Faculty of Science
Faculty Guidelines

Approved by:

- **Provost July 18, 2023**
- **Faculty of Science Council May 23, 2023**

June 9, 1993 Striking Committee
September 27, 1993 Executive Committee
January 21, 1994 Dean's Advisory Council
February 7, 1994 Dean's Advisory Council
May 16, 1994 Dean's Advisory Council
July 22, 1994 Striking Committee
September 27, 1994 Executive Committee
October 11, 1994 Faculty of Science Council
April 11, 1995 Executive Committee
April 25, 1995 Faculty of Science Council
March 25, 1996 Executive Committee
April 26, 1996 Faculty of Science Council
September 6, 1996 Executive Committee
October 11, 1996 Faculty of Science Council
April 8, 1997 Executive Committee
April 22, 1997 Faculty of Science Council
September 23, 1997 Dean's Advisory Committee
September 30, 1997 Executive Committee
October 14, 1997 Executive Committee
October 21, 1997 Faculty of Science Council
October 8, 1998 Faculty of Science Council
April 20, 1999 Executive Committee
April 29, 1999 Faculty of Science Council
August 25, 2000 Executive Committee
September 26, 2000 Executive Committee
October 17, 2000 Faculty of Science Council
September 5, 2001 Executive Committee
September 19, 2001 Faculty of Science Council
December 9, 2003 Faculty of Science Council
April 21, 2005 Executive Committee
May 5, 2005 Faculty of Science Council
April 23, 2020 Executive Committee
May 5, 2020 Faculty of Science Council
May 2, 2023 Executive Committee

A. Introduction 4
B Faculty of Science Guidelines Relation to GFC Handbook Part B: Criteria for Appointment, Renewal, Transfer, Tenure, Promotion, and Merit Assessment 4
B.1 Criteria for Research and Scholarship, Teaching, and Service 4
B1.1 General Considerations 5
B1.2 Recognizing Systemic Barriers 5
B1.3 Recognition of Diversity of Career Paths 6
B1.4 Activities in Other Departments Within the Faculty and in other Faculties 6
B2 Guidelines for the Interpretation of the General Criteria for Research and Scholarship, Teaching, and Service 6
B2.1 Research and Scholarship 6
B2.2 Evaluation Guide for Research and Scholarship 7
B2.3 Responsibilities of Heads in Evaluating Research and Scholarly Activity 8
B3 Teaching 9
B3.1 Evaluation Guide for Teaching 10
B3.2 Teaching and Research-Focused and Teaching-Focused Professorial Streams 10
B3.3 Responsibilities of Heads in Evaluating Teaching Activity 11
B4 Service 11
B4.1 Evaluation Guide for Service 12
B4.2 Responsibilities of Heads in Evaluating Service 13
B5 Effects of Leaves on Evaluations 13
B5.1 Evaluation including Leave Period (Research & Scholarship and Secondment Leave) 13
B5.2 Evaluation excluding Leave Period 14
B6 Requirements for Academic Staff Ranks and Streams 14
B6.1 General Considerations 14
B6.2 Requirements for Assistant Professor 14
B6.3 Requirements for Associate Professor 14
B6.4 Requirements for Professor 15
B6.5 Requirements for Assistant Professor (Teaching) 16
B6.6 Requirements for Associate Professor (Teaching) 16
B6.7 Requirements for Professor (Teaching) 17
B7 Criteria for Renewal, Tenure and Promotion 17
B7.1 General Considerations 17
B7.2 Tenure and Promotion in the Research and Teaching Professorial Stream 18
B7.3 Tenure and Promotion in the Teaching Professorial Stream 18
B7.4 Promotion to Professor or Professor (Teaching) 18
B7.5 Transfer Between Professorial Streams 18
B7.6 Additional Considerations for Renewal, Tenure and Promotion 18
B7.7 Renewal, Tenure and Promotion in Administration and Professional Streams 18

B8 Guidelines for Criteria for Merit Assessment 18
B8.1 Performance Expectations: Professorial Stream 19
B8.2 Performance Expectations: Teaching Stream 19
C Faculty of Science Guidelines Related to GFC Handbook Part C – Academic Appointments Selection Procedures, Position Posting, Expedited Procedures for Spousal and Strategic Hiring, Equitable and Inclusive Hiring Initiatives. 21
C1 General Considerations 21
C2 Position Posting 21
C3 Selection Procedures for Continuing Academic Appointments – Teaching and Research 21
C4 Selection Procedures for Academic Appointments – Administrative and Professional and Outside of Faculties 22
C5 Expedited Extraordinary Procedures for Spousal and Strategic Hiring 22
C6 Equitable & and Inclusive Hiring Initiatives 22
C7 Other Appointments 22

A. Introduction

The Faculty of Science Faculty Guidelines are established in accordance with:

- The Collective Agreement between The Governors of The University of Calgary and The Faculty Association of The University of Calgary (the Collective Agreement); and
- The General Faculties Council (GFC) Academic Staff Criteria & Processes Handbook (the GFC Handbook).

The Collective agreement provides procedures for merit, tenure, transfer, renewal and promotion. The GFC Handbook contains criteria for the assessment, tenure and promotion of academic staff. This document also specifies that each Faculty shall establish guidelines appropriate to their Faculty and that such guidelines be approved by the Provost and Vice-President (Academic)(see Part A3 GFC Handbook).

This document refines and interprets the criteria in the GFC Handbook for academic staff in the Faculty of Science, and must be read in conjunction with the GFC Handbook and the Collective Agreement.

Guidelines developed are to be periodically reviewed. **In the event that a provision in these Faculty of Science guidelines contradict the Collective Agreement or the GFC Handbook, the provisions in those documents shall apply.** Quotations taken from these documents that appear in this document are meant to provide additional context to narrative, but do not imply that specific sections of either the Collective Agreement or the GFC Handbook apply in isolation.

The purposes of these Faculty Guidelines and Procedures are to complement the GFC handbook and:

- Define standards of performance;
- Guide faculty members in career planning and establishing academic and professional goals;
- Provide direction for Faculty committees and heads making recommendations regarding recruitment, merit, tenure, and promotion.

