University of Waterloo
SENATE UNDERGRADUATE COUNCIL
Notice of Meeting

DATE: Tuesday, November 9, 2021
TIME: 12:30 p.m. – 2:30 p.m.
PLACE: Teams – See meeting invitation or contact the secretary

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Open Session

Item		**Action**
1.	Declarations of Conflict of Interest - Excerpt from Senate Bylaw 1*	Information
2.	Approval of the 5 October 2021 Minutes* and Business Arising	UGC
3.	Curricular Items for Approval & Information	
	a. Environment*	UGC
	b. Mathematics*	4 SEN-R; rest UGC
4.	Registrar's Office	
	a. University Jurisdiction*	SEN-R
	b. Revisions to Academic Calendar Dates for 2022-23*	SEN-R
5.	Academic Program Reviews	
	a. FAR Human Resources Management*	UGC
	b. FAR Spanish*	UGC
6.	Strategic Plan Implementation Update	Discussion
7.	Other Business	
8.	Next Meeting: Tuesday, December 14, 2021, 12:30 to 2:30 p.m. via Teams	

*material attached/to be distributed**
"SEN-C" to be recommended to Senate for approval (consent agenda)
"SEN-R" to be recommended to Senate for approval (regular agenda)
"UGC" to be approved on behalf of Senate & sent to Senate for information

3 November 2021   Danielle Jeanneault
                                                            Interim Secretary to Council

Excerpt from Senate Bylaw 1

8. Declarations of conflict of interest

8.01	At the beginning of each meeting of Senate or any of Senate's committees or councils, the chair will call for members to declare any conflicts of interest with regard to any agenda item. For agenda items to be discussed in closed session, the chair will call for declarations of conflict of interest at the beginning of the closed portion of the meeting. Members may nonetheless declare conflicts at any time during a meeting.
8.02	A member shall be considered to have an actual, perceived or potential conflict of interest, when the opportunity exists for the member to use confidential information gained as a member of Senate, or any of Senate's committees or councils, for the personal profit or advantage of any person, or use the authority, knowledge or influence of the Senate, or a committee or council thereof, to further her/his personal, familial or corporate interests or the interests of an employee of the university with whom the member has a marital, familial or sexual relationship.
8.03	Members who declare conflicts of interest shall not enter into debate nor vote upon the specified item upon which they have declared a conflict of interest. The chair will determine whether it is appropriate for said member to remove themselves from the meeting for the duration of debate on the specified item(s).
8.04	Where Senate or a committee or council of Senate is of the opinion that a conflict of interest exists that has not been declared, the body may declare by a resolution carried by two-thirds of its members present at the meeting that a conflict of interest exists and a member thus found to be in conflict shall not enter into debate on the specified item upon which they have declared a conflict of interest. The chair will determine whether it is appropriate for said member to remove themselves from the meeting for the duration of debate on the specified item(s).

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Minutes of the 5 October 2021 Meeting
[in agenda order]

Present: Katherine Acheson, Veronica Austen, Monica Barra, J.C. Blokhuis, Benoit Charbonneau, Harry Cheung, Victoria Chu, Martin Cooke, Jacob Chung, Zinnia Chung, Dan Davison, Vivian Dayeh, David DeVidi (chair), Leanne Ferries, Ariel Gans, Cody Halden, Taylor Harris, Danielle Jeanneault (interim secretary), Brendon Larson, Carol Ann MacGregor, Bruce MacVicar, Jeremy Pittman, Francis Poulin, Chris Vigna, Richard Wikkerink

Guests: Natalie Clifford (Co-op Education Council), Vershawn Young (Black Studies)

Resources: Angela Christelis, Blair Clarance, Jennifer Coghlin, Joy Harris, Carrie MacKinnon Molson, Amanda McKenzie

Regrets: Catherine Newell Kelly

Organization of Meeting: David DeVidi took the chair, and Danielle Jeanneault acted as interim secretary. The secretary advised that a quorum was present. The agenda was approved without formal motion.

1.   DECLARATIONS OF CONFLICTS OF INTEREST
No conflicts of interest were declared.

2.   APPROVAL OF THE 15 SEPTEMBE 2021 MINUTES AND BUSINESS ARISING
The minutes were approved. Barra and Ferries. Carried.

Coghlin spoke on behalf of the Registrar's Office and addressed the outstanding question about scholarships and how selection is made when eligibility crosses Faculty boundaries while ensuring fair distribution.

3.   CURRICULAR ITEMS FOR APPROVAL & INFORMATION
Arts.
- Acheson introduced several new courses, highlighting the series of new BLKST (Black Studies) courses. The title of BLKST 103 was amended to "Combating Racisms". There was a motion to approve the new courses on behalf of Senate. Acheson and Ferries. Carried.
- Acheson presented several course changes. There was a motion to approve the course changes as presented on behalf of Senate. Acheson and Barra. Carried.
- Acheson introduced the creation of several new plans: two new diploma programs in Black Studies and a new minor in politics and business. There was a motion to recommend that Senate approve the proposed new plans as presented. Acheson and Blokhuis. Carried.
- Acheson took members through the major modification to the accounting and financial management program, noting the new average calculation requirements, as well as the minor modifications, noting they were to clarifications of broad requirements. There was a motion to approve the academic plan changes as presented on behalf of Senate. Acheson and Barra. Carried.
- Acheson took members through the academic regulation changes regarding invalid plan combinations and breadth requirements. There was a motion to recommend that Senate approve the academic regulation changes. Acheson and Barra. Carried.

Engineering.

- Davison spoke to the new courses (item 1.1), course changes (item 2.1), and minor plan modifications (item 4.1) related to architecture. There was a motion to approve these changes on behalf of Senate. Davison and Larson. Carried.
- Davison introduced the new academic calendar page listing all courses used to fulfil the undergraduate communication requirement for all programs in the Faculty (item 5). There was a motion to approve these changes on behalf of Senate. Davison and Acheson. Carried.
- Davison spoke to the remainder of the Faculty's submission (items 1.2, 2.2-2.5, all of 4). A change to chemistry requirement in the Physical Sciences Option was made prior to approval. Davison highlighted the new list of technical electives for systems design and biomedical engineering plans; a brief discussion occurred regarding the merits of listing all eligible courses versus a list of examples, with more discussion to occur offline. There was a motion to recommend that Senate approve the major plan modification and to approve the new courses, course changes, and minor plan modifications on behalf of Senate. Davison and Blokhuis. Carried.

Environment.
- Larson introduced several new courses, course changes, and course inactivations. There was a motion to approve the course package on behalf of Senate. Larson and Acheson. Carried.
- Larson introduced the creation of a new diploma in future cities (item 6). There was a motion to recommend that Senate approve the proposed new plan as presented. Larson and Acheson. Carried.
- Larson spoke to the remainder of the Faculty's submission (items 4-5, 7-13) and highlighted the average calculation change for planning majors. There was a motion to recommend that Senate approve the minor plan modifications to the planning major, planning specialization, and the tourism minor, and to approve the remaining minor plan modifications on behalf of Senate. Larson and Ferries. Carried.

Health.
- Ferries introduced several new courses. There was a motion to approve the new courses on behalf of Senate. Ferries and Acheson. Carried.
- Ferries spoke to a large volume of course changes, course inactivations, and a subject name change, highlighting that many changes were due to the Faculty's own name change. Prior to approval, several modifications to KIN courses (removing corequisites from laboratory courses) were noted. There was a motion to approve the course package on behalf of Senate. Ferries and Larson. Carried.
- Ferries introduced the minor plan modifications, highlighting some were to clarifications of broad requirements and a retroactive correction to a joint honours plan. There was a motion to recommend that Senate approve the minor plan modifications to the diploma in gerontology, and to approve the remaining minor plan modifications on behalf of Senate. Ferries and Charbonneau. Carried.
- Ferries spoke to the inactivation of the honours tourism development major and assured council that there is a plan in place to allow students recently admitted to the major the ability to complete the requirements. There was a motion to recommend that Senate approve the inactivation of the major as presented. Ferries and Vigna. Carried.
- Ferries took members through the academic regulation changes regarding co-op requirements, academic standing rules, and foundation term processes. There was a motion to recommend that Senate approve the academic regulation changes. Ferries and Barra. Carried.

Science.
- Barra presented two course changes. There was a motion to approve the course changes on behalf of Senate. Barra and Z. Chung. Carried.
- Barra introduced the academic plan changes to the minor in medical physiology. There was a motion to approve the minor plan modifications on behalf of Senate. Barra and Ferries. Carried.

- Barra walked through the academic regulation changes to the undergraduate communication requirement for the Faculty. There was a motion to recommend that Senate approve the academic regulation changes. Barra and Acheson. Carried.

Co-operative Education Council.
Clifford explained the changes to PD 12 and the reasoning behind the two different effective dates. There was a motion to approve the course changes on behalf of Senate. Larson and Wikkerink. Carried.

4. REGISTRAR'S OFFICE

Course short titles. Coghlin spoke to the creation of guidelines for creating/editing course short titles and the work to clean up over 1,800 course short titles; two additional course titles (GEOG 336 and INTEG 410) were added to the package. There was a motion to approve the course changes on behalf of Senate. Charbonneau and Larson. Carried.

5. STRATEGIC PLAN IMPLEMENTATION UPDATE

The chair shared an overview of some of the recent work occurring regarding the implementation of the strategic plan, with a focus on the Developing Talent for a Complex Future Action Team. The Team's organizing principle is to determine what Waterloo can do now in order to prepare for what we need to be doing 10 years from now. Some of the Teaching and Learning Innovation projects in progress include work to rethink how classroom spaces are used; the creation of a teaching innovation incubator – where people with great ideas on specific themes can get the support and resources needed in order to implement them university wide; digital learning strategies, coming up with ways to involve graduate students, and more. Assurances were made that data available through sources like the National Survey of Student Engagement (NSSE) would be used to determine signature projects (e.g., blended learning, alignment of assessments and course content) and the groups work. The hope is to be able to find ways of assessing new strategies as they are implemented.

6. OTHER BUSINESS

There was no other business.

7. NEXT MEETING

The next meeting is scheduled for Tuesday, November 9, 2021, 12:30 p.m. to 2:30 p.m. via Teams.

5 October 2021   Danielle Jeanneault
                                                                                Interim Secretary to Council

Approval agenda:

1. Course Inactivation – attachment 1

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Attachment 1, SUC October 5, 2021

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COURSE INACTIVATIONS (for approval)

Environment, Resources & Sustainability, School of

Effective   01-SEP-2021

ERS   218   (0.50)   LEC   Images and Environmental Decision Making
This course explores how images are used to shape and steer environmental
decision-making at scales ranging from local to global. Historical and contemporary
environmental decision making situations where photographs have played key roles in
providing information and shaping public attitudes are emphasized.

Course Attributes:	Only offered Online
Requisites :	Prereq: Level at least 2A.
Rationale :	This new course was recently approved at the October 2021 SUC meeting. The instructor who was mounting this course through CEL recently informed us that due to extenuating circumstances the course will not be ready for Spring 2022. Given our CEL course development plan, it is unlikely that we'll be able to develop it anytime soon. Therefore, at this point we are permanently removing it from course offerings in the calendar.

End of Report

SENATE UNDERGRADUATE COUNCIL

Submission by the Faculty of Mathematics

1. New Courses
    1.1. Combinatorics and Optimization: CO 431
2. Course Changes
    2.1. Combinatorics and Optimization: CO 430, 485, 487
    2.2. Commerce: COMM 101
    2.3. Computer Science: CS 136, 146, 241E, 350
    2.4. Mathematics: MATH 135, 136
    2.5. Pure Mathematics: PMATH 333
    2.6. Statistics: STAT 371
3. Course Changes – Correction to SUC motion of 11 May 2021
4. Academic Plan Changes – Major Modifications
    4.1. Computational Mathematics
        4.1.1. Computational Math
        4.1.2. Computational Math Minor
5. Academic Plan Changes - Minor Modifications
    5.1. Combinatorics and Optimization
        5.1.1. C&O
        5.1.2. Joint C&O
    5.2. Computer Science
        5.2.1. HCI Specialization
    5.3. Consequences to the implementation of bi-directional corequisites for CS 136L
    5.4. Statistics and Actuarial Science
        5.4.1. Mathematical Finance Degree Requirement
        5.4.2. Honours Statistics
        5.4.3. Honours Biostatistics
        5.4.4. Honours Actuarial Science August
    5.5. Dean of Mathematics:
        5.5.1. Honours Fallback Notes
        5.5.2. Admissions to Specific Honours Academic Plans

NOTE: The effective dates for the motions in this package are extraordinary. The Faculty of Mathematics apologizes to Council and the Registrar Office for missing the normal deadline for September 2022 effective date. The honest mistake behind this lateness is unfortunate, as it results in a compressed timeline and additional work for both the Faculty of Mathematics and the team of the Editor of the Calendar. Approval for late submission has been granted under the promise of certain specific support by the Faculty of Mathematics to the Editor of the Calendar.

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NEW COURSES   (for approval)

Combinatorics & Optimization

Effective   01-SEP-2022

CO   431   (0.50)   LEC   Symmetric Functions

The ring of symmetric functions, standard bases, the Hall inner product. Young tableaux. The Robinson-Schensted-Knuth correspondence, the hook-length formula, the Jacobi-Trudi formula, the Pieri rule, the Littlewood-Richardson rule. Representation theory of the symmetric groups. Enumeration of plane partitions. Enumeration of maps on surfaces. Other topics.

