Master of Management of Applied Science
Final Assessment Report & Implementation Plan
March 2023

Faculty / Affiliated University College	Social Science (with Science, Arts and Humanities, Science, Health Sciences and the Schulich School of Medicine and Dentistry)
Degrees Offered	Master of Management of Applied Science (MMASc)
Date of Last Review	2013-14
Approved Fields	Applied Science Global Health Systems
External Reviewers	Professor Paul Jones School of Management, Swansea University	Professor Lynnette Purda Smith School of Business, Queen's University
Internal Reviewers	Dr. Pam McKenzie, Associate Dean, Faculty of Information and Media Studies	Adam Greasley, PhD Candidate Pathology and Laboratory Medicine
Date of Site Visit	January 30 and 31, 2023
Date Review Report Received	February 16, 2023
Date Program/Faculty Response Received	Faculty March 6, 2023 Program March 7, 2023
Evaluation	Good Quality
Approval Dates	SUPR-G: April 24, 2023 ACA: May 10, 2023 Senate: May 19, 2023
Year of Next Review	Year of next cyclical review: 2030-2031
Progress Report	June 2026

Overview of Western's Cyclical Review Assessment Reporting Process

In accordance with Western's Institutional Quality Assurance Process (IQAP), the Final Assessment Report (FAR) provides a summary of the program review, internal responses, and assessment and evaluation of the Master of Management of Applied Science Program delivered by the Faculty of Social Science (with Science, Arts and Humanities, Health Sciences and the Schulich School of Medicine and Dentistry).

This FAR considers the following documents:
- the program's self-study brief;
- the external reviewers' report;
- the response from the Program; and
- the response from the Dean.

This FAR identifies the strengths of the program and opportunities for program enhancement and improvement and details the recommendations of the external reviewers – noting those recommendations to be prioritized for implementation.

The Implementation Plan details the recommendations from the FAR that have been selected for implementation, identifies who is responsible for approving and acting on the recommendations, specifies any action or follow-up that is required, and defines the timeline for completion.

The FAR (including Implementation Plan) is sent for approval through the Senate Graduate Program Review Committee (SUPR-G) and ACA, then for information to Senate and to the Ontario Universities' Council on Quality Assurance. Subsequently, it is publicly accessible on Western's IQAP website. The FAR is the only document from the graduate cyclical review process that is made public; all other documents are confidential to the Program/School/Faculty, the School of Graduate & Postdoctoral Studies (SGPS), and SUPR-G.

Executive Summary

The Master of Management of Applied Science (MMASc) degree program launched in the fall of 2014. The program is structured around a "hub and spoke" model, in which a core set of management "hub" courses (e.g., Organizational Behaviour, Marketing, Communication, Leadership), are augmented by more discipline-specific "spoke" courses. The program is a three term, full-time, course-based Master's program and since inception has had over 250 graduates.

With a total enrolment of 59 students in 2020-21, the degree is designed for students who wish to supplement their studies in science with a general education in management that has relevance for pursuing managerial careers not just in science and technology intensive industries, but industry in general.

The program self-study was informed by a student survey midway through the second term, a student exit survey and focus groups, an alumni survey and feedback from industry partners. A dedicated retreat for faculty members and program administration was held in spring 2022.

The external reviewers shared a positive assessment of the Master of Management of Applied Science Program. They offer five recommendations for further enhancement.

Strengths and Innovative Features Identified by the Program

- Collaboration with other departments results in an innovative program that provides relevant graduate management training and a competitive edge for students entering the industry.
- Involvement of industry partners in the program provides networking and experiential learning opportunities for students.
- MMASc's true partnership across faculties makes this program distinct from similar programs offered by other Canadian universities.
    - Interdisciplinary research is facilitated by the collaboration among departments across Western.
- Additional offerings in Project Management now provide students with the knowledge, tools, and study hours to aid them in writing the Certified Associate in Project Management (CAPM) examination.
- Integrated suite of seven Career Development seminars (e.g., Introduction to Professional Careers, Resume and Cover Letter Writing, Networking & Professional Engagement, Alumni Engagement, Interview Preparation, Professionalism in the Workplace, and Rights and Responsibilities in the Workplace).
- The 500-hour Experiential Learning Opportunity in the final term of the program (from May-August of each year) is a key milestone that engages students in industry contexts.
- Access to a dedicated Career Services Officer on the MMASc Administrative Team.

- Alumni have shared that the length of the program is a principal differentiator from similar programs and a strength of the Western program.

Concerns and Areas of Improvement Identified and Discussed by the Program

- Competing with established graduate management programs in Canada.
- Feedback from stakeholders indicated that the name of the degree – 'management' along with 'applied science', has contributed to uncertainty regarding the focus of the degree.
- Alumni and industry partners indicated a need for greater emphasis in project management and business-to-business industrial sales management.
- Consideration of online/virtual or hybrid cohorts to attract students who are particularly distant from campus.
- Broaden the recruiting of students to undergraduate non-business programs.

