

Final Assessment Report Doctor of Optometry (OD) and Vision Science (MSc, PhD) January 2022

Executive Summary

External reviewers found that the Doctor of Optometry (OD) and Vision Science (MSc, PhD) programs delivered by the School of Optometry and Vision Science were in good standing.

"We believe the program is in good standing. Overall students are well trained, they are happy with course material, research in the program is strong, clinical training is excellent, and student outcomes are largely in line with program expectations."

A total of 4 recommendations were provided by the reviewers, touching on financial resources and the structural deficit carried by the program, a comprehensive review of curriculum, and enabling a stronger focus on research and practice-based scholarship. 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 2024-2025.

Student Complement (Total Number of Students Registered in All Levels)

	OD	MSc	PhD
2016-17	364	11	27
2015-16	359	13	27
2014-15	354	18	24

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 Doctor of Optometry (OD) and Vision Science (MSc, PhD) programs delivered by the School of Optometry and Vision Science. A self-study (Volume I, II, III) was submitted to the Associate Vice-President, Academic and Associate Vice-President, Graduate Studies and Postdoctoral Affairs on December 14, 2017. The self-study (Volume I) presented the program descriptions and learning outcomes, an analytical assessment of the programs, including the data collected from student surveys, along with the standard data package prepared by the Office of

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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 and Associate Vice-President, Graduate Studies and Postdoctoral Affairs: Dr. Kevin Duffy, Professor in the Department of Psychology and Neuroscience, Dalhousie University, and Dr. Kathryn Murphy, Professor in the Department of Psychology, Neuroscience and Behaviour, McMaster University.

Reviewers appraised the self-study documentation and conducted a site visit to the University on February 13-14, 2018. An internal reviewer from the University of Waterloo, Dr. John Garcia Professor in the School of Public Health and Health Systems, was selected to accompany the external reviewers. The visit included interviews with the Vice-President, Academic & Provost; Associate Vice-President, Academic and Associate Vice-President, Graduate Studies and Postdoctoral Affairs; Dean of Science; Director of the School of Optometry and Vision Science, Faculty members, staff, and groups of current graduate and OD students. The Review Team also had an opportunity to tour the facilities, visit the Clinic and meet with key Clinic personnel, and meet with representatives from the library.

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

Doctor of Optometry (OD): The School of Optometry & Vision Science Doctor of Optometry (OD) is a second entry professional program. The curriculum also reflects expectations and guidance received from external accreditation organizations (Accreditation Council on Optometric Education – ACOE), optometry professional examination organizations (Optometry Examining Board of Canada – OEBC; US National Board Examiners in Optometry – NBEO) and the scope of practice of optometry in North America, generally, and in Canada, specifically. The goals of the program are as follows:

Goal A: The Doctor of Optometry program will provide high quality optometric education which will prepare graduates to provide full-scope optometric services in an ethical and professional manner.

Goal B: The Doctor of Optometry program will provide an optometric foundation on which graduates will continue to build expertise and knowledge.

Goal C: The Doctor of Optometry program will prepare graduates to contribute to the advancement of the optometric profession.

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Vision Science (MSc, PhD): The MSc program in Vision Sciences is designed to give students the academic and technical skills to progress in their chosen field in positions requiring graduate training, or to progress to PhD study. The PhD program in Vision Science is designed to give students the academic and technical skills to become independent scientists and researchers.

The primary goal of the graduate programs in Vision Science is to provide a strong research and academic background for graduates. In addition, there is the opportunity for clinicians to enhance their skills and to carry out applied or clinical research. Students are expected to develop self-learning abilities, as well as critical thinking and problem-solving skills. Graduates have secured positions in research, industry, government, healthcare and teaching.

Summary of strengths, challenges and weaknesses based on self-study Strengths

- The School continues to attract a strong applicant pool from which to select the student cohort.
- Teaching quality of instructors and courses, based on course evaluations, continue to be very good. The faculty have a diverse range of expertise and experience to enhance program teaching and learning.
- Students experience a comprehensive and diverse range of clinical encounters, supported by a vibrant and specialised clinic and external clinical training partners.
- Professional optometric associations at the provincial and national level recognize the important partnership with the School to advance patient access to new and emerging treatments, research, and technology.

