

Continuous Improvement through Self-Assessment

Approved by Faculty of Engineering, June 5, 2018

Approved by Dean's Council, November 28, 2017

1 Preamble

Our objective is to encourage faculty members to reflect upon their contributions to our student centred research focused Faculty and University and, whenever required, help them identify opportunities to work with Department and Faculty leaders to enhance these contributions. Such a *self-assessment* process would provide faculty members with the opportunity to gauge their effectiveness in accomplishing their roles as educators, mentors, researchers, and members of a diverse, dynamic, engaged, collaborative and collegial community.

McMaster University has formal evaluation processes in place for *tenure and promotion* and for determining *CP/M scores*. These processes evaluate, in a prescribed way, the performance of a faculty member in the areas of research, teaching and service with respect to stated metrics at a given time and for a specific purpose. The proposed self-evaluation process bears some resemblance to both in its scope, but with an entirely different process and purpose. The purpose is for faculty members to achieve their fullest potential as members of the McMaster community, through increased *self-awareness* of their role in the Faculty and with support and guidance from their Chairs. The process is individually-driven as any *self-awareness* process must be. It is anticipated that through robust and healthy conversations between faculty members and their Chairs, new resources and opportunities will be identified to support the further development of faculty careers, enhancing the vitality, reputation and success of the Faculty of Engineering. Unit leaders must be involved in supporting faculty members, helping them to articulate feasible growth plans and fostering conditions for faculty members' personal and collective success.

The Faculty of Engineering derives its well-deserved reputation as one of the top Engineering faculties in Canada, through the contributions of its faculty members and the synergies between them. It also aspires to continue to improve its performance as a Faculty through initiatives driven by its leadership and by increased success of its faculty members. While the career of any individual faculty member is complex and multi-dimensional, the self-assessment process is predicated upon the assumption that benchmarking is a necessary and useful tool to evaluate and monitor career growth, providing meaningful feedback for continuous improvement. At the same time it is recognized that there are qualitative measures not well captured by quantitative data and that different research disciplines have different community norms.

2 General Expectations of Faculty Members

To provide an overall context for specific performance indicators, we outline the general expectations for faculty members in the Faculty of Engineering:

a) Research

Every *tenure track* faculty member and every research-active *tenured* faculty member is expected to have a robust externally-funded research program. That normally includes supervision of graduate students and dissemination of research results through peer-reviewed publications or equivalent engineering or applied science contributions.

Tenured faculty members are expected to show leadership in their research community and play significant roles in facilitating major research grants.

b) Teaching

Faculty members must effectively discharge their teaching responsibilities at the under-graduate and graduate levels. These responsibilities include the thoughtful selection and arrangement of course topics and materials, lecturing, leading class and seminar discussions, assisting students during office hours, timely and helpful marking of student submissions (especially when written feedback is provided to students), meeting deadlines for setting examinations, and designing examinations that permit accurate assessments.

Tenured faculty members and those with permanence are expected to provide a more significant contribution to undergraduate or graduate teaching or curricula, or contribute to significant pedagogical innovation. Examples include leading or partnering in providing significant and innovative course design, utilizing technological developments in teaching, development of a new academic program, or making significant improvements to an existing academic program.

c) Service

The service required from an untenured faculty member is different from that expected from one who is tenured. However, all faculty members are expected and required to provide unit, Faculty and University service, including regular attendance and participation in the work of assigned committees and at Department meetings. Service also includes participation in thesis examinations within and outside the unit.

Tenured members are expected to provide more significant service to their units, Faculty and the University. Examples include chairing of major committees, significant counselling or mentoring responsibilities, or service to the profession, e.g. by assuming executive responsibilities for a professional society, organizing a major conference, or frequent work as an external examiner for

other institutions. Editorship of top journals and participation on program committees of highly ranked conferences are encouraged.