Requisites :	Prereq: PMATH 336 or PMATH 347; Cumulative overall average of at least 80%
Rationale :	In March 2011, CO 630 was split into two classes (CO 630 and CO 631). CO 630 was (and still is) held with CO 430. At the time of its creation, CO 631 Symmetric Functions was a grad-only course. The C&O department and the broader research community have now evolved to the point where it makes sense to offer an undergraduate version of CO 631. In the past, we have always offered CO 631 every two years in the fall. Moving forward, we would offer CO 431/631 every fall.

COURSE CHANGES   (for approval)

Current Catalog Information

CO   430   (0.50)   LEC   Algebraic Enumeration

The algebra of Laurent series and Lagrange's Implicit function theorem, enumerative theory of planar embeddings (maps). The ring of symmetric functions: Schur functions, orthogonal bases, inner product, Young tableaux, and plane partitions. Non-intersecting paths, sieve methods, partially ordered sets, and Mobius inversion, strings with forbidden substrings, the Cartier-Foata commutation monoid. Introduction to the group algebra of the symmetric group, enumerative applications of sl(2). [Offered: W] No Special Consent Required

Requisites :	Prereq: CO 330; Cumulative overall average of at least 80%

Effective   01-SEP-2022

Description Change:	The Lagrange Implicit Function Theorem, the MacMahon Master Theorem. Enumeration of planar triangulations. The transfer matrix method. Sieve methods, inclusion/exclusion, Mobius inversion. Polya enumeration, Enumeration of trees. Basic hypergeometric series, q-analogues, Rogers-Ramanujan identities. Asymptotic methods.
Rationale :	CO 430's description was not updated when CO 630 was updated some years ago. The two courses are offered together and so the descriptions should

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match. We also decided to remove the offering term information for greater
flexibility.

Current Catalog Information

CO   485   (0.50)   LEC   The Mathematics of Public-Key Cryptography
An in-depth study of public-key cryptography. Number-theoretic problems: prime
generation, integer factorization, discrete logarithms. Public-key encryption,
digital signatures, key establishment, secret sharing. Proofs of security. [Offered:
F]
No Special Consent Required

Requisites :	Prereq: One of PMATH 334, 336, 345, 346, 347; Cumulative overall average of at least 80%

Effective   01-SEP-2022

Description Change:	An in-depth study of public-key cryptography. Number-theoretic problems: prime generation, integer factorization, discrete logarithms. Public-key encryption, digital signatures, key establishment, elliptic curve cryptography, post-quantum cryptography. Proofs of security. [Offered: F]
Rationale :	Update the course description to better reflect the course contents.

Current Catalog Information

CO   487   (0.50)   LEC   Applied Cryptography
A broad introduction to cryptography, highlighting the major developments of the past
twenty years. Symmetric ciphers, hash functions and data integrity, public-key
encryption and digital signatures, key establishment, key management. Applications to
Internet security, computer security, communications security, and electronic
commerce. [Offered: W]
No Special Consent Required

Requisites :	Prereq: MATH 135 or 145, STAT 206 or 220 or 230 or 240; Level at least 3A

Effective   01-SEP-2022

Description Change:	A broad introduction to modern cryptography, highlighting the tools and techniques used to secure internet and messaging applications. Symmetric-key encryption, hash functions, message authentication, authenticated encryption, public-key encryption and digital signatures, key establishment, key management. [Offered: F,W]
Requisite Change :	Prereq: One of CS 116, 136, 138, 146; MATH 135 or 145; One of STAT 206, 220, 230, 240; Level at least 3A
Rationale :	1. Update the course description to better reflect the course contents. 2. Change the course offerings from W to F,W. (We have indeed been offering CO 487 every F,W for the past two years. Enrolment has increased from ~100 students/year ten years ago to ~400 students/year today.) 3. Add CS 116/136/138/146 as a prerequisite. Some instructors require programming on assignments, so including this prerequisite informs potential students that the course might require some programming. Many plans list CO 487 as an elective/choice option. They are not impacted as students in those plans must also take one of the CS prereq courses.

Computer Science - David R. Cheriton School of

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Current Catalog Information

CS 136 (0.50) LAB, LEC, TST, TUT Elementary Algorithm Design and Data Abstraction
This course builds on the techniques and patterns learned in CS 135 while making the
transition to use an imperative language. It introduces the design and analysis of
algorithms, the management of information, and the programming mechanisms and
methodologies required in implementations. Topics discussed include iterative and
recursive sorting algorithms; lists, stacks, queues, trees, and their application;
abstract data types and their implementations. [Note: See Note 2 above. Offered:
F,W,S]
No Special Consent Required

Requisites :	Prereq: At least 90% in CS 115 or at least 70% in CS 116 or at least 60% in CS 135 or CS 145. Antireq: CS 137, 138, 146, PHYS 239

Effective 01-SEP-2022

Requisite Change :	Prereq: At least 90% in CS 115 or at least 70% in CS 116 or at least 60% in CS 135 or CS 145. Coreq: CS 136L Antireq: CS 137, 138, 146, PHYS 239 Change
Rationale :	shows how the new course CS 136L relates to CS 136 and that CS 136L should be taken at the same time as CS 136 or CS 146. Students will be informed that they need to add both courses at the same time in Quest. In practice, the coding for the lectures (CS 136 and CS 146) will be applied but the coding for the lab (CS 136L) will be removed. There is the potential that a student could enrol into the lab without the lecture; it is the responsibility of the faculty to identify these students. (Consultation with Jo Voisin, Sheila Brubacher, and Jennifer Coghlin July 2021)

Current Catalog Information

CS 146 (0.50) LAB, LEC, TST, TUT Elementary Algorithm Design and Data Abstraction (Advanced Level)
CS 146 is an advanced-level version of CS 136. [Note: See Note 2 above. This course
may be substituted for CS 136 in any degree plan or for prerequisite purposes.
Students who receive a good grade in CS 135 may contact the instructor of CS 146 to
seek admission without the formal prerequisites. Offered: W]
No Special Consent Required

Requisites :	Prereq: CS 145 with a grade of at least 75%. Antireq: CS 116, 136, 137, 138.

Effective 01-SEP-2022

Requisite Change :	Prereq: CS 145 with a grade of at least 75%. Coreq: CS 136L. Antireq: CS 116, 136, 137, 138.
Rationale :	Change shows how the new course CS 136L relates to CS 146 and that CS 136L should be taken at the same time as CS 136 or CS 146. Students will be informed that they need to add both courses at the same time in Quest. In practice, the coding for the lectures (CS 136 and CS 146) will be applied but the coding for the lab (CS 136L) will be removed. There is the potential that a student could enrol into the lab without the lecture; it is the responsibility of the faculty to identify these students.

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(Consultation with Jo Voisin, Sheila Brubacher, and Jennifer Coghlin July 2021)

Current Catalog Information

CS 241E (0.50) LAB, LEC, TST, TUT Foundations of Sequential Programs (Enriched)
Enriched version of CS 241. [Note: See notes 1 and 9 above. CS 241E may be
substituted for CS 241 wherever the latter is a requirement. Enrolment is restricted.
Lab is not scheduled and students are expected to find time in open hours to complete
their work. CS 251 is a recommended corequisite. Offered: As permitted by demand and
available resources.]
No Special Consent Required

Requisites :	Prereq: (CS 136L and a grade of 85% or higher in one of CS 136 or CS 146), or a grade of 85% or higher in CS 138; Computer Science and BMath (Data Science) students only. Antireq: CS 230, GENE 344

Effective 02-SEP-2022

Requisite Change :	Prereq: (CS 136L and a grade of 85% or higher in one of CS 136 or CS 146), or a grade of 85% or higher in CS 138; Computer Science and BMath (Data Science) students only. Antireq: CS 230, ECE 351
Rationale :	GENE 344 has last been offered in Spring 2005 and was inactivated in September 2005. CS 241E is the enriched version of CS 241, and the regular version has ECE 351 as an antireq. We add the antireq to CS 241E as well for consistency.

Current Catalog Information

CS 350 (0.50) LAB, LEC, TST Operating Systems
An introduction to the fundamentals of operating system function, design, and
implementation. Topics include concurrency, synchronization, processes, threads,
scheduling, memory management, file systems, device management, and security. [Note:
Enrolment is restricted; see Note 1 above. Lab is not scheduled and students are
expected to find time in open hours to complete their work. Offered: F,W,S]
No Special Consent Required

Requisites :	Prereq: CS 240, 241, 246, (CS 251 or ECE 222); Computer Science students only. Antireq: ECE 254, MTE 241, SE 350

Effective 01-SEP-2022

Requisite Change :	Prereq: CS 240, 241, 246, (CS 251 or ECE 222); Computer Science students only. Antireq: ECE 254, 350, MTE 241, SE 350,
Rationale :	There is a new ECE Operating systems course and it is similar enough in content to include it on the list of anti-requisites for CS350.

Dean of Mathematics

Current Catalog Information

COMM 101 (0.50) LEC, TUT Introduction to Financial Markets
The course introduces students to the role of finance in the global economy and aims
to develop students' understanding of the basic principles of financial

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decision-making.
No Special Consent Required

Requisites :	Prereq: Mathematics/Financial Analysis and Risk Management students only. Antireq: AFM 121, BUS 121W

Effective   01-SEP-2022

Requisite Change :	Antireq: AFM 121, CFM 101, BUS 283W
Rationale :	With the online version of COMM 101 developed recently, the course will be very beneficial to students to understand the realities of financial markets. There is a new course CFM 101, Introduction to Financial Markets and Data Analytics, that should be an antirequisite for COMM 101.The more correct Laurier course that should be an antirequisite for COMM 101 is BUS 283W, not BUS 121W. The effective date for these changes are 1/9/2022 and has been confirmed with the RO.

Current Catalog Information

MATH   135   (0.50)   LEC, TST, TUT   Algebra for Honours Mathematics

An introduction to the language of mathematics and proof techniques through a study of the basic algebraic systems of mathematics: the integers, the integers modulo n, the rational numbers, the real numbers, the complex numbers and polynomials.
[Offered: F,W,S]
No Special Consent Required

Requisites :	Prereq: 4U Calculus and Vectors or 4U Mathematics of Data Management; Honours Mathematics or Mathematics/ELAS or Software Engineering students only. Antireq: MATH 145

Effective   01-SEP-2022

Requisite Change :	Prereq: 4U Calculus and Vectors or 4U Mathematics of Data Management; Honours Mathematics or Mathematics/BASE or Software Engineering students only. Antireq: MATH 145
Rationale :	To change the note section and replace the acronym ELAS with BASE. In Spring 2021, the Faculty of Mathematics partnered with Renison University College to provide on-campus English language education to support our incoming Faculty of Mathematics students. They would still be enrolled in a non-degree term, and still take Math 137 for the most of them, but the provider is now Bridge to Academic Success in English (BASE) instead of English Language for Academic Studies (ELAS).

Current Catalog Information

MATH   136   (0.50)   LAB, LEC, TST, TUT   Linear Algebra 1 for Honours Mathematics

Systems of linear equations, matrix algebra, elementary matrices, computational issues. Real n-space, vector spaces and subspaces, basis and dimension, rank of a matrix, linear transformations, and matrix representations. Determinants, eigenvalues and diagonalization, applications. [Offered: F,W,S; online: F,W,S]
No Special Consent Required

Requisites :	Prereq: (MATH 135 with a grade of at least 60% or MATH 145; Honours Mathematics or Mathematics/ELAS students) or Science Mathematical Physics students. Antireq: MATH 106, 114, 115, 146, NE 112

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Effective   01-SEP-2022

Requisite Change :   Prereq: (MATH 135 with a grade of at least 60% or MATH 145; Honours
Mathematics or Mathematics/BASE students) or Science Mathematical Physics
students. Antireq: MATH 106, 114, 115, 146, NE 112

Rationale :   To change the note section and replace the acronym ELAS with BASE. In
Spring 2021, the Faculty of Mathematics partnered with Renison University
College to provide on-campus English language education to support our
incoming Faculty of Mathematics students. They would still be enrolled in a
non-degree term, and still take Math 137 for the most of them, but the
provider is now Bridge to Academic Success in English (BASE) instead of
English Language for Academic Studies (ELAS).

Pure Mathematics

Current Catalog Information

PMATH   333   (0.50)   LEC   Introduction to Real Analysis
The purpose of the course is to present the familiar concepts of calculus at a
rigorous level and to provide students who took the MATH 137/MATH 138/MATH 237
sequence with the background needed to be successful in PMATH 351 and PMATH 352.
Topics discussed include the completeness properties of the reals; the density of the
rationals; the topology of real n-dimensional space: open and closed sets,
connectedness, compactness (by open covers), the Heine-Borel theorem, completeness;
sequences in real n-dimensional space: convergence, Cauchy sequences, subsequences,
the Bolzano-Weierstrass theorem; multivariable functions: limits, point-wise and
uniform continuity, the extreme value theorem, uniform convergence of sequences of
functions, Taylor's theorem, term-by-term differentiation of power series;
integration in real n-dimensional space: Riemann integrability, Fubini's theorem for
continuous functions on rectangles, term-by-term integration of power series.
No Special Consent Required

Requisites :   Prereq: MATH 138 or 148. Coreq: MATH 237. Antireq: MATH 247

Effective   01-SEP-2022

Requisite Change :   Prereq: One of (MATH 128 with at least 70%), (MATH 138 with at least 60%),
MATH 148. Coreq: (MATH 235 or 245) and MATH 237. Antireq: MATH 247.

