

Final Assessment Report

Master of Sustainability Master of Sustainability, Co-op Graduate Programs (reviewed 2022/23)

A. Summary

1. The Centre’s Self-Study was considered and approved by the Senate Academic Review Committee November 23, 2022.
2. The Review Committee consisted of two external reviewers: Leslie King (Royal Roads University) and Shashi Kant (University of Toronto, Mississauga), and one internal reviewer, Melanie Pilkington (Brock University).
3. The site visit occurred February 13-14, 2023.
4. The Reviewers’ Report was received March 6, 2023.
5. The Centre response was received April 4, 2023.
6. The Senate Graduate Studies Committee response was received April 18, 2023.
7. The Vice-Provost and Dean, Faculty of Graduate Studies and Postdoctoral Affairs response was received May 15, 2023.
8. The Dean, Faculty of Social Sciences, response was received June 20, 2023.
9. Annual Implementation Reports will be submitted from 2024-2027.
10. The next Cyclical Academic Review is scheduled to take place in 2030/2031.

This review was conducted under the terms and conditions of the IQAP approved by Senate on May 25, 2016 and the Codicil to the Brock IQAP, approved by Senate December 15, 2021. As the revised IQAP was only re-ratified by the Quality Council in June 2023.

Program Outcome Categories:

Based on their knowledge of the discipline, the content of the Self-Study and the interviews conducted during the site visit, the Review Committee gave the programs the following Outcome Categories:

Program(s)	Excellent Quality	Good Quality	Good Quality with Concerns	Non-Viable
Master of Sustainability	X			
Master of Sustainability, Co-op	X			

Executive Summary:

The Reviewers wrote:

The Master of Sustainability Science and Society (MSSAS) is a high-quality graduate program based on innovative and effective guiding principles of sustainability science: transdisciplinarity, experiential learning and community engagement. The structure of the program is sound. The programs offered by the Environmental Sustainability Research Centre (ESRC) are well integrated and offer excellent opportunities for graduate students at Brock in the burgeoning field of sustainability. Synergies are created by the MSSAS - Master degree program fed by the undergraduate Minor in Sustainability and in turn, the Master's program feeding the new PhD initiative. The ESRC, one of the five "transdisciplinary research hubs" of Brock, seems to be an ideal platform to support the transdisciplinary and sustainability priorities of the university. The small number of students in each cohort, the opportunities for students to work with local community organizations and take up Co-op placements, provide an excellent learning environment and service to the Brock region. All the metrics point to an extremely high-quality masters program supported by effective teaching, leadership, and scholarship. The support provided by the CCEE (Co-op) to the MSAAS students needs to be critically evaluated and modified to address problems reported by students. The university can make use of a number of opportunities available to expand the graduate (and undergraduate) sustainability programs.

B. Program Strengths

The reviewers noted the following strengths:

Transdisciplinary, experiential education, community engagement, partnerships - opportunities to co-create solutions to local sustainability problems in partnership with local organizations such as Niagara Parks. Unique opportunities for students, faculty and partnerships are presented by being located in a UNESCO Biosphere Reserve, the Niagara Escarpment Biosphere Reserve. The Master's program has taken full advantage of this opportunity by providing real world issues for students to address.

C. Opportunities for Improvement and Enhancement

Recommendation #1

Enhance Stream C of the MSSAS program.
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The Centre responded:

We believe the main intention of Recommendation #1 to be the addition of a course-based scheme to the SSAS program. Scheme C was approved as a Major Modification to the SSAS program by Senate on March 24, 2021. It responded to systemic challenges experienced by students as well as concerns expressed by multiple entities (i.e. the Program, Faculty of Graduate Studies, the Co-op Education Office) regarding the single MRP pathway in Scheme A (co-op) for student success. The associated changes were not motivated by pedagogical rationale nor intended to change the fit of the program within Brock. Insights about the success of the modification are not yet available due to the close proximity of this modification to the program review, challenges of the COVID-19 pandemic, and

limited number of individuals (two) enrolled to date.

