



Cyclical Program Review of the Guelph-Waterloo Centre for Graduate Work in Chemistry and Biochemistry

Follow-up Report on the Implementation Plan

[Insert report submission date]

The review took place during the [eg 2016-2017] cycle.

The final stage of the cyclical program review is a follow-up report describing the progress to-date on the agreed upon implementation plan. Complete the table below and include further information, if necessary. The Chair/Director responsible for the program(s) under review is responsible for completing the table and, prior to final submission to the [Senate Committee on Quality Assurance](#), will review this with the Dean and Associate Deans (Academic and/or Graduate Studies and Research) of the applicable College. For interdisciplinary programs with joint management responsibility, the submission should be reviewed with all relevant parties. For programs with a joint external partner, the submission should be reviewed by the joint partner. For interdisciplinary and joint programs, the signature page must include the relevant Chair/Director/Dean from the partner academic unit and/or partner institution.

SCQA reviews the submission and reports to Senate per the [University's IQAP](#). If necessary, reports may also be shared with other relevant Senate Committees/Boards (ie Board of Undergraduate Studies, Board of Graduate Studies).

Questions on follow-up reporting, this template or the cyclical review process may be directed to the [Office of Quality Assurance](#).

Updated Implementation Plan: Briefly describe the status of each recommendation (completed, in progress, incomplete) and provide rationale for any alterations to the original implementation plan.

#	Recommendations	Proposed Follow-up	Responsibility for Leading Follow-up	Original Timeline for Completion	Status and Updated Timeline with Follow-up Plan
1.	Faculty Renewal at Guelph	3 new positions to be filled	Department Chair	January 2017	<p>Guelph: 1 faculty position was filled in 2017 at the full professor level (Prof. Aicheng Chen, CRC-Tier1) and another was filled in 2018 (Prof. Khash Ghandi associated with Prof. Tremaine's Industrial Research Chair). 3 additional appointments were recently made at the Assistant Professor level (Dr Leanne Chen (computational chemistry), Dr Rui Huang (NMR Spectroscopy and protein dynamics), Dr Derek O'Flaherty (RNA/DNA replication)); the new faculty will join the Department in Mar-Sept 2020.</p> <p>Waterloo: Since 2017, 3 appointments were made at the Assistant Professor level (Dr Rodney Smith (electrochemistry), Dr Anna Klinkova (nanomaterials), Subha Kalyaanamoorthy (computational biochemistry)). The department is seeking to fill a faculty position in analytical chemistry in 2021. With the current department age demographic, it is anticipated there will be ~1 faculty hire/year for the next ~10 years.</p>
2.	Link rooms update	Task force formed in Feb 2017	GWC Director / Task Force	Summer 2018	<p>Ongoing videoconferencing facilities and support remain a critical requirement for GWC2 programs.</p> <p>Guelph: Full replacement of all communications equipment in MainLink and MiniLink. Phase 1 was</p>

					<p>completed in Summer 2017; Phase II was completed in Summer 2018.</p> <p>Waterloo: >10 yr old CODEC from Guelph used to upgrade MainLink.</p> <p>Staff support is Joe Mignacca (Guelph, university wide audio-visual support) and Paul Miskovsky (Waterloo, director, information technology).</p> <p>Commitment for maintenance of existing equipment is in place. The equipment in the MainLink at Waterloo is functional but limited in current capabilities and lifetime. It is clear there is an upcoming need for new videoconferencing capabilities, but there is no plan in place to meet this important need to support ongoing GWC2 graduate courses, comprehensive exams, committee meetings, and seminar series.</p>
3.	Admission of International students increased at Guelph		University	Ongoing	<p>Implementation of a sustainable internationalization plan is the responsibility of the Provost's office.</p> <p>Guelph: Increased International Student enrollment is planned as part of the University of Guelph's Strategic Mandate Agreement 3, but details are not yet official. Currently all international PhD students who maintain >80% average have differential fees waived.</p>
4./ 5.	New graduate courses	Curriculum committee formed	Director / Dept Chairs	Fall 2018	<p>Course curriculum committee formed in 2018. A plan has been made and is in the process of being implemented to enhance graduate training in written and oral communication skills and professional development. A pilot course (CHEM 7100/710: Manuscript Writing) including e-learning is being developed by Prof Kathryn Preuss (Guelph) in Winter 2020 and will be offered</p>

