPP and forms have been submitted outside of meeting deadlines, the Chair of the Animal Care Committee reviews AUPP and forms and issues approval. Faculty member applies for release of partial research of funds if applicable. Office of Animal Care notifies faculty member of outcome of Animal Care Committee review. <u>Research Ethics</u>: Faculty member submits an application and any other required forms to the Research Ethics Board for review. Faculty and all members of the research team complete TCPS2 training and submit certification with application. Applications are reviewed within four weeks, and feedback is provided. Faculty make any required adjustments to their application and submit for follow-up review where required. Faculty member applies for partial release of research funds if applicable.
	 Office of Research Ethics notifies faculty member of outcome of Research Ethics Board review. <u>Research Safety</u>: Faculty working with biological materials, lasers, X-Ray devices, and/or radioactive materials submit a safety permit application for review through the ERSO Researcher Portal Safety permit applications are reviewed by a safety officer who then advices faculty member of any applicable issues/concerns that may need to be addressed. Faculty then submits the application to the Research Safety Committee for review and approval. Faculty member applies for partial release of funds if applicable.
	 Office of Research Safety notifies faculty member of the outcome of the Research Safety Committee review. ORIS is notified by ACC/REB/RSC of clearance and communicates with Research Finance to release full funding.
Manage/monitor and report on research grant and request amendments when needed (scientific progress and expenditures)	 Faculty member monitors grant funding using UWinsite Finance and statements circulated by Research Finance and notifies Research Finance of any discrepancies. Faculty member monitors grant progress and submits any required progress reports to funding agency (and requests assistance from Research Coordinator where applicable). Research Finance prepares and submits Form 300 where applicable annually following faculty review and sign-off. In the case of projects requiring Research Ethics clearance, faculty must submit progress reports to the Office of Research Ethics annually.
Disclose IP and manage commercialization of technology (if applicable)	 Faculty member discloses any new technology and/or patent applications to the Research Partnerships Office. Research Partnerships Office works with faculty member to protect and commercialize IP where applicable.
Close the grant/project (final scientific and financial reporting,	 Research Finance sends faculty member final statement of account and closes the grant. In the case of projects requiring Research Ethics clearance, faculty member

Step	Summary of Key Actions
handling of unspent	submits a final report to the Office of Research Ethics upon completion of data
funds, outstanding	collection.
financial issues, etc.)	