The Program is supportive of exploring the recommendation of a course-based scheme, as it identified in Section 15.0 (Potential for Growth and Improvement) in the SSAS Self Study Submission - Volume 1. The reviewers raise several interesting possibilities in association with their recommendation, many of which were also considered by the Program in their own critical analysis (see Section 15 of the SSAS Self Study Submission - Volume 1). Each of the suggestions identified above) requires careful consideration as well as the collection of empirical evidence prior to the Program being in a position take a decision regarding the feasibility of the recommendation.

The Senate Graduate Studies Committee responded:

This recommendation is a pedagogical issue for the program to consider including expanding experiential learning, which also relates to recommendation #2. Future program changes fall within the purview of the Academic Review Committee (ARC)/IQAP.

The Vice-Provost & Dean, Faculty of Graduate Studies and Postdoctoral Affairs responded:

I agree that Scheme C has not yet had an opportunity to be evaluated due to the recent approval (two years ago). The Faculty of Graduate Studies and Postdoctoral Affairs (FGSPA) supports the program's approach to carefully consider and gather evidence. We will work with the program in any way that is helpful, supportive, and appropriate.

The Dean of Social Sciences responded:

The Dean's office is in support of the program's response to the reviewer's recommendation to explore the expansion of a course-based option in the Master of Sustainability Program.

ARC Disposition of the Recommendation

ARC considers the recommendation to explore the expansion of a course-based option (scheme C), to be accepted and in the process of implementation. The Committee believes that the program is best positioned to determine appropriate strategies to move forward.

Implementation Plan (First Priority)

Responsible for approving:	Centre
Responsible for resources:	Centre
Responsible for implementation:	Centre
Timeline:	Dean of Social Sciences to report by the end of academic year 2023/24.

Recommendation #2

Improve the Co-op experience for MSSAS students.

The Centre responded:

In carefully monitoring the program and student progress, the Graduate Program Directors (M. Carrey* and R. Plummer) and the Co-op Education Office observed the co-op portion of Scheme A (Co-op) as problematic soon after its inception. This has been reinforced by student feedback through informal dialogue (e.g., via the Graduate Program Student Representative and ESRC student surveys) and formal mechanisms (e.g., current and alumni student surveys - see Section 14 of the SSAS Self Study Submission - Volume 1). Students have brought the issue forward to the graduate program committee where it has

been vigorously discussed on multiple occasions. In year three of the program, R. Plummer (then, GPD) addressed co-op related concerns with leadership/staff of co-op, career, and experiential education (C. Krezek, J. Zhu, M. Beamer), who also shared their concerns. Efforts were made to address major concerns including concerted adjustments to curriculum, communications, and co-ordination between the program and co-op. Despite efforts and adjustments made by both parties, the program GPD (M. Carrey), Co-op office, ESRC staff, and students continued to experience substantive problems with the co-op program. The SSAS program added Scheme C (MRP, no co-op) to alleviate some of these challenges in 2021. Since that time, two Scheme A students transitioned to Scheme C of the program (MRP, no co-op) citing major challenges in securing a co-op position.

In addition to conversations initiated by the Program with the Co-op Office, the ESRC (GPD, faculty, and staff) has: 1) created co-op positions from existing partnerships (e.g., Town of Lincoln, Government of the NWT, Niagara Parks Commission, Facilities Management at Brock); 2) facilitated connections with employers in the field of sustainability (e.g., Niagara Region Conservation Authority, the Niagara Region, and the Niagara Parks Commission); 3) leveraged faculty member's connections; 4) hosted (e.g., [2022](#)), co-hosted (e.g., [2021](#)), and attended career panels and webinars for co-op students; 5) created [current](#) and [alumni](#) student profiles highlighting co-op positions; 6) directly addressed funding opportunities (i.e., [EcoCanada](#)) with students to facilitate the creation of co-op positions; 7) reminded the Co-op Office about funding opportunities for students in our program (e.g., [EcoCanada](#)); 8) worked closely with other units on campus to promote or enhance employment experiences of SSAS co-op students. For example, we have worked with the FOSS communications team to write [stories](#) about student employment successes; 9) used staff resources and paid student RAs to co-write about their co-op experiences in blogs [online](#); and, 10) organized unique educational learning experiences for existing co-op students (e.g., with Brock [TV](#)). The ESRC does not have the resources (faculty/staff) to sustain the aforementioned efforts. Doing so is also not the purview of the Program.