Rationale :   The change to the calculus 2 prerequisite (MATH 138 or 148) harmonizes this
prerequisite with the existing calculus 2 prerequisite listed for MATH 237,
which remains a corequisite for PMATH 333. The addition of the linear
algebra corequisite MATH 235 or 245 is in response to the recent revisions
to the linear algebra core courses. In particular, the virtual
prerequisite of MATH 136 via MATH 237 no longer guarantees exposure to
abstract linear algebra. Adding MATH 235 or 245 as a corequisite will
ensure that students have exposure to abstract vector spaces pitched at the
appropriate level.

Statistics & Actuarial Science

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STAT   371   (0.50)   LEC, TUT   Applied Linear Models and Process Improvement for Business

Practical and theoretical aspects of simple and multiple linear regression models.
Model building, fitting and assessment. Process thinking and improvement. Strategies
for variation reduction such as control charting. Process monitoring, control and
adjustment. Applications to problems in business. [Offered: F,W,S]

No Special Consent Required

Requisites :   Prereq: (MATH 235 or 245) and (STAT 231 with a grade of at least 60% or
                                          STAT 241); Bus/Math dbl degree, Math/Bus, Math/FARM, Math/ITM, or Math
                                          Optimization - Business Spec students only. Antireq: ECON 321, STAT 321,
                                          331, 373

Effective   01-SEP-2022

Requisite Change :   Prereq: (MATH 235 or 245) and (STAT 231 with a grade of at least 60% or
                                          STAT 241); Bus/Math dbl degree, Math/Bus, Math/FARM, Math/ITM, or Math
                                          Optimization - Business Spec students only.
                                          Antireq: STAT 321, 331, 373

Rationale :   ECON updated their courses and removed ECON 321 in the 2019/2020 calendar
                                          and the course is no longer being offered. There are no active mathematics
                                          students with credits for ECON 321, the latest having graduated this June.

End of Report

3 Corrective Motion on effective date for changes to CS 241, CS 241E, CS 246, and CS 246E

Effective Date: 1 September 2023

Motion and Rationale: The May 2021 SUC saw the approval of new course CS 136L and a modification of the prerequisites of CS 241, CS 241E, CS 246, and CS 246E to include CS 136L, all effective 1 September 2022. With this setup, no students will be able to take the 2nd year classes in fall 2022 without advisor override. The intention was in fact to stagger these changes, with CS 136L being created effective 2022 and the modification of the prerequisites effective 1 September 2023.

4 Academic Plan Changes – Major Modifications

4.1 Computational Mathematics

4.1.1-4.1.2 Plan Requirements for Computational Mathematics
Effective Date: 1 September 2022
Background and rationale: Effective 1 September 2022, a number of changes are being made to

- Computational Mathematics
- Computational Mathematics Minor

These interdisciplinary programs are composed of foundational and specialized computational mathematics courses that are offered by the Faculty of Mathematics as a whole, including courses from all four departments (Applied Mathematics, Combinatorics & Optimization, Pure Mathematics, Statistics and Actuarial Sciences) and the School of Computer Science. A review of the programs has identified the need to update some of the course options and make some refinements to the structure of the programs (without changes to the total number of required courses).
The changes fall under 4 categories, labelled A to D below.
Affected pages:
http://ugradcalendar.uwaterloo.ca/page/MATH-Computational-Mathematics1
http://ugradcalendar.uwaterloo.ca/page/MATH-Computational-Mathematics-Minor

A) Effective 1 September 2022, the following changes are being made to <u>Computational Mathematics academic plans (honours, minor)</u>:

- [A1] Add to list of "additional" approved courses a number of courses that are either new and a good fit, or that increase the interdisciplinary breadth of the programs: AMATH 343, AMATH 383, AMATH 391, AMATH 455, AMATH 477, CO 463, CO 466, CO 471, CS 479
- [A2] Put a restriction on the "additional courses list" to require that courses be taken from at least two different subject codes and a note that AMATH 382/BIOL 382 is considered an AMATH subject for the purpose of this rule.
- [A3] Update language of a note regarding the fact that a certain number of courses are restricted to Computer Science students
- [A4] Import a number of rules from the honours plan to the minor for consistency
    - Add CS 431 as alternative to CS 451
    - Add CO 255 as alternative to CO 250

B) Effective 1 September 2022, the following changes are made to the <u>Computational Mathematics (honours) plan</u>:

- [B1] To ensure depth, require that at least two of the "four additional courses" are taken at the 400 level
- [B2] to increase the breadth for students, split the current heterogeneous list of "four out of six core courses" (ranging between years two and four) into two more focused lists out of which students are required to take two courses with different subject codes:
  - a first list of "two out of four (second-year, foundational) courses" (CO 250 or CO 255; CS 245 or PMATH 330; CS 246; and additional courses specified in [B3]).
  - a second list of "two out of five (upper-year) core courses" (AMATH 342; CS 475; STAT 340 or STAT 341; and additional courses specified in [B3]).

By contrast, in the current setup students could take three CS courses. With the new core course list, students will be required to take at least two upper-year CM core courses that have full focus on CM topics, whereas the previous core list contained several second-year courses that are more of a preparatory nature without full focus on core CM material.

- [B3] Add
  - to first list of foundational courses: AMATH 250 or 251 or 350 (all considered equivalent)
  - to second list of core courses: CO 367 or CO 353; PMATH 370
  - to list of additional courses: the possibility to take courses from the core list.
- [B4] Allow students who take CO 255 (Advanced Level Introduction to Optimization) to take CO 466 or CO 450 as a core course instead of CO 367 or CO 353. This is in line with the setup of the CO major and the prerequisites of these courses, where strong students who take the advanced CO 255 instead of CO 250 may directly enter CO 466 or CO 450 without having to first take CO 367 or CO 353.
- [B5] To prevent confusion and simplify advising, add specific lists of Science and Engineering subject codes departments that are eligible for the course concentration component, specifically
  - For science: BIOL, CHEM, EARTH, MNS, PHYS,
  - For engineering: AE, BME, CHE, CIVE, ECE, GEOE, ENVE, ME, MTE, MSCI, NE, or SYDE.

C) Effective 1 September 2022, the following changes are made to the Computational Mathematics Minor:

- [C1] Remove a restriction that at most three courses may also be used to satisfy an explicit choice list course requirement of the student's major. Without that restriction, and with the additional breadth requirement of part A2, most students are required to take, among their 7 required CM minor courses, at least 3 courses that cannot be counted as courses for their major, in addition to needing to choose several other courses in their major area specifically in the area of Computational Mathematics (among a broad choice of non-CM courses in their major). This is an appropriate balance.
- [C2] There are two exceptions to C1 that must be addressed explicitly:
  - For Data Science majors, at most five courses can have (or be cross-listed with courses having) a CS or STAT subject code.
  - For Computer Science majors, at most four courses can have (or be cross-listed with courses having) a CS subject code.

Current rules are too generous to Data Science students (who can claim the CM minor by taking as little as one elective, CS 371, that cannot be used towards their explicit major course requirement), and too restrictive for Computer Science majors compared to other programs of the Faculty (for example, Statistics majors pursuing a CM minor need, in the new rules proposed here, to take at least 3 non-STAT courses in CM in addition to explicitly choosing 4 STAT courses that are part of the CM minor).

- [C3] Add Software Engineering (SE) accepted alternatives and indicate they are restricted to SE students only:
  - SE 212 for CS 245 or PMATH 330
  - CS 247 for CS 246

D) Effective 1 September 2022, a number of editorial changes are made to the <u>Computational Mathematics (honours) plan</u> to simplify the presentation, prevent student and advisor confusion, and simplify further updates.
- [D1] Add a note concerning course replacements that have enrolment restricted to Computer Science students. For those students
  - o CS 241 may be substituted for CS 230
  - o CS 240 may be substituted for CS 234

  The previous calendar text suggested to students to take one course from each pair.
- [D2] Remove information about prerequisites for certain courses as the information is better maintained in the course descriptions.

In ~~red~~, deletion. In blue, addition. In [green], reference to motion (not included in actual change).

Computational Mathematics
(http://ugradcalendar.uwaterloo.ca/page/MATH-Computational-Mathematics1)
Calendar text:

Students in this plan must fulfil all the requirements in <u>Table 1</u> and <u>Table 2</u>. This must include at least 26 math courses and the following specific requirements:

One of
<u>MATH 237</u> Calculus 3 for Honours Mathematics
<u>MATH 247</u> Calculus 3 (Advanced Level)
One of
<u>MATH 239</u> Introduction to Combinatorics
<u>MATH 249</u> Introduction to Combinatorics (Advanced Level)
All of
<u>AMATH 242</u>/<u>CS 371</u> Introduction to Computational Mathematics
~~One of~~
<u>CS 230</u> Introduction to Computers and Computer Systems
<u>CS 234</u> Data Types and Structures
Note: Computational Mathematics majors currently or previously enrolled as Computer Science students may substitute: [A1]
- <u>CS 241</u> for <u>CS 230</u>
- <u>CS 240</u> for <u>CS 234</u>

Two of the following foundational courses, with different subject codes (AMATH, CO, CS, PMATH)   [B2]

<u>AMATH 250</u> Introduction to Differential Equations or <u>AMATH 251</u> Introduction to Differential Equations (Advanced Level) or <u>AMATH 350</u> Differential Equations for Business and Economics   [B3]

<u>CO 250</u> Introduction to Optimization or <u>CO 255</u> Introduction to Optimization (Advanced Level)

<u>CS 245</u> Logic and Computation or <u>PMATH 330</u> Introduction to Mathematical Logic

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CS 246 Object-Oriented Software Development

Two courses from the following list of core courses   [B2]

    AMATH 342 Computational Methods for Differential Equations

    CO 367 Nonlinear Optimization or CO 353 Computational Discrete Optimization [B3]

    CS 475 Computational Linear Algebra

    PMATH 370 Chaos and Fractals   [B3]

    STAT 340 Stochastic Simulation Methods or STAT 341 Computational Statistics and Data Analysis

Four additional courses that may include any of the courses on the core course list above [B3], or may be chosen from the following list, using at least two different subject codes (from AMATH, CO, CS, PMATH, and STAT) [A2], and at least two of which must be 400-level courses [B1]

AMATH 343 Discrete Models in Applied Mathematics   [A1]
AMATH 382/BIOL 382 Computational Modelling of Cellular Systems (see note 4)   [A2]
AMATH 383 Introduction to Mathematical Biology   [A1]
AMATH 391 From Fourier to Wavelets   [A1]
AMATH 442 Computational Methods for Partial Differential Equations
AMATH 455 Control Theory   [A1]
AMATH 477 Stochastic Processes for Applied Mathematics   [A1]
CO 351 Network Flow Theory
CO 370 Deterministic OR Models
CO 372 Portfolio Optimization Models
CO 452 Integer Programming
CO 454 Scheduling
CO 456 Introduction to Game Theory
CO 450 Combinatorial Optimization
CO 463 Convex Optimization and Analysis   [A1]
CO 466 Continuous Optimization   [A1]
CO 471 Semidefinite Optimization   [A1]
CO 485 The Mathematics of Public-Key Cryptography
CO 487 Applied Cryptography
CS 341 Algorithms
CS 431 Data-Intensive Distributed Analytics or CS 451 Data-Intensive Distributed Computing
CS 466 Algorithm Design and Analysis
CS 476 Numerical Computation for Financial Modeling
CS 479 Neural Networks   [A1]
CS 480 Introduction to Machine Learning
CS 482 Computational Techniques in Biological Sequence Analysis
CS 485 Statistical and Computational Foundations of Machine Learning
CS 487 Introduction to Symbolic Computation

STAT 440 Computational Inference
STAT 441 Statistical Learning - Classification
STAT 442 Data Visualization
STAT 444 Statistical Learning - Function Estimation

Three (1.5 units) non-math courses, at least one of which must be at the 200-, 300-, or 400-level, from exactly one of the following ~~departments~~ Science, Engineering or Economics subject codes: AE, BIOL, BME, CHE, CHEM, CIVE, EARTH, ECE, ECON, ENVE, GEOE, ME, MNS, MSCI, MTE, NE, PHYS, SYDE (other course concentrations may be eligible subject to approval by a Computational Mathematics advisor):
~~Economics~~
~~any one Science department~~
~~any one Engineering department~~   [B5]

Notes

1. ~~CS 240 requires CS 245 and CS 246 as prerequisites, CS 241 requires CS 246 as a prerequisite. CS 240 and CS 241 have restricted access for non-Computer Science majors.~~
2. ~~CS 245 and CS 246 require CS 136 as a prerequisite.~~   [D2]
1. CS 341, CS 451, CS 466, CS 480, and CS 485 ~~have restricted access for non-Computer Science majors.~~ are restricted to Computer Science students only. [A3]
2. Students who take CO 255 may take CO 466 or CO 450 as a core course instead of CO 367 or CO 353.   [B4]
3. Engineering courses may not be open to Mathematics students or may not easily fit schedules.
4. In the "Four Additional courses" list, BIOL 382 counts as an AMATH course for the purpose of the "at least two different subject codes" rule.   [A2]

Computation Mathematics Minor
(http://ugradcalendar.uwaterloo.ca/page/MATH-Computational-Mathematics-Minor)
Calendar text

This Minor is only available to students within the Faculty of Mathematics.