The performance standards defined for the different academic ranks and streams may be used by Faculty members as a general guide to the expectations of the Dean and Faculty.

Faculty leaders should refer to these guidelines when mentoring and/or reviewing performance of early career faculty members. All senior faculty should make themselves available to assist faculty in developing, achieving, and updating career, academic, and professional goals.

In the years leading up to application for tenure, academic appointees are encouraged to meet with their Department Head at least biannually to engage in career planning, performance expectations, and performance review discussions. Similarly, regular discussions between the Department Heads, Directors, Associate Deans and academic appointees are a vehicle for planning successful applications for promotion at all ranks.

B Faculty of Science Guidelines Relation to GFC Handbook Part B: Criteria for Appointment, Renewal, Transfer, Tenure, Promotion, and Merit Assessment

B.1 Criteria for Research and Scholarship, Teaching, and Service

The Faculty of Science is a research-intensive Faculty committed to advancing discovery, innovation, entrepreneurship and knowledge translation, and to providing innovative teaching and learning to educate the next generation of science champions. As a Faculty, we are committed to the San Francisco Declaration on

Research Assessment (DORA) and will ensure research and scholarship activities are evaluated based on a broad range of quality and impact measures. The University of Calgary is a signatory to DORA.

We are committed to equity, diversity, inclusion, accessibility, and promoting a culture of wellness where all members of society can thrive in the Faculty of Science. As such, guidelines shall be applied in the spirit of addressing systemic barriers encountered by equity-deserving groups in Science.

B1.1 General Considerations

Academic staff of the University are expected to be active in three major areas:

- Teaching
- Research
- Service

The Faculty of Science uses performance in these areas in arriving at recommendations regarding the award of merit increments, tenure and promotion. Teaching and research comprise the majority of an academic staff member's effort and time, but service remains an important, valued and essential function. A high level of professional conduct is expected of all academic staff at all times.

The Faculty recognizes that a diversity of career patterns may exist. For example, because of regulations of external granting agencies, such as programs run through provincial and federal research chair programs (e.g., Canada Research Chairs, etc.), the normal activities of academic staff may be modified for all or a part of the reporting period. Assignment of these duties is the responsibility of the Head, subject to approval of the Dean or equivalent as outlined in Article 12 of the Collective Agreement. For purposes of assessment for merit increment, promotion and tenure the Faculty will make every attempt to judge fairly an individual's unique performance, while recognizing that the primary responsibilities to the University are teaching, research/scholarship and service.

Performance in these areas is evaluated by the Head of the Department, with advice from Directors of interdisciplinary programs and other relevant sources where appropriate. The amount of time and effort devoted to each of the three activities may change as an academic staff member progresses through the academic ranks and in accordance with the academic staff member's workload assignment. The Head of Department shall take into consideration the increasing expectations for performance with progressive rank when making the biannual recommendation for merit increments (refer to GFC Handbook Part B, sections 2 and 3).

For clarity, and in accordance with Article 29.2.2 of the Collective Agreement, the criteria for the merit assessment of academic staff members shall be applied in a manner consistent with the range and proportion of duties assigned to the academic staff member under Article 12 of the Collective Agreement. Further, merit shall be assessed on the full duties performed by the academic staff member.

B1.2 Recognizing Systemic Barriers

The Faculty of Science recognizes that systemic barriers may prevent academic staff members of equity-deserving groups from achieving career milestones such as Tenure and Promotion at the same rate and speed. The Faculty also recognizes that a diverse academic staff enriches the research and learning experiences of the entire campus and the greater community.

Examples of barriers can include explicit and implicit service expectations, particularly as academic staff members from equity-deserving groups often face additional expectations to act as mentors and role models, and to take on heavier loads of service and outreach responsibilities and at earlier stages of their academic career compared to those who are not from equity-deserving groups. People from equity-deserving groups also

experience systemic barriers and bias that impact ability to advance within a discipline, such as implicit and explicit discrimination (such as discrimination in peer-reviewed publications, grant allocations, teaching evaluations, etc.,). This can be particularly pronounced in disciplines where participation by people in equity-deserving groups is low and not reflective of the wider community context.

In preparing for renewal, tenure, promotion, and merit, the academic staff member – including those from equity-deserving groups – may include a narrative to provide context to reviewers and/or committee members as a means of raising awareness of barriers that may prevent the achievement of career milestones. Reviewers, the Head/Director, and committee members need to review academic work with a sensitivity and awareness of the impact of such barriers irrespective of whether the applicant has specifically mentioned them.

B1.3 Recognition of Diversity of Career Paths

The Faculty of Science acknowledges and appreciates diversity of career paths. While a record of achievement across teaching, research and scholarship, and service functions is required, the trajectory of career development is unique to the individual. Academic staff members are encouraged to reflect on the progress of their career pathway and can choose to provide a narrative for their development for renewal, tenure, promotion, and merit.

B1.4 Activities in Other Departments Within the Faculty and in other Faculties

Academic staff can be credited with activities that are carried out in other units within the Faculty of Science, and with other faculties. The Faculty values and recognizes interdisciplinary/transdisciplinary work that engages others from across the Faculty and the University in support of research outcomes, outputs, and impacts. We value academic staff sharing their expertise through teaching opportunities (e.g., approved courses, supervision) across the Faculty and the University in support of high-quality teaching and learning and interdisciplinary collaboration(s). Reviewers, the Head/Director, and Committee may take into account the increased demands on academic staff members that collaborations can create (such as increased meetings, wider knowledge requirements, additional time to prepare and train students and trainees, etc.).

B2 Guidelines for the Interpretation of the General Criteria for Research and Scholarship, Teaching, and Service

The Faculty of Science expects its academic staff to conduct themselves in a manner which is ethical, cooperative, collaborative, supportive, and constructive to the mission of the University, the Faculty and to each other.

The considerations below are to complement Criteria for Research and Scholarship, Teaching and Service as outlined in the GFC Handbook Part B Section 1 as it pertains to Faculty of Science.

