TEACHING QUALITY AND CULTURE AT THE UNIVERSITY OF WATERLOO

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2016-2017 Feds Academic Affairs Commissioner
THE FEDERATION OF STUDENTS

Since 1967, the Federation of Students (Feds) has existed as the official voice of undergraduate students of the University of Waterloo.

In that capacity, Feds undertakes activities both on and off campus to serve, empower and represent students. Feds operates seven commercial services, six student-run services, encompasses more than 200 clubs, supports student societies, and oversees Orientation Week, Welcome Week and a number of other special events held on campus.

Feds lobbies the government on behalf of undergraduates and ensures positive relationships between students and the municipality. Feds is a founding member of The Ontario Undergraduate Student Alliance (OUSA), as well as the collective Federal student advocacy group made up of U15 schools. Feds’ day-to-day operations are run by an elected executive team composed of a President and three Vice Presidents: VP Operations and Finance, VP Internal, and VP Education. They, in turn, are held accountable by an elected Board of Directors, and a Students’ Council comprised of representatives from each Faculty and College at the University of Waterloo.

ACKNOWLEDGEMENTS

The Commission would like to thank the University of Waterloo Teaching Fellows and the Centre for Teaching Excellence for their cooperation with and contributions to the development of this report.

ABOUT THE ACADEMIC AFFAIRS COMMISSION

The Academic Affairs Commission of the Federation of Students exists to:

1. Promote the furtherance of a superior academic environment at the University of Waterloo, that both recognizes the rights of students and produces high quality graduates;
2. Support Students’ Council by providing information and assistance with policy development on academic matters;
3. Assist the Vice President, Education, with their annual advocacy priorities, insofar as those priorities pertain to the student academic environment.

The Commission fulfills its mission by adhering to the following core principles:

1. Carrying out all advocacy efforts in a manner consistent with the Federation of Students’ mission, values, and policies.
2. Relying on students to be the primary drivers and leaders of all advocacy efforts, wherever possible.
3. Performing all functions within a framework of transparency and accountability.

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1.0 BACKGROUND

1.1 Understanding the Issue

Effective teaching is a fundamental component of student learning. An excellent instructor can engage students both one-on-one and as a class to elevate the content of the course in ways that are both interesting and relevant. By contrast, a poor instructor can disrupt and even discourage student learning. Any university that claims to produce world-class graduates, therefore, must be able to claim with equal validity to be an institution of world-class teaching.

It is thus crucial to understand and be aware of the institutional factors that promote and sustain excellence in teaching. It is also beneficial to examine the University's openness to innovation in teaching, particularly the ways that the campus environment brings students and teachers together in unconventional ways.

Understanding the answers to these questions will allow us to identify "gaps" in the University's teaching culture, and design approaches to overcome barriers to quality.

1.2 About the Report

Pursuant to its core mandate and its 2016-2017 Action Plan, the Academic Affairs Commission began an investigation into teaching quality and culture at the University of Waterloo in June 2016.

The findings and recommendations in this report are the product of a series of meetings between the Commissioner, several University Teaching Fellows, and personnel from the Centre for Teaching Excellence, combined with a review of various reports and literature on teaching quality and culture referenced in Section 6.0. The report seeks to answer the following questions:

1. How should students conceptualize the idea of a "teaching culture" on their university campus? How can the University of Waterloo and the Federation of Students work to foster such a culture?
2. What defines the instructional environment at Waterloo? Does the environment promote high-quality, adaptable, student-focused teaching?
3. What are the primary barriers, if any, to a true "culture of teaching" at Waterloo?
4. What changes to Waterloo's institutional policies and practices are needed to better promote superior teaching and an innovative learning environment?

1.3 Executive Summary of Findings

It is impossible to talk about Waterloo's teaching environment without talking about the six Faculties. Recruitment, support, and evaluation of instructors varies widely between Faculty units. Even the Teaching Fellows program, established to "raise the profile of teaching" at the University, has been implemented in a manner suiting each Faculty, rather than with a view to campus-wide projects. New instructors do not necessarily receive training in teaching, though the Centre for Teaching Excellence is available to assist them.