One of

        AMATH 242/CS 371 Introduction to Computational Mathematics
        CS 370 Numerical Computation

Three of

        AMATH 342 Computational Methods for Differential Equations

        CO 250 Introduction to Optimization or CO 255 Introduction to Optimization
        (Advanced Level)   [A4]

CS 245 Logic and Computation or PMATH 330 Introduction to Mathematical Logic
or SE 212 Logic and Computation   [C3]
CS 246 Object-Oriented Software Development or CS 247 Software Engineering
Principles   [C3]
CS 475 Computational Linear Algebra
STAT 340 Stochastic Simulation Methods or STAT 341 Computational Statistics and
Data Analysis

Three additional courses from the following list, using at least two different subject codes
(from AMATH, CO, CS, PMATH, or STAT)   [B2]

AMATH 343 Discrete Models in Applied Mathematics   [A1]
AMATH 382/BIOL 382 Computational Modelling of Cellular Systems (see note 5)
[A2]
AMATH 383 Introduction to Mathematical Biology
AMATH 391 From Fourier to Wavelets   [A1]
AMATH 442 Computational Methods for Partial Differential Equations
AMATH 455 Control Theory   [A1]
AMATH 477 Stochastic Processes for Applied Mathematics   [A1]
CO 351 Network Flow Theory
CO 353 Computational Discrete Optimization
CO 367 Nonlinear Optimization
CO 370 Deterministic OR Models
CO 372 Portfolio Optimization Models
CO 450 Combinatorial Optimization
CO 452 Integer Programming
CO 454 Scheduling
CO 456 Introduction to Game Theory
CO 463 Convex Optimization and Analysis   [A1]
CO 466 Continuous Optimization   [A1]
CO 471 Semidefinite Optimization   [A1]
CO 485 The Mathematics of Public-Key Cryptography
CO 487 Applied Cryptography
CS 341 Algorithms
CS 431 Data-Intensive Distributed Analytics or CS 451 Data-Intensive Distributed
Computing   [A4]
CS 466 Algorithm Design and Analysis
CS 476 Numerical Computation for Financial Modeling
CS 479 Neural Networks   [A1]
CS 480 Introduction to Machine Learning
CS 482 Computational Techniques in Biological Sequence Analysis
CS 485 Statistical and Computational Foundations of Machine Learning
CS 487 Introduction to Symbolic Computation
PMATH 370 Chaos and Fractals
STAT 440 Computational Inference
STAT 441 Statistical Learning - Classification
STAT 442 Data Visualization
STAT 444 Statistical Learning - Function Estimation

> **Notes**
>
> 1. CS 341, CS 451, CS 466, CS 480, and CS 485 ~~have restricted access for Computer Science majors~~ are restricted to Computer Science students only.   [A3]
> 2. CS 247 and SE 212 are restricted to Software Engineering students only   [C3]
> 3. ~~At most three courses may also be used to satisfy an explicit choice list course requirement of the student's major.~~   [C1]
> 3. For Data Science majors, a maximum of five CS or STAT courses (or their cross-listing) can be used to fulfil the requirements of the Minor.   [C2]
> 4. For Computer Science majors, ~~at most three~~ a maximum of four CS (or their cross-listing) can be used to fulfil the requirements of the Minor. ~~courses can have (or be cross-listed with courses having) a CS subject code.~~   [C2]
> 5. In the "Three additional courses from" list, BIOL 382 counts as an AMATH course for the purpose of the "at least two different subject codes."   [A2]

5 Academic Plan Changes – Minor Modifications

5.1 Combinatorics and Optimization

5.1.1 Honours C&O
5.1.2 Joint C&O
Effective Date: 1 September 2022

Motion and Rationale:

Add PMATH 333 as an alternative to AMATH 331/PMATH 331 Applied Real Analysis in both the Combinatorics and Optimization and Joint Combinatorics and Optimization Degree Requirements. PMATH has always offered two real analysis classes: PMATH 331 (easy difficulty) and PMATH 351 (hard difficulty). The Calendar description for PMATH 331 states "PMATH 351 may be substituted for AMATH/PMATH 331 whenever the latter is a requirement in an Honours plan." Therefore, our students have always been able to substitute PMATH 331 with PMATH 351. In 2016, PMATH added a third real analysis class: PMATH 333 (medium difficulty). Although PMATH 333 is intended as a steppingstone to allow students to take PMATH 351, by itself PMATH 333 is already a superset of PMATH 331. However, unlike PMATH 351, the Calendar does not contain any general statement allowing PMATH 333 to substitute for PMATH 331. This change amends the CO plan to allow such substitution.

(http://ugradcalendar.uwaterloo.ca/page/MATH-Combinatorics-and-Optimization2)

(http://ugradcalendar.uwaterloo.ca/page/MATH-Joint-Combinatorics-and-Optimization1)

5.2 Computer Science

5.2.1 Human Computer Interaction Specialization
Effective: 1 September 2022

Motion and Rationale: Add CS 480 (Introduction to Machine Learning) as an alternative to CS 485 (Statistical and Computational Foundations of Machine Learning) to the list of courses students can take in the Human Computer Interaction Specialization plan. Students will still be able to take both courses if they wish, but only one will count towards the HCI specialization to ensure students take a diverse set of courses

for the specialization. (**http://ugradcalendar.uwaterloo.ca/page/MATH-Computer-Sci-Human-Computer-Interaction-Spec**)

5.3 Consequences to the implementation of bi-directional corequisites for CS 136L

Effective Date: 1 September 2022

5.3 Motion and Rationale: Effective 1 September 2022, we modify the plans where "CS 136 or CS 146" is a mandatory requirement by adding CS 136L as another mandatory requirement. SUC approved the creation of CS 136L at its 11 May 2021 meeting, with CS 136 and CS 146 as corequisites effective 1 September 2022. SUC reviewed today (hopefully approved) changes to CS 136 and CS 146 to have CS 136L as a corequisite (same effective date). Aside from the implementation issues described in the catalog report entries for CS 136 and CS 146, there is a need to indicate to students when CS 136L becomes mandatory to their program. With the exception of the Computing Minor, for all plans where CS 136/146 can be replaced by another course, students do not need the CS 136L credit to obtain the credential. For plans where CS 136 or 146 are mandatory requirements, the calendar will be modified effective 1 September 2022 to indicate to students that CS 136L must be taken and passed. In addition to pedagogical considerations, the Faculty of Mathematics considered a range of possible issues in the bi-directional linking of CS 136L with CS 136/146, notably the impacts it may have on

- Mathematics Undergraduate Office operations (as described in the catalog report)
- Tuition
- Double Degree
- Students enrolled in multiple terms in a row
- Students that may fail CS 136L.

All program committees and departments have approved these changes. Arts has also been consulted. WLU has also been consulted and will update their calendar accordingly.

The affected plans and admission requirements are:

1. Computer Science admission (Students from within the Faculty of Mathematics may apply for admission to a Computer Science major plan provided, amongst other things, they have credits for CS 146 or CS 146. They would now also need to have credit for CS 136L.) http://ugradcalendar.uwaterloo.ca/page/MATH-Computer-Science-Admissions
2. Computer Science Degree (The requirements for the degree are minimum 20 course units, minimum 5 non-math units, and amongst math units, 11 are constrained. With this change, 11.25 units are constrained.) http://ugradcalendar.uwaterloo.ca/page/MATH-Bachelor-of-Computer-Science-1
3. Joint Bachelor of Computer Science (The requirements for the degree are minimum 20 course units, minimum 5 non-math units, and amongst math units, 9.5 are constrained. With this change, 9.75 units are constrained.) http://ugradcalendar.uwaterloo.ca/page/MATH-Joint-Bachelor-of-Computer-Science-1
4. Computer Science Minor (min 4.5 units changed to min 4.75 units) http://ugradcalendar.uwaterloo.ca/page/MATH-Computer-Science-Minor-2
5. Computing Minor (4 units changed to 4/4.25 units depending on course taken) http://ugradcalendar.uwaterloo.ca/page/MATH-Computing-Minor

6. BA/BCS Double Degree (Of non-elective Waterloo courses, 11.5 units have specific requirements, changed   to   11.75) http://ugradcalendar.uwaterloo.ca/page/MATH-Bus-Admin-Computer-Sci-Double-Degree-Reqmnt-1

7. Bachelor of Math Data Science (Students can graduate with this plan using multiple combinations of course. The most economical route has 14 specific units of math course requirements, and with this change [adding CS 136L] this becomes 14+0.25 units. Students most also take a minimum of 5 units of non-math courses. Given they must also have a minimum of 20 units, students can still complete the plan with the minimum number 20 units with the change should they choose to.) http://ugradcalendar.uwaterloo.ca/page/MATH-Data-Science1

8. Computing and Financial Management (This changes the number of required units from 20 to 20.25) http://ugradcalendar.uwaterloo.ca/page/MATH-Computing-Financial-Mngt-Overview-Degree-Req

5.4 Statistics and Actuarial Science

5.4.1 Plan Title: Mathematical Finance Degree Requirement

Effective 1 September 2022

Motion and Rationale: Effective 1 September 2022, the following changes are being made to the Mathematical Finance plan:

- Add PMATH 333 as a degree requirement. This change clarifies what students must actually take in order to meet the prerequisites of the required PMATH 351 course that exists in the 'All of' list. In more detail: the required course PMATH 351 has for its requisites MATH 247 or PMATH 333; students who opt to take PMATH 333 must also take MATH 237 since it is a corequisite to PMATH 333.
- Add CO 255 (Intro to Optimization, Advanced) as an alternative to CO 250 (Intro to Optimization).
- Add AMATH 251 (Intro to Differential Equations, Advanced Level) as an alternative to AMATH 250 (Intro to Differential Equations).

The Calendar description of both AMATH 250 and CO 250 state that they may be substituted for the regular versions whenever the latter are a requirement in an Honours plan. Adding the information to the plan simplifies advising.

(http://ugradcalendar.uwaterloo.ca/page/MATH-Actuarial-Science-Mathematical-Finance1)

5.4.2-5.4.4 Statistics and Actuarial Science Plan Changes
Effective Date: 01 September 2022

Motion and Rationale: Effective 1 September 2022, AMATH 251 and AMATH 350 are added as alternatives to AMATH 250 in:

- Actuarial Science
- Statistics
- Biostatistics

AMATH 251 is the advanced version of AMATH 250. The current language allows some students in Business-related programs to make the AMATH 350 substitution. The prerequisite list for AMATH 350 mostly restricts enrollment in this course and explicitly listing it as an option will decrease confusion.

(http://ugradcalendar.uwaterloo.ca/page/MATH-Statistics1)

(http://ugradcalendar.uwaterloo.ca/page/MATH-Biostatistics1)

(http://ugradcalendar.uwaterloo.ca/page/MATH-Actuarial-Science1)

5.5 Dean of Mathematics Plan Changes

5.5.1 Plan Title(s): Bachelor of Mathematics Three Year General Degree (Honours Fallback Provision)

Effective Date: 01 September 2022

Background and rationale: Effective 1 September 2022, remove the note "Students wishing an upgrade are required to return the earlier degree in order to be granted the upgraded degree" referring to the return of 3 Year Degree (honours fallback provision) in the notes section when students wish to upgrade to an Honours degree. Such language was in place to be consistent with other faculties and those faculties have since deleted the language. Furthermore, the 3 Year Degree is different than the Honours degree and students should be able to keep both.

(http://ugradcalendar.uwaterloo.ca/page/MATH-Degree-Requirements-for-Math-students)

5.5.2 Plan Title(s): Specific Plans shown below in the Admission to Specific Honours Academic Plans section

Effective Date: 1 September 2022

Motion and Rationale: Effective 1 September 2022. The Faculty of Mathematics calendar has one page describing the admission to specific honours academic plans. The Applied Mathematics/Engineering Specialization plan is marked as limited enrolment on the plan page, but not on this page. The calendar stipulates that the Bachelor of Computing and Financial Management (BCFM) Steering Committee, in consultation with the faculties of Arts and Mathematics, and their admission committees, determines admission requirements for the BCFM program. As such, BCFM is limited enrolment so should be listed as such on this page. Another page, the Faculty policies page, has a table that indicates major averages required of students in various majors. Adding the information about those limited enrolment plans and a statement to the effect that students must meet the Major Average Requirement of the plan they want to join as stated in the Faculty Policies section would avoid confusion on the part of students and simplify the work of advisors.

(http://ugradcalendar.uwaterloo.ca/page/MATH-Admission-Specific-Honours-Academic-Plans)

1. **REGULATIONS**
    1.1. University Jurisdiction
    1.2. Academic Calendar Dates for 2022-2023 (REVISED)

1. **REGULATIONS**

   1.1 University Jurisdiction

   Effective date: To be added to the current 2021-22 UG Calendar

   Background and rationale: In light of the COVID-19 pandemic, Legal and Immigration Services (LIS) has recommended the inclusion of the following text into Waterloo's academic calendars. For the Undergraduate Studies Academic Calendar, the text is being integrated with similar pre-existing notices about University jurisdiction and authority. LIS supports the idea to make changes in order to limit Waterloo's liability (while avoiding exclusionary language that might not be enforceable) and preserve maximum flexibility for the coming year. The intent is that once the COVID-19 pandemic has concluded, the last section of the text will be removed from future publications as it will no longer be applicable.

   Calendar page: https://ugradcalendar.uwaterloo.ca/page/uWaterloo-Undergraduate-Calendar-Access

   About the Calendar

   The Undergraduate Studies Academic Calendar (the "Calendar") is the primary contractual document between undergraduate students and the University. Students are advised that in addition to the Calendar, students' relationships with the University are governed by Policies, procedures, and guidelines that are established by the University under its governing bodies.