Challenges

- The optometry professional program operates on the basis of 12 week terms in the first 3 years, in alignment with the most regular undergraduate programs at the University of Waterloo. This, however, presents a relatively shorter program time compared to other ACOE accredited Schools in the United States and will need creative long-term planning to ensure that it doesn't present a stricture to further development of the curriculum and clinical training.
- Many of sites for the provision of therapeutic externships are located in the United States and represents a suboptimal reliance for the delivery of the program on international partners. A challenge is to develop more Canadian sites that parallel the level of training obtained at the sites in the United States, in accordance with the recommendations of the Health Professions Regulatory Advisory Council.
- To develop budget mechanisms that respect the high cost of clinical training and the
 motivation to remain contemporary in the fast-moving field of health care (in terms of
 equipment procurement, development of emerging clinical sub-specialties etc.). The
 budgetary considerations will also need to address the identified research-intensive

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- faculty recruitment needs to secure ongoing vibrancy and expansion of the research activities of the School.
- To ensure that the School is 'training for the profession's future' by comprehensively addressing the challenge of providing excellent entry-level training for a variety of jurisdictions, some of which have, or will have, a greater scope of practice than is allowed in Ontario.

Weaknesses

- The processes for ongoing curriculum regeneration need to ensure that there is
 integration across courses for foundational knowledge, clinical skills, and clinician
 development and that the curricular architecture is in place to support this. This will
 enable ongoing and more dynamic curriculum review/adjustments, rather than
 engaging curriculum review as a periodic process.
- Current assessment of clinical competency is very traditional and needs invigorating to incorporate intentioned formative and summative assessment, reflection on learning to allow the students to develop self-evaluation skills and resourcing of evidence to support their practice. This has learning advantages in that it offers the ability to engage the student more actively in their learning and provides a framework for lifelong learning and professional development. In terms of teaching, a more comprehensive approach to assessment of clinical competency offers mechanisms for efficiently identifying students needing remediation, as well as data for more detailed evaluation of clinical teaching effectiveness In turn, this will support documentation of teaching activities for the tenure-track clinical professoriate, whose teaching responsibilities are primarily in the provision and supervision of clinical care, and provide sufficient, meaningful data for the tenure process.

Summary of key findings from the external reviewers

"We believe the program is in good standing. Overall students are well trained, they are happy with course material, research in the program is strong, clinical training is excellent, and student outcomes are largely in line with program expectations. A major concern that we detail in our review is the diminished position of the graduate program relative to the OD program, which was evident from the self-study document, and which we believe may partly derive from concerns over research funding, faculty workload, and the recruitment of high-caliber graduate students.

We believe that the program's priority should be on improving a healthy synergistic relationship between the graduate and OD programs. We recommend that effort be focused on strengthening the graduate program to match the stature of the OD program. This may include renovating research space, providing an environment to facilitate improved success with research funding, and raising the research profile of the graduate program to attract high-quality students.

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We further believe that a strategy focused on growth could offer a win-win situation for both programs."

Program response to external reviewers' recommendations Recommendations

1. We recommend that the graduate program be allocated financial resources to modernize laboratory space, increase student recruitment success, and build an environment that facilitates high-quality research and improved success with funding.

Response

The School has established a \$50,000 annual seed funding program to support high-quality research initiatives within the School that have potential to attract external funding and graduate students in the near-future. The program provides five \$10,000 grants to collaborative teams each year. The funding can be used to support direct research costs and graduate student support costs. The program began in March 2019 and we will be monitoring research outputs from the program over the next three years.

Writing support workshops and regular writing cafes have been established within the School and are popular. A weekly statistics clinic open to graduate students and faculty has also been established. The aim of these initiatives is to remove barriers to research, publication and grant writing within the School.

We are continuing discussions at the Faculty level to establish a long-term plan for laboratory modernization. Laboratory space is under review with a view to optimising the use of the existing research footprint, to provide collaborative research space and, where necessary, investing in upgrades to meet compliance requirements.