B2.1 Research and Scholarship

As noted in GFC Handbook:

> *"Research and scholarship are major University functions. The primary concern of academic staff members and the University shall be the importance of high-quality research and scholarship and/or other creative or professional activities." (Part B, section 1.2.1).*

Therefore, it is important for academic staff to demonstrate consistent efforts and performance in fulfilling this function of the academic position. Research activity and performance should be consistent with rank and seniority. Research productivity and impact should expand and increase in importance and recognition as a faculty member's academic career develops, as indicated in the GFC Handbook Part B, section 2.1.2.

Research and scholarship vary across disciplines and fields and transdisciplinary contexts, encompassing a number of different modes, activities and achievements as outlined in GFC Handbook Part B, Section 1.2 and below. Regardless of output, a key criterion in assessing research performance and scholarship "*shall normally be measured by the quality, originality, innovation, impact, entrepreneurial spirit, knowledge engagement and community impact"* (GFC Handbook Section B 1.2.4). In keeping with our commitment to inclusive science and the San Francisco Declaration on Research Assessment (DORA), the value and impact of all research and scholarship outputs, in addition to peer-reviewed research publications, will be assessed for their quality and impact, rather than bibliometrics alone that may emphasize journal impact in isolation of other important factors. This includes considering the merit of all research and scholarship outputs as well as a broad range of qualitative impact indicators such as influence on policy and practice.

B2.2 Evaluation Guide for Research and Scholarship

The character of the research or scholarly activity differs between the Teaching and Research-Focused and Teaching-Focused professorial ranks, but the activities are not mutually exclusive.

Teaching and Research-Focused Professorial Ranks

Faculty members in the professorial teaching and research stream are expected to conduct research that creates new or advances knowledge, stimulates innovation and/or entrepreneurial activities, has national and international relevance and, where possible, has the capacity to influence policy, practice, and communities. Research and scholarly work are expected to reflect the academic staff member rank's expectations as outlined in GFC Handbook Section B 2.

As a research-based university, the University of Calgary is dedicated to both seeking and disseminating knowledge. The principle is to consider the impact of the work, with an emphasis on the creation of new knowledge that has been subjected to a review process and widely disseminated to both the scientific community and/or lay public. As academic staff progress in rank and career, the level of engagement with activities is expected to also increase (See GFC Part B, Section 2 and this document, B2.2). For those faculty in the teaching and research professorial ranks, these activities may include, but are not limited to:

- The quality, impact, and quantity of published work in refereed professional journals of international or equivalent repute. In some areas (for example in some fields of computer science), publications in prestigious refereed conference proceedings replace the journal article as the primary mode of dissemination of scholarship. Heads should note when this is the case when providing an evaluation;
- Where appropriate to the area, peer-reviewed workshops and symposia are understood to be equivalent in importance to peer-reviewed conferences;
- A technical report to a private or government agency, published or unpublished by that agency, and contributions to policy development through provision of scientific assistance or expert opinion, where evidence of peer review is provided;
- The receipt of significant research awards or grants either as an individual or as part of a collaboration, from a provincial, national or international peer-reviewed body;
- Meaningful or significant contributions on the development of large group grants, such as co-Principal Investigator on national or international network grants, can be used as evidence of national or international scholarly leadership;
- The award of sustained research grants and contracts from private, provincial, national or international bodies. Such awards will be accepted as peer recognition of the value of research carried out by the individual;
- Award of prizes, fellowships and scholarships arising from research endeavors are an indication of peer recognition;

- Invitations to deliver scholarly talks, keynote or major addresses to one's peers are a measure of leadership in the field;
- Knowledge translation that includes science communication;
- Creation of software and tools, and creation and dissemination of publicly available datasets;
- Presentation of peer-reviewed papers, at national/international conferences, symposia, and workshops;
- The authorship of a book is a time-consuming activity and may reflect considerable research expertise in the topic area. In particular, a senior level book, to be used at the graduate level or as a reference book, generally demands considerable research effort. Some texts may be evaluated as significant contributions to teaching or teaching scholarship, rather than research;
- Publications related to university-level teaching, e.g., a textbook, research paper, laboratory exercise;
- Obtaining patents and entrepreneurial activities can be an indication of scholarly activity;
- Participation in knowledge creation and relationship building that is engaged with Indigenous systems of knowledge and nations, communities, societies, and/or individuals that is disseminated and shared through ethically and culturally appropriate means. Indigenous engagement includes knowledge creation outcomes that are grounded in these areas but not necessarily as the culminating or final accomplishment of scholarly activities.

For merit, research activities will be appraised in the academic year they are published/awarded/produced (key outcomes, such as awards or publications, cannot be appraised twice).

Teaching-Focused Professorial Ranks

In the teaching-focused professorial ranks, research or scholarly activity is a *"… systematic study of teaching and learning processes, including the scholarship of teaching and learning"* (GFC Handbook Sections B 1.2.2.iii) and/or is "...*required to maintain currency in pedagogy and curriculum design of the relevant discipline or field as well as engaging in other scholarly professional or creative activities that strengthens and informs the academic staff member's knowledge base and expertise as an Instructor*" (GFC Handbook Section B2.5.2). Research and scholarly work are expected to reflect the academic staff member rank's expectations as outlined in GFC Handbook Section B 2.

When interpreting these articles in the Faculty of Science we realize that the scholarship required to maintain currency in the field may include forms of "scholarly research," but is not restricted to this activity. Academic staff in the Teaching-focused Professorial ranks may become involved in the development and dissemination of new teaching procedures, including inquiry-based, blended-learning, laboratory experiments and lecture demonstrations. These activities may require a high level of scholarly activity and original research if they are to be effected in a creative manner. Thus, scholarly activity in connection with assigned teaching duties is likely to be an important component of the duties of academic staff members in the teaching stream and should be documented appropriately for their Department Head and/or Director.

Other scholarly activities can also have a beneficial effect on professional careers and is encouraged but shall not replace teaching development activities. Such scholarly activity may be evaluated, for example, on the basis of publications in journals, books, or published reports, as outlined for those individuals in the Teaching and Research-Focused Professorial Ranks.

