

UTQAP Cyclical Review: Final Assessment Report and Implementation Plan

1 Review Summary

Program(s) Reviewed:	Undergraduate programs: <ul style="list-style-type: none">• Fundamental Genetics and its Applications, HBSc: Specialist, Major• Global Health, HBSc: Specialist, Major• Health & Disease, HBSc: Specialist, Major• Human Biology, HBSc: Major• Neuroscience, HBSc: Specialist, Major
Division Offering Program(s):	Faculty of Arts and Science
Commissioning Officer:	Dean, Faculty of Arts and Science
Reviewers (Name, Affiliation):	<ul style="list-style-type: none">• Professor Steven Harris, Department of Plant Pathology and Microbiology, and Department of Entomology, Iowa State University• Professor Craig A. Mandato, Department of Anatomy and Cell Biology, McGill University
Date of Review Visit:	March 28, 2022 (conducted remotely)
Date Reported to AP&P:	April 13, 2023

Previous UTQAP Review

Date: March 20–21, 2014

Summary of Findings and Recommendations

Significant Program Strengths

- Unique interdisciplinary nature of the programs
- Strong student demand for programs
- High quality, geographically diverse students
- The Faculty of Medicine's contributions to teaching in the programs

Opportunities for Program Enhancement

- Re-assessing the program offerings, guided by academic rationale
- Examining the quality and academic rigour of the programs
- Reviewing the impact of high student enrolment on the programs
- Supporting faculty in balancing teaching and research activities
- Ensuring strong support for the programs
- Exploring opportunities for suitable faculty and administrative space and laboratories

Current Review: Documentation and Consultation

Documentation Provided to Reviewers

Terms of reference; Self-study; Previous review report including the administrative response(s); Access to all course descriptions; Access to the curricula vitae of faculty.

Consultation Process

Faculty, students, administrative staff, and senior program administrators as well as members of relevant cognate units as determined by the commissioning officer.

Current Review: Findings and Recommendations

1. Undergraduate Program(s)

Unless otherwise noted, all bulleted comments apply to all programs reviewed.

The reviewers observed the following **strengths**:

- Overall quality
 - ▶ Human Biology has made great strides since its last review to improve the overall quality of the program

- ▶ Program has been significantly streamlined since previous review, through the reduction of the number of programs administered by HMB from twelve to nine, reducing redundancy in course offerings and increasing pedagogical standards
- Objectives
 - ▶ Learning outcomes for all nine programs very clearly defined in the Self Study, consistent across programs, and fully aligned with the FAS degree-level expectations
- Admissions requirements
 - ▶ HMB enrolment numbers have remained generally strong over past several years
 - ▶ Enrolment requirements are appropriate and appear to be maintaining the overall rigour of the programs, while also ensuring that learning outcomes are achieved
 - ▶ Quality of applicants has remained steady over the past 7 years, with incoming grades fluctuating around 90%
 - ▶ Constant and steady increase in number of students admitted to Specialist
- Curriculum and program delivery
 - ▶ Streamlining of programs in conjunction with addition of new Teaching Stream faculty has facilitated delivery of an improved curriculum and helped ensure that learning outcomes are achieved
 - ▶ Intensive curriculum mapping exercise was initiated in 2021; “Learning Outcome” maps are very informative and effectively capture timelines for assessment of LOs
 - ▶ Flexibility is a clear attribute of the HMB program, allowing students considerable freedom in tailoring their curriculum while still mastering PLOs
 - ▶ HMB curriculum broadly reflects the state of the disciplines covered by the program, and is effectively delivered and assessed
 - ▶ Current faculty complement teaches 82% of HMB courses, which is a substantial improvement over the 60% coverage at the time of the previous review, and is “presumably due in large part to recently hired CTLAs”
- Accessibility and diversity
 - ▶ HMB has focused on curricular enhancements and increased accessibility for their students as a result of the pandemic, or perhaps due to the changing demographics of incoming student cohorts; examples of changes include delivering content online in hybrid and flipped classrooms, using universal design principles, and providing lecture recordings
 - ▶ An EDI committee has recently been struck to examine the delivery mode of the curriculum with the goal of increasing opportunities and enhancing the learning experience of all HMB students
- Assessment of learning
 - ▶ Types of assessment evolve as students move through the program, and depth of knowledge increases
- Student engagement, experience and program support services
 - ▶ Students emphasized in review meetings and surveys the overall quality of their learning experience in HMB
 - ▶ Major students have considerable access to research opportunities, particularly in the Department of Cell and Systems Biology, and the Temerty Faculty of Medicine

- ▶ Recent recruitment of a faculty member with extensive international experience will likely result in additional attractive study abroad opportunities
- ▶ Specific courses available that enable student engagement with local seniors in long-term care facilities and with regional indigenous communities; reviewers noted importance of such opportunities, which merit increased consideration for available resources
- Quality indicators – undergraduate students
 - ▶ The rate of completion and time to completion of students in the Specialist program are comparable to other programs offered by the Faculty of Arts & Science
- Student funding
 - ▶ 29 undergraduate awards available for students with the highest achievements in HMB courses

The reviewers identified the following **areas of concern**:

- Admissions requirements
 - ▶ Unclear why Human Biology major has open enrolment, unlike the other HMB programs
 - ▶ Number of admitted students to FAS has increased 15% over the past 7 years, however the Human biology program has seen a decrease of 18% (which is mostly attributed to the Major program)
- Curriculum and program delivery
 - ▶ Issues noted regarding content-heavy nature of courses (although this is common to most biology programs)
- Student engagement, experience and program support services
 - ▶ Unclear how broadly HMB learning outcomes have been disseminated to current and prospective students
 - ▶ Students report some potential challenges with “pathfinding” through the curricular requirements for each program
 - ▶ Issues noted around ensuring student awareness of available research opportunities, the value of these experiences, and how to secure them
 - ▶ General lack of student engagement noted as an issue; students appear to be neglecting extracurricular opportunities that would enrich their experience within the program, because they are so heavily focused on their courses
 - ▶ Majority of HMB students are commuters, which places constraints on the types of activities that can be implemented to improve overall student engagement

The reviewers made the following **recommendations**:

- Admissions requirements
 - ▶ Could be worthwhile to consider an open enrolment policy for programs with lower numbers, such as Fundamental Genetics

- Curriculum and program delivery
 - ▶ Reviewers strongly support HMB intentions to undertake more detailed mapping of the Global Health program, to streamline curriculum and encourage better coordination with cognate units such as the Dalla Lana School of Public Health and the Faculty of Medicine
- Student engagement, experience and program support services
 - ▶ Make learning outcomes available on the HMB website
 - ▶ Consider augmenting “program pathways tool” on the HMB website with a visual flow chart, to provide further assistance to students seeking guidance
 - ▶ Explore student mentorship opportunities with HMB alumni to facilitate student pathfinding
 - ▶ Consider compilation of a “research opportunities” database specifically for HMB students
 - ▶ Exploring more intentional efforts to create time for extracurricular activities could be beneficial for faculty and students, as well as undertaking additional efforts to make students aware of experiential learning opportunities in research labs
 - ▶ Consider providing additional program and academic advising options for students

2. Graduate Program(s) n/a

3. Faculty/Research

The reviewers observed the following **strengths**:

- Research
 - ▶ Data for Research and Scholarly Activity presented consistent with a ranking of #1 in U15 and within the top four in North America
- Faculty
 - ▶ New faculty are outstanding
 - ▶ A number of hires have been made (continuing appointments and CLTAs) to address quality concerns raised in the previous review related to the small faculty complement

The reviewers identified the following **areas of concern**:

- Research
 - ▶ Most faculty interested in conducting discipline-based education research or research into the scholarship of teaching do not appear to have the time or support to do so; some faculty also expressed concerns that pedagogy research “is not held in the same regard as classical lab-based research”; reviewers observed that these issues represent potential retention issues

- Faculty
 - ▶ Lack of formal and/or EDI-matched mentoring for junior faculty noted as potential future issue
 - ▶ Established faculty noted that the absence of programed professional development for their rank left some uncertainty regarding future directions
 - ▶ Little formal mentoring in place for new faculty to aid in navigating different career steps; lack of mentoring around EDI-related issues

The reviewers made the following **recommendations**:

- Faculty
 - ▶ Although junior faculty noted that informal collegial mentoring does occur and is helpful, “the availability of a formal mentoring program would be a beneficial contribution to their success”

4. Administration

Note: Issues that are addressed through specific University processes and therefore considered out of scope for UTQAP reviews (e.g., individual Human Resources issues, specific health and safety concerns) are routed to proper University offices to be addressed, and are therefore not included in the Review Summary component of the Final Assessment Report and Implementation Plan.

The reviewers observed the following **strengths**:

- Relationships
 - ▶ Faculty at all levels genuinely excited for future of the program and proud of its past
 - ▶ Enrolment trends suggest that HMB is well known, and sufficiently visible to prospective students and stakeholders
 - ▶ HMB staff and faculty are highly dedicated to the success of the program and its students
 - ▶ Staff very positive about recent recruitment of new faculty and the increased levels of TA support; staff morale seems high
 - ▶ After a period of considerable turnover, leadership of HMB appears stable and effective
 - ▶ HMB has developed productive partnerships with local and regional organizations to provide experiential learning opportunities for students, such as work with long-term care facilities and Indigenous communities
 - ▶ International opportunities highlighted, including those related to global health in Greece and management of dementia patients in the Netherlands
- Organizational and financial structure
 - ▶ HMB makes generally effective use of its human resources
 - ▶ HMB’s annual budget adequately supports current program operations
 - ▶ Previous leadership and current administrative staff have made many improvements to management of the annual budget

- Long-range planning and overall assessment
 - ▶ Much progress has been made in response to the previous review of HMB programs, including an increase in the faculty complement and new laboratory infrastructure
 - ▶ Other prominent positive developments include the establishment and implementation of learning outcomes that serve as a scaffold for the entire curriculum; an increase in experiential learning opportunities for students; greater recognition of faculty teaching and pedagogical accomplishments; and integration of EDI considerations
 - ▶ “Curricular changes have been improving the learning experiences of HMB students and show the HMB is moving in the correct direction”
 - ▶ New hires have greatly increased the pedagogical rigor of the program
 - ▶ HMB has made terrific progress in aligning its long-range planning with that of both the University and the Faculty of Arts and Science
- International comparators
 - ▶ HMB has made significant improvements in its performance relative to comparator programs in recent years
 - ▶ Overall, HMB quality indicators are similar to those of biological, biomedical and neuroscience programs at comparator Canadian institutions

The reviewers identified the following **areas of concern**:

- Relationships
 - ▶ “Perhaps the most concerning aspect of the visit was the observed lack of engagement with the current students. We fully recognize that this could be a lingering effect of the pandemic. The students were disconnected from the program and this was deemed to [be] a lost opportunity.”
 - ▶ Conversations with the student leaders suggest that HMB students could be better connected to the program and its available supports
 - ▶ General disconnect noted between student leaders and the program administrators, though reviewers acknowledge this may be due to the very large size of the HMB student population
 - ▶ Some dissatisfaction noted with previous frequent turnover of program leadership
 - ▶ Pandemic restrictions have limited opportunities for the new leadership to engage with faculty and staff
 - ▶ Reviewers noted lack of apparent strong connection between HMB and its alumni
- Organizational and financial structure
 - ▶ Administrative support has not kept up with the rapid growth of the program; “present staff is overworked and spread too thin”
 - ▶ Lack of adequate office space near HMB greatly adds to potential future faculty retention issues
 - ▶ “There is presently a space crisis for the HMB, which is presently housed in New College. On the cyclical review visit, the lack of adequate space for administrative staff, storage and communal meeting places for student and staff dominated our conversations”

- Long-range planning and overall assessment
 - ▶ “Despite the greater reliance on their own faculty complement, there are still critical concerns within the program. These include the exceedingly high ratio of FCE per FTE, which is substantially higher than other Science programs. This may ultimately impact teaching quality and undoubtedly also contributes to the lack of time that HMB faculty have available for research. A related concern is the reliance on CTLAs and sessional instructors for much of the teaching that occurs within the HMB”
 - ▶ Leadership is hindered by daily program operations, leaving little time to address broader issues and opportunities
 - ▶ Lack of clarity around whether there is a desired balance of continuing or tenure-stream and CLTAs; current CLTAs indicate ongoing stress regarding their positions and status

The reviewers made the following **recommendations**:

- Relationships
 - ▶ Reviewers recommend implementing regular “townhall” meetings between students and HMB leadership and program administrators
 - ▶ Strengthening connections with alumni could enhance program promotion
 - ▶ Development of a student/alumni mentorship program could elicit stronger engagement from both groups and alleviate student concerns regarding mentorship, without imposing on overburdened staff or faculty
 - ▶ Reviewers recommend further efforts to develop and sustain external partnerships
- Organizational and financial structure
 - ▶ Reviewers supportive of plans to potentially shift HMB faculty appointments from the Department of Ecology and Evolutionary Biology to the Department of Cell and Systems Biology, noting that this switch “will likely lead to more effective management of the program”; and has strong potential to foster greater collaboration between HMB and CSB, as well as to facilitate matching students with robust research opportunities
 - ▶ “There appears to be a pressing need for additional administrative staff given the size of the HMB and its advising needs”
 - ▶ Space planning committee for New College strongly encouraged to place a high priority on reasonably accommodating the space requirements of HMB (needs identified for faculty office space, dedicated storage for documents and equipment, and meeting space for students and staff)
 - ▶ Allocating offices where all faculty are in close proximity would greatly aid in encouraging informal faculty mentorship
- Long-range planning and overall assessment
 - ▶ “The new Director has a real opportunity to improve this already strong program”
 - ▶ The recruitment of continuing teaching stream faculty could facilitate lowering the FCE:FTE ratio, while also providing all HMB faculty with time for pedagogical advancement and scholarly research

2 Administrative Response & Implementation Plan



UNIVERSITY OF TORONTO
FACULTY OF ARTS & SCIENCE

March 6, 2023

Professor Susan McCahan
Vice-Provost, Academic Programs
University of Toronto

Dear Prof. McCahan,

RE: UTQAP cyclical review of the Human Biology Program (HMB)

I write in response to your letter of January 6, 2023, regarding the March 28, 2022, UTQAP cyclical review, held remotely, of the undergraduate Human Biology Program (BSc: Fundamental Genetics and its Applications: Specialist, Major; Global Health: Specialist, Major; Health & Disease: Specialist, Major; Human Biology: Major; Neuroscience, Specialist, Major) and requesting our Administrative Responses.

On behalf of the Faculty of Arts & Science, we would first like to thank the reviewers, Profs. Steven Harris, Iowa State University, and Craig A. Mandato, McGill University for their very comprehensive review of the Human Biology Program. We would also like to thank the director, faculty, administrative staff, and all those who contributed to the preparation of the self-study. We also wish to thank the many staff, students, and faculty members who met with the external reviewers and provided thoughtful feedback. The UTQAP cyclical review process is an invaluable exercise that affords us the opportunity to take stock of our academic units and programs, to recognize achievement and identify areas for improvement.

The review report was finalized on June 17, 2022, after which the director shared it widely with faculty, staff, and students in HMB. We are extremely pleased with the reviewers' positive assessment of the overall strength of HMB, its continued evolution in the undergraduate programs, and its outstanding, productive faculty. The reviewers noted that "the staff and faculty of the HMB are highly dedicated to the success of the program and its students" and commended the HMB on its clearly defined and consistent program learning outcomes, a curriculum that broadly reflects the state of the disciplines within the program and is effectively delivered and assessed, flexibility in the program's offerings for students, high morale among staff, and productive partnerships with local and regional organizations to provide experiential learning opportunities for students. The review report also raised several issues and challenges and identified areas for enhancement, including lack of student engagement, more student advising on

pathfinding through the program, the overreliance on CTLAs and sessional instructors for much of the teaching, the need for additional administrative staff, and space constraints.

Each of these recommendations has been addressed in the attached Review Recommendations Table that outlines the Program's response, the Dean's response, and an Implementation Plan identifying action items and timelines for each recommendation. My Administrative Response and Implementation Plan was developed in consultation with the HMB director and with the Associate-Dean, Unit-Level Reviews, and senior leadership within my office. The Implementation Plan provided identifies timeframes of immediate- (six months), medium- (one to two years), and longer- (three to five years) term actions and who (Faculty, Dean, unit) will take the lead in each area. I also identified any necessary changes in organization, policy, or governance where appropriate, as well as any resources, financial or otherwise, that will be provided, and who will provide them.