					Summer 2020. New core courses in communication (including revising CHEM 7940/794: Masters Seminar) are in development for approval in 2020.
6.	Raise profile and brand awareness	New website	Director	Fall 2017	New GWC2 website was launched in March 2018, business cards, GWC2 flyer, Facebook page / Twitter. Social media presence remains only weakly developed due to the exchange of student leaders but is expected to expand in Winter 2020. Guelph will follow the Waterloo model of providing Departmental support for maintaining Faculty member web profiles.
7.	Integration between campuses		Director	Spring 2017	GWC2 graduate student club formed; undergrad/grad socials; continuing GWC2 seminar series. CFI application for Free Electron Laser based at Waterloo includes both campuses.
8.	Staff transition	New hires	Dept Chairs	Fall 2017	Guelph: Lisa O'Dwyer was hired as Graduate Program Assistant in Summer 2017; Dan D'Aoust was hired into a regular full time position in the Chemistry Stockroom, and Karen Ingram has been transferred from the College of Biological Sciences to Chemistry as the regular full-time Stockroom Assistant. Rick Ford was hired as Chemistry's Software Manager and Web Support Staff. No other retirement replacement hires to date.
9.	Students offices separated from labs		University and Departments	2018	Guelph: MacN-West Phase 1 renovations were completed in Summer 2017; this created flexible common spaces on each of the four levels in MacN-West, and no students now have offices in the MacN-West laboratories. All workstations in MacN-West were replaced in December 2019 as part of the Phase 2 budget. Chemistry students in Summerlee Science Complex already have office spaces

					separate from laboratory spaces. Shared student office space will be created in Summer 2020 for Chemistry students in MacN-East.
10.	Reduce MSc completion time		Director / Chairs	2017	Guelph: Funding from Provost's office for students expires at end of eligibility period (2 years MSc, 4 years PhD), providing financial incentives for appropriate timelines. Guelph is exploring a 4+1 BSc+MSc program to streamline and accelerate the transition to graduate, see also 2.5 below. Revisions to graduate courses (see 4./5. above) are being designed to reduce MSc completion time.
11.	Recruitment		Director	2018	Recruitment committee formed and met several times in 2018. Undergraduate socials in late Fall 2018 were expanded to include outside undergraduate students. Guelph is exploring the possibilities of expanding the number and quality of summer internships available to the College and the Department. 2020: Guelph is exploring developing website promotional videos.
12.	Increase Centre resources to reduce workload	Increase staff	Department / University	2017	GWC2 streamlined comprehensive and Guelph streamlined routine student reporting paperwork through adoption of online document workflow systems. Resources for workload have been somewhat improved through hiring of Graduate Program Assistant (see 8. above).

The Department Chair/Director, in consultation with the Dean, is responsible for monitoring the Implementation Plan on an ongoing basis.

If necessary, use the following sections to include any additional, relevant information.

1. Explain any circumstances that have affected the original implementation plan:

1.1) Change of Directorship (to Waterloo) was to be effective September 2018, however, did not take effect until January 2019. The previous Director (at Guelph) stayed on in the interim.

1.2) Faculty renewal at Guelph was delayed (see 1. above).

2. Address any significant developments or initiatives that have arisen since the cyclical review, or that were not considered during the review:

2.1) The University of Guelph has begun the process of replacing its 300 MHz NMR system that is used extensively for undergraduate teaching and graduate students' research. Product and vendor selections are expected in early 2020. The University of Waterloo obtained CFI funding in 2019 for a new console for the 600 MHz NMR (installed Jan 2020) and a new 300 MHz system (to be installed Spring 2020); both instruments are used very predominantly for research, including training of many graduate students.

2.2) The Surface Analysis facility at the University of Guelph (managed by the Electrochemistry Technology Centre) has been upgraded by a new higher throughput electron analyzer (~\$200K); a funding application has been made to improve the sample handling systems (~\$175K).

2.3) New faculty office furnishings have been purchased upon demand at the University of Guelph; all faculty offices in MacN-West will have been renovated by the end of Summer 2020.

2.4) The completion of the MacN-West renovations in Sept 2020 will bring the Guelph facilities into full workplace compliance.

2.5) The University of Guelph is actively exploring the creation of a '4+1' streaming option for strong students that would lead to a combined undergraduate and Master's degree in a total of 5 years, and provide gifted students with enhanced access to the research facilities and projects of the Department. This 'managed enrollment' would help us to identify the strongest students in our programs, and it would serve as a recruiting tool for our programs. This '4+1' pathway has the support of the Assistant Vice-President (Graduate Studies) and is being considered at the College level. Once a framework is established, the Department of Chemistry at Guelph will assess its viability and implementation with GWC2.

Date of Next Program Review:

April 2023

Date

Signatures of Approval:



Feb 10 2020

Chair/Director

Date

Bob Lemieux

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Dean

Date

Many thanks
Dean College of Engineering and Physical Sciences, U Guelph