3 Self-Assessment Process

In September of each year, the Faculty of Engineering will circulate a document with statistical data summarizing key *performance indicators* for the research, teaching and service activities of members of the Faculty. Indicators for each major activity are listed in the Appendix and are likely to evolve over time. This data will provide individual faculty members an objective basis against which to compare their own performance, aiding in the process of continuous improvement. The data will include benchmarks of other excellent universities and aspirational targets for the Faculty. The benchmarks will assist faculty members to identify areas where they themselves find their performance to be satisfactory and other areas where they might improve. Therefore, the document does not put into place a bar for excellence; rather it is intended to *guide self-assessment*. It is provided as a tool for faculty members who are committed to continuous improvement. By providing targets, our objective is to enhance the career paths and impact of our faculty members, therefore of the Faculty, based on key measurement elements used by peer and aspirational institutions. Individual faculty members will also recognize that many factors, including disciplinary differences and stage of career, will affect performance with respect to the norm at any given time. Faculty members should consider areas in which they would like to grow and practical supports that would help them achieve that growth. Our intention is to help faculty members *become self-aware* within the Faculty of Engineering, and identify opportunities and remedies when required.

[Optional] By December of each year, the Chair is expected to meet individually with each member of the Department to discuss the member's self-assessment regarding their standing with respect to the indicator data provided by the Faculty. Normally, only one issue will be raised in each of the areas of research, teaching and service. This conversation is expected to result in support and advice for the faculty member to improve in self-identified areas. Additional meetings may be arranged at any time at the initiative of the faculty member. The meeting is non-disciplinary in nature and does not form part of the faculty member's employment record. This meeting is distinct in time and purpose from the opportunity for the faculty member to discuss CP/M scores with the Chair after they are finalized each year (in May).

4 Conclusion

We provide these guidelines to help faculty members contextualize their academic performance based on agreed-upon Faculty-wide indicators of aggregate current performance and Faculty aspirations. We note that the indicators are not comprehensive and emphasize that they are intended for the purpose of self-assessment. While they involve quantitative metrics to provide an objective means for evaluating research, teaching, and service productivity, the targets for performance must not be considered rigid and static. Otherwise, they will cease to be useful and may even be counterproductive.

An overemphasis on quantitative metrics can pressure faculty members into pursuing quantity at the expense of quality, leading to potential cutting of corners, which would be harmful to the Faculty and our community. *Any assessment of overall academic performance must be underpinned by an understanding of the breadth, complexity, multidimensionality and convergence of research, teaching and service.* Therefore, to reflect our shared spirit of compassion and commitment to self-improvement, this self-assessment guide should itself be revisited periodically by the Faculty.

Appendix: Faculty performance indicators (to be circulated on an annual basis)

We seek to balance simple indicators with the complexity of a faculty member's academic activities. The chosen indicators are designed to be simple enough to allow those who evaluate themselves to verify whether they meet a target. Emphasis is placed on *self-awareness, self-regulation and fostering improvement*. Hence, we eschew complex algorithms and seek simplicity with the major indicators identified below.

The Faculty will provide department-based and Faculty-based data, peer data from other institutions (if available), and aspirational targets based on the online Record of Activity form launched in 2017.

Research

- **Publications**
 - Publications: number and venue
 - Cumulative 5 year h-index:

- **Graduate Supervision**
 - Number of Ph.D. completions:
 - Current supervision:
 - Authorship of publications

- **Research Income**
 - NSERC DG: funding level, % holding DG
 - Pro-rata income other than NSERC DG per year:

Teaching

- Units taught, students taught, at Undergrad and Graduate levels
- Student evaluations: context with respect to class size and Level
- Peer evaluation of teaching: frequency
- Contributions to undergraduate or graduate teaching, curricula, or a significant pedagogical innovation

Service

- Committee participation: number and time commitment at each level
 - Department
 - Faculty

- University
- Non-committee service:
 - Thesis examinations, within and outside unit, member/Chair
 - MAsc, PhD level
- Service to the research community and professional associations:
 - Granting council committees
 - Editorial boards
 - Conference organizing committees
 - Working committees of professional societies
 - Reviewing articles, grants and other peer review