The next UTQAP cyclical review of HMB will take place no later than 2029-30. My office monitors progress on Implementation Plans through periodic meetings with directors. I also acknowledge that your office will request a brief Interim Monitoring Report midway between the 2021-22 UTQAP cyclical review and the year of the next site visit in 2029-30 to report on progress made on the Implementation Plan, as outlined in the accompanying Review Recommendations Table.

Thank you very much for the opportunity to respond to the review report. The reviewers' comments and recommendations will help inform the future priorities of the Human Biology Program undergraduate programs.

Sincerely,

A handwritten signature in black ink that reads "M Woodin". The signature is written in a cursive, flowing style.

Melanie Woodin
Dean, Faculty of Arts & Science
Professor, Department of Cell & Systems Biology

cc.

Melody Neumann, Director, Human Biology Program, Faculty of Arts & Science

Alison Chasteen, Acting Associate Dean, Unit-Level Reviews, Faculty of Arts & Science

Daniella Mallinick, Director, Academic Programs, Planning & Quality Assurance, Office of the Vice-
Provost, Academic Programs

Andrea Benoit, Academic Review Officer, Academic Planning, Office of the Dean, Faculty of Arts
and Science

2021-22 UTQAP Review of the FAS Human Biology Program - Review Recommendations

Please do the following for each recommendation in the table:

- If you **intend** to act on a recommendation, please provide an **Implementation Plan** identifying actions to be taken, the time frame (short, medium, long term) for each, and who will take the lead in each area. If appropriate, please identify any necessary changes in organization, policy or governance; and any resources, financial and otherwise, that will be provided, and who will provide them.
- If you **do not** intend to act on a recommendation, please briefly explain why the actions recommended have not been prioritized.
- In accordance with the UTQAP and Ontario's Quality Assurance Framework, "it is important to note that, while the external reviewers' report may include **commentary** on issues such as faculty complement and/or space requirements when related to the quality of the program under review, **recommendations** on these or any other elements that are within the purview of the university's internal budgetary decision-making processes must be tied directly to issues of program quality or sustainability" (emphasis added)
- You may wish to refer to the [sample table](#) provided by the Office of the Vice-Provost, Academic Programs

Request Prompt <i>verbatim from the request</i>	Rec. #	Recommendations from Review Report <i>verbatim from the review report</i>	Program Response	Dean's Response
<p>The reviewers observed that despite Human Biology's increased reliance on their own faculty complement, there remain critical concerns around program delivery and sustainability, including the "exceedingly high" ratio of FCE per FTE, and dependence on CLTAs and sessional lecturers for much teaching.</p>	1	<p>"Despite the greater reliance on their own faculty complement, there are still critical concerns within the program. These include the exceedingly high ratio of FCE per FTE, which is substantially higher than other Science programs. This may ultimately impact teaching quality and undoubtedly also contributes to the lack of time that HMB faculty have available for research. A related concern is the reliance on CLTAs and sessional instructors for much of the teaching that occurs within the HMB. The recruitment of permanent Teaching Stream faculty to fulfill these roles would facilitate lowering of the FCE:FTE ratio while also providing all HMB faculty with time for pedagogical advancement and scholarly research."</p>	<p>Short Term: Permission recently given by FAS to hire an Assistant Professor, Teaching stream with a joint appointment in HMB (67%) and DSS (33%). Faculty search is currently underway. It is expected that the successful candidate will contribute teaching to existing HMB courses, design their own course(s), and contribute to laboratory course teaching depending on their research discipline. The successful candidate is expected to also teach courses in the Department of Statistical Sciences.</p> <p>Medium-Long Term: Four faculty line requests are expected to be made over the next 1-3 years for HMB teaching stream faculty to reduce reliance on CLTAs, reduce FCE:FTE ratios, facilitate curriculum renewal, and provide more teaching faculty for the large Human Biology and Health and Disease majors in particular. Requests have been submitted to the Faculty Appointments Committee in the current cycle for two joint</p>	<p>Short-term: Arts & Science (A&S) recently approved a requested position for an Assistant Professor, Teaching Stream. This is a joint appointment between HMB (67%) and the Department of Statistical Sciences (33%).</p> <p>Intermediate to Long-term: Program/Departmental hiring priorities do not necessarily translate into teaching-stream positions because new teaching-stream positions are allocated at the Faculty level. All requests for new positions across the Faculty are submitted to the Faculty Appointments Committee (FAC), which includes representation across its sectors (Humanities, Social Sciences and Sciences) and from the Colleges. The FAC reviews all requests for new positions and makes recommendations to the Dean regarding which requests should be granted. The FAC takes into consideration the FCE to FTE ratios of units requesting new faculty lines.</p>
	2	<p>"The HMB Director also expressed a preference that faculty positions in the program not be contractually limited appointments. We concur with this point and encourage a shift towards a complement consisting of continuing-stream teaching faculty."</p>		

