

**FINAL ASSESSMENT REPORT**  
**Institutional Quality Assurance Program (IQAP) Review**

**School of Geography and Earth Sciences**  
**Undergraduate and Graduate Programs**

**Date of Review:** March 3 -5, 2014

*In accordance with the University Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response and assessments of the undergraduate and graduate programs delivered by the **School of Geography and Earth Sciences**. This report identifies the significant strengths of the programs, together with opportunities for program improvement and enhancement, and it sets out and prioritizes the recommendations that have been selected for implementation.*

*The report includes an Implementation Plan that identifies who will be responsible for approving the recommendations set out in the Final Assessment Report; who will be responsible for providing any resources entailed by those recommendations; any changes in organization, policy or governance that will be necessary to meet the recommendations and who will be responsible for acting on those recommendations; and timelines for acting on and monitoring the implementation of those recommendations.*

**Executive Summary of the Cyclical Program Review of the Programs in the**  
**School of Geography and Earth Sciences**

In accordance with the Institutional Quality Assurance Process (IQAP), the School of Geography and Earth Sciences submitted a self-study in January 2014 to the Associate Vice-President, Faculty and the School of Graduate Studies to initiate the cyclical program review of its undergraduate and graduate programs. The approved self-study presented program descriptions, learning outcomes, and analyses of data provided by the Office of Institutional Research and Analysis. Appendices to the self-study contained all course outlines associated with the program and the CVs for each full-time member in the School.

Two arm's length external reviewers, both from Ontario and one internal reviewer were endorsed by the Dean of Science, and selected by the Associate Vice-President, Faculty and Associate Vice-President and Dean of Graduate Studies. The review team reviewed the self-study documentation and then conducted a site visit to McMaster University on March 3 - 5, 2014. The visit included interviews with the Provost and Vice-President (Academic); Associate Vice-President and Dean of Graduate Studies; Associate Vice-President, Faculty, Associate Dean, Graduate Studies (Science), Director of the School and meetings with groups of current undergraduate, Ph.D. and MSc students, full-time faculty and support staff.

The Director, School of Geography and Earth Sciences and the Dean of Science submitted responses to the Reviewers' Report (May/June 2014). Specific recommendations were discussed and clarifications and corrections were presented. Follow-up actions and timelines were included.

McMaster's Quality Assurance Committee (QAC) reviewed the above documentation and the committee noted that it is great to read that several of the issues identified in the report have already been

addressed. Budget issues are in a wait-and-see mode for the University's new budget model; however, the School has successfully sought external support. Internal communication appears to be improving with more frequent faculty interaction being reported. It appears that the faculty teaching load assignments are under a wait-and-see mode, pending the outcome of an Academic Planning exercise.

The QAC also noted that the issue of antirequisites is currently being resolved. The TA issue is one that all departments and schools struggle with across campus, and their Curriculum Committee is working on resolving this with TA schedules and specifying TA requirements.

QAC recommends that the program should follow the regular course of action with an 18-month follow-up report and a subsequent full external cyclical review to be conducted no later than 8 years after the start of the last review.

The QAC recognized that the resolution of some issues and weaknesses in the department are dependent on greater clarity of direction from bodies outside the SGES. At the 18-month review point, the committee hopes that these external directions are clear and that SGES would have already proceeded to implement concrete steps to resolve some of the issues, which are currently in suspended mode.

The Final Assessment Report was prepared by the QAC to be submitted to Undergraduate Council, Graduate Council and Senate (February 2014).

In their report (March 2014), the Review Team provided feedback that describes how the undergraduate and graduate programs in the School of Geography and Earth Sciences meet the Institutional Quality Assurance Process (IQAP) evaluation criteria and are consistent with the University's mission and academic priorities. In their report, the Review Team members highlighted that the quality of the school's faculty, staff, and graduate and undergraduate programs is exemplary and of very high quality. Overall, students expressed a high level of satisfaction with their learning experiences. Faculty and staff are highly committed to teaching and research. The reviewers noted that the key future challenge will be to maintain or minimize the erosion of the high standard of teaching and scholarship across the current breadth and depth of subject areas in the face of likely budget reductions.

The following program strengths and weaknesses were noted:

### **Strengths**

The following strengths were identified: an innovative high quality-learning environment is evident in the report using, for example, the problem-based learning approach. Related is the high level of student satisfaction, evident by student comments at both the undergraduate and graduate levels. The SGES is commended on going to great lengths to solicit student feedback. Of note as well, is the exemplary and high quality faculty in SGES.

### **Weaknesses**

A key concern of the reviewers is the lack of specific details in fixing identified issues. For example, while there are mandatory field trips in the program, they appear to be insufficiently supported. Prior reviews identified rising costs and lack of spaces on these trips. Students have, apparently, been disappointed by not having appropriate field experience, and disadvantaged in terms of employment opportunities. The report indicates a co-op or internship plan might help. It should be an urgent focus of the SGES to demonstrate how this lack of field experience is being addressed, whether through

internships, or other means. Intermediate actions should perhaps be considered, while waiting for the formal process to implement a 2016/17 co-op program. This school is favourably viewed by its students (both graduate and undergraduate) and hopefully this temporary issue can be resolved.

In a similar vein, taking action on the lack of coherence and availability of graduate students' course concerns should be addressed. Resolving this will be related to the issue of equitable spread of teaching load, which is pending the results of the Academic Plan.