B2.3 Responsibilities of Heads in Evaluating Research and Scholarly Activity

The Head is responsible for evaluating, through consultation with colleagues and using expert opinion in the field, when necessary, the quality and impact of an individual's research or scholarly activity. *"In assessing research and scholarship activities, the Head or equivalent and the members of the FMC, should be attentive to the evolving and changing nature of research and scholarship, and the ways in which knowledge is produced and disseminated, as specified in the relevant Faculty Guidelines" (*GFC Handbook Section B 4.2.4). It is the

responsibility of the Head to ensure that the diverse research and scholarly activities for academic staff are assessed on their own merit and they consider a broad range of impact measures.

The assessment of research and scholarship activities shall be based upon expectations outlined in GFC Handbook Part B.1 and across different ranks and streams in Part B.2. In addition:

a) It is the responsibility of the Head to make a judgement as to what constitutes a full-length refereed paper based on the norms of the field. For example, an invited talk published, in full, in refereed conference proceedings, may qualify as the equivalent of a full-length paper as against, for example, a conference abstract or a short contribution which is only informally, if at all, refereed. When preparing any evaluation of scholarship, the Head should indicate an equivalence as appropriate to the discipline for those components being weighted as highly as journal publications;
b) The Faculty of Science recognizes the value that collaboration may bring to research projects, whether from student-supervisor interaction, from interdisciplinary projects, or from interaction with colleagues at the local, national, or international levels. There is no fixed formula used to evaluate an individual's contribution to a multiple author publication. Heads must be cognizant of each situation. At times, an explanation of the contribution by an individual to a research publication is required in order to evaluate scholarship and its impact. For this reason, it is important that faculty members provide their Heads with the information needed to assess their individual contributions;
c) In the case of evaluating reports to a private or government agency, care must be taken to avoid double counting of technical reports, contributions to conferences, abstracts, or invited talks if subsequently published in refereed journals as well. For this reason, it is important that academic staff provide Heads/Directors with information needed to assess the differential impact of these contributions.
d) In evaluating the quality and impact of research activity the Head can use supplementary information provided by the academic staff member, as appropriate.

B3 Teaching

A primary function of the University is to facilitate learning and to guide the next generation of learners on their educational path. The University of Calgary recognizes the importance of teaching and supports the use of various evidence-based and creative approaches to teaching by academic staff (GFC Handbook, Part B, Article 1.3). A commitment to a high-level of teaching effectiveness is expected. It is expected that faculty members will not only be effective educators with a strong commitment to quality teaching, but also that they will strive for excellence in all activities associated with teaching performance and accomplishments, including coordination, delivery, and evaluation of education.

Excellence in teaching involves preparation of creative, challenging, and inspiring courses; effective and interesting dissemination of knowledge embracing diverse learning strategies and pedagogy grounded in inclusive and accessible practices; modeling and encouraging critical analysis; promoting and sustaining students' intellectual inquiries; and role modeling professionalism for students, in the classroom, outside classes, and in research settings.

An important component of the teaching function for faculty members in the Teaching and Research stream is the effective supervision and timely graduation of graduate students. Supervision includes the mentoring of graduate students through regular meetings and research training to promote excellence in research and scholarship and skills acquisition. Graduate students must be supported in their applications to win awards and scholarships, obtain research funds, and develop track records in refereed publications, conference presentations, and international study. Supervision of postdoctoral scholars and other trainees can also be considered contributions to teaching.

The Faculty also recognizes other ways that academic staff members can enrich the outcomes and experience of trainees through informal mentorship outside of direct supervisory or classroom relationships, including mentorship for professional/career development, development of expertise in a particular area or technique, and teaching development.

B3.1 Evaluation Guide for Teaching

Success in this depends in part upon the teaching effectiveness of the academic staff. From the GFC Handbook, Part B, Section 4.3.2 (which pertains to merit assessment).

"Teaching expertise and effectiveness shall be assessed as part of the performance review for merit assessment purposes. Such evaluation should consider all ways academic staff members address their teaching responsibilities and interact with undergraduate or graduate students, post-doctoral scholars, and/or other trainees. Evaluations of teaching activities should also consider the extent of innovation, preparation, reflection and integration of current knowledge, level of interest, direction, and encouragement demonstrated by the academic staff member. Participation in teaching development programs and/or seeking expert opinion to assist in improving teaching and learning shall be viewed as an indication of commitment to teaching. In some disciplines, seeking the advice of Indigenous knowledge keepers should also be considered."

B3.2 Teaching and Research-Focused and Teaching-Focused Professorial Streams

Effectiveness in teaching may be achieved in a number of ways, but at a minimum will include (1) knowledge appropriate to the level of instruction and (2) the iterative development over time of their teaching practice. As academic staff progress in rank and career, the level of engagement with activities is expected to also increase (See GFC Handbook Section 2 and this document, B3.2). Additional activities that contribute to teaching effectiveness may include:

- Involvement in a diversity of courses, for example courses at both undergraduate and graduate levels;
- Significant redesign of existing courses and programs;
- Development and implementation of new programs, courses or course content to reflect current advances in sciences, needs of the community and incorporation of equity, diversity, inclusion, and accessibility (EDIA) in best teaching practices;
- Development of software procedures and/or apparatus for demonstrations and exercises in experimental and computational science with appropriate documentation for users;
- The application of current and new technologies to enhance teaching and learning;
- Mentorship of colleagues to improve quality of teaching;
- Engagement with and leadership of professional learning and development related to teaching and learning;
- The supervision of undergraduate research projects;
- Formal and informal supervision and mentorship of graduate students;
- Membership on supervisory committees and on examination committees within the Faculty and other faculties across campus and other universities;
- Student advising and general accessibility for undergraduate and graduate students;
- Supervision of post-doctoral scholars and research assistants;
- Informal mentorship of graduate students, postdoctoral scholars, research assistants and other trainees that enriches or enhances their experiences and outcomes.

For merit, teaching activities will be appraised in the academic year they occur.