Little support is available for TAs in teaching roles, though some Faculties run an orientation.
2.0 DEFINING TEACHING CULTURE

In order to understand the concept of a “teaching culture,” we must first explain the broader concept of institutional culture. Culture is non-uniform—it may be perceived differently by different stakeholder groups within the institution (i.e. students, faculty, staff). There are many different factors that organize and maintain culture within an educational institution, from its core mission, governance structure, and leadership style, to its academic standards, student-faculty relations, location and physical environment. Thus we may infer that a “culture of teaching” emerges when the institutional culture fosters an environment that recruits, produces, and rewards high-quality instructors. In other words, the institution’s core characteristics must prioritize growth in teaching, and assessment of teaching.

Of course, there is no universal set of rules defining “quality” teaching. However, we may offer some working characteristics. Quality teaching incorporates effective curriculum design, a multitude of learning contexts, and deliberate feedback, in order to produce meaningful learning outcomes. A quality teaching environment assesses its learning outcomes regularly, and ultimately creates a transformative experience for the student. It is reasonable to assume that, while institutional culture in itself neither prohibits nor guarantees quality teaching universally, the prevalence of quality teaching at an institution is inevitably linked to the cultural environment.

Waterloo’s Centre for Teaching Excellence is a participant in a multi-year, multiinstitutional project designed to quantify and assess the teaching culture at several Ontario universities, including Waterloo. To avoid overlap with such a highly comprehensive project, the scope of the remainder of this report is limited to an examination of University operating policies, practices, and structures that are likely to affect the teaching culture, and the context for quality teaching.

3.0 THE TEACHING ENVIRONMENT AT UWATERLOO

3.1 Institutional Structure and Attributes

The University of Waterloo’s academic environment is divided across six Faculties, each of which observe their own behavioural and pedagogical norms, maintain their own policies, and hold different attitudes towards teaching and learning.

In 2012, following the release of an institution-wide report on teaching and learning, the University established the Teaching Fellows Program in order to “raise the profile of teaching” on campus. Each Faculty devised its own process for selecting its Teaching Fellow, and envisioned a role for their Fellow that was unique to their particular academic environment. Consequently, the role of the Teaching Fellows has varied widely and their successes and failures are difficult to track. However, we can make certain inferences regarding institutional values towards teaching based on some of the differences between Faculties. For instance, the Faculty of Medicine established the position of Associate Dean, Teaching, and gave the teaching fellowship to the individual in that role, suggesting a desire to accord teaching quality and instructional support a place of institutional administrative prominence within that Faculty’s culture. It is noteworthy that such a position does not exist in any other campus Faculty.

A 2015 report by the Teaching Fellows noted that little was being done on a campus-wide basis to ‘raise the profile of teaching,’ and noted difficulty encouraging the University’s senior administration, as well as the department chairs in their own Faculties, to engage with the program. Of particular interest is the fact that the Teaching Fellows program itself was developed without any mechanism for periodic assessment or review. They also expressed concerns that the climate at Waterloo, much like that at other large high-profile universities, was one that prioritized research ahead of teaching instead of valuing the two together. The Teaching Fellows did not offer substantial evidence to corroborate such a claim beyond their own personal experiences, though an analysis of other University-published documents lends some support to their concerns, as this report discusses in Section 4.4.

The University maintains a support unit on campus dedicated exclusively to instructional support and teaching improvement. The Centre for Teaching Excellence provides evidence-based pedagogical support to over 1000 faculty on-campus, and hosts hundreds of workshops on topics related to teaching and course design, while researching ways to effectively define and promote teaching culture on-campus. It should be noted that uptake in CTE activities by faculty members is not universal across campus— for instance, in 2015 only 115 unique individuals from the (sizeable) Faculty of Mathematics participated in CTE workshops, while 135 individuals attended from the (smaller) Faculty of Science. Interviews with certain Teaching Fellows suggested differing attitudes towards the CTE in different Faculties.