The Dean of the Faculty of Science, in consultation with the Director of the School of Geography and Earth Science shall be responsible for monitoring the recommendations implementation plan. The details of the progress made will be presented in the 18-month Follow Up Report and filed in the School of Graduate Studies and in the Associate Vice-President, Faculty's office.

## **Summary of the Reviewers' Recommendations with the School's and the Dean's Responses**

### **Recommendations**

#### **1. Provide for more flexibility while maintaining fairness in the allocation of the teaching responsibilities for regular faculty.**

**Response:** The school advised that it would strike a committee to re-examine the allocation of teaching loads within the School after the Dean's Academic Plan has been released. This will allow the School to evaluate teaching duties within the context of the Faculty of Science Plan and the new budget realities.

**Responsibility for Following Up:** Director of SGES

**Timeline:** Update at 18-month report

#### **2. Review the current Teaching Assistant allocation to ensure an appropriate balance between effectiveness and efficiency in program delivery is met.**

**Response:** Through the Undergraduate Curriculum Committee, SGES will examine how it allocates TAs to courses, particularly given that the number of TA positions will remain fixed. TA guidelines will also be published so that both faculty and graduate students have a better understanding of how allocations are made.

The Dean noted that the recent Academic Planning exercise also identified TA allocation as an issue that merits study. The Faculty will look to address this issue in future.

**Responsibility for Following Up:** Director of SGES and Dean of Faculty of Science

**Timeline:** Update at 18-month report

#### **3. Introduce paid co-ops and internships as part of the undergraduate programs.**

**Response:** In April 2014, SGES initiated discussions with the Faculty of Science's Science Career and Cooperative Education (SCCE) Office regarding the possibility of paid co-op opportunities, particularly with respect to earth and environmental students. SCCE will develop a prospectus on co-op opportunities over the summer of 2014, which will be brought forward to the Undergraduate Curriculum Committee and the SGES Faculty during the Fall of 2014.

**Responsibility for Following Up:** Director of SGES

**Timeline:** Follow up at 18-month report

#### **4. Address budget constraints**

**Response:** SGES will work with the Dean's office to implement plans, with the acknowledgement that the delivery of undergraduate and graduate programs, and the resources to do this, remain a priority. SGES will also proceed on its own in terms of addressing its budget issues. Beginning with the 2014/15 budget, the School has said that it will cut 'discretionary' spending by approximately 50%. SGES will also be looking carefully at teaching duties and the number/variety of courses taught. The Undergraduate Curriculum Committee will look at opportunities to teach courses in alternating years in order for faculty resources to teach other courses, and reduce the need to hire CLAs or sessional instructors to cover courses.

SGES will also actively seek out other funding opportunities. This will include Research Chair opportunities and working with Alumni Advancement. The School is currently having discussions with program alumni to fund a seminar series and/or field courses.

The Dean advised that one likely outcome of the Academic Planning process is the establishment of a Faculty-wide minimum undergraduate teaching load. Also, the Academic Planning Committee will likely recommend units review the necessity of offering very low enrolment courses.

**Responsibility for following up:** Director of SGES with Dean of Faculty of Science

**Timeline:** Update at 18-month follow up

## **5. Establish appropriate anti-requisites**

**Response:** The School noted that the Undergraduate Curriculum Committee would review anti-requisites as part of its yearly review of the undergraduate program.

**Responsibility for Following Up:** Director of SGES along with the Undergraduate Curriculum Committee

**Timeline:** Update at 18-month follow up

## **6. Improving Internal Communication**

**Response:** SGES will continue discussions with faculty regarding budget issues throughout the year. Faculty groups in main areas in SGES will also be required to meet to work out teaching duties. More broadly, the School will explore ways to further improve internal communications within the School.

**Responsibility for Following Up:** Director of SGES

**Timeline:** Update at 18-month follow up

## **7. Offer a BA from the Faculty of Science**

**Response:** The School agreed that a funding agreement between the Faculty of Science and the Faculty of Social Science is a priority. A substantial number of students originate from Social Sciences, while other students move from the B.Sc. in Environmental Science to the B.A. program in Environmental Studies. Many of the B.Sc. students participate in cross-listed classes, including classes in the GIS stream, and therefore benefit from the interdisciplinary environment these classes offer.

The Dean highlighted that a key issue going forward will be to address how the B.A. program can continue to operate within the constraints of the new budget model. Currently, the Faculty of Science delivers the majority of the teaching for this program but receives a relatively small proportion of the revenue. The Dean noted that the university's documentation on the new budget model recognizes this is an area of concern and proposes the relevant Deans reach an agreement on an appropriate way to share revenues and costs. The Dean acknowledged that the reviewers identified housing the B.A. program within the Faculty of Science as another solution to this challenge. The Dean stressed that it is unclear which path will be followed; however it is a high priority issue for the Faculty of Science to address in the near future.

**Responsibility for Following Up:** Dean, Faculty of Science

**Timeline:** Follow up at 18-month report

**8. Ensure the best use of staff resources across the Department, Faculty and University.**

**Response:** The School noted that the SGES is stretched and noted that it would look for opportunities to integrate aspects of the School's supports with the staff and services available at Faculty or McMaster levels. The School stressed that it was not aware of such opportunities at this time, but acknowledged that some may arise in the coming months with the Academic Plan.

**Responsibility for Following Up:** Director, SGES

**Timeline:** Follow up at 18-month report

**Quality Assurance Committee Recommendation**

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