Several larger scale funding initiatives have been undertaken to stimulate research activity. For example, a collaborative initiative with research partners at Hong Kong Polytechnic University has established Centre for Eye and Vision Research in Hong Kong, which received \$200M HK\$ funding over 5 years from the Hong Kong Innovation and Technology Commission to launch operations in the Hong Kong Science Park. The CEVR will pursue broad research areas in the aging eye and visual function, and sight-saving technologies.. A Velux Steifung Foundation grant was applied for and successfully obtained funding for a joint UW/HK Polytechnic University project for a new approach to Age-Related Macular Degeneration treatment that had 6 Optometry and Vision Science faculty members (3 regular and 3 clinical) as named investigators. A CFI application for an imaging centre is being prepared for submission in Fall 2019.

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2. We recommend that the OD program commit to a comprehensive review and revision of its teaching curriculum in order to minimize redundancy, improve student engagement, modernize class material, and rejuvenate faculty and student motivation and enthusiasm for the program.

Response

The curriculum committee continues work to implement a modern student-centred curriculum for the contemporary practice of optometry following the standards outlined by the Accreditation Council on Optometric Education (ACOE). A phased implementation of changes was initiated in Fall 2018. The first phase resulted in streamlining of content in 1st and 2nd year didactic courses by addressing overlaps of material between courses to eliminate redundancies; basic science laboratory courses were rationalized; and two courses were moved from 2nd year to the 1st year (OPTOM 250 Jurisprudence & OPTOM 270 Public Health). The second phase is to review the staging of clinical experience and align clinical teaching assessments with program outcomes.

With this streamlining comes the opportunity to introduce clinical experiences earlier into the curriculum. For example, commencing Fall 2018, 1st year and 2nd year students will interact with patients in the clinic, and will be able to relate their theoretical knowledge to clinical applications.

Implementing clinic earlier within the curriculum will also enable 3rd and 4th year students the clinical proficiency to see a larger number of patients, specifically in our specialty clinics. Other anticipated benefits include shorter patient appointment times and increased student:faculty ratios without compromising the quality of instruction.

The curriculum committee continues to meet with Faculty to garner information and feedback on curriculum changes and is committed to annual curriculum retreat days in which curriculum changes, recommendations and ideas can be discussed.

Investing in technology: The School has benefited from a sizeable donation from FYidoctors to create a state of the art simulation laboratory to enhance student training on diagnostic skills and techniques such as binocular indirect ophthalmoscopy (BIO) and slit lamp biomicroscopy. With increased practice time available and personalized feedback to progress through modules faculty will be able to monitor progression and mastery of the skills and maximize valuable face-to-face lab time for advanced skills development. Increased confidence and efficiency will in turn lead to an enhanced patient care experience, and the more efficient delivery of care in the clinic. The simulation technology is proven in several schools and colleges in the US, and has been received enthusiastically by optometry students as an invaluable learning resource. The BIO

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simulators were deployed in 2018, and the sit amp simulators will be deployed for Fall 2020.

Advanced scope of practice: Optometric practice in North America is the most advanced in the world. In states such as Oklahoma, Louisiana, and Kentucky, optometrists are licensed to provide minor surgical procedures as well as laser surgery for refractive correction and glaucoma treatment. A model curriculum developed by an American Optometric Association workgroup has been shared with the curriculum committee to affirm areas already being taught, to identify gaps, and to begin the process of implementing additional education and training opportunities to extend, where needed. In addition, several of our faculty are planning to participate in advanced procedures training courses in Winter/Spring 2019 in order to generate capacity for delivery of educational experience in the area of expanded scope of practice in the OD program, and also to provide a national resource for training Canadian practitioners. Plans for offering the certification have been postponed from Fall 2019 to Spring 2020 due to COVID-related restrictions.

Objective Structured Clinical Examinations (OSCE) are the standard for assessing integrative clinical skills in medical education. The School will seek to develop an OSCE for senior years in the OD program, to assess outcomes and allow the students to prepare for licensing examinations which adopt an OSCE assessment. Funding will be sought to support development of the OSCE with a view to implementation in Winter/Spring 2019 as a formative assessment. Business and curricular development plans will be made for multiple OSCE offerings, with a view to the 4th year OSCE forming a summative assessment. Update: with the aid of a Learning Innovation and Teaching Enhancement (LITE) grant, a faculty team led by Dr. Hrynchak designed and delivered the first OSCE examinations in April 2019 to a group of volunteer students in the final year of the program.