This is the **only** negative aspect of the SSAS Program identified by the external reviewers. It must be taken very seriously. The Program is greatly troubled by the systemic nature of the issue, negative impacts it has on the Program, and lack of improvement despite engagement with the Co-op Office and efforts identified above. The Program is thus compelled to take the reviewers' suggestion and will consider structural measures. Consideration of this matter must be undertaken carefully as ~65% of applicants to the program apply to Scheme A (MRP, co-op). While we do not wish to discontinue this scheme, the Program is staunchly committed to delivering a high-quality educational experience. There may be alternative avenues to support experiential pedagogy. As the reviewers indicated/advocated, one alternative is having dedicated staff within the ESRC to facilitate such opportunities and thereby support experiential education, which is the pedagogical hallmark of the program. The reviewers also acknowledge that providing experiential education opportunities is resource intensive. Continuing to facilitate the level of experiential education opportunities offered is not sustainable, as it exceeds the current staff complement. Dedicated staff to this end (among others) have been promised to our Centre, but have not materialized.

**M. Carrey, formerly M. Jollineau*

The Senate Graduate Studies Committee responded:

This recommendation relates to resources which are outside the purview of SGSC. However, it results from consistent feedback provided to reviewers about the need for enhanced/improved support for MSSAS students through the CCEE. As enhancing experiential learning is consistent with the strategic and academic plans, we are pleased to see this being brought to the attention of the respective Deans and more broadly to Senate.

The Vice-Provost & Dean, Faculty of Graduate Studies and Postdoctoral Affairs responded:

I agree that this is a serious concern for students and for the program. While CCEE falls outside of FGSPA’s purview, we will advocate and support initiatives that help to increase experiential opportunities for graduate students.

The Dean of Social Sciences responded:

The Dean’s office plans to work with ESRC and appropriate Faculty and University-wide representatives to improve the Co-op option for students in the Program.

ARC Disposition of the Recommendation

ARC considers this recommendation to be accepted for consideration by the Centre. The Committee encourages the Centre to work with the Dean’s office and the Co-op Office to determine appropriate strategies to move forward on this issue.

Implementation Plan (First Priority)	
Responsible for approving:	Centre and Co-op Office
Responsible for resources:	Centre and Co-op Office
Responsible for implementation:	Centre and Co-op Office
Timeline:	Dean of Social Sciences to report by the end of academic year 2023/24.

Recommendation #3

Make better use of Affiliate faculty, especially during admissions and assignment of supervisors.

The Centre responded:

The Program supports this recommendation and has/is taken the following steps in support of making better use of Affiliate Faculty:

- To increase the number of ESRC Faculty Affiliates a Brock-wide open call for applicants is circulated widely via the Office of Research Services each spring/summer.
- Each fall ESRC Faculty Affiliates are provided with program recruitment information and are encouraged to circulate this information within their networks. At this time, they are also asked to indicate their supervisory availability for the upcoming academic year, which is then added to their online profile.
- Applicants to ESRC Graduate Programs are asked to indicate their top three choices for faculty supervisors and are provided a link to faculty profiles with supervisory availability listed: <https://brocku.ca/esrc/ssas/#step-2>
- The Sub-Committee of the Graduate Program Committee meets once the application period has closed and identifies applicants who have met all requirements, etc. and identifies who may be offered admission. The ESRC Coordinator then reaches out to identified Faculty Affiliates to request that they review applicant files and confirm whether they will take on supervision of the applicant. Faculty are also asked at this stage if they are willing/able to provide funding for applicants should they be admitted to the program. Funding may come in the form of research fellowships, or as paid research assistantships.
- Faculty are regularly invited to the SSAS 5P04/SSCI 7P03 Transdisciplinary Seminar course as participants, or to present sustainability-related research. The first seminar of the Fall/Winter

term is held as an opportunity for Faculty Affiliates to introduce themselves and/or their research to the new cohort of master's students.

- All Faculty Affiliates are included on ESRC Weekly Round Up messages that include various opportunities for graduate students. These messages were previously only sent to faculty who were supervising a student in the program, and we now encourage all faculty and students to share items and opportunities that they wish to circulate to the group.

The Senate Graduate Studies Committee responded:

This recommendation relates to an application review procedure for the program to consider. This suggestion provided by the reviewers may also relate to recommendation #6 regarding workload and support for affiliated faculty.