While it is recognized that it is a challenge to capture all aspects of a teaching role, every effort will be made to consider the various dimensions of this academic role. According to the GFC Handbook, Part B, Article 4.3.3:

"Assessment of teaching activities shall be multi-faceted and, in particular, shall not be based primarily on any one method of evaluation. No single tool or activity is sufficient to assess teaching expertise and effectiveness. Multiple sources of evidence shall be used to obtain a holistic picture of the teaching expertise and effectiveness of the academic staff member. This may include self-reflection, examples of student work and achievements, multiple sources of student feedback, teaching awards and nominations, peer review and observation, sample course design and assessment materials, teaching innovations, presentations/publications in teaching, professional learning related to teaching, examples of success in mentorship and supervision, and educational leadership activities, as well as any other assessments provided by the academic staff member to the Head or equivalent."

B3.3 Responsibilities of Heads in Evaluating Teaching Activity

Individuals should be able to present evidence of their contributions to, and accomplishments in teaching.

As outlined in Appendix 28A of the Collective Agreement, "*A teaching dossier is a document that contains carefully selected and assembled materials which are reflective of one's preparation, thoughtfulness, and innovation in teaching, and represent evidence of one's achievements in teaching."* The materials required from all applicants for promotion and tenure are outlined in Appendix 28A of the Collective Agreement, including the requirements for the submission of a teaching dossier. The general requirements for teaching and teaching evaluation are also outlined in Part B, sections 1.3 and 4.3 of the GFC Handbook.

From the Faculty of Science perspective, it is important to emphasize that the purpose of a teaching dossier is not simply an administrative necessity. As a reflective document, it provides a written forum for an academic staff member's introspective view of their teaching activities. This implies that there is no definitive format which must be followed by all individuals. In addition, faculty are encouraged to utilize the resources produced by the Taylor Institute for Teaching and Learning, especially the resources on the "Teaching philosophies and dossiers."

Documentation on teaching effectiveness should include evidence of the activities listed above and include the Faculty of Science teaching evaluations. Student feedback must not be the sole basis for the evaluation of teaching performance. Other evidence of teaching effectiveness can include:

- Nomination for, and receipt of, teaching awards and prizes;
- Assessment by peers of the academic staff members' teaching by attending lectures, seminars and colloquia;
- Evaluation by knowledgeable colleagues of instructional materials, assignments and examinations produced by the academic staff member;
- Documentation of the extent to which the individual contributes to the educational goals of the department;
- Satisfactory completion of formal training taken to improve teaching effectiveness, including training related to institutional initiatives and strategies in teaching and learning (such as equity, diversity, inclusion and accessibility, ii' taa'poh'to'p, experiential and work-integrated learning);

Heads are expected to seek advice from other relevant sources when academic staff members are teaching in other Faculties or areas, and/or are involved in leading major University initiatives.

B4 Service

As outlined in Section B 1.4.1 of the GFC Handbook:

> *"Academic staff members have a responsibility to contribute through service to move the institution forward through collegial governance, to advance academic disciplines, and to impact communities and society. Service means active participation and shared responsibility in academic governance, and development in matters relevant to the progress and welfare of the academic staff member's Department, Unit, Faculty, Institution, discipline, and profession."*

The level of service activities may differ greatly with academic rank. Newly appointed academic staff should devote themselves mainly to establishing a sound base in teaching and research. However, we recognize the challenges faced by academic staff from equity-deserving groups who may receive added requests to act as mentors and role models, and to serve on academic committees within the Faculty of Science and across campus.

B4.1 Evaluation Guide for Service

The value of service will be assessed according to the principles in Section B 1.4 of the GFC Handbook and in terms of both the willingness to serve and on the quantity as well as the quality of the activities. This must be done in the context of statements in the GFC Handbook about service including:

> *"Other service to the community that flows from the discipline, or field, or that accrues through other distinguished service to the University and/or the community may be acknowledged when it brings distinction to the University and/or community."* (GFC Handbook Section B 1.4.5)

Factors to be considered include the scope of the activity (from departmental to international), the weight of responsibility carried in the role or office held, the leadership abilities required or demonstrated, the expertise required, the nature of the assignment to the role (appointed, invited, elected, volunteered), the amount of time the role entails, the distinction brought to the unit or the University as a whole, and the relationship of the service role to the individual's role as an academic staff member. Service contributions are considered under the major headings of: university, faculty and department committees, offices and committees of academic societies, and professional service to the field. There is a great diversity in service opportunities. Examples other than those outlined in Section B 1.4 of the GFC Handbook include:

Internal service:

- Chair or member of a university, faculty or department committee;
- Review and evaluation of peers for purposes of promotion, merit or awards;
- Service to a student organization;
- Mentoring of colleagues or students in teaching and research.

External service related to the profession:

- Review and evaluation of manuscripts and of grant applications for outside agencies;
- Editorships of peer-reviewed publications;
- Involvement at some official level in national and/or international professional organizations;
- Involvement in community-based education programs;
- Consultation and professional services to government and communities, to public agencies, and to individuals in the staff member's capacity as an academic;
- Service on public boards, commissions and committees representing the University or discipline;
- Involvement in media productions and other presentations designed to inform the public about matters in science;

- Peer recognition through election and service to scholarly societies, national/international grant selection committees of peer-reviewed agencies like NSERC or CIHR, or any form of award in recognition of the quality of service will be noted as a significant service contribution.
- Service to regions designated as developing (low to medium) on the United Nations Human Development Index (HDI).

Academic staff members are expected to increase the impact, and/or scope of their Service contributions over time. Provincial, national and international leadership roles are generally encouraged for academic staff members to take on. Service contributions will not be considered where individual was paid, for example paid board members.

B4.2 Responsibilities of Heads in Evaluating Service

As outlined in the GFC Handbook Section B 4.4.3: "*In assessing service activities, the Head or equivalent and the members of the FMC shall refer to criteria for service as set out in Part B.1, and criteria established for service contributions for academic staff members in different ranks and streams as set out in Part B.2."*

Service is a critical aspect of an academic staff members' job and must be assessed for not just time commitment or numbers, but for the significance of impact, including service that promotes EDIA (equity, diversity, inclusion, and accessibility) initiatives.