The OSCE assessment is used by the Optometry Examining Board of Canada (OEBC) as part of the entry to practice examination required by regulatory authorities for registration/licensure to practice optometry.

Students were very positive about the interactions with standardized patients and organization of the examination. They felt the examination used realistic scenarios, and helped to ease their anxiety in anticipation for sitting for the OEBC. Scholarship outcomes included an abstract, 1 paper accepted for publication (March 2021), and 1 paper under review.

The development of the **Waterloo Eye Institute** as a national resource for the profession and public fits nicely within the goal to develop the capabilities to deliver an integrated

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and coordinated model of eye and vision care. In particular, an ambulatory surgical center will enable a new paradigm of optometry-ophthalmology collaboration and coordination being developed in conjunction with the Waterloo Wellington Local Health Integration Network (LHIN) and area hospitals.

3. We recommend the program commit to an assessment of faculty workload with the aim of implementing efficiencies that will enable a stronger focus on research and practicebased scholarship. We recommend that consideration be given to rationalizing workload while respecting the need to build excellences in both professional and research training programs.

Response

The School is in the process of establishing a working group on faculty workload to ensure that workloads associated with research, teaching, clinical duties and service are distributed appropriately and that research active faculty are provided with appropriate time for grant writing and the execution of their research programs. In addition, graduate supervision and graduate course teaching will be counted as teaching activity within workload assessments with an appropriate time allocation.

Recent faculty retirements have led to workload pressure within the School. Two SACAs (School Advisory Committee on Appointments) have been established and tasked with 1) the hiring of clinical lecturers to address high clinical teaching loads within the School (SACA 1) and, 2) the hiring of two regular tenure track faculty members with internationally recognised research programs or the potential for such programs (SACA 2). This hiring process will directly address workload concerns raised by the review committee and enable an acceleration of clinical innovation, research/scholarship and graduate supervision activity within the School. Hiring of the clinical lecturer was complete with Dr. Julie Shaloub assuming her duties in July 2020. Support from the Dean of Science to initiate SACA 2 was approved by the Provost in July 2020.

4. We recommend that the Director initiate discussions with senior administration about the structural deficit carried by the program, with the goal of formulating a sustainable financial plan that will enable growth of the OD and graduate programs. Such discussions could include a consideration for growth of both OD and graduate programs.

Response

Budget discussions with the Dean of Science identified a significant gap of approximately \$962,000 between historical continuity budget and an allocation based on the WBM (Waterloo Budget Model). Strategic priorities were identified and a number of pathways to investigate were suggested to help develop a sustainability plan.

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Some options to explore include:

- 1. Increasing enrollment
 - a. Satellite campus model increase number of available seats at remote locations and leverage distance learning and partner infrastructure
 - b. Increase available seats at UW difficult with existing capacity constraints
 - c. Aggressive recruitment of graduate students (domestic >> international)
 - d. The Advanced Standing Doctor of Optometry Program (ASOPP) is a sustainable plan to integrate up to six (6) qualified, internationally graduated optometrists into the 3rd year of the OD program as the International Optometric Bridging Program winds down.

2. Increasing tuition revenue

- a. Admit international students to the existing complement of 90 seats in the OD program premium tuition but likely to be unpopular with the profession given the unique situation as the only English-speaking Canadian School.
- b. Increase tuition no indication that the MCU-mandated tuition freeze for 2019/20 will be lifted in 2020/21/ Notwithstanding the foregoing, a strong case can be made that the cost of optometric education is not adequately reflected in current funding levels. Benchmark to average tuition of \$51K at US Schools and Colleges of Optometry – while unlikely to be popular with students, it does reflect the truer cost of education.