Review Process

As part of the external review, the review committee, comprising two external reviewers, one internal reviewer and a graduate student reviewer, were provided with Volume I and II of the self-study brief in advance of the scheduled review and then met virtually (due to pandemic restrictions) over two days with the:

- Vice-Provost of the School of Graduate & Postdoctoral Studies
- Associate Vice-Provost of the School of Graduate & Postdoctoral Studies
- Director of Academic Quality and Enhancement
- Associate Vice-Provost, Academic Planning, Policy and Faculty
- Dean of the Faculty of Social Science
- Associate Dean (Graduate Studies), Faculty of Social Science
- Associate Dean (Graduate Studies), Faculty of Science
- Associate Dean (Graduate Studies), Schulich School of Medicine and Dentistry
- Department Chair
- Program Director
- MMASc Program Directors from Science, Health Sciences and the Schulich School of Medicine and Dentistry
- Associate University Librarian
- Graduate Program and Department Staff
- Program Faculty Members
- Graduate Students

Following the virtual site visit, the external reviewers submitted a comprehensive report of their findings which was sent to the Program and Dean for review and response. Formative documents, including Volumes I and II of the Self-Study, the External Report, and the Program and Decanal responses form the basis of this Final Assessment Report (FAR) of the Master of Management of Applied Science. The FAR is collated and submitted to the SGPS and to SUPR-G by the Internal Reviewer with the support of the Office of Academic Quality and Enhancement.

Summative Assessment – External Reviewers' Report

External reviewers shared that, "*the program has several unique components and is an excellent example of collaboration across multiple academic units".*

Strengths of the Program

- The use of live cases with industry partners provides an excellent example of applied research and community engagement.
- The majority of faculty members are equally active and prolific researchers.
- Site visits that are undertaken by staff supervisors for the experiential learning opportunity, provide good assurance of learning.
- Excellent administrative support from an experienced and committed team.
- Students who struggle are identified early in the program and support provided – this seems to result in few students not completing the program within its projected time of 12 months.
- The relatively small size of student cohorts.

Areas of Concern or Prospective Improvement

- As the spoke courses continue to evolve, some of the program-level learning outcomes may need to adapt to a broader context.
- Students expressed a preference for a 3-day block delivery which would allow them to work part time.
- Any shifts in program structure to support a blended and virtual delivery mode would require dedicated consideration and resources.
- Clear articulation of the desired intent of the spoke classes and their focus may help with marketing the program and establishing its identity.
- Any prospective spokes to be added in the program must be effectively resourced for faculty, administrative support, and facilities.

Summary of the Reviewers' Recommendations and Program/Faculty Responses

The following are the reviewers' recommendations in the order listed by the external reviewers. Recommendations requiring implementation have been marked with an asterisk (*).

Reviewers' Recommendations	Program/Faculty Response
Recommendation 1*: Advocate the further resourcing of the program in terms of faculty hire, provision of administration support and library support	**Program:** The MMASc Program currently has a full-time Program Coordinator on a limited-term contract, which contributes to staff turnover. There is indeed a need to make this position permanent as the loss of institutional knowledge and lack of continuity adversely impacts the program. **Faculty:** The Dean's office will continually monitor the resource needs of the program, including personnel needs. If modifications to the program significantly increase enrolments, the teaching allocation will be reconsidered, as well as any new needs to be communicated to Western Libraries. Re-examination over a two- or three-year horizon would allow for new enrolments from modification(s) to be reasonably well established.
Recommendation 2*: Clearly state program objectives and vision and reinforce this to faculty and students. These could include embedding EDI, ethical practices and environmental sustainability as core concepts.	**Program:** The vision, mission and objectives, as articulated in the introduction of the review document will be included in all materials/websites advertising the program. EDI, ethical practices, and environmental sustainability are presently embedded in the curriculum by instructors at the course level. With the addition of resources, the program can undertake the following types of actions to help increase participant diversity: 1) creation and administration of bursaries/scholarships to equity deserving groups; 2) anonymous mechanisms to collect EDID info from students; and 3) modification to areas of the curriculum like business cases or reading lists to consider EDID perspectives. A program retreat in the next two years, involving the Advisory Committee, perhaps with the assistance of the CTL, could help with focused reflection on this theme. **Faculty:** Equity, diversity, inclusion, Indigenization, and decolonization (EDID) need to be core to all Faculty programs as do the three pillars of corporate responsibility - economic growth, social inclusion, and environmental protection (ESG). Much material related to these practices is already included in the courses, so it may be a case of making the tacit, explicit. This is also an opportunity for re-visioning, and the program is encouraged to consider embedding these ideas more fully in the program objectives and learning outcomes. A program retreat in the next two years is encouraged.