			<p>faculty positions. One of these is a joint position with the Department of Indigenous Studies with a focus on Indigenous perspectives within the Health and Disease specialist and major and Human Biology major programs and the other teaching stream faculty line is joint with the Health Studies program at University College with a focus on both the Health and Disease and Global Health programs. One faculty line request would be directed towards the Neuroscience major to relieve enrolment pressure on this program and could be coordinated to align with CSB faculty and curriculum renewal activities in the Animal Physiology program that has neuroscience connections. A fourth faculty position is expected to be needed for the growing Fundamental Genetics and its Applications programs, particularly considering the rising demand by students for work-integrated learning opportunities that require considerable efforts by faculty to recruit and maintain partnerships in the private sector and related organizations. Students in the Health & Disease specialist and major as well as Human Biology major could choose these courses too. Please also see staffing request plan to complement HBP faculty efforts in experiential learning under Rec#3-7.</p> <p>If faculty requests and recruitment efforts are successful, this would increase HMB FTE from 7.67 to 12.34, provide significant curriculum renewal opportunities, provide additional faculty for student academic advising, including research project placement, reduce FCE:FTE ratios thereby reducing enrolment</p>	<p>Longer-term complement planning is included as part of the A&S Unit-level planning (ULP) exercise. Following a UTQAP review, each unit is asked to create a 5-year plan that includes goals for research, curriculum, faculty support, administrative staff support, and complement planning. As part of this process, HMB will be asked to outline their complement needs over the next five years. This plan, which will be commissioned in May-June 2023 and is expected to be completed in the Fall/Winter of 2024, will be reviewed by the Dean and Vice-Deans in line with the A&S ULP process. The ULP for HMB will inform the unit's requests to the FAC.</p>
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			pressures for students, and free up faculty to better engage in pedagogical research and HMB program initiatives aimed at improving the student experience. In all cases, new faculty will be expected to teach and develop laboratory courses, augment existing experiential or community-based learning opportunities within HMB, and/or integrate Human Biology-specific examples of data science and artificial intelligence research strategies into the curriculum. The director is taking the lead on making the faculty line requests, would conduct the faculty searches in conjunction with EEB, and oversee development and integration of new faculty into the HMB program.	
The reviewers noted significant concerns that students appear unengaged with the program (though acknowledge that this could in part be a lingering pandemic effect). They made a number of possible suggestions around increasing student engagement, e.g., through enhanced communication about research opportunities, improved alumni and student mentoring, further development of experiential learning, and initiating other program supports.	3	“The issue of communicating opportunities to students is significant and was highlighted in our discussions with them. Perhaps compilation of a curated “research opportunities” database specifically for HMB students would facilitate such communication.”	Short term: Starting in July 2022, Director has implemented online Orientation and Re-orientation workshops aimed at HMB course selection and program enquiries prior to the start of course enrolment. The annual BBQ hosted by the HMB program was re-started in June 2022. A new program called “HMB Hourlies” began in December 2022 to provide students with online and in-person opportunities where students can meet each month with an HMB faculty member including HMB leadership to ask questions about programs, discuss career goals, learn about Indigenous research opportunities and other research opportunities, learn about experiential including community-based learning opportunities, and provide general academic counselling and recommendations for individual academic counselling.	Short-to-Medium: The Dean’s response acknowledges that HMB is pursuing several initiatives to facilitate student engagement. The A&S Office of Experiential Learning & Outreach Support (ELOS) remains available to HMB instructors to provide pedagogical, administrative and partnership development support for faculty interested in or already offering experiential learning opportunities. HMB will join the new Arts & Science Internship Program, coordinated by ELOS, in Fall 2024, which will provide immersive co-op opportunities for HMB students.
	4	“it does appear that some students are either unaware of research opportunities (or the importance of these experiences) and may also be unfamiliar with how to secure them. Improved guidance or student mentoring could help alleviate this problem.”		
	5	“we suggest regular ‘townhall’ meetings (e.g., one per term) whereby students are invited to a “Q & A” session with the HMB Director and other program administrators”		
	6	“we encourage the development of a student/alumni mentorship program that would connect current HMB students with program alumni who are; (i) willing to provide their time, and (ii) properly vetted to serve as mentors. Creation of		

		<p>such a program would likely elicit stronger engagement from both groups while also alleviating student concerns regarding mentorship without imposing on already overburdened staff or teaching faculty”</p>	
7	<p>“The social impact of outreach activities integrated into the HMB curriculum was not directly assessed in the self-study or commented upon during our meetings. Nevertheless, it is evident though specific courses that enable student engagement with local seniors in long-term care facilities and with regional indigenous communities. These efforts are increasingly important and merit increased consideration for available resources.”</p>	<p>Medium-Long term: Director to take lead and request new staff position that would have the following responsibilities:</p> <ul style="list-style-type: none"> • Maintain and grow research opportunities for undergraduate students in HMB496/499Y Research Project courses and HMB394/396Y International Research project courses, and a new research project course proposal for equity deserving students. <p>Responsibilities would include: student recruitment and enrollment, supervisor recruitment, create, maintain and communicate opportunities database, student advising and mentoring, and support for administration of courses. Currently we have over 200 students in these opportunities with a goal of doubling this number, which will necessitate significantly increased staff support</p> <ul style="list-style-type: none"> • Establish alumni mentoring program and manage outreach, recruitment, matching, and administration and recognition of alumni mentoring activities • Create administrative support structure for existing partner-based experiential learning courses, facilitate their expansion and support the creation of new experiential learning courses to assist in accomplishing the FAS goal that “every student has a meaningful experiential learning opportunity prior to graduation”. Responsibilities will also include: <ul style="list-style-type: none"> ○ liaising with ELOS office for external partnership development/outreach to 	