3. Increasing non-tuition revenue

- a. Student technology and innovation fee for additional educational services clinic consumable, equipment purchase and planned replacement, support for new simulation technology, and assessment models such as OSCE.
- b. Continuing professional development certification programs (e.g., advanced procedures), specialty recognition, on-line masters in clinical optometry, continuing education (live and distance learning).
- c. Clinical services specialty areas of care are a strength for academic health centers and may provide a significant revenue stream for patient care services such as dry eye/ocular surface disease, myopia control (epidemic amongst Asian population), and vision rehabilitation.
- d. Waterloo Eye Institute adding ophthalmological services and partnering with the Waterloo Wellington Local Health Integration Network (LHIN) may open up revenue streams for medical eye care and surgery. Can be initiated in the short term utilizing existing space or in partnership with TLC on-site.
- 4. Budget requested to support the graduate program and research initiatives are a top priority as evidenced by the consensus process developed through the School Administrative Council (AC). The AC consists of the School Director, Associate

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Directors, Clinic Director, graduate officer, undergraduate officer, administrative officer, and 2 faculty members-at-large (1 research/1 clinical). The AC is a deliberative body that represents a cross-section of stakeholders to help inform and advise the School Director.

Additional funding support from the Faculty and University are critical in the short term. For example, GSPA-based budget for scholarships and initiatives will be pursued at every opportunity.

Changes in organization, policy or governance that is necessary to meet the recommendations: A new governance structure for the School was implemented for Fall 2018. The Admin Council serves as a deliberative body that represents a broad cross section of the School. The Associate Directors and Clinic Director were accorded increased responsibility and budget to lead and manage their respective areas consistent with the strategic plan.

Given that budget and inadequate resourcing is the number one challenge, it will be imperative to conduct a full cost and revenue analysis of the School in anticipation of a request to the government to increase tuition beginning in 2019.

The Waterloo Eye Institute is a strategic imperative for the School that will encompass advantages in patient care for the region, enhanced clinical education, and increased research opportunities. In addition, the Eye Institute will serve as a national resource in support of the public and advancement of the profession as optometry strives to translate cutting edge research into effective, quality patient care outcomes.

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Implementation Plan

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	We recommend that the graduate program be allocated financial resources to modernize laboratory space, increase student recruitment success, and build an environment that facilitates high-quality research and improved success with funding.	Space: Renovation of biomedical laboratory space to meet compliance standards for external auditing bodies. Funding: (a) WBRIN-CORD initiative & Hong Kong SAR funding; (b) VELUX funding application; (c) CFI Application; (d) Internal seed funding proposed. Research Support Initiatives: Statistics drop-in clinics; Writing workshops.	Prof. Ben Thompson, Associate Director Research 2017-2019 Prof. Vivian Choh, Associate Director Research, 2019-present	Space: First phase of renovations to biomedical research laboratories due to begin Fall 2019. Delayed because of integration with plans for the WEI and less urgent because of the adverse impact of COVID. Anticipated breaking ground late spring 2022 with completion 12-18 months later. Funding: (a) Successfully established WBRIN; Application for HKSAR funding successful, to be announced in Oct 2019; (b) Successfully funded research work at \$270K over 2 yrs; (c) CFI application submission in Fall 2019; updated application proceeding Summer 2022 (d) \$50,000 annual seed-funding to be implemented Mar 2019. Suspended in subsequent years due to COVID. Research Support Initiatives: Implemented Jan 2019.

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2	We recommend that the OD program commit to a comprehensive review and revision of its teaching curriculum in order to minimize redundancy, improve student	year courses; Adjusted course sequencing to allow early clinical exposure in 1 st and 2 nd years. (b) Staged learning objectives for clinical experience; Corresponding review of assessment strategies to ensure alignment; Review of alignment of preparatory clinical courses and reorganization (if required); (c)	Prof. Natalie Hutchings, Associate Director Academics & Student Affairs	Curriculum: (a) Completed Fall 2018; (b) In progress; to be completed by Fall 2019; (c) Reorganization and implementation plan by March 2020; (d) adaptation to on-line learning due to COVID with support
	engagement, modernize class material, and rejuvenate faculty and student motivation and enthusiasm for the program.	Implementation of changes & incorporation of advanced scope of practice training.		from faculty was largely successful. In-person clinical labs were supported, and students were able to gradate on time in 2020 and 2021.
		Teaching Innovation: (a) Seek funding support to set up simulation technology for Binocular Indirect Ophthalmoscopy; (b) Develop usage plan for slit lamp and anterior segment techniques, including integration into curriculum, and external training opportunities. Technology likely available at end of Fall 2019/Winter 2020; (c) fully intergrated and an essential resource as patient care services scaled back in response to COVID restrictions. Simulators have been able to help students maintain skills and develop competencies.	Dr. Lisa Christian, Associate Director Clinical Education;	Teaching Innovation: (a) Completed renovation of a suite and installation of BIO simulators Oct 2018 with external support from FYIdoctors. (b) Usage plan in progress anticipated to be complete end of Fall 2019; Implementation dependent on technology availability (proposed at end of Fall 2019/Winter 2020), (c) fully integrated for 2021 including addition of slit lamp biomicrosope simulators.