The Vice-Provost & Dean, Faculty of Graduate Studies and Postdoctoral Affairs responded:

I commend the work that the program has done to address this recommendation. Admissions is delegated to each program, and I appreciate the efforts made by the program to engage affiliate faculty members.

The Dean of Social Sciences responded:

The Dean's office supports the program's response to the reviewer's recommendation to make better use of Affiliate Faculty in the program.

ARC Disposition of the Recommendation

ARC considers this recommendation to be accepted and in the process of implementation. The Committee also understands that workload decisions are outside of the Centre's jurisdiction and that the implementation of this recommendation is closely related to recommendation #6.

Implementation Plan (First Priority)

Responsible for approving:	Centre
Responsible for resources:	Centre
Responsible for implementation:	Centre
Timeline:	Dean of Social Sciences to report by the end of academic year 2023/24.

Recommendation #4

Explore opportunities for offering the program virtually.

The Centre responded:

As stated in response to Recommendation #1, the suggestion identified above requires careful consideration as well as the collection of empirical evidence prior to the Program being in a position to take a decision regarding the feasibility of the recommendation. It is also imperative that the opportunities infrastructure is in place to host either virtual or hybrid programming for all students within Brock and beyond. It is widely understood that Canadians living in rural areas have some of the most unreliable and most expensive internet, which is an important consideration in response to this recommendation.

The Senate Graduate Studies Committee responded:

This is a pedagogical issue for the program to consider. This direction is consistent with Brock’s new academic plan.

The Vice-Provost & Dean, Faculty of Graduate Studies and Postdoctoral Affairs responded:

Mode of delivery falls outside of FGSPA’s purview.

The Dean of Social Sciences responded:

The Dean’s office is in support of the program’s response to the reviewer’s recommendation to explore opportunities for increasing virtual offerings in the program.

ARC Disposition of the Recommendation

ARC considers the recommendation to be accepted for consideration by the Centre.

Implementation Plan (First Priority)

Responsible for approving:	Centre
Responsible for resources:	Centre
Responsible for implementation:	Centre
Timeline:	Dean of Social Sciences to report by the end of academic year 2023/24.

Recommendation #5

Expand Indigenous content, Indigenous students, and Indigenous Faculty.

The Centre responded:

The Program fully supports this recommendation and identified it as an important opportunity and aspiration (see Section 3.4 of the SSAS Self Study Submission - Volume 1). The Program initiated a meeting with Mac Orlando, Indigenous Education Developer, CPI in May 2022. A robust discussion occurred at that meeting regarding many aspects of decolonization and Indigenization in relation to the SSAS program. This was the first meeting in an ongoing and evolving dialogue. As a next step, J. Baird, M. Carrey, and A. Smits participated in the Indigenous Ways of Teaching and Learning workshop offered by CPI last month term. CPI has generously offered support and guidance to the Programs as they move forward with their commitment to advancing Indigenization. J. Blythe has participated in the Decolonial Reading Circle 2022/2023, hosted by Dr. Robyn Bourgeois Brock’s Vice-Provost, Indigenous Engagement. In an effort to advance equity, diversity, and inclusion (EDI) within the Centre, all home unit faculty and staff are reviewing [Bias Interrupters](#) and [Intercultural Awareness and Competence](#) - resources suggested by Dr. Trecia McLennon, Brock’s Director of EDI Culture and Education in Human Resources during a meeting in January 2023.

The Senate Graduate Studies Committee responded:

This is a pedagogical issue for the program to consider. It is consistent with Brock’s sustainability objectives, strategic plan, and new academic plan.

The Vice-Provost & Dean, Faculty of Graduate Studies and Postdoctoral Affairs responded:

I fully support this recommendation and once again commend the program for their initiatives in this space.

The Dean of Social Sciences responded:

The Dean’s Office supports the program’s response to the reviewer’s recommendation to expand indigenous content, students and faculty.

ARC Disposition of the Recommendation

ARC considers this recommendation to be accepted and in the process of implementation, as part of their overall efforts under Brock’s Strategic Plan Pillar #4: *Fostering a culture of inclusivity, accessibility, reconciliation, and decolonization*. The Committee also understands that any specific implications for the hiring of indigenous faculty fall outside of its purview.

