



Interdisciplinary Medical Sciences Final Assessment Report

Faculty / Affiliated University College	Schulich School of Medicine & Dentistry/Faculty of Science
Degrees Offered	BMSc, BSc
Modules Reviewed	Honors Specialization in Interdisciplinary Medical Sciences; Specialization in Interdisciplinary Medical Sciences; Major in Interdisciplinary Medical Sciences; Major in Medical Sciences
External Consultants	Dr. Ana Regina Campos, Director, School of Interdisciplinary Science, McMaster University Dr. Michael Kawaja, Associate Dean, Life Sciences and Biochemistry, Queen's University
Internal Reviewers	Dr. Christopher Sherrin, Associate Dean (Academic), Faculty of Law, Western University
Date of Site Visit	March 22, 2018
Evaluation	Good Quality
Approval Dates	SUPR-U: June 6, 2018 SCAPA: September 12, 2018 Senate: September 21, 2018

Executive Summary

The external consultants were generally very positive about the IMS module. They stated: “Clearly, this is a high quality program” that “has become a destination of choice for high achieving high school students.” They described the faculty and administrative team as “highly qualified” and were especially impressed with the teaching-stream professors.

1. **Objectives:** The consultants stated that the “IMS module is by and large aligned with Western’s mission, values, strategic priorities and academic plans.” They noted, however, that student participation in internships and exchanges were “not as vigorous as one would expect,” remarking that students “appear to perceive the existence of significant academic barriers for their effective participation in these initiatives.” The Department noted that a number of their students participate in and appear to value the Science Internship Program. Participation in international exchanges is more difficult due to the need to ensure equivalency of courses but a new exchange has been developed with a Netherlands university and the Department plans to develop and publicize more exchange opportunities in the future.

The consultants heard concerns about the availability of seats for IMS students in courses (particularly senior courses) mounted by other departments. The Department is aware of these concerns and is working to increase the number of seats available to IMS students within 4th year courses. Even if students cannot always get their first choice, they can fulfill the requirements of the module within the current constraints and be exposed to a breadth of choices.

The consultants noted the absence of an honor’s thesis option and student desire for “increased opportunity to work on smaller independent [research] projects.” The Department responded that students report “they do not want a full research project” and that the current “structure of the 4th year lab does provide roughly the equivalent of a short research project.” A thesis option can be explored but would have to rely on the willingness of research faculty within the basic medical science departments to act as supervisors.

2. **Program Structure and Curriculum:** The consultants remarked on the popularity of the IMS module and highlighted the many ways in which its “core courses” stand out and shine as examples of innovative and student-interactive interdisciplinary courses. The consultants proposed that additional interdisciplinary (possibly online) courses be created, that new opportunities be investigated for IMS

students to incorporate “research exploration,” and that “critical financial investments for [program] sustainability are required and thus a forward-looking plan should be structured to ensure ... long-term viability.” The Department responded that it continues to look for ways to add interdisciplinary courses and to expose students to research opportunities. The self-study initiated the process of structuring a long-term plan for the module and the Department plans to continue that process.

3. Assessment of Teaching and Learning: Student achievement of learning outcomes is appropriate and students have a high level of regard for the IMS faculty and program. The consultants, however, recommended a reevaluation of the demanding conditions for admission to and continuation in the program (which cause stress to students) and that the process for evaluating student Intent to Register be streamlined. The Department responded that it has taken various steps to reduce stress on students through policies that guarantee admission into the program if certain criteria are met and open up additional opportunities for admission when those criteria are not met. In addition, once a student gains entry to Year 3 of the program they have assured progression to Year 4. Administration of the Intent to Register process has been largely automated and multiple information sessions about the process are held each year.
4. Resources for All Programs: The teaching-stream faculty were seen as real strengths of the program, but are in need of greater administrative support. More such educators would be required if more courses were added to the IMS curriculum. The Department responded that it continues to look for ways to offer administrative support, GTA support, and mentoring to the two faculty members. It noted, however, that they are appointed as 70% teaching faculty with small service and research assignments.
The consultants had no concerns about library and information technology resources, but expressed concern that the absence of “dedicated IMS laboratory space has resulted in problems of accommodation and time-tabling.” They also commented that “[b]ecause IMS is not affiliated with a Department ..., it struggles of recognition at many different levels, including financial allocation of adequate resources for educator hiring, laboratory supplies, and educational tools.” They recommended that “adequate financial / personnel resources are formalized in the Schulich ... budgetary plan for the IMS.” The Department wholeheartedly agreed, adding that it will develop a strategy to better communicate “the importance, strengths, and changes and improvements in the IMS program to the other departments.”
5. Resources Undergraduate Programs: The consultants found that there are adequate numbers of faculty and staff to achieve the goals of the program, although not necessarily to expand it. They expressed some concern about eventually exhausting the dedicated teaching faculty members, reiterating the suggestion for greater administrative support for them.
6. Quality and Other Indicators: The consultants were highly complimentary of the quality of the program but stated that it “faces some significant challenges regarding adequate working and storage space and resources for equipment replacement and addition.” They recommended that the Faculties develop a plan to ensure that “the IMS program, associated faculty and staff be provided with stable and adequate space for the delivery of the laboratory courses and other activities conducive to the development of a sense of cohort and value in the program.”

Significant Strengths of the Program

1. Innovative, focused on student-learning, providing opportunities for students to learn from engaging with the community.
2. Flexibility afforded to students to customize their degree according to their interests and future career goals.
3. Innovative and excellent core courses.
4. Top-notch dedicated faculty.

Suggestions for Improvement & Enhancement

1. Enhance internship and exchange opportunities.
2. Create new interdisciplinary courses for IMS students.
3. Provide greater administrative support for the program’s teaching-stream faculty.
4. Formalize adequate financial / personnel resources in the Schulich budgetary plan.
5. Develop a plan to ensure adequate and stable space for delivery of laboratory courses and other activities of value to the program.

6. Assess the difficulties IMS students encounter in enrolling in desired courses.
7. Enhance opportunities for student research projects and even an honor's thesis.
8. Reevaluate the conditions for admission to and continuation in the program.

Recommendations Required for Program Sustainability

Recommendation	Responsibility
Develop plan to ensure long-term program viability and growth	Dean, Vice-Dean
Consider developing additional interdisciplinary courses for IMS in on-line format	Assistant Dean BMSUE
Survey students to determine the level of difficulties that IMS students encounter in enrolling in departmental courses	Assistant Dean BMSUE, BMSUE Program Committee