Overall, the teaching culture at Waterloo is highly decentralized, and varies widely across different Faculty units. Such an approach has certain advantages, but also creates challenges in light of broader institutional priorities, as this report explores in Section 4.1.
3.2 Support for New Instructors

Waterloo offers various supports for new full-time instructional appointees, but the structure, quality, and nature of the support varies widely between Faculties. All the Teaching Fellows the Commissioner met with noted that it was normal for them to reach out to new appointees early to offer support and assist with integration efforts. Such assistance might include a referral to the CTE, an offer to review a lecture, or an invitation to a teaching workshop within the Faculty. For example, the Faculty of Engineering, it is mandatory for all new instructors to take the ‘Fundamentals of University Teaching’ courses offered by the CTE, and in Environment it is standard for new faculty to not begin teaching until the second year of their appointment, allowing them a year to adjust to the research environment and to attend the CTE’s workshops if they so choose. The terms of reference for the Faculty of Mathematics’ Teaching Fellow indicate a plan to develop a new instructors’ orientation program.6 The CTE itself offers not only its four ‘fundamentals’ courses, but also tailored support for new instructors in each Faculty, via a staffer hired specifically for that purpose.

Other than the aforementioned Engineering exception, most training for new instructors is not mandatory. In most cases it is encouraged, and anecdotal evidence from the Teaching Fellows suggests the uptake is usually high. Personnel within the CTE tend to discourage the notion of mandatory participation in their workshops, on the grounds that the critical self-reflection necessary to achieve genuine professional development must be self-motivated in order to be effective. Such a point is well-taken; it is also worth remembering that not all new instructors are first-time instructors, and thus a mandatory “one size fits all” approach to training may be inappropriate.

Overall, support is available at Waterloo for new instructional appointees wishing to develop their teaching abilities, but the uptake and value of that support is uneven across the different Faculties. Such unevenness may prove problematic in situations where the instructor is a tenure-track or tenured appointment hired primarily for their research abilities, or in Faculties or departments with a less teaching-focused culture. It is also important to remember that part-time (sessional) instructors do not enjoy the same teaching supports within the department, as this report explores further in Section 4.2.

3.3 Teaching Evaluation and Feedback

The University of Waterloo requires all instructors to undergo regular assessment of their teaching abilities, and requires the evidence for said assessment to come from a broad range of different sources. The results of the assessments ultimately feed into decisions on reappointment, tenure, and promotion.7 One important form of teaching assessment in all Faculties is a student evaluation of teaching, conducted in each class at the end of the academic term. However, the nature and effect of these evaluations varies between each Faculty. Since May 2014, the Commission has been involved in a University-led project to modernize and centralize the course evaluations instrument and to collect aggregate data from those evaluations. There seems to be general cross-faculty consensus that the collection of student feedback on teaching is important.

The Commissioner’s investigations revealed that most Faculties have made it a standard practice to involve the Teaching Fellow in the teaching evaluations process in some form. Generally, that involvement would include providing the Fellow with copies of the numerical scores from the student evaluations, and having them participate in peer evaluations of teaching. The purpose of this involvement was to enable the Fellow to provide constructive – and non-threatening – feedback and advice to their peers regarding the quality of their teaching.

In the event that assessments indicate an instructor is struggling to teach well, there are limited contingencies available. Ordinarily it is expected that the Department Chair – and potentially the Teaching Fellow – will meet with the instructor to discuss the potential issues with their teaching (using the anonymous written comments from the student evaluations as a guide), and identify avenues for improvement. The Centre for Teaching Excellence offers tailored personal and workshop-based assistance to any instructor wishing to improve their teaching. However, in situations where the instructor does not care to improve their teaching, and is protected against dismissal due to poor evaluations (i.e. tenured faculty), there is no form of mandatory remediation currently in place.

3.4 Incentives for Innovation

Aside from the potential positive assessments of teaching to boost the likelihood of tenure and promotion, there are modest financial incentives tied to positive assessment results as well. Most Faculties also manage a teaching awards program, in addition to the Universitywide Distinguished Teaching Awards, which are administered by the Centre for Teaching Excellence. The Federation of Students also presents an Excellence in Undergraduate Teaching Award, overseen by the Commission. These awards rely on community nominations, and some include a cash prize. Awards like these ones recognize and draw attention to innovation in teaching, and serve as examples for other instructors of ways they might experiment with unconventional pedagogical methods.