Implementation Plan (First Priority)

Responsible for approving:	Centre
Responsible for resources:	Centre
Responsible for implementation:	Centre
Timeline:	Dean of Social Sciences to report by the end of academic year 2023/24.

Recommendation #6

Promote support of and rewards for affiliate faculty by their “home” units to participate fully in the program.

The Centre responded:

The Program fully supports this recommendation to Brock University. The program has engaged with the Dean of the Faculty of Graduate Studies on multiple occasions to explore opportunities to support affiliate faculty engagement with the SSAS program, given some of the challenges noted in Section 16, Volume 1 of this review. Despite these challenges, the program participated in a survey entitled “Disciplinary and Crossdisciplinarity in Grad Programs at Brock” in September 2022. The program subsequently provided substantive feedback on a draft report on cross-disciplinarity at Brock in February 2023.

Whenever possible, the program promotes support for Affiliate Faculty by featuring their research in the annual ESRC Year-in-Review, and/or sharing their research accomplishments via ESRC social media accounts. In addition to the open call noted under Recommendation #3 above, the program also invites Brock faculty to be affiliated with the Centre via the FOSS Monthly Update each Fall term. Since this review, the program welcomed two new Faculty Affiliates from the Goodman School of Business.

Beyond these types of engagement, promotion, and recruitment, we note that these matters are beyond the purview SSAS Program Committee.

The Senate Graduate Studies Committee responded:

This recommendation relates to resources which are outside of the purview of SGSC. Workload and compensation are covered by the Collective Agreement between BUFA and the University. Alterations to load are possible within the Collective Agreement in consultation with Faculty Deans. SGSC recognizes the demands on affiliated faculty to meet workload requirements in their home departments, in addition to their contributions to transdisciplinary programs. We are pleased to see this being brought to the attention of the respective Deans and more broadly to Senate.

The Vice-Provost & Dean, Faculty of Graduate Studies and Postdoctoral Affairs responded:

I fully support this recommendation and agree that this is work that is beyond the program. FGSPA initiated the survey and focus group meetings mentioned above and the subsequent report. We are working on an implementation strategy. FGSPA continues to advocate for faculty members participating in transdisciplinary (and other cross-disciplinary) programs and is working with the Provost, Deans, and other stakeholders to find ways to remove barriers. This is a top priority for FGSPA and it aligns with the Academic Plan.

The Dean of Social Sciences responded:

Encouraging support for faculty to affiliate with programs, such as the Master of Sustainability, that cross Faculty boundaries is under discussion across the University as part of increasing collaboration among Faculties.

ARC Disposition of the Recommendation

ARC considers this recommendation not to be accepted, as it is outside of the jurisdiction of the Committee but is nonetheless worthy of consideration. It is expected that the Program will proceed through normal channels of advocacy to link with faculty members participating in transdisciplinary (and other cross-disciplinary) programs such as theirs.

Implementation Plan

Recommendation not accepted as it lies outside of the Committee's jurisdiction.

Recommendation #7

Consider expanding the sustainability minor to a major.

The Centre responded:

The ESRC offers undergraduate courses and the Minor in Environmental Sustainability so as to enable all students at Brock an opportunity to study this important subject matter. Eight students who have taken undergraduate courses and/or declared the Minor have entered the SSAS Program.

Creating a new undergraduate degree program is beyond the purview of the SSAS Program Committee.

The Senate Graduate Studies Committee responded:

This recommendation pertains to expansion of the undergrad minor and is outside the purview of SGSC.

The Vice-Provost & Dean, Faculty of Graduate Studies and Postdoctoral Affairs responded:

This is about undergraduate programming and is outside the purview of FGSPA.

The Dean of Social Sciences responded:

Discussions on the possibility of collaborating with other undergraduate units to expand sustainability program offerings at the undergraduate level have been initiated.

ARC Disposition of the Recommendation

ARC considers this recommendation not to be accepted, as it is outside of the jurisdiction of the Committee, and as the Centre noted, beyond the purview of the SSAS Program Committee.

Implementation Plan

Recommendation not accepted as it lies outside of the Committee's jurisdiction.

D. Summary of Recommendations:

First Priority:

Recommendation(s) 1-5

Not Accepted:

Recommendation(s) 6,7