			<p>secure placements and opportunities, coordinate pedagogical support for course instructors, facilitate faculty wide collaborations and coordinate HMB communications to access ELOS student supports</p> <ul style="list-style-type: none"> o providing specific support for growth and sustainability of EL courses not provided by ELOS including student communication, recruitment, balloting, selection and enrollment in courses, administrative support with HMB and course-related communications to partners, administrative support for instructors/students for risk management, agreements, mandatory student preparation for EL (e.g. vaccinations, police checks, orientation, professionalism), support for accessibility, equity/diversity/inclusion, supporting accommodations for students, recognition and impact for students and partners, co-curricular programming (i.e. lab bootcamp), supplement support to maintain and grow International and Indigenous course modules, coordinate experiential learning TAs, and coordinate recognition initiatives/events within HMB 	
The reviewers observed some student difficulty with navigating curricular requirements, and made some suggestions around augmenting supports for students seeking “pathfinding” guidance.	8	“Although program requirements and outlines are available, we recommend that learning outcomes also be made available on the HBP website.”	Short-Medium: Creation of an HMB website committee charged with overseeing the updating and redevelopment of the HMB website to improve programmatic wayfinding and include learning outcomes. Development of graphical tools to improve wayfinding while connecting with existing tools available at the Divisional level. Director to lead with	Short-to-Medium: The Faculty notes that once HMB determines appropriate student content to help improve academic wayfinding, the unit can engage the A&S offices of Communications and Information & Instructional Technology (IIT) for advice on how to implement this on their website.
	9	“While advisors are available and the ‘program pathways tool’ is available on the HBP website, augmenting the latter with a visual ‘flow chart’ might provide further assistance to students seeking guidance.”		

			possibilities of funding through work study and/or summer ASIP positions.	
The reviewers strongly endorsed plans to streamline the Global Health program curriculum, in order to enhance coordination with cognate units, including the Dalla Lana School of Public Health and the Temerty Faculty of Medicine.	10	“It was noted by the Director and others that the Global Health program is still in need of a more detailed mapping exercise that would streamline its curriculum and lead to better coordination with other relevant units such as the Dalla Lana School of Public Health and the Faculty of Medicine. This should be strongly encouraged and would undoubtedly be beneficial to all stakeholders including students.”	Short to Medium: Extensive curricular design conducted by the Public Health subgroup of the Health Sciences Working group that includes both the HMB Director plus Decanal representatives (including an HMB faculty member) has been completed. The outcome of this new program proposal will inform the next steps for better coordination and streamlining of the HMB Global Health Major and Specialist programs with the Dalla Lana School of Public Health and the University College Health Studies Program.	Short-to-Medium: The Vice-Dean, Academic Planning, is working with the Health Sciences Working Group to address the role of public health, global health, and health studies programming in the Faculty of Arts and Science. This working group includes faculty engaged in the Global Health program in HMB, and the Curriculum Development Specialist in the office of the Vice-Provost, Innovations in Undergraduate Education. The working group consultations have included discussions around how best to streamline the Global Health program and integrate it with other health-related programming. The working group is expected to complete its deliberations in May, 2023.
The reviewers observed a lack of clarity around why only the Human Biology major has open enrolment, and suggested that it might be useful to consider a similar practice for other programs with lower enrolments.	11	“It wasn’t entirely clear why the Human Biology major has an open enrollment program unlike the others in HMB. This doesn’t appear to be limiting the quality of incoming students or their overall performance. If these trends continue, it might be worthwhile to consider a similar enrollment policy for programs with lower numbers (i.e., Fundamental Genetics).”	Short-Medium: The Human Biology Major has traditionally been the core program for HMB and thus has remained an open enrolment program despite the unpredictability of student demand as a result of significant fluctuations from year-to-year based on factors beyond control (i.e., enrolment in First Year Life Sciences). The Human Biology Major is the most flexible open major offered by HBP, making it very popular with students who combine this major with majors offered by other departments. With the exception of the Neuroscience Major, all HMB Majors are open enrolment programs, so it seems there might have been a slight misunderstanding here. For example, Fundamental Genetics and its Applications Major is a smaller and growing program but	Short-to-Medium: The Vice-Dean Undergraduate and Vice-Dean Academic Planning will work with HMB on program enrolment issues and any proposal program changes.

			<p>is an open enrolment program already. Enrolment in the FGA major and specialists is expected to continue to grow due to the curricular renewal efforts of HMB faculty that have differentiated this program from others by an emphasis on work-integrated learning in the biotechnology sector that begins early in the program. The unit will explore the possibility of additional credentials for the FGA program that could include the development of a focus or certificate that would prove attractive to students. In addition, the feasibility of a name-change for the program to make it more clear to students what subject areas the program includes may also be beneficial.</p> <p>Medium-Long: Increases to the HMB faculty complement would provide opportunities to increase laboratory course offerings as well as the recruitment of additional 4th year research project supervisors. All of this would then enable the unit to offer more qualified students a spot in some highly-sought HMB specialist programs.</p>	
<p>The reviewers were generally supportive of the possibility of shifting HBP faculty appointments to the Department of Cell Systems Biology, noting that this could further facilitate matching students with robust research opportunities.</p>	<p>12</p>	<p>“Historically, the administrative home for the HMB faculty was the Department of Ecology and Evolutionary Biology (EEB), which was rationalized to be a ‘marriage of convenience’. During the time of writing this report, discussions are underway to explore the possibility of moving the administrative home of faculty appointments to the Department of Cell and Systems Biology (CSB), which makes a lot more sense. Indeed, discussions with chairs of the relevant departments indicated that this would be a more natural fit with strong potential to foster more collaborations between the HBP and CSB.”</p>	<p>Medium-Long term: Discussions put on hold by the pandemic now continue about the possibility of moving the administrative home of faculty appointments to CSB. The unique role of the HMB program as an undergraduate program completely dedicated to undergraduate student learning and experiences within the Life Sciences within Faculty of Arts and Science should be maintained. The HMB Director and CSB Chair will lead discussions to explore possibilities for greater connections. CSB faculty take on</p>	<p>Medium- to Long-term: The Vice-Dean, Faculty and Academic Life, and the Vice-Dean, Academic Planning, will work with the Director of HMB, along with the Chairs of CSB and Ecology and Evolutionary Biology (EEB) to address the possibility that CSB is a more appropriate home than EEB for HMB faculty appointments.</p>