Further, when service is being assessed it is important our Faculty strives to achieve the highest level of inclusivity. As stated in the GFC handbook Section B 1.4.8:

> "*Formal and informal service commitments across the University are often disproportionally expected from academic staff members of under-represented groups. Their commitment to offer a diversity of perspectives and experiences on committees and other decision-making bodies supports the University in making the best possible decisions and to establish an inclusive campus for all. Such contributions shall be considered in Tenure and Promotion, and in Merit Assessment*."

B5 Effects of Leaves on Evaluations

Activity (teaching, research, service) undertaken while on any leave (paid or unpaid) can and should be reported by the individual as part of any evaluative process. An academic staff member must not be penalized during the evaluative process for being on a parenting or sick leave as they are not expected to undertake such activities.

B5.1 Evaluation including Leave Period (Research & Scholarship and Secondment Leave)

Research & Scholarship (Sabbatical) leaves provide release from normal University teaching and service expectations, although service activities involving professional or other organizations may continue during a Research & Scholarship (Sabbatical) leave. When assessing scholarship activities, care must be taken to bear in mind that scholarship produced during the leave is most likely to appear and be evaluated in subsequent years. It is important that academic faculty members relate their research/scholarly activities to the approved Research & Scholarship (Sabbatical) project to assist in the evaluation of their scholarship for the period of the leave.

The terms of a secondment agreement will provide for non-standard expectations for scholarship, teaching, and service. Such terms should call for evaluation of activities particular to the nature of the secondment. Academic faculty members are required to request timely input from the agency to which a member is seconded, providing an evaluation of overall performance, and particular feedback regarding the assigned responsibilities of the agreement.

B5.2 Evaluation excluding Leave Period

Articles: 29.3.4 to 29.3.7 in the Collective Agreement describe how an academic staff member who is on leave at the time of assessment or who has been on leave for a portion of the assessment period is to be evaluated. This includes individuals on unpaid leaves, sick leaves, and parenting leaves.

B6 Requirements for Academic Staff Ranks and Streams

See GFC Handbook – Part B, Section 2.

B6.1 General Considerations

Requirements for academic staff ranks are listed in the GFC Handbook – Part B, Section 2. From a Faculty of Science perspective, expectations for research and scholarship, teaching, and service activities for each academic rank increase with the ascending academic rank progression as outlined in the GFC Handbook. In addition, we provide Science specific examples for each rank below.

B6.2 Requirements for Assistant Professor

See GFC Handbook – Part B, Section 2.2.

B6.3 Requirements for Associate Professor

See GFC Handbook – Part B, Section 2.3.

B6.3.1 Additional *examples* of research and scholarship indicators include:

- holding an NSERC Discovery Grant or equivalent,
- holding other competitive external grants (e.g., NSERC Alliance, Alberta Innovates, industry grants and/or contracts, etc.),
- holding internal grants (e.g., URGC, etc.),
- publication of peer-reviewed journal papers,
- publication of peer-reviewed conference papers,
- publication of peer-reviewed book chapters,
- presentation of research at national and international conferences,
- provision of open-source software,
- provision of research results to NGOs or government agencies that benefit the public good,
- engagement in community-based research (e.g., reports or briefs, presentations, formal partnerships, research relationship documents),
- media engagement (such as interviews with news agencies),
- commercialization of technology through licensure or a spin-off/start-up company (patents/disclosures),
- participation in collaborative research projects/grants

B6.3.2 Additional *examples* of teaching indicators include:

- successful supervision of HQP (highly qualified personnel): i.e., primary or co-supervision of PhD students, primary supervision and completions of MSc students, successful supervision and completion of undergraduate summer research students, a record of publications with HQP,

- use of a range of appropriate teaching and learning methodologies,
- supporting students outside the classroom (e.g., mentoring, student clubs and teams),
- advising capstone design teams,
- supervision of honours and undergraduate research projects,
- field and practicum supervision,
- evidence of supporting student success (e.g., student feedback on instruction, student achievement of course learning outcomes),
- teaching awards,
- engagement in evidence-based reflective teaching practices,
- participation in national or international science education societies/associations,
- participation in teaching and learning workshops/courses.

B6.3.3 Additional *examples* of service indicators include:

- active participation in internal (Department, School, and/or University) committees,
- active participation in *ad hoc* Departmental, School, and University task forces,
- participation in peer review of articles (conference and/or journal),
- active participation on national and international journal editorial boards,
- active participation in professional societies,
- active participation in activities to promote EDIA and Indigenous engagement,
- serving in a leadership role for an academic conference (e.g., conference chair, technical chair, etc.)
- active participation in review panels (e.g., NSERC DG panel, CIHR panel).

B6.4 Requirements for Professor

See GFC Handbook – Part B, Section 2.4.

B6.4.1 Additional *examples* of research and scholarship indicators beyond those listed for Associate Professor include:

- evidence of an internationally recognized research program (e.g., awards from national societies, invited lectures/presentations at national meetings, invitations to labs, etc.),
- continuous successful securing of competitive research operating grant awards,
- research awards,
- invited to serve as external examiner on national/international graduate thesis exam(s),
- contributions to public policy,
- leading large collaborative research projects/grants, especially multi-institutional or multi-disciplinary grants.

B6.4.2 Additional *examples* of teaching indicators beyond those listed for Associate Professor include:

- contributions to curriculum development or teaching practice: e.g., new course development; contributions to curriculum development or reform,
- educational leadership: e.g., leadership in curriculum development or reform; leadership of educational workshops, seminars, conferences; national or international consultant on education; administrative appointments such as Committee Chair for Educational initiatives or Associate Head, Undergraduate Studies,
- publication of textbooks.