Outside of the indirect incentives provided by the various teaching awards programs, there are few means by which innovative teaching is actively encouraged at Waterloo. That said, it is encouraging to see encouragement on-campus to incorporate experiential education into course design, and the Commission hopes to see more initiatives like this in the future. This report will discuss barriers and potential disincentives to teaching innovation throughout Section 4.0.
4.0 BARRIERS TO TEACHING INNOVATION

4.1 A Fractured Culture

As this report highlighted throughout the previous section, Waterloo’s teaching environment, and the experiences of students and instructors alike, can fluctuate dramatically between Faculties. There are certain benefits to this Faculty-specific ‘siloculture,’ especially in the way it accommodates discipline-specific pedagogical tailoring. Nevertheless, the drawbacks are significant, for several reasons.

Treating Faculties as autonomous units limits the potential for transdisciplinary research, which in turn negatively impacts interdisciplinary thinking in the classroom. In order to be exposed to a variety of different perspectives and academic backgrounds, students must pursue multiple courses in different Faculties. Only a few programs on campus easily allow such behaviour.

Allowing each Faculty to follow their own historical practices and processes in recruitment, evaluation, and training makes it difficult to collect or assess data across campus, depriving senior administration of key metrics it might use to assess the quality of its own scholarly environment. Attempts to centralize such collection are slowed considerably by the necessity of collaborating with each Faculty.

Finally, Faculty-based ‘siloculture’ makes it difficult for anyone to embark on a teaching and learning career – those related to teaching and learning – to come to fruition. In principle, each Faculty unit is expected to adopt an implement the Institution’s strategic priorities, but – due to the issues mentioned in the previous paragraph – success vs. failure are difficult to measure. Furthermore, different interpretations of and individual disagreements with central initiatives may cause the ground-level outcomes of those initiatives to deviate significantly from the original intent of senior administration.

All of the above has a significant impact on students’ academic experiences. It reduces teaching quality, makes it difficult for students to gain experience beyond their own academic discipline, and minimizes the power of the institution to solve problems quickly. Such a system is an active barrier to the training of high-quality graduates.

4.2 Precarious Instructional Appointments

Much of the teaching environment this report discusses in Section 3.0 assumes that the instructor in question is a faculty appointee (definite term, continuing lecturer, tenure-track, or tenured). However, for the instructors of many undergraduate courses on campus, that is not the case. Many instructors are sessional hires, who work – typically on a parttime basis – to teach 1-2 courses per term.

Sessional instructors are not unqualified – often they are excellent teachers and highly educated PhD/ Master’s graduates. However, they turn over frequently, and often teach at multiple institutions. They also do not exist in the same research environment as regular faculty, so students in classes taught by sessionals may not be exposed to the same cuttingedge research and pedagogical techniques as their peers in classes taught by full faculty. Furthermore, the limited presence of sessionals on campus deprives their students of the opportunity to form mentoring and support relationships that will last throughout their degree and enhance the quality of their learning (and consequently the likelihood of future success).

One teaching fellow indicated that sessionals also tend to be naturally incentivized against teaching innovation, out of fear that attempting an unconventional approach will yield poor evaluations from the class they teach (thereby reducing their chances of being rehired).

4.3 Limited TA Support

Teaching Assistants are often a critical component of a typical student’s learning environment, and many TA’s engage in teaching activities. Unfortunately, for TAs in most Faculties, the training and support they receive is minimal. Discussions with the Teaching Fellows revealed that some Faculties do offer TA orientation programs. Unfortunately, such programs are not always mandatory, and they are usually unpaid. The Centre for Teaching Excellence also welcomes TA participation in their “Fundamentals of University Teaching” courses. However, the courses take a total of approximately 21 hours to complete, which may be daunting for students when no compensation is being offered for that time.