	13	“the possible switch to CSB as the administrative home for HMB faculty will likely lead to more effective management of the program.”	HMB program students for research experiences and courses already, but discussions between the units could further enhance opportunities for HMB students in CSB research labs and provide for more discipline-based interactions between HMB and CSB faculty.	
	14	“The [desire for enhanced student research experiences] will potentially be addressed with the possible shift of HMB faculty appointments to the Department of Cell and Systems Biology as an administrative home for these faculty, given that the research directions of this department are better aligned with the HMB curriculum.”		
The reviewers reported faculty desire for enhanced mentorship opportunities, and professional development supports. Faculty also noted concerns around limited time available to engage in discipline-based education research, or research into the scholarship of teaching, as well as uncertainty regarding how this is valued in the context of their development. (In developing your response you may wish to consult with the Office of the Vice-Provost, Faculty and Academic Life).	15	“The new faculty hires are not being mentored adequately. Although, there is informal mentoring and new faculty said they could reach out if they had specific questions and were fully supported when they asked the right questions, but there was little formal mentoring in place to aid in navigating different career steps. Specifically, there was a lack mentoring from people with shared life experiences (EDI related issues).”	<p>Short-Medium: All faculty at the Assistant Professor level (CLTAs or positions aimed at continuing status) have been formally assigned HMB faculty mentors at the Associate Professor, Teaching Stream level and these mentors meet regularly with their mentees. Director will engage in discussions with faculty to talk about mentoring relationships, discipline-based education research and pedagogical research and its role in their teaching positions. HMB also has a monthly faculty check-in and chat group on Teams and an annual HMB Faculty retreat. The pandemic put the faculty retreat into an online-only format, but since 2022, the retreat is now in-person to facilitate team building and informal conversations. In addition, the Director is providing a Multiple Choice test design workshop in February 2023 and will continue to offer pedagogical strategy workshops that are specific to the HMB program and complement those offered by CTSI and will continue with the SoTL journal club that the previous Director implemented.</p> <p>A Share-Point folder with materials aimed at professional development for established</p>	<p>Short-to-Medium: The Vice-Dean, Faculty and Academic Life, will work with the Director of HMB to address issues around mentoring in the unit. As well, A&S will support HMB’s mentoring initiatives and make them aware of events and supports available for new faculty.</p>
	16	“Established faculty noted that the absence of programed professional development for their rank left some uncertainty regarding their best path forward.”		
	17	“Position descriptions for HMB faculty permit them to engage in research activities. Although not an explicit expectation, these [activities] could encompass discipline-based education research or research into the scholarship of teaching. In reality, most faculty interested in doing this do not appear to have the time or support for this.”		

			<p>faculty will be created to augment current notifications provided by FAS and VPFAL. HMB is a relatively diverse, but small unit that has limited capacity to provide EDI-related issue mentoring from people with shared life experiences. Nevertheless, the Director has discussed with Vice-Dean of Faculty Life and has been made aware of https://people.utoronto.ca/inclusion/get-involved/ and will make sure faculty are also made aware. A current faculty search is already following new university requirements aimed at increasing EDI and it is expected that the EDI faculty complement will grow.</p>	
<p>The reviewers acknowledged the unique and complex context for space allocation relative to HBP. They underscored the importance of finding creative ways to reallocate space in order to meet the needs of faculty, students and staff, in a way that encourages community-building and mentorship.</p>	18	<p>“Need for additional space continues with the lack of storage in New College. There is presently no dedicated space for storage of documents or equipment and there was a perceived need for meeting space for students and staff alike.”</p>	<p>Short-Med term: Discussions between CSB, New College and the HMB Director continue to temporarily meet space needs for HMB faculty in the midst of significant and complex renovations in CSB and high priority needs for space by new departments housed in New College.</p> <p>Long term: Discussions with the Vice-Dean, Research and Infrastructure within FAS to come up with a longer term plan for space for HMB faculty and staff together with a space for HMB students to help them have a better point of attachment with the HMB program, faculty and staff. In addition, HMB student study space that HMB students as one of the largest FAS programs could call their own would improve connections with each other and would likely lead to enhanced student experiences and alumni involvement in HMB programs. Faculty need to be located closer</p>	<p>Short- to Long-term:</p> <p>In the short-term, the Vice-Dean Research and Infrastructure will work with the Director to identify new office space for faculty and staff. Current efforts are aimed at providing a test fit on a potential space (single floor in a different academic building) where faculty and staff would be co-located. Longer-term options are also being explored. For example, several new capital projects are underway on the UTSG campus, and we are investigating opportunities to relocate HMB in a permanent new location as these space plans evolve.</p>
	19	<p>“from our understanding office allocations are renewed on an annual basis. It appears that New College has a space planning committee that will be tasked with looking into these issues listed above. We strongly encourage that this committee place a high priority on reasonably accommodating the space needs of the HMB.”</p>		
	20	<p>“while recognizing that current space limitations are a challenge, we recommend prioritization of an HMB student gathering space that could promote a greater sense of program community”</p>		
	21	<p>“An over-arching theme of this review is the need to reallocate space to fit the current needs of the HBP. Space for faculty, program staff, and student advising has not changed much since the previous review. Specifically, the new faculty hired recently</p>		