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	Advanced Scope of Practice: (a) Investment of training in faculty in surgical skills; (b) Delivery of training course internally to streamline training curriculum; (c) integrate into OD program and offer training to external optometrists.	Dr. Sarah MacIver, Director of Continuing Education;	Advanced Scope of Practice: (a) Faculty training planned for Mar 2019 & August 2019. Complete (b) Planned for August 2020 delayed due to covid restrictions with updated plan for August 2022. (c) Planned for after academic year 2020-2021 with update due to covid for April 2022.
	Objective Structured Clinical Examinations (OSCEs) (a) Seek funding for development of OSCE; (b) Develop and implement OSCE as a formative assessment; (c) Develop business and curricular case for multiple OSCE offerings	Dr. Patricia Hrynchak, Clinical Professor	Objective Structured Clinical Examinations (a) Funding successfully obtained from UW LITE grant to develop OSCE in Fall 2018; (b) OSCE developed and delivered as formative assessment in Winter/Spring 2019; (c) Planning in progress for multiple OSCE deliveries in progress. Delayed because of COVID and shift to online activities.
	Waterloo Eye Institute Development of an ambulatory surgical and diagnostic imaging and reading centre to deliver multi-practitioner coordinated eye and vision care and tele-health. (a) streamlining referrals process; (b) Planning for space and facility;	Dr. Stanley Woo, Director	Waterloo Eye Institute Strategic priority and fundraising for this initiative has begun. (a) Streamlining of referrals in progress – multi-year development (b) Planning for space and facility Spring/Fall 2019. Retained HOK architects with Class C estimate and

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3.	We recommend the program commit to an assessment of faculty workload with the aim of implementing efficiencies that will enable a stronger focus on research and practice-based scholarship. We recommend that consideration be given to rationalizing workload while respecting the need to build excellences in both professional and research training programs.	Faculty workload and working group. SACA 1 hiring committee for clinical lecturers SACA 2 hiring committee for two regular tenure track faculty members with internationally recognized research programs	Dr. Stanley Woo, Director	design submitted in Dec 2021. Consultation with Board of Governors Building and Properties Committee anticipated early 2022. Faculty Workload and working group Data on workload has been collected; To strike working group in Fall 2019; review WG recommendations and plan for implementation in academic year 2020/2021. SACA 1 search for clinical lecturers has begun. Anticipated completion in Fall 2019. Completed. SACA 2 needs assessments has begun; to begin search when funding available for tenure track positions. Completed summer 2021 2 succesful hires – 1 beginning January 2022 and 1 beginning August 2022
4.	We recommend that the Director initiate discussions with senior administration about the structural deficit carried by the program, with the goal of formulating a sustainable financial plan that will enable growth of	Preliminary budget meeting	Dr. Stanley Woo, Director	Preliminary budget meeting completed Spring 2018 & Spring 2019. Agreed upon priorities in alignment with School strategic plan (2018-2023). Annual budget meeting and discussions Feb/March each year.