It ought to be noted that the Commissioner’s interactions with CTE personnel identified an eagerness within that unit to expand TA-focused programming. Most issues relating to TAs stem from the fact that they are too-frequently left out of conversations about teaching quality and innovation. However, they are an integral component of the teaching culture, and should be trained and compensated accordingly.

4.4 Low Priority, Low Profile, Limited Data

Despite the establishment of the Teaching Fellows program to “raise the profile” of teaching on-campus, teaching is not accorded a high profile by the University – especially in relation to research. The immediate effect of teaching evaluations is widely variable between Faculties, and the actual role that teaching plays in tenure and promotion decisions is uncertain. Success stories in teaching are rarely highlighted in the University’s core communications.

The extent to which the university’s teaching successes are celebrated on campus is ultimately reflective of overarching institutional priorities. This is evident in Waterloos Strategic Plan, where there are few mentions of teaching. A further indicator of problems with the institutional teaching culture is the lack of a desire by senior administration to collect and respond to data about Waterloos specific teaching outcomes. Though Waterloo periodically collects NSSE survey data, the nature of that data is broad, rather than institutionally-focused, and the metrics it assesses are not always the metrics Waterloo needs to assess. As a result, it is difficult to determine the extent to which innovative techniques incorporating meaningful opportunities for experiential growth are actually being applied in the classroom – or the extent to which students perceive such techniques being applied. The Commission also again notes the lack of metrics or planned evaluation of the Teaching Fellows program, which was meant to be the primary driver of the ‘profile of teaching’ at Waterloo. Ultimately, visible buy-in from senior management is crucial to developing an effective campus teaching culture. Waterloo has had some successes in this area, but there is much room for improvement. In order to produce meaningful incentives for innovation in pedagogy, the University must evolve to take an active interest in data collection regarding teaching and learning outcomes, to communicate success stories in teaching, and to emphasize teaching as much as research in its strategic goals.
5.0 CONCLUSIONS AND RECOMMENDATIONS

The University is home to many high-quality teachers, and countless staff who deeply care about improving student learning. However, the development of culture that truly embraces and celebrates excellence in teaching and the joy of learning, is hindered by a divided community, budgetary constraints, and skewed institutional priorities.

There are some signs of positive improvement. The Commission notes, with delight, that the CTE has received strategic plan funding for the purpose of hiring a Communications Associate, whose role will be to draw attention to teaching and learning excellence across the institution. It is also pleasing that the CTE is undertaking a comprehensive assessment of the key indicators of campus teaching culture, and the Commission eagerly anticipates the results of that research.

The Commission would also like to acknowledge the efforts of the University's Associate Vice President, Academic to champion academic excellence and high-quality teaching. These efforts were highlighted in discussions with the Commissioner by all University personnel involved in this report. Such work is necessary and appreciated, and it is a cause for concern that the same teaching-focused attitudes have not yet permeated the rest of the University's Executive Council, Senate or Board of Governors.

In order to foster truly innovative practices in teaching, the importance of quality academic instruction must be a central priority for the University's upper administration. The role of the Teaching Fellows should be clearly defined across all Faculties, evaluations should be standardized, and the reliance on precarious sessional appointees should be reduced.

Following from the evidence and analysis provided in the previous sections of this report, the Commission hereby presents the following recommendations for the general improvement of teaching quality and culture at the University of Waterloo:

**Recommendation #1:** The University should mandate that all new faculty appointees and TAs with teaching responsibilities complete the CTE’s “Fundamentals of University Teaching” course, with an optional exemption for faculty appointees who have previously taught university classes for one year or more. TAs should be paid for their participation.

While the Commission recognizes the role of the CTE as a centre of professional development, it is crucial that new, inexperienced instructors and teaching assistants be trained to adhere to a certain minimum set of institutional standards. Implementing mandatory training – as has been done in the Faculty of Engineering – will highlight the importance of teaching as part of the institutional culture, and guarantee that no instructor enters the teaching environment unsupported.

**Recommendation #2:** The University should implement a centralized standard teaching evaluation process for all instructors on-campus.