   The Calendar provides official information about **admissions**, courses, programs and plans, related policies, and regulations for both students and applicants, as well as general information about the University. By the act of registration each student becomes bound by the policies of the University of Waterloo**, included in this Calendar, Policies, and guidelines established by the University's governing bodies**. Students are responsible for familiarizing themselves with the P~p~olicies and regulations, general information, and specific requirements contained in the Calendar.

   The University of Waterloo Act establishes two governing bodies for the University: the Board of Governors and the Senate. The Act further defines the membership of the two governing bodies to include representatives who are administrators, faculty members, graduate students, staff, and undergraduate students. The Act identifies the inclusion of these representatives "to achieve more fully the objects of the University" and to "broaden the representation on the said governing bodies."

   The University's effective governance is predicated on the engagement of its stakeholders in decision-making affecting University operations. That notwithstanding, from time to time it may be necessary to implement changes to University operations, including those governed by this Calendar, in timelines and through processes that are atypical but still subject to the authority of Senate or its delegate bodies or, where appropriate, the Board of Governors.

   The University is also bound, in all of its activities, by the Ontario Human Rights Code.

The University reserves the right to change without notice any information contained in this Calendar, including but not limited to that related to tuition and other fees, standards of admission, course delivery or format, continuation of study, and the offering or requirements for the granting of degrees, diplomas, or certificates in any or all of its programs.

In these instances, the University of Waterloo shall make reasonable efforts to notify students of such changes as soon as practical.

~~The course listings and academic programs and plans described in the Calendar represent Senate-approved requirements and electives for completion of degree requirements. The Senate and Board of Governors of the University of Waterloo reserve the right to invoke changes in this Calendar at any time without prior notice. The Registrar has authority to make editorial changes. Changes made after publication are noted on the Amendments page.~~

Calendar page: https://ugradcalendar.uwaterloo.ca/page/uWaterloo-Jurisdiction

The University of Waterloo exercises its statutory jurisdiction and authority with respect to the operation, protection, and control of its property and plant, and the regulation of persons on campus insofar as is necessary to ensure the orderly performance of the University's functions.

The University reserves the right to refuse admission or readmission to any candidate or to require a student to withdraw **when a student demonstrates behaviors or activities that are non-compliant with University Policies including but not limited to those related to the safety of the University community.** ~~when, in the opinion of University officials, a student poses a danger to the University community.~~ The University also reserves the right to require a student to withdraw from a course(s) for academic or other reasons **as directed by University Policies, guidelines, or practices**.

Access to Programs, Plans, and Courses

The publication of this Calendar does not bind the University to the provision of courses, programs, schedules of study, or facilities as listed herein.

~~Practical~~ **Unforeseen** circumstances, such as significant budget shortfalls or the unavailability of qualified personnel, may restrict the actual choices available to students when compared with those listed in the Calendar or in other University publications.

- The University reserves the right to limit access to, or to withdraw, courses or programs/plans.
- In the event that existing resources make it necessary to limit admission to a program or plan, the admission process will be based on competition for the spaces available.
- In such circumstances the University will endeavour, to the best of its ability, to enable students to complete their degree requirements in a satisfactory manner.

Disruptive Events

The University may face disruptive events beyond its reasonable control, such as (without limitation) strikes, lock-outs, floods, severe weather, disease or health emergencies, and malicious acts including through the Internet.

In the event that the University ~~must~~ take**s** decisions in **the** face of **such** ~~major~~ disruptive events ~~beyond its control~~, it will do so **having reasonable regard to, among other things,** ~~on~~ the direction of medical or other authorities**,** as appropriate, and will use its ~~best~~ **reasonable** efforts to minimize the academic consequences to its students.

- **Tuition and mandatory fees continue to be set regardless of the method of instruction, and will not be refunded or adjusted in the event instruction is interrupted and/or occurs by an alternative delivery model for all or any part of the academic year.**
- **The University may revise, at any time, the format of course offerings or academic milestones such that courses or milestones are offered in whole or in part on an alternate delivery model to in-person classes, in accordance with university policies, which are subject to change from time to time.**

COVID-19 Pandemic

In March 2020, the World Health Organization declared a global pandemic of the virus leading to COVID-19. Members of the University community, including students and employees, are asked to and expected to abide by the guidelines and recommendations of the local public health authorities, as well as any guidelines or rules that the University implements in an effort to reduce the public health risk posed by the COVID-19 pandemic. The circumstances of the pandemic continue to be unpredictable and evolving. The University community must recognize that risks exist, including the risk of contracting COVID-19, and that such risks cannot be eliminated.

1.2. Academic Calendar Dates for 2022-2023

The 2022-23 dates were initially approved at the September 2021 SUC meeting; since that time, Waterloo became aware that the majority of Ontario universities are planning to start the winter 2023 term on Monday, January 9, 2023. Waterloo is adjusting accordingly and the revised dates are below.

	Fall 2022	Winter 2023	Spring 2023
Co-operative Work Term Begins	Sept. 6 (T)	~~Jan. 3 (T)~~ **Jan. 9 (M)**	~~May 1 (M)~~ **May 8 (M)**
Classes Begin	Sept. 7 (W)	~~Jan. 4 (W)~~ **Jan 9. (M)**	~~May 1 (M)~~ **May 8 (M)**
Holidays	Oct. 10 (M)	Feb. 20 (M) Apr. 7 (F)	May 22 (M) July 3 (M) Aug. 7 (M)
Reading Week	Oct. 8-16 (S-U)	Feb. 18-26 (S-U)	N/A
Convocation	Oct. 21, 22 (F,S)	N/A	June 13-17 (T-S)
Classes End	Dec. 6 (T)	~~Apr. 4 (T)~~ **Apr. 10 (M)**	~~July 25 (T)~~ **Aug. 1 (T)**
Make-up Day(s) for in-term holidays	N/A	~~N/A~~ **Apr. 10 (M) for Apr. 7 (F schedule)**	May 23 (T) for May 22 (M schedule) ~~July 24 (M) for July 3 (M)~~ ~~July 25 (T) for May 23 (T)~~ **July 31 (M) for July 3 (M)** **Aug. 1 (T) for May 23 (T)**
Pre-Examination Study Day(s)	Dec. 7, 8 (W, R)	~~Apr. 5,6 (W,R)~~ **Apr. 11,12 (T,W)**	~~July 26, 27 (W,R)~~ **Aug. 2,3 (W,R)**
Examinations Begin	Dec. 9 (F)	~~Apr. 10 (M)~~ **Apr. 13 (R)**	~~July 28 (F)~~ **Aug. 4 (F)**
In-Person Exam Days for Online/Remote Courses	TBD	TBD	TBD
Examinations on Sunday	Dec. 11 (U)	N/A	N/A
Examinations End (including Emergency Day)	Dec. 23 (F)	~~Apr. 25 (T)~~ **Apr. 28 (F)**	~~Aug. 12 (S)~~ **Aug. 19 (S)**
Co-operative Work Term Ends	Dec. 23 (F)	~~Apr. 21 (F)~~ **Apr. 28 (F)**	~~Aug. 18 (F)~~ **Aug. 25 (F)**
Teaching days	60	60	60
Pre-examination Study Day(s)	2	2	2
Examination days	13 (+1 Emergency Day)	13 (+1 Emergency Day)	11 (+1 Emergency Day)

Symbols and abbreviations:
(M) Monday, (T) Tuesday, (W) Wednesday, (R) Thursday, (F) Friday, (S) Saturday, (U) Sunday,
N/A – Not Applicable

Guidelines for Determining Academic Calendar of Dates

The following are principles and guidelines either formally agreed upon by Senate or adopted as common practice in determining the dates for the academic year.

1. That the practice of setting dates for each academic year continues to be an annual exercise.

2. That there be no fewer than **60 teaching days** (12 weeks) in a term. A clear rationale for fewer than 60 teaching days must be communicated to Senate at the time calendar dates are approved. In calculating teaching days in a term, Saturdays, Sundays, and public or University holidays are excluded.

3. That attention be given to **balancing the number of meets** in courses. Where an imbalance may occur because of public holidays, the class schedule for a day different than the calendar day can be used to balance the number of course meets.

4. That **fall convocation** be the Friday and Saturday that fall in the third full week (beginning Sunday) of October.

5. That **spring convocation** be the Tuesday to Saturday in the second full week (beginning Sunday) in June.

6. That the **reading weeks** occur in all faculties in the fall and winter terms. They must begin on the Saturday before the public holidays of Thanksgiving Day and Family Day and will end on the following Sunday.

7. That **fall term** classes begin on the Wednesday following the public holiday of Labour Day. **Exception:** The fall term begins on Tuesday, September 8 when Labour Day is September 7.

8. That the start date for **winter term** be set as follows:

   o If January 1 is a Sunday, then start of classes is Wednesday, January 4.
   o If January 1 is a Monday, then start of classes is Wednesday, January 3.
   o If January 1 is a Tuesday, then start of classes is Monday, January 7.
   o If January 1 is a Wednesday, then start of classes is Monday, January 6.
   o If January 1 is a Thursday, then start of classes is Monday, January 5.
   o If January 1 is a Friday, then start of classes is Tuesday, January 5.
   o If January 1 is a Saturday, then start of classes is Wednesday, January 5.

9. The start date for **spring term** be set as follows:

   o If May 1 is a Sunday, then start of classes is Monday, May 2.
   o If May 1 is a Monday, then start of classes is Monday, May 1.
   o If May 1 is a Tuesday, then start of classes is Tuesday, May 1.
   o If May 1 is a Wednesday, then start of classes is Wednesday, May 1.
   o If May 1 is a Thursday, then start of classes is Monday, May 5.
   o If May 1 is a Friday, then start of classes is Monday, May 4.
   o If May 1 is a Saturday, then start of classes is Monday, May 3.

10. That there be no fewer than one **pre-examination study day** and when possible, two pre-examination study days (excluding Saturday, Sunday, and public holidays) between the end of classes and the beginning of examinations. A clear rationale for using fewer than two days or

Saturday, Sunday, and holidays as pre-examination study days, must be communicated to Senate at the time calendar dates are approved.

11. That there be no fewer than 13 **examination days** in the fall and winter terms, and 11 examination days in the spring term. In addition, one Emergency Day with no scheduled examinations is added to the end of the examination period.

12. In calculating **examination days**, Saturdays which fall within the period are included, whereas Sundays and public or University holidays are excluded.

    Exceptions:

    - Examinations will not be scheduled on the Saturday following Good Friday when that day falls within the examination schedule or the Saturday of the Civic Day weekend.
    - The first Sunday within the examination period may be used when required to accommodate the prescribed number of examination days in the fall term.

13. That for the **fall term's examination period**, no examinations be scheduled beyond December 22. The Emergency Day cannot be scheduled beyond December 23.

14. That **online course examination days** in each term be the first consecutive Friday and Saturday in the examination period.

15. **Grades due dates** for on campus courses are normally scheduled seven days from the date of the final examination. Grades for online (Centre for Extended Learning) courses that have a scheduled final examination are due on the last day of the grades submission period. Grades for all courses without a scheduled final examination are normally due 14 days after the start of examinations.

16. **Co-op work terms** are expected to be 16 week in duration. Actual start and end dates may vary depending on employer or student requirements in consultation with Co-operative Education.

Prepared by:
C. Newell Kelly, Registrar
June 2021
Revised October 2021

Rules that Require Exceptions with Rationale:

Rule 8

*That the start date for **winter term** be set as follows:*
- *If January 1 is a Sunday, then start of classes is Wednesday, January 4.*
- *If January 1 is a Monday, then start of classes is Wednesday, January 3.*
- *If January 1 is a Tuesday, then start of classes is Monday, January 7.*
- *If January 1 is a Wednesday, then start of classes is Monday, January 6.*
- *If January 1 is a Thursday, then start of classes is Monday, January 5.*
- *If January 1 is a Friday, then start of classes is Tuesday, January 5.*
- *If January 1 is a Saturday, then start of classes is Wednesday, January 5.*

A survey of Ontario universities showed that of those respondents, all are beginning the 2023 winter term on Monday, January 9, 2023.

Rule 9

*The start date for **spring term** be set as follows:*
- *If May 1 is a Sunday, then start of classes is Monday, May 2.*
- *If May 1 is a Monday, then start of classes is Monday, May 1.*
- *If May 1 is a Tuesday, then start of classes is Tuesday, May 1.*
- *If May 1 is a Wednesday, then start of classes is Wednesday, May 1.*
- *If May 1 is a Thursday, then start of classes is Monday, May 5.*
- *If May 1 is a Friday, then start of classes is Monday, May 4.*
- *If May 1 is a Saturday, then start of classes is Monday, May 3.*

Due to the delayed start to the 2023 winter term, the 2023 spring term will be delayed.

Rule 12

… The first Sunday within the examination period may be used when required to accommodate the prescribed number of examination days in the fall term.

With fall term classes beginning September 7, 2022, and the scheduling of two study days prior to the fall final exam period, the first Sunday within the exam period was required for scheduling exams to accommodate the prescribed number of examination days.

… Examinations will not be scheduled on the Saturday following Good Friday when that day falls within the examination schedule or the Saturday of the Civic Day weekend.