Recommendation 3*: Consider the further development of the hub courses to include strategy, accounting courses, digital marketing, well-being in the workforce and sales. Enhance the currency of business subjects by introducing the above courses.	**Program**: Since moving the administration of the MMASc to DAN Management in 2020, the curriculum has been revised to include: 1) "financial fundamentals" instead of strictly finance; and 2) management development areas like Industrial/B2B Sales Management and Strategic Management. The program has endeavored to think outside the traditional academic delivery of courses while being mindful about not increasing required number of courses per term. For instance, exposure to general management and strategy in particular, fits well at the end of the two academic terms. The program's intention is to wind up the second term with a 48 Hour Case challenge focused on Strategic Management. **Faculty:** As part of a review and retreat suggested above, the program should consider the proper balance of existing outcomes and those suggested by the reviewers. A program cannot be all things to all students, but substituting some of these suggested business area courses for existing ones so as not to increase the workload might be a prudent strategy. It would seem the communications courses could be collapsed or skills folded into existing courses. The Dean's Office is concerned that the current workload for the program is quite high relative to similar programs in Canada. While program pedagogy should be a prime impetus, a need to keep a pragmatic eye on the attractiveness of the program to prospective students is equally important.
Recommendation 4*: Reinforce the science context for hub courses to ensure students understand their subject relevance. Furthermore, the program course should all reflect the program vision, identity and objectives.	**Program:** The MMASc Program has sought to continuously integrate the science and management courses. The aim has been to take the science curriculum and bring it back to management, and vice versa. Whenever possible, management (hub) courses use cases and applied examples relating to fields that speak to the career aspirations of the students. The program also strives to have science (spoke) courses then take discipline specific theory and relate this back to management. The course content continually evolves to make these connections. One of the outcomes from regular instructor meetings is to look for opportunities to cross content from one course to the next, from hub to spoke and back. **Faculty:** As the program and Western ponders expanding the degree to social scientists, the science vision, identity, and objectives are expected to remain inclusive.
Recommendation 5*: Look to introduce program scholarships to support EDI and applicants from low-income backgrounds in the near future.	**Program**: This is an idea fully supported by the MMASc Program. As an applied program, MMASc students can access loans and assistance like OSAP, but entrance scholarships are generally reserved for research based graduate programs. Nevertheless, as both a public institution and a degree program which is positioned as an accessible graduate education in management entrance scholarships that speak to both EDI and applicants from low-income backgrounds are congruent with the program's mission. **Faculty:** MMASc students are eligible for the needs-based Social Science Graduate Alumni Award. The Faculty will look to expand its equity-based bursary offerings across all professional programs. Currently, the limited revenue from enrolments makes that challenging.

Implementation Plan

The Implementation Plan provides a summary of the recommendations that require action and/or follow-up. In each case, the Program Director, in consultation with the SGPS and the Dean of the Faculty is responsible for enacting and monitoring the actions noted in Implementation Plan.

Recommendation	Proposed Action and Follow-up	Responsibility	Timeline
Recommendation 1: Advocate the further resourcing of the program in terms of faculty hire, provision of administration support and library support	• Re-examine the resourcing needs of the program based on changes to program enrolment.	• Dean's office	By June 2026
Recommendation 2: Clearly state program objectives and vision and reinforce this to faculty and students. These could include embedding EDI, ethical practices and environmental sustainability as core concepts.	• Further integrate the program objectives and vision in all materials/websites advertising the program. • Evaluate how EDI, ethical practices and environmental sustainability may be further embedded in the program objectives and learning outcomes. • Plan for a program retreat within the next two years with a possible request for support from the CTL.	• Program Director • Program Advisory Committee	By December 2023 for action #1 By June 2026 for actions #2 and #3
Recommendation 3: Consider the further development of the hub courses to include strategy, accounting courses, digital marketing, well-being in the workforce and sales.	• Incorporate the "48 Hour Case Challenge" focused on Strategic Management into the program with class sessions on the subject at the end of the second term. • Explore the integration of the accounting, digital marketing, and well-being in the workforce and sales themes into the curriculum.	• Program Director • Program Advisory Committee	By September 2023 for action #1 By June 2025 for action #2

Recommendation 4: Reinforce the science context for hub courses to ensure students understand their subject relevance. Furthermore, the program course should all reflect the program vision, identity and objectives.	• Assess opportunities to integrate more "branded case challenges", with the support of industry partners, into program courses. • Review how program courses across the curriculum are reflective of program vision, identity and objectives as part of the upcoming program retreat.	• Program Director • Program Advisory Committee	By June 2025
Recommendation 5: Look to introduce program scholarships to support EDI and applicants from low-income backgrounds in the near future.	• Examine options to expand equity-based bursary offerings.	• Dean's office • Program Advisory Committee • Program Director	By June 2024