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the OD and graduate	Increasing tuition revenue		Increasing tuition revenue
O			Increasing tuition revenue (a) Proposal to increase to \$48K
could include a			per year has been socialized
consideration for growth of	Includes addition of a summer term between 2 nd		with faculty, OD students, and
both OD and graduate	and 3 rd year necessary to address clinical training		received preliminary approval
programs.	and scope of practice in curriculum. Critical to		from the Dean. Seeking
	remain competitive with US Schools and Colleges		university approvals 2019/2020
	of Optometry and for accreditation.		and government approval
			2020, ideally. Update to mid-
			30K tuition with support from
			Dean's office. Includes
			additional term between 2 nd
			and 3 rd year Moving forward in
			Spring 2022 with government
			relations to gauge timing for
			submission to MCU.
	(b) Integration of IOBP students into advanced standing (3 rd year of the OD program)	Dr. Jenna Bright, Director pof IOBP/ASOP	(b) Integration plan initiated Spring 2019; Likely to include no more than 6 students beginning Fall 2021. Transition program beginning summer 2022 with up to 6 students entering 3 rd
			year of the OD program in Fall 2022.
	(c) BIU funding revenue flow through and updated	Dr. Stanley Woo,	(c) Discussions with the Dean have indicated that despite the
	worko accounting.	חוופננטו	government indication for a
			higher level of flow through
			from BIU to WGRU no
	consideration for growth of both OD and graduate	programs. Such discussions could include a consideration for growth of both OD and graduate programs. (a) Increase tuition to reflect elevated cost of clinical education and training in the OD program. Includes addition of a summer term between 2 nd and 3 rd year necessary to address clinical training and scope of practice in curriculum. Critical to remain competitive with US Schools and Colleges of Optometry and for accreditation. (b) Integration of IOBP students into advanced standing (3 rd year of the OD program)	Increase tuition to reflect elevated cost of clinical education and training in the OD program. Includes addition of a summer term between 2 nd and 3 rd year necessary to address clinical training and scope of practice in curriculum. Critical to remain competitive with US Schools and Colleges of Optometry and for accreditation. (b) Integration of IOBP students into advanced standing (3 rd year of the OD program) Dr. Jenna Bright, Director pof IOBP/ASOP Director pof IOBP/ASOP Dr. Stanley Woo,

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			additional funding is expected for the School.
	Increasing non-tuition revenue (a) Student technology and innovation fee. Fees are presently collected, and may be increased for curriculum enhancement.	Dr. Stanley Woo, Director	Increasing non-tuition revenue (a) Working with IAP to determine eligibility for fees such as OSCE and simulation equipment. May roll out in coordination with approved tuition fee increase, but ideally sooner (2020). Aligned with policy, but tabled until tuition finalized.
	(b) Continuing Professional Development	Dr. Sarah MacIver, Director of CE	(b) Continuing professional development has been established with additional programming planned in spring and fall 2020. E.g. vision therapy symposium and advanced procedures certification course. Certification course for glaucoma offered for Atlantic Provinces in late 2021. Advanced Procedures certification course scheduled for spring 2022.

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(c) Clinical Patient Care Services are an opportunity to deliver exceptional patient care, enhance clinical education and training, as well as drive revenue (especially for specialty services)	Dr. Andre Stanberry, Clinic Director	(c) Clinical patient care services have undergone a substantive review with fee increases implemented in 2018. Additional specialty care services including myopia control and vision therapy deployed in 2019. Dry eye is anticipated to be added fall 2019. Addition of UW vision benefit introduced in 2021.
(d) Waterloo Eye Institute. Major initiative to expand specialty clinical services and provide integrated eye and vision care including surgery (e.g. cataract)	Dr. Stanley Woo, Director	(d) Major fundraising underway in 2019 with a coordinated effort with UW Advancement planned for "Seeing Beyond 2020". Ongoing

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

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Date of next program review	2024-25	
	Date	
Signatures of Approval		
Stanley Man, or	20 Jan 2022	
Director	Date	
AFIW Administrative Dean/Head (For AFIW programs only)	Date	
Faculty Dean Note: AFIW programs fall under the Faculty of ARTS; however, the Dean does not over staffing and administration of the program.	Date t have fiscal control nor authority	
Dan De Vidi	16 October 2019	
Associate Vice-President, Academic (For undergraduate and augmented programs)	Date	
John M. Caell	15 October 2019	
Associate Vice-President Graduate Studies and Postdoctoral Affairs	Date	



(For graduate and augmented programs)