~~The first day of the 2023 winter final exam schedule will begin on Monday, April 10, 2023 instead of Saturday, April 8, 2023 as it is the Saturday following Good Friday.~~ Saturday, August 5, 2023 will not be used for schedule of examinations during the 2023 spring term final exam period, as it is the Saturday of the Civic Day weekend.

Rule 14
That online course examination days in each term be the first consecutive Friday and Saturday in the examination period.

At the time of preparation of this document, it is unknown as to when online course examination days will resume, as there has been a hold on in-person exams for online courses due to the COVID-19 pandemic. Considerations will be made at a future date.

Final Assessment Report
Human Resources Management
(Minor/Diploma)
October 2020

Executive Summary

External reviewers found that the Human Resources Management Minor and Diploma, delivered by the Department of Psychology, were in good standing.

> "It is the opinion of the reviewers that UW's HR Minor, housed in the department of Psychology, is an excellent program that deserves protection, nurture and investment. It is, in a word, a "gem.""

A total of eight recommendations were provided by the reviewers, regarding marketing and recruitment, staffing resources, and minor curriculum improvements. In response, the program created a plan outlining the specific actions proposed to address each recommendation as well as a timeline for implementation. The next cyclical review for this program is scheduled for 2025-2026.

Student Complement Over the Past Three Years

	Minor	Diploma
Fall 2019	245	21
Fall 2018	262	22
Fall 2017	249	25

*based on Active Students Extract pulled from Quest February 5, 2020

Background

In accordance with the University of Waterloo's Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response of the Minor and Diploma in Human Resources Management (HRM) delivered by the Department of Psychology. A self-study (Volume I, II, III) was submitted to the Associate Vice-President, Academic on October 19, 2018. The self-study (Volume I) presented the program descriptions and learning outcomes, an analytical assessment of the programs, including the data collected from a student survey, along with the standard data package prepared by the Office of Institutional Analysis & Planning (IAP). The CVs for each faculty member with a key role in the delivery of the program(s) were included in Volume II of the self-study.

From Volume III, two arm's-length internal reviewers were selected by the Associate Vice-President, Academic: Dr. Geoff Malleck, Professor, Department of Economics, and Dr. Mark Weber, Professor, Conrad School of Entrepreneurship and Business.

Reviewers appraised the self-study documentation and conducted a site visit to the University on March 27, 2019. The visit included interviews with the Associate Vice-President, Academic, Dean of the Faculty of Arts, Chair of Psychology, HRM Program Director, faculty and lecturers, staff, alumni and current students.

Following the site visit, the external reviewers submitted a report on their findings, with recommendations. In response, the program responded to each recommendation and outlined a plan for implementation of the recommendations. The Dean of Arts provided endorsement and commentary on the program response and implementation plan on November 24, 2019.

This final assessment report is based on information extracted, in many cases verbatim, from the self-study, the external reviewers' report and the program response.

Program Characteristics

Human Resources Management (Minor): The HRM Minor is available to University of Waterloo students enrolled in degree studies in the Faculty of Arts, and other Faculties with some restrictions. The HRM Minor requires successful completion of a minimum of eight courses with a cumulative average of at least 70%. The HRM Minor includes courses required by the Human Resources Professionals Association (HRPA) towards the Certified Human Resources Leader (CHRL) /Certified Human Resources Professional (CHRP) designations.

Human Resources Management (Diploma): The HRM Diploma is designed for individuals who are currently working in Human Resources who wish to expand and update their current skills, or those who desire to gain entry into this exciting field. The HRM Diploma requires successful completion of a minimum of eight courses with a cumulative average of at least 70% and can be completed on a full- or part-time basis. The HRM Diploma includes courses required by the Human Resources Professionals Association (HRPA) towards the Certified Human Resources Leader or Professional (CHRL/P) designations.

Summary of Strengths, Challenges and Weaknesses based on Self-Study

Strengths
- Quality of HRM Lecturers: Lecturers have a wide range of relevant experience in industry, and can engage students with real life examples of how the curriculum translates in the working world. These lecturers also act as mentors and coaches to HRM students regarding career development.

- Quality of Courses: Course content is updated regularly to reflect the core objectives of HR including required changes that address new legislation, changes in employment standards, and human rights considerations. Several of the HRM courses highlight current issues in the HR industry, and include practical, applied assignments.
- Professional Designation: The HRM program offers students (Minor and Diploma) the opportunity to complete all academic requirements (all 9 courses) to then write the national exam for certification as a Certified Human Resources Professional or Certified Human Resources Leader through the Human Resources Professionals Association (HRPA).
- Student Satisfaction: Approximately, 90% of alumni who responded to our survey felt that the HRM curriculum prepared them for work in the HR field. 100% of alumni felt that HRM courses prepared them for the CHRP/L exams.
- HRM Student Club: the HRM Society at UW is run by and for students and offers students diverse opportunities: resume writing workshops, guest speakers, panels with HRM Lecturers, networking events, and social events. The HRM club has built a sense of community which connects students with the same interests and career aspirations.

Challenges
- HRM 200: Although the addition of an online course option helped, the program is unable to keep up with the student enrolment demand in HRM 200. Still, close to 100 students per term are not able to get into the course. HRM 200 classes are also very large (400 students in the in-class section and 325 in the online section); therefore, we only have a few options in delivery design. Adding a smaller enrollment HRM 200 class that is tailored to students planning to take the HRM Minor/Diploma would help to address this challenge.
- Director's Role: Currently, the HR Director's contract states that 20% of time is to be spent on service, the remaining 80% on teaching. However, far more than 20% of time is currently allocated to service (e.g., creating connections in the community, linking students up with internships, etc.). There is a need to reassess the current time commitment as (20%) is not sufficient.
- Internal competition: There is some overlap with other minor programs in terms of course content (e.g., the Management Studies Minor). This may confuse students as to which program is the best match for their goals and career aspirations. Student enrollment from other programs has also declined as a result of curriculum changes in other departments.
- External competition: The HRM Minor program also faces competition from other institutions offering various HRM programs. To attract high quality students, we need to be marketing this program in the same fashion as is done by other Universities and Colleges.
- Lecture format: Many of the HRM courses are 3-hour lectures once a week. This is considered too long by some students, particularly since classes start at 6:30pm. On the

other hand, this evening 3-hour scheduling does accommodate contract Lecturers who are employed elsewhere. The schedule also benefits Diploma students who may be working full time during office hours.

Weaknesses
- Course scheduling: Some courses are only offered twice a year (PSYCH 238, PSYCH 340, PSYCH 339, and HRM 301.) and the program is unable to provide students with a defined schedule more than one term in advance. This could dissuade potential Diploma students from applying to our program because of the firm commitment that they receive from other institutions where they can compete the program in one year.
- HRM Management Committee: The committee was dissolved several years ago. Although the current HRM Director and the Chair of Psychology work closely together, it would be beneficial to re-establish the committee, and to expand the roles and responsibilities of the HR committee as the HR program grows.
- Compensation/commitment: The reviewers' report of the HRM Program dated February 28, 2012 recommended that Lecturers be given three year contracts with a per course compensation of $12,000. Lecturers currently receive $10,000 per course with a four-month contract (i.e., term by term). In the past, offers have been declined as a result of the compensation level for the work required and the commitment needed. The major concern is our ability to attract and retain high quality lecturers.

Summary of Key Findings from the External Reviewers

"It is the opinion of the reviewers that UW's HR Minor, housed in the department of Psychology, is an excellent program that deserves protection, nurture and investment. It is, in a word, a "gem." The program in its current form is intelligently designed, particularly for students with an interest in CHRP designations. Indeed, its novel capacity to meet the professional designation requirements is a noteworthy accomplishment and strength. […] Students and alumni offer very favorable assessments of their courses and their experience. […] As reviewers we see opportunities in program promotion, program expansion, and addressing issues of faculty and administrative stability."

Program Response to External Reviewers' Recommendations

1. Staffing: Throughout the report, we have highlighted some staffing challenges that, in our view, should be addressed. We are highly sensitive to the financial realities of UW and the Faculty of Arts at this time. Therefore, in making recommendations here, we are deliberate in avoiding "pie in the sky, optimal" solutions. What we propose feels prudent, responsible, and eminently do-able.

1.1 Hire an additional full-time lecturer. In our estimation, this is the single most important recommendation we are making. Well-selected, a new lecturer can help to address stability, the risk associated with the current "single point of failure" problem, and free up a little more of Vince's time to devote to service in the interest of program development and prominence in the professional community. We would actually suggest hiring two such additional people would be appropriate and advisable, but we consider one to be necessary. Candidates considered for this role should be people who, themselves, have significant leadership capacity, both to support Mr. Di Ruzza and to act as a backup.

1.2 Multi-term sessional contracts. In order to provide stability and give the Director the capacity to attract great sessional lecturers, the Faculty should find a way to permit the Director to make multi-term offers to sessional lecturers. This has no cost, but the meaningful benefit of potentially freeing up some of the Director's precious time.

Response

The reviewers recommend two major changes to the staffing of the HRM program (see Recommendations 1.1, 1.2).

First, they suggest that the program hire an additional full-time lecturer. The program agrees in full with this recommendation, as they recognize that the demands placed on the current Director are extraordinary. Of all the recommendations, this should be the program's top priority. An additional dedicated lecturer will provide the person-power to both sustain and enhance the program in accord with several of the other reviewer recommendations (e.g., Recommendations 3, 4, 7). The program is well aware of the current financial realities of UW and the Faculty of Arts. The Chair of Psychology and the Dean of Arts discussed this and while both agreed it would certainly enhance the program, it was judged to be unaffordable at this time.

Second, the reviewers recommend multi-term sessional contracts. *It should be clearly noted that this was a key recommendation made by last set of program reviewers in 2011 yet this never came to fruition.* As such, the program feels that this is an issue that must be resolved. As is apparent in the self-study and the report of the reviewers, the HRM program is reliant upon a large number of professionals in the region who generously teach courses as sessional instructors. These instructors are highly committed to the program and most teach regularly. The current model of securing many recurring single-term contracts is not efficient for program administration, nor is it efficient for the instructors themselves. Thus, there is desire to provide multi-term contracts to most, if not all, of the established Instructors. The program is in support of this but have will pend until January 2021 until there is a better understanding of budget and course delivery methods. Pending until January 2021 will also allow the

program to investigate student enrollment numbers and appropriately review course offerings each term.

2. Accounting Course: We had triangulating feedback from students, alumni, and faculty, that the current required accounting course is problematic. Frequent comments suggest it is appropriate for those who have taken accounting in high school; however, it can be demoralizingly inappropriately matched to the capacities and preparation of a new HR minor student without that experience. (We note, it is our understanding that high school accounting is not, in fact, a required pre-requisite for AFM 123.) Further evidence suggests that students deliberately avoid taking the course early in their minor, because the likely grade may force them out of the program. This is clearly a concern that needs to be addressed. We do not pretend to know the best way to do so, but possible solutions might include a dedicated section of AFM 123 targeted at this audience or the development of a different course more appropriately targeted at this audience. This latter solution raises another valuable question, which is whether AFM 123 is in fact "the right course" for the program. Again, we are not equipped to offer a recommendation in that respect. We encourage new collaborative efforts with the content experts in SAF, and the involvement of SAF's leadership in that process as appropriate.

Response
The reviewers note "triangulated" feedback that the current AFM 123 course is problematic for students in the HRM program for many reasons. The program agrees and proposes to partner with Finance and Accounting to seek a reasonable alternative to this course. Should a partnership with Accounting and Finance not be reached to address concerns by HRM students regarding AFM 123, proposal to build HRM finance and accounting course will be completed for September 2020 Implementation. Preliminary discussions were postponed and will be held in January 2021 once evaluations of the on-line course delivery has been received.

3. Expansion of the target audience / streaming: As noted, the program is very well designed and delivered for its current target audience – students who may wish to pursue formal HR accreditation with a professional body. It is our reflection that there may be many students who have passing-to-deep interest in HR-relevant material who are less interested in the accreditation than current students. In fact, one of the alumni we met fit this description. Our reflection, for the consideration of the program leadership, is that it may be worthwhile to add additional HR-relevant courses to the acceptable list that do not, necessarily, meet CHRL requirements. For example, there may be students in Peace and Conflict Studies who have two or three courses related to conflict management that could very legitimately be counted towards a minor in HR who, if they knew they could count two courses towards an HR minor, might consider doing the minor when they might not otherwise have done so. This could broaden the number of students who explore the possibility, and enrich the offering for

students who are less narrowly focused around the "profession" of HR. This requires no new courses and no new resources financial or otherwise.

Response

The reviewers noted that the HRM program is so well received that it should consider expanding the scope to encourage students across campus with a "passing-to-deep interest" in HR-relevant materials to pursue this minor even if they do not wish to seek formal professional accreditation. A non-professional accreditation stream would entail a more flexible set of courses (vs. the strict requirements for professional certification eligibility). The program planned to discuss this option in the Fall of 2019, but conversations were put on hold until January 2021.

In February 2020, the program was approached by Finance and Accounting to review a certificate program in HRM for Accounting and Finance students. The program is in support of this however is unable to move forward as per University requirements for certificate programs.

4. Continuity of HR Club: It was noted that the strength of the HR Club was variable from term to term, and that when strong, it was a significant positive contributor to the student experience and the program's reputation in a number of ways. We simply note that the staffing recommendations made here may create capacity to better support the strength of this important club.

Response

The reviewers recommend that increased staffing of the HRM program would allow for greater continuity in the size and success of the HRM Club. The Department has very active undergraduate and graduate student groups, and is committed to providing a comparable experience for students in the HRM program.