The Commission again notes the work of the University's Course Evaluations Project Team, including the draft report released in December 2016. In the Commission’s opinion, the recommendations of that report are sound, rooted in evidence, and should be implemented in all Faculties.

However, student course evaluations are only a single method for assessing teaching. The University should explore various methods of instructional evaluation, and ultimately implement a consistent program across campus.

**Recommendation #3:** Tenure and promotions decisions should be based on long-term trends in evaluations (including teaching evaluations), rather than reductive measures like average scores which heighten the risk of acting unconventionally.

As discussed in this report, one significant barrier to teaching innovation – particularly with regards to sessional instructors – is the fear that a single set of poor course evaluations will significantly impact the possibility of reappointment or promotion. Evaluations are a crucial tool in assessing an instructor, but they must not be looked at in isolation. The University should consider trends in evaluations over a period of time (for instance, a period of three consecutive academic terms) when assessing teaching quality.

**Recommendation #4:** The Office of the Associate Vice President, Academic, should develop a central terms of reference for the Teaching Fellows program to be used in all Faculties, that highlights specific accountabilities for the Teaching Fellows and mandates periodic reporting from and assessment of the program, the results of which would be presented to the University Senate.

There is a significant lack of clarity surrounding the nature and purpose of the Teaching Fellows program. Though the role has evolved to suit each specific Faculty, it is impossible to assess whether the program has achieved its goal of “raising the profile of teaching.” A centralized terms of reference and defined periodic evaluative process will be instrumental in establishing a long-term institutional focus on teaching and learning outcomes.

**Recommendation #5:** Innovation in teaching should be accorded equal prominence to innovation in research in the design of the University's next Strategic Plan.

The Commission acknowledges that Waterloo is a research-intensive University. However, prominence must be accorded to teaching in order for the research to have any meaning. A Strategic Plan with a genuine focus on teaching will send a strong message to the campus community that learning matters at Waterloo.

**Recommendation #6:** The University should explore opportunities to highlight successes in teaching at an institutional level, and incorporate such stories into marketing and recruitment materials.

The Centre for Teaching Excellence cannot be solely responsible for drawing attention to teaching excellence. The University's promotional material frequently discusses breakthroughs by campus researchers – it should also highlight the unique practices of the campus' best instructors.

**Recommendation #7:** The University should develop a survey instrument to assess perceptions of innovative and experientially-grounded pedagogical practices in the classroom.

Experiential learning is already an institutional priority. A survey instrument developed inhouse will allow the University to take the logical next-step in assessing its own strategic outcomes, while providing a valuable benchmark for changes in Waterloo's teaching environment.
Recommendation #8: The Centre for Teaching Excellence should expand support for TAs, and engage in routine discussion with student representatives regarding campus issues in teaching and learning.

The Centre for Teaching Excellence is one of the most powerful advocates for teaching culture at Waterloo. They are well-poised to offer support to Teaching Assistants. However, they are often unaware of student perceptions and lived realities on-campus. The Commission proposes closing the gap by establishing a regular dialogue between the Federation of Students and its affiliated student societies, and the CTE.

Recommendation #9: The University should impose a limit on the number of sessional instructors a department can hire in a given term, relative to the number of faculty available to teach.

Over-reliance on sessionals should be discouraged. Capping the number of sessionals a department can hire will reduce student exposure to temporary hires and create pressure to ensure tenured and tenure-track appointees teach as many courses as possible. It will also require Faculties to prioritize funding for long-term appointees.

Recommendation #10: The University Budget should prioritize funding for new long-term faculty appointees.

The new resource allocation model will fundamentally change the way the Faculties approach budgeting and the setting of financial priorities. To reduce the reliance on precarious appointments, it is essential that future efficiencies be used to aid the recruitment of new long-term instructors.

6.0 REFERENCES

SELECTED NOTES

1. Erika Kustra et al., Teaching Culture Indicators: Enhancing Quality Teaching (Toronto: Ministry of Training, Colleges, and Universities, 2014), 6-7.
2. Ibid, 7.
4. Ibid, 9-11

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RECOMMENDED CITATION:

To Serve, Empower, and Represent the Undergraduate Students of the University of Waterloo

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