B6.4.3 Additional *examples* of service indicators beyond those listed for Associate Professor include:

- leadership of internal (department, school, university) committees and/or task forces,
- serving in a leadership role for academic journal (e.g., editor, associate editor, etc.),
- serving in a leadership role in a professional society (e.g., president, vice-president, etc.),
- mentoring of junior faculty members (e.g., as evidenced by letters, reviewing internal research grant applications).

B6.5 Requirements for Assistant Professor (Teaching)

See GFC Handbook – Part B, Section 2.5.

B6.6 Requirements for Associate Professor (Teaching)

See GFC Handbook – Part B, Section 2.6.

B6.6.1 - Additional *examples* of indicators include:

- use of a range of appropriate teaching and learning technologies,
- supporting students outside the classroom (e.g., mentoring, student clubs and teams),
- advising capstone design teams,
- field supervision,
- evidence of supporting student success (e.g., student feedback on instruction, student achievement of course learning outcomes),
- teaching awards,
- holding teaching and learning grants (e.g., Taylor Institute Teaching and Learning, etc.),
- publication of peer-reviewed higher-education/science education journal papers,
- publication of peer-reviewed higher-education/science education conference papers,
- publication of peer-reviewed higher-education/science education book chapters,
- publication of textbooks,
- presentation of research at national and international higher-education/science education conferences,
- media engagement (such as interviews with news agencies),
- active participation in curriculum development or reform,
- active participation at educational workshops, seminars, conferences; national or international consultant on education.

B6.6.2 Additional *examples* of indicators include:

- engagement in evidence-based reflective teaching practices,
- participation in teaching triads,
- participation in national or international science education societies/associations,
- participation in teaching and learning workshops/courses.

B6.6.3 Additional *examples* of service indicators include:

- active participation in internal (Department, Faculty or University) committees,
- active participation in *ad hoc* Departmental, School, and University task forces,
- participation in peer review of articles (conference and/or journal),
- active participation on national and international higher-education journal editorial boards,
- active participation on professional science education societies,

- active participation on professional engineering committees,
- serving in a leadership role for a higher education/science education academic conference (e.g., conference chair, technical chair, etc.).

B6.7 Requirements for Professor (Teaching)

See GFC Handbook – Part B, Section 2.7

B6.7.1 Additional example of indicators beyond those listed for Associate Professor (Teaching) include:

- provision of open-source teaching modules/materials,
- mentoring of junior faculty members (e.g., as evidenced by letters, reviewing internal research grant applications),
- leadership in curriculum development or reform,

B6.7.2 Additional *examples* of service indicators beyond those listed for Associate Professor (Teaching) include:

- leadership of internal (department, school, university) committees and/or task forces,
- serving in a leadership role for higher education/science education academic journal (e.g., editor, associate editor, etc.),
- serving in a leadership role on a national or international science education society/association (e.g., president, vice-president etc.),

B7 Criteria for Renewal, Tenure and Promotion

B7.1 General Considerations

Neither renewal of tenure-track appointments nor tenure on the completion of the tenure-track appointment is the right of a staff member, but must be earned through effectiveness and commitment in the three (3) areas outlined in Part B sections 1 and 2 of the GFC handbook. As outlined in the GFC Handbook Part B 3.1.3:

> *"Advancement to a higher rank is not automatic. Continued growth in research and scholarship, teaching, and service is typically required for all ranks and streams according to assigned duties. Outstanding performance in one area normally cannot substitute for insufficient performance in another."*

An individual in the research and teaching-focused professorial stream must have demonstrated continued effectiveness as a teacher and must have produced sustained high-quality research. The standards achieved in teaching and research should be indicative that the applicant has the potential for greater achievements and recognition in the discipline. An individual in the teaching-focused professorial stream must have fulfilled the requirements of their job description, establishing a program of scholarship to maintain currency in the discipline while providing evidence of good teaching.

Expectations for teaching, scholarship, and service depend on the rank at the time of consideration of granting tenure. Expectations increase with rank. While primary emphasis is placed on the quality of the contributions to teaching and scholarship, it is expected that service commensurate with the rank and conditions of appointment will be in evidence. In all cases, the individual should have demonstrated that their continued presence will be an asset to their Department/Program. See Article 28 of the Collective Agreement.

Procedures for tenure, promotion, renewal, and transfer are outlined in Article 28 of the Collective Agreement.

B7.2 Tenure and Promotion in the Research and Teaching Professorial Stream

Refer to the GFC Handbook, Section 3.2. An appointment with tenure requires evidence of effectiveness in each of the three functions (research and scholarship, teaching, and service). Descriptions of the requirements for each of the three functions within a particular rank of appointment are provided in the Faculty Guidelines, Section B2.

B7.3 Tenure and Promotion in the Teaching Professorial Stream

Refer to GFC Handbook, Part B, Section 3.3. An appointment with tenure requires evidence of effectiveness in each of the teaching and service functions, and various forms of engagement in research and scholarship as outlined in the GFC Handbook. Descriptions of the requirements of these functions within a particular rank of appointment are provided in the Faculty Guidelines, Section B2.

B7.4 Promotion to Professor or Professor (Teaching)

Refer to GFC Handbook, Part B, 3.4. An academic staff member considering promotion to Professor or Teaching Professor should be an exemplary member of the academy who consistently demonstrates a high standard of achievement in all areas and roles and demonstrates due diligence in meeting assigned duties. Descriptions of the requirements of these functions within a particular rank of appointment are provided in the Faculty Guidelines, Section B2.

B7.5 Transfer Between Professorial Streams

Refer to GFC Handbook, Part B, 3.5.

B7.6 Additional Considerations for Renewal, Tenure and Promotion

Refer to GFC Handbook, Part B, 3.6 which outlines additional considerations for renewal, tenure and promotion, including Outside Professional Activity and assessment of academic administration and leadership roles.

B7.7 Renewal, Tenure and Promotion in Administrative and Professional Streams

Refer to GFC Handbook, Part B, 3.7.

B8 Guidelines for Criteria for Merit Assessment

Refer GFC Handbook – Part B, Section 4.