6. HR Software: As noted earlier, students and alumni unanimously agreed that exposure to HR platforms (e.g., WorkDay, PeopleSoft, Cognos) would be advantageous to students, and significantly enhance their capacity to compete for jobs in the marketplace. We recommend that the program investigate ways to make this possible. Strategies could include incorporation into existing courses, the development of a new course, or collaboration with colleagues elsewhere on campus. In this last respect, we note that the Conrad School is in the process of developing a "technology platforms" course to be made available to students across campus. It is early in that development process, and engagement may allow some specialization of content that would facilitate HR students.

Response

The reviewers recommend developing a course that would introduce students to common HR platforms. The program's response to this suggestion will be subsumed under the discussions of Recommendations 2 (Accounting Course) and 3 (Expansion of Target Audience), as it could play a role in the redesign of the Accounting course and/or be included a part of a broader, more flexible non-accreditation stream curriculum. Once consideration is developed for the target audience under Section 5 of this report, the next step would be to review courses and course development. Currently, 8 courses are required for the minor and the program offers all 9 courses students require if they wish to pursue the CHRP/L designation.

7. Edge and Co-op: The Director noted the importance of enhancing the work integrated learning opportunities for HR minor students. He identified a desire for more attention from co-op, and a sense of hopefulness about the role that the new Edge program might play in addressing those needs. We simply recommend that the Director continue to pursue these strategies, and that his Department Chair and Dean offer what support they can to his efforts. We acknowledge that the active engagement of a Chair and/or Dean can sometimes be necessary to advance an agenda in a complicated landscape.

Response
The program is strongly committed to providing work integrated learning opportunities for HRM students. Given the number of students, though, this is an enormous task. The program requires dedicated support from the Edge and/or Co-op office to identify HR-specific placements in the community. This job is simply too much for the Director to take on in addition to his other responsibilities. The program is happy to discuss collaborative strategies with Edge/Co-op, especially if granted permission to hire a full-time lecturer to support the HRM program.

8. Marketing: Put simply, not enough people on this campus know about this fabulous program. Further, prospective students of the university may also be less aware than they should be. We encourage the program, the department, the faculty, and Marketing and Undergraduate Recruitment to invest effort and resources in addressing the "awareness deficit" that we perceive. (This might also be worth considering for all / most minors, especially where they are "profession relevant".)

Response
In the words of the reviewers "…not enough people on this campus know about this fabulous program." The program is proud to hear this sentiment and agrees! The program met with Arts Marketing staff in Fall 2019 to discuss strategies for raising student awareness of the program as part of initial recruitment efforts (i.e., presentations to high schools) and to

existing students who could complement their major with an HR minor. The program continues to market this program whatever possible, realizing that there are limitations to the marketing of this program given it is only a minor and not a major.

Recommendations Not Selected for Implementation
5. If new financial resources are required: If it is determined that some of the recommendations here, or other future directions of value, require additional financial resources, we have a suggestion for how to raise them. Specifically, program leadership could investigate slightly fewer offerings of some classes with slightly larger class sizes. When students were asked whether classes of 40-45 would still be sufficiently intimate to achieve objectives (vs. 30'ish currently), their response was "generally yes". They did, however, note that this was truer for some classes than others.

Response
The reviewers were highly sensitive to the financial realities currently faced at UW. As such, they noted that by increasing the enrollment caps on some HRM courses, the program could, in essence, generate funds to support the need for more staffing. This recommendation directly contradicts the recommendations made in the last program review, and thus, the program does not believe this is a viable recommendation.

Dean's Response

The Faculty of Arts is currently facing financial challenges, and there is a hiring freeze in effect. Departments are being encouraged to review their curriculum in order to identify ways to make course offerings more flexible and degree programs more accessible. Growing course offerings rather than shrinking them is not very viable at the moment, and all Departments should be thinking about strategic use of their existing resources. It may mean doing things differently as we move forward; we need to pay close attention to student interests and design curriculum that is meaningful to them. The extremely positive reviewers' report on the HRM Minor suggests that this program is indeed meaningful to our students, and I applaud the idea of expanding the program's audience.

With respect to the staffing concerns raised by the reviewers and the Department, I note the following:

1. The reviewers recommend, and the Department agrees, that an additional "full-time lecturer" be hired. I take this to mean a continuing lecturer, rather than a definite-term lecturer. Hiring processes at UW do not allow for the immediate hire of a continuing lecturer; individuals must generally serve in a couple of definite-term positions before they can be converted to a continuing lecturer. Unfortunately, as mentioned above, the Faculty is currently in a hiring freeze and I cannot add an incremental position to the HRM program. Nevertheless, I will be keeping this request in mind as I move forward with complement planning.

2. Another recommendation is to issue "multi-term sessional contracts". I take this to mean hiring definite-term lecturers to cover a suite of courses over the period of a year or two, rather than issuing single-course contracts. Definite-term lecturers do represent an additional cost to the Faculty (sessional labour is less costly on a course per course basis). If the recommendation is instead that a sessional instructor who is engaged to teach a course in September should at the same time be issued a contract to teach in January, there is no reason why that could not be done.

24 November 2019

Implementation Plan

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	*Staffing.* *1. Hire an additional full-time lecturer.* In our estimation, this is the single most important recommendation we are making. *2. Multi-term sessional contracts.* In order to provide stability and give the Director the capacity to attract great sessional lecturers, the Faculty should find a way to permit the Director to make multi-term offers to sessional lecturers.	September 30, 2019 - Conduct meeting to determine role and responsibilities of proposed new position plus budget options and financial implications. September 30, 2019 - Determine if multi term contracts can be provided to several Lecturers. To consider for full time Lecturer: - Courses - Relationship with I/O - Other responsibilities	Heather Henderson Vince Di Ruzza Janice da Silva Janice da Silva Vince Di Ruzza	December 2019 - If approval provided, implementation plan will be put in place for 2020 hire. December 2019 - If approved, January 2020 contracts will be multi term. May 2020 - Full time lecturer cannot be supported at this time. Sessional contracts will be reviewed again in Jan 2021. Goal was to implement September 2020 but will be postponed until campus re-opens and demand for courses is established.
2.	*Accounting Course.* We had triangulating feedback from students, alumni, and faculty, that the current required accounting course is problematic. We do not pretend to know the best way to do so, but possible solutions might include a dedicated section of AFM 123 targeted at this audience or the development of a different course more appropriately targeted at this audience. This latter solution raises another valuable question, which is whether AFM 123 is in fact "the right course" for the program. Again, we are not equipped to offer a recommendation in that respect. We encourage new collaborative efforts with the content	October 2019 - Will conduct meeting with partners in Finance and Accounting to discuss course, and current problems. - Will determine if partnership/changes will be considered.	Vince Di Ruzza	April 2020 Should partnership with Accounting and Finance faculty not be reached to address concerns by HRM students regarding AFM 123, proposal to build HRM finance and accounting course will be completed for September 2020 Implementation. Jan 2021 Talks will resume with AFM.

	experts in SAF, and the involvement of SAF's leadership in that process as appropriate.			
3.	*Expansion of the target audience / streaming.* As noted, the program is very well designed and delivered for its current target audience – students who may wish to pursue formal HR accreditation with a professional body. Our reflection, for the consideration of the program leadership, is that it may be worthwhile to add additional HR-relevant courses to the acceptable list that do not, necessarily, meet CHRL requirements.	November 2019 - Meeting to be held to discuss implementation of HRM program separate from CHRP designation.	Vince DiRuzza Heather Henderson Richard Eibach HR Program/Student advisor	March 2020 If decision in November is to move forward with minor that is not geared towards CHRP designation core design of courses will be completed. Jan 2021 – committee will be established to review next steps and process.
4.	*Continuity of HR Club.* It was noted that the strength of the HR Club was variable from term to term, and that when strong, it was a significant positive contributor to the student experience and the program's reputation in a number of ways. We simply note that the staffing recommendations made here may create capacity to better support the strength of this important club.	September 30, 2019 - Once new term begins, meeting will be planned for October with HR Society executive.	Vince Di Ruzza Plus HR Program/Student Advisor	Ongoing support and guidance will be provided to the HR Society. Full support will be provided by all HRM Lecturers. Winter 2020 – meeting held with newly established Club executive. All plans for end of March cancelled. Plans to re-establish once campus opens up.
6.	*HR Software.* As noted earlier, students and alumni unanimously agreed that exposure to HR platforms (e.g., WorkDay, PeopleSoft, Cognos) would be advantageous to students, and significantly enhance their capacity to compete for jobs in the marketplace. We recommend that the program investigate ways to make this possible.	Ongoing Fall term 2019 Will be considered once we determine action plans for item 2, 3. Special note: students pursuing CHRP qualifications require 9 courses. The minor requires 8 therefore all courses for these students are pre-determined. If we move forward with item 3 we could change the design of course content for students interested only in an HRM minor and not to pursue CHRP.	Vince Di Ruzza Changes to Minor Committee (Proposed): Vince Di Ruzza Richard Eibach Tammy Neil HR Program Co-ordinator/Student Advisor	January 2021

7.	*Edge and Co-op*. The Director noted the importance of enhancing the work integrated learning opportunities for HR minor students. He identified a desire for more attention from co-op, and a sense of hopefulness about the role that the new Edge program might play in addressing those needs. We simply recommend that the Director continue to pursue these strategies, and that his Department Chair and Dean offer what support they can to his efforts. We acknowledge that the active engagement of a Chair and/or Dean can sometimes be necessary to advance an agenda in a complicated landscape.	Ongoing - Meeting to be planned with Edge. - Meeting to be planned with Co-op. Purpose: Partnership building. Implementation of strategies to support the challenges faced by HRM minor students.	Vince Di Ruzza Program Co-ordinator To be determined.	Jan 2021 - Discussion with commence
8.	*Marketing*. Put simply, not enough people on this campus know about this fabulous program. Further, prospective students of the university may also be less aware than they should be. We encourage the program, the department, the faculty, and Marketing and Undergraduate Recruitment to invest effort and resources in addressing the "awareness deficit" that we perceive.	Ongoing - September 2019 – hold meeting with Arts Marketing staff.	Vince Di Ruzza	Ongoing

The Department Chair/Director, in consultation with the Dean of the Faculty shall be responsible for the Implementation Plan.

Date of next program review _____ **2025-2026** _____

<div align="right">Date</div>

Signatures of Approval

Heather Henderson   09/08/2021
_____   _____
Chair/Director   Date

_____   _____
AFIW Administrative Dean/Head (*For AFIW programs only*)   Date

Sheila Ager   24/06/2021
_____   _____
Faculty Dean   Date

Note: AFIW programs fall under the Faculty of ARTS; however, the Dean does not have fiscal control nor authority over staffing and administration of the program.

Dan DeVidi   March 26, 2020
_____   _____
Associate Vice-President, Academic   Date
(For undergraduate and augmented programs)

_____   _____
Associate Vice-President, Graduate Studies and Postdoctoral Affairs   Date
(For graduate and augmented programs)

Final Assessment Report
Spanish (BA, Minor), Latin American Literatures and Cultures (Minor), Spanish/English Translation (Minor, Diploma)
December 2020

Executive Summary

External reviewers found that the programs (BA, Minors, Diploma) delivered by the Department of Spanish and Latin American Studies (SLAS) were in good standing.

> "These programs are currently in good standing (especially the BA and the Minor in Spanish) but only due to the hard work of its few members."

A total of four recommendations were provided by the reviewers, regarding resource needs, and program marketing and recruitment. In response, the program created a plan outlining the specific actions proposed to address each recommendation as well as a timeline for implementation. The next cyclical review for this program is scheduled for 2026-2027.

Total Number of Students Registered in All Undergraduate Year Levels

	3-Year General	4-Year General	Honours	Honours Co-op
Fall 2020	0	0	8	0
Fall 2019	0	0	8	0
Fall 2018	0	0	10	0

*Enrolment based on Active Students Extract retrieved from Quest Dec 17, 2020

Number of Students Graduating with a Minor/Diploma

	Spanish Minor	Latin American Literatures and Cultures Minor	Spanish/English Translation Minor	Spanish/English Translation Diploma
2018	5	0	0	0
2017	4	0	0	0
2016	6	0	0	0

*data provided by Institutional Analysis and Planning as part of the Self-Study

Background

In accordance with the University of Waterloo's Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response of the BA, Minors and Diploma delivered by the Department of Spanish and Latin American Studies. A Self-Study (Volume I, II, III) was submitted to the Associate Vice-President, Academic on August 30, 2019. The Self-Study (Volume I) presented the program descriptions and learning outcomes, an analytical assessment of the programs, including the data collected from a student survey, along with the standard data package prepared by the Office of Institutional Analysis & Planning (IAP). The CVs for each faculty member with a key role in the delivery of the program(s) were included in Volume II of the Self-Study.

From Volume III, two arm's-length external reviewers were selected by the Associate Vice-President, Academic: Dr. Sophie Lavoie, Associate Professor of Culture and Media Studies, University of New Brunswick, and Dr. Enriqueta Zafra, Associate Professor of Language, Literatures and Cultures, Ryerson University.

Reviewers appraised the Self-Study documentation and conducted a site visit to the University on November 14-15, 2019. An internal reviewer from the University of Waterloo, Dr. Susan Elliott, Professor of Geography and Environmental Management, was selected to accompany the external reviewers. The visit included interviews with the Associate Vice-President, Academic; Acting Dean of the Faculty of Arts; Chair of the Department, as well as faculty members, staff and current undergraduate students. The Review Team also had an opportunity to meet with representatives from the library.