		were not given office space in New College with their senior colleagues.”	to HMB administration and the offices of their colleagues so that informal mentoring known to have such a positive impact upon junior faculty can take place.	
	22	“Allocating offices where all the faculty (new and senior) are in close proximity would greatly aid in the informal mentoring program as it would help with random/chance meetings which could be the best opportunities for mentoring experiences.”		
Other recommendations not prioritized in the Request for Administrative Response	23	“The new Director has a real opportunity to improve this already strong program. Nevertheless, she is being hindered by the day-to-day milieu of the daily operations, which leaves little time for addressing bigger issues and opportunities. The director needs [administrative] support.”	<p>Short-Med term: Director has requested management level staff support to assist with organizational, logistical, and staff HR requirements and duties that cannot be delegated to current unionized staff.</p> <p>Short-Med term: Director requested and received permission to make a .5 FTE financial assistant position full-time and this has resulted in freeing up some time for the Business Officer to assist the Director with some aspects of Academic HR. Director has begun making preparations to request an additional .5 FTE lab technician position to expand lab course enrolments and offerings (e.g., additional spaces in evening and/or summer). Hotelling of lab technician computer stations will be necessary to accommodate an additional 0.5 FTE lab technician. In addition, an HMB student work experience and lab mentorship program will be started so that HMB students can develop additional laboratory skills by assisting course lab technicians with teaching lab prep, setup and maintenance during critical periods of the academic year.</p>	<p>Immediate- to Medium-term: The A&S Administrative Human Resource Services office will continue to work with the Director on solutioning the options of management level staff to oversee the business, research and teaching administration for the unit.</p> <p>In 2022, the Administrative Human Resource Services office worked with the Director and completed the transition of the Financial Assistant role from part-time/0.5 FTE to full-time/1.0 FTE.</p> <p>The Administrative Human Resource Services office will continue to work with the Director on addressing additional staffing needs.</p>

3 Committee on Academic Policy & Programs (AP&P) Findings

The spokesperson for the reading group reported that the review was positive, however, in their view the summary did not accurately reflect the full review as it did not address the issues of administrative support for the director, space issues, and the concerns that the time limited nature of Contractually Limited Term Appointments (CLTAs) posed a risk to program delivery. The group felt, however, that the Dean's administrative response had fully addressed the issues identified. The group requested further clarification related to the teaching stream and CLTA faculty and inquired as to what faculty opportunities were in place to support their professional and research growth.

Melody Neumann, Director, Human Biology Program, responded that mentorship plans extended to CLTA faculty and that in collaboration with the Vice-Dean, Faculty and Academic there were plans to improve the program. She noted that all teaching stream faculty did engage in pedagogical research and were successful in garnering teaching grants to support their research and that those funds supported a wide range of academic initiatives to improve the student experience and foster innovative pedagogical technologies. Short term plans were in progress to increase the faculty learning communities and pedagogical research collaborations between teaching stream faculty and cognate units.

No follow-up report was requested.

4 Institutional Executive Summary

The reviewers noted that great strides have been made since the last review to streamline and improve the overall quality of the program; positive developments include the reduction of degree programs offered, curricular improvements to help ensure achievement of learning outcomes, an increase in faculty complement, and new laboratory infrastructure. They observed that new hires have greatly increased the pedagogical rigor of the program, and the curriculum broadly reflects the state of the disciplines covered; they highlighted that students have considerable freedom to tailor their curricula while still mastering program learning outcomes, and undergraduate majors also enjoy considerable access to student research experiences. They noted the steady high quality of applicants to the program in recent years and an increase in specialist enrolment; they commended the dedication of HBP staff and faculty to the success of the program and its students, as well as the productive partnerships with local and regional organizations; finally, the reviewers highlighted the updates that have been made to the curriculum to increase accessibility for students, and the work of the new EDI committee to examine curriculum delivery mode and enhance student learning experience.

The reviewers recommended that the following issues be addressed: addressing critical concerns around program delivery and sustainability, including the “exceedingly high” ratio of FCE per FTE, and dependence on CLTAs and sessional lecturers; increasing student engagement

with the program; augmenting supports for students seeking “pathfinding” guidance; streamlining the Global Health program curriculum to enhance coordination with cognate units; consider open enrolment for programs with lower numbers; pursuing plans to shift HBP faculty appointments to the Department of Cell Systems Biology; addressing faculty desire for enhanced mentorship opportunities, and professional development supports; and finding creative ways to reallocate space in order to meet the needs of faculty, students and staff, in a way that encourages community-building and mentorship

The Dean’s Administrative Response describes the division and programs’ responses to the reviewers’ recommendations, including an implementation plan for any changes necessary as a result.

5 Monitoring and Date of Next Review

The Dean will provide an interim report to the Vice-Provost, Academic Programs no later than the midway point between the 2021-22 site visit and the next scheduled review on the status of the implementation plans, when requested by the office of the Vice-Provost, Academic Programs.

The next review will be commissioned no later than the 2029-30 review cycle.

6 Distribution

On June 30th 2023, the Final Assessment Report and Implementation Plan was posted to the Vice-Provost, Academic Programs website and the link provided by email to the Dean of the Faculty of Arts and Science, the Secretaries of AP&P, Academic Board and Governing Council, and the Ontario Universities Council on Quality Assurance. The Dean provided the link to unit/program leadership.