Following the site visit, the external reviewers submitted a report on their findings, with recommendations. Subsequently, the program and Dean responded to each recommendation and outlined a plan for implementation of the recommendations.

This Final Assessment Report is based on information extracted, in many cases verbatim, from the Self-Study, the External Reviewers' Report, Program Response and Dean's Response.

Program Characteristics

Spanish: In addition to providing a fluent knowledge of the Spanish language, the Spanish program offers a multiplicity of practical applications ranging from business to broadcasting and from social work to diplomatic service. At the same time, it provides a deep knowledge of and appreciation for Hispanic literatures and cultures. Spanish is offered in the following credentials:
- Minor (4.0 units/8 courses in Spanish)
- 3-Year General (15.0 units/30 courses, including 6.0 units/12 courses in Spanish)
- 4-Year General (20.0 units/40 courses, including 8.0 units/16 courses in Spanish)
- 4-Year Honours program (20.0 units/40 courses, including 8.0 units/16 courses in Spanish)

This report also technically covers these since-inactivated credentials:

The *Minor in Latin American Literatures and Cultures* (4.0 units/8 courses) aimed to examine the literatures and cultures of Latin America from pre-Columbian times to the present. Students study the major trends in literary and cultural criticism, while developing strong research skills at the same time. The Minor was inactivated effective September 1, 2019 due to low enrolment.

The *Minor in Spanish/English Translation* (4.0 units/8 courses) provided an opportunity for students enrolled in any degree program to examine a variety of linguistic and stylistic issues directly relevant to understanding culture, civilization, business, and industry. Students were be introduced to current issues of translation (business, technical, literary) and technological resources used today in translation, while acquiring important research skills. The Minor was inactivated effective September 1, 2019 due to low enrolment.

The *Diploma in Spanish/English Translation* (4.0 units/8 courses) provided an opportunity for non- and post-degree students to examine a variety of linguistic and stylistic issues directly relevant to understanding culture, civilization, business, and industry. Students will be introduced to current issues of translation (business, technical, literary) and technological resources used today in translation, while acquiring important research skills. The Diploma was inactivated effective September 1, 2019 due to low enrolment.

Summary of Strengths, Challenges and Weaknesses based on Self-Study

Strengths
- Dedicated and caring instructors who are invested in their students' success.
- Smaller class sizes in advanced classes allow students a more personalized educational experience.
- Cultural Identities Minor and interdepartmental collaboration with Germanic and Slavic Studies (GSS).
- Strong sense of community among students and faculty.
- A unique opportunity to study the art of translation.

Challenges
- Attracting more majors and improving enrollment, especially in upper-year courses. One avenue that may be pursued is to foster a stronger relationship with high school teachers in terms of outreach and professional development. This would be mutually beneficial as they would get professional training and the program would attract better prepared students coming into university and more awareness of the programs at the high school level.
- Converting minors into majors.

- Fostering a "learning narrative" between courses so that students can more easily make connections during their learning experiences in Spanish classes.
- Having an office manager who is at the "front line" only 4 hours a day.

Weaknesses
- A very small faculty complement constrains the number of initiatives that can be undertaken at any one time in the Department.
- Large size of first-year courses.
- Lack of resources to offer courses in Spring and Summer to accommodate the needs of co-op students who would like to pursue studies in Spanish.

Summary of Key Findings from the External Reviewers

The reviewers felt that these programs are currently in good standing (especially the BA and the Minor in Spanish) but only due to the hard work of its few members. They felt that this is not sustainable in the long run and the programs' good standing requires the urgent hiring of a tenure-track position to maintain programs' requirements. When asked to establish a top priority for the program to address, the reviewers felt that this was a tough question as many of the programs' perceived issues are interrelated. However, reviewers judged that the renewal of the definite-term position with the possibility of conversion into a tenure-track position once the hiring freeze is over should be the top priority. This would show the Administration's willingness to support SLAS, for all the reasons provided in this report, and provide some hope for SLAS faculty members, all the while consolidating the department.

Program Response to External Reviewers' Recommendations

1. SLAS urgently needs a tenure-track position to fulfil program requirements and solve an unsustainable situation in the department. Perhaps the Faculty of Arts could consider a renewal of the definite-term position with the possibility of conversion into a tenure-track position once the hiring freeze is over.

   Program Response
   The request for a tenure-track position has been denied at this time due to the hiring freeze in place. SLAS feels fortunate, however, to have had their Definite Term appointment extended for another three years. The new appointment begins August 2020. This extension provides SLAS with some breathing room, and the instructor will be able to continue teaching seven courses per year. Nevertheless, SLAS struggles to divide service duties amongst three tenure stream members, while also participating in faculty initiatives (such as Arts First). Moreover, their ability to plan and implement significant changes to their curriculum will also be impacted, but they remain hopeful that the Faculty will be in a stronger financial situation in three years, and that the position they lost to a retirement in 2017 will be reinstated.

Dean's Response

The Department is correct in noting that the hiring freeze, in addition to the financial situation of the Faculty, places serious constraints on our current ability to hire tenure-line faculty. We are engaged in ongoing complement planning for the Faculty as a whole, as well as a strategic planning process. We will gain a clearer picture of needs and opportunities over the coming year.

2. Hire a full-time Administrative Assistant who is at the front lines of the department.

Program Response

SLAS do not see this happening. The Department has always only had a 0.5 position in the Administrative Manager Role. For many years they shared a person with Classical Studies, so although they only had an assistant for half of the work week, she was in the office 40 hours a week, and she split her time between the two departments. When Classical Studies was awarded a 1.0 position in the role, the shared assistant took the spot and SLAS continued with the 0.5. There has been a good deal of turnover in recent years, as people take on the position and then move on to full time work elsewhere in the University. SLAS has lost 4 people since 2009.

The argument has been made on many occasions to change the position to a full-time role, particularly in light of how much additional work has been downloaded to people holding the spot but has been unsuccessful. SLAS conducted a search to cover a secondment that has been extended and hired a replacement who began on December 1, 2020.

Faculty members and teaching staff have learned to work around this situation and have become accustomed to handling various responsibilities independently but running a department with a part time administrative assistant has presented several challenges. An example of this can be as simple as having to re-arrange a workday schedule to allow for their Admin. Manager to attend a meeting or workshop that requires SLAS representation, or as complicated as having no one in the office.

Dean's Response

Our current structures in the Faculty of Arts present some operational challenges, of which the situation with the SLAS admin manager is an example. With the strategic planning process currently underway in the Faculty, we should be able to identify such challenges and address the structural issues contributing to them.

3. Solve the Conversation Class Director issue.

Program Response
SLAS will continue to make their case for this important position. They hope to be able to offer a sessional rate of pay to the individual in charge of teaching, assessing and offering support to approximately 200 SPAN 101/SPAN 102 students per week. SLAS will not be able to attract someone with the necessary level of maturity and expertise if they continue to offer them merely 16.00 an hour (the rate of pay currently given to undergraduate students).

Dean's Response
The 2020/21 budget year has been a particularly challenging one, with the 15% holdback. If the University's financial situation moving forward is more secure, it may be that we will be able to revisit this request.

4. Market programs in creative ways to attract students.

Program Response
The Department has an active presence on Twitter, Instagram and Facebook, and will continue to be active on these platforms. Moreover, SLAS is in regular contact with local teachers at the secondary school level and have organized events for them to come to campus with students so as to showcase their programs and campus. SLAS has also contacted several of their alumni and have been working with Creative Services to create a video highlighting what Alumni have been doing since graduating with a degree from the Department. SLAS plans to share these video segments with their secondary school contacts, as well as online and on various platforms.

Finally, in light of their remote reality, they have held departmental Town Hall meetings to give students currently enrolled in our courses and plans the opportunity to get their questions answered in real time with staff and faculty. These have been well attended and offer the students the chance to connect with SLAS outside of a "remote" classroom setting.

Although the Review Team did not specifically recommend that SLAS make substantive changes to their various academic plans, they have begun to do just that.   They understand that the Faculty is looking for all departments to streamline their plans with a view to making them more flexible for students. SLAS is in the process of cleaning up their section of the calendar, removing intensive specializations and changing the lens through which their courses are offered. After a great deal of discussion, SLAS has decided to move away from a program focused on Literary Studies and will shift their focus to Cultural Studies. This change will be reflected in the language of instruction in their upper level courses. While they will continue to offer all levels of language courses, their senior content courses will be offered in English and will hopefully open the pathway for students across the Faculty of Arts to engage

in their offerings. Once these changes are approved it is their hope that SLAS courses can be "cross-listed" or "held with" other departments and that students can then opt to combine Spanish and Latin American Studies more easily with other majors.

When teaching Hispanic cultural production, SLAS emphasizes the shared complex and oppressive heritage of the colonial experience and traces the historical evolution of the sociocultural forms created by colonial power. They frame much of the study of cultural production around a postcolonial critique of these power structures and examine the creation of alternative epistemologies to highlight the creativity of cultures faced with oppression.

After a lengthy application process the Department of Spanish and Latin American Studies was thrilled to learn that it had been selected once again to participate in the PRAGDA Film Festival in 2020-2021. SLAS intends to re-apply for the rights to participate in the festival on a yearly basis. The festival will be tied to all course offerings and will create a narrative across their curriculum.

SLAS also collaborated with the Kitchener-Waterloo Public Library and showed movies in their space where members of the K-W community came to enjoy the films and the follow-up discussion that was moderated by one of their faculty members. With the help of technology, the bi-weekly screenings have continued throughout the COVID crisis and attendance at the virtual screenings has been very consistent and strong. SLAS is hopeful that their collaboration with PRAGDA will continue and that the new course in Film Studies can be supported by this ongoing collaboration.

In addition to the film festival and the shift to offering courses in English and through a cultural studies lens, SLAS is a co-founder of the Cultural Identities Minor. A collaboration with the Department of Germanic and Slavic Studies, the Cultural Identities Minor is an interdisciplinary program that brings together colleagues from multiple departments eliminating the necessity for additional resources. This Minor focuses on the complex role culture plays in the formation, negotiation, and interpretation of individual and group identities. It rests on the research and teaching strengths in the two hosting departments, which integrate different approaches to cultural analysis and have developed a particular emphasis on transcultural perspectives. It also adds complementary perspectives from other departments and programs in Arts.

Our sense of our own identity and place in the world relies on our understanding of shared values and practices, which includes beliefs, customs and activities, languages, and discourses. Aspects of cultural identity also guide our perceptions of other cultures and our interactions with other people. To navigate these challenges effectively we need to develop

not only an understanding of how cultural identity helps us derive a sense of who we are and what our place in the world is, but also a respectful appreciation of how different cultural backgrounds provide others with a different, and irreducible, sense of who they are and their place in the world. SLAS is proud of their involvement in the CI Minor and are working with colleagues on how best to help it grow. In the interim SLAS has cross-listed several of their newer/updated courses with the CI program so that students can benefit from content offered in their department while pursuing the Minor in CI.

Dean's Response

I am pleased to see the Department's forward-looking and innovative plans for its curriculum. I did not see a reference to the new(ish) interdisciplinary Cultural Identities plan in the Department's response, but that too represents a genuine effort by the Department to establish curriculum attractive to students.

Implementation Plan

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	SLAS urgently needs a tenure-track position to fulfil program requirements and solve an unsustainable situation in the department. Perhaps the Faculty of Arts could consider a renewal of the definite-term position with the possibility of conversion into a tenure-track position once the hiring freeze is over.	The current Definite Term Appointment, which ends July 31, 2020, has been extended for another 3 years. Dean: As stated above, resource constraints mean that no action on a tenure-line position is being contemplated at this time.	Dean of Arts Office	We will have our current Definite Term Lecturer until August 2023. At that time we will request a tenure track appointment. As we have said elsewhere, this position would not be an incremental gain, but a recovery of the position we lost to retirement.
2.	Hire a full-time Administrative Assistant who is at the front lines of the department.	Likely not to happen. Dean: Under the current structures, it is not feasible to hire a full-time Administrative Manager for SLAS. However, with some structural changes, we may be able to alleviate the current problem.	Dean of Arts Office	Please see my comments made elsewhere on the history of the Administrative Manager Role in Spanish and Latin American Studies.
3.	Solve the Conversation Class Director issue.	We will continue to make the case for this important position.	Dean of Arts Office	Ongoing.
4.	Market programs in creative ways to attract students.	We are already active on social media and we are collaborating with the Kitchener Public Library (with the PRAGDA film festival)	Department Members and Student Society	Ongoing.

The Department Chair/Director, in consultation with the Dean of the Faculty shall be responsible for the Implementation Plan.

Date of next program review   **2026-2027**
                                                            Date

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Signatures of Approval

[signature]   March 10, 2021

Chair/Director   Date

AFIW Administrative Dean/Head (*For AFIW programs only*)   Date

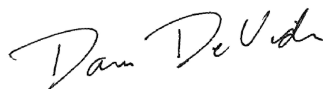_[signature]_   June 10, 2021

Faculty Dean   Date

Note: AFIW programs fall under the Faculty of ARTS; however, the Dean does not have fiscal control nor authority over staffing and administration of the program.

[signature]   March 11, 2021

Associate Vice-President, Academic   Date
(For undergraduate and augmented programs)

Associate Vice-President, Graduate Studies and Postdoctoral Affairs   Date
(For graduate and augmented programs)