Contributions of academic staff are appreciated for the expertise they bring to the Faculty of Science and are recognized during the biennial review process. The Academic Performance Report (APR) provides an opportunity to document and reflect on one's academic work, with respect to research and scholarship, teaching, and service, as well as to conceptualize a trajectory of this work. For merit purposes, academic staff members are expected to demonstrate significant accomplishments in research and scholarship, teaching, and service as per the identified stream and expectations of their rank. The APR should include a complete account

of work for the last two years and supporting documentation to provide a summary of the nature and quality of the work.

In accordance with Article 29.2.2 of the Collective Agreement, the criteria for the assessment of individual academic staff members shall be applied in a manner consistent with the range and proportion of duties assigned to the academic staff member under Article 12, and merit shall be assessed on the full duties performed by the academic staff member. For faculty members holding positions which require emphasis on research as opposed to teaching and/or service, their research performance should receive an appropriately increased weighting in the merit assessment process (e.g., CRC, industry chairs, etc.).

It shall be the responsibility of the Head to provide information on the staff member's activities using the guidelines from Section B and the information provided by the staff member.

Academic staff who hold formally appointed administrative positions will be assessed on the quality of the leadership. This assessment is included as part of the overall performance review.

Refer to the following sections within the GFC Handbook, Part B:

- 4.2 Criteria for Assessing Research and Scholarship Activities
- 4.3 Criteria for Assessing Teaching Activities
- 4.4 Criteria for Assessing Service Activities

In addition, below are Faculty of Science interpretations:

B8.1 Performance Expectations: Research and Teaching Professorial Stream

Research and Scholarship: Members are expected to be active in scholarship in each reporting period. Refereed publications reported according to the standard set for a department, (i.e., by method (a), appeared, or method (b), accepted or appeared) in the reporting period provide evidence of meritorious performance. However, some research projects may take time to reach publication, either because of the nature of the research, or the refereeing process. For that reason, failure to publish in any one period does not by itself constitute unsatisfactory performance. It is the responsibility of the faculty member to provide evidence of scholarly activity and to report on any research, in progress, in the biennial report that justifies a satisfactory rating in this category. Expectations increase as faculty members progress through the ranks, as outlined in the GFC Handbook and above in sections B6 and B7.

Teaching: Except where not included in the stated activities of a leave, secondment, or administrative appointment, faculty members are expected to make a contribution to the teaching mission of the university in each reporting period. It is the responsibility of the faculty member to provide evidence of contributions through the biennial report. Faculty members may submit additional materials for consideration. Expectations increase as faculty members progress through the ranks, as outlined in the GFC Handbook and above in sections B6 and B7.

Service: Service expectations increase with rank, except for those precluded from service because of a fellowship, leave, secondment, or other arrangement approved by the Head and Dean. It is the responsibility of the Faculty member to document sufficient contributions to service to justify a satisfactory ranking in this category. Expectations in quantity and impact of service increase as faculty members progress through the ranks as outlined in the GFC Handbook and above in sections B6 and B7.

B8.2 Performance Expectations: Teaching Stream

Scholarship: Teaching stream academic staff are required to show evidence of scholarship to maintain currency in the field in order to meet the standard of satisfactory performance. Production of teaching-related materials, as well as contributions to research and other forms of scholarship may provide evidence of meritorious performance. Expectations increase as faculty members progress through the ranks, as outlined in the GFC Handbook and above in sections B6 and B7.

Teaching: Because teaching is a core feature of the appointment, satisfactory performance requires more than a minimal contribution in this area, using the criteria set out in the GFC Handbook and above in sections B6 and B7.

Service: The amount of service required of an instructor will vary with the teaching load. Associate Professors (Teaching) and Professors (Teaching) are expected to contribute to the Department, Faculty, or outreach and other professional service contributions and the substantive value of that contribution will increase based on rank.

C Faculty of Science Guidelines Related to GFC Handbook Part C – Academic Appointments Selection Procedures, Position Posting, Expedited Procedures for Spousal and Strategic Hiring, Equitable and Inclusive Hiring Initiatives

C1 General Considerations

The Faculty of Science is committed to inclusive excellence in research and teaching. We will uphold the values stated in the GFC Handbook Part C 1:

> *The University of Calgary is strongly committed to an equitable and inclusive campus, and recognizes that a diverse faculty, including Indigenous faculty, benefits and enriches the work, learning, and research experiences of our campus and the greater community. The University is committed to removing barriers that impede access to, and success within, the academy, and strives to recruit individuals who will further enhance the diversity of the campus community. Academic Appointment Selection Committees will identify and address systemic barriers as they manifest themselves in the hiring process, and actively work to eliminate them.*

Faculty position posting and selection procedures for academic appointments will conform to the GFC Handbook Part C 2-3.

C2 Position Posting

The responsibility of drafting the position posting will be the designated Chair of the Academic Selection Committee (see GFC Handbook Part C 3.1, and below). The Chair will consult with the Academic Selection Committee to draft the posting. As stated in GFC Handbook Part C 2.1, final approval of the posting is by the Dean or Vice-Dean.

C3 Selection Procedures for Continuing Academic Appointments – Teaching and Research Stream and Teaching Focus Stream

The Dean is responsible for the selection and appointment of the Academic Appointment Selection Committee. If the Chair of the selection committee is not the Dean, then the Chair will recommend committee members to be approved by the Dean.

An Academic Selection Committee (GFC Handbook Part C 3.1.2) minimally consists of:

- Selection Committee Chair: Dean or delegate (normally the relevant Head/Director) who votes only to break a tie

Voting Members:

- three (3) continuing, limited-term and/or contingent-term academic staff members from the Department and/or Program (in the case of interdisciplinary programs), with the majority of these members holding a continuing appointment
- One (1) continuing, limited-term and contingent-term academic staff member from within the Faculty of Science but outside the affected discipline, Program or Department
- One (1) continuing academic staff member from outside the Faculty of Science as outlined in GFC Handbook Part C 3.1.2.iv
- A graduate student representative or other trainee from the relevant discipline

Committee composition shall reflect the Faculty's and University's commitment to EDIA and Reconciliation. In the case of a lack of representational diversity on the Committee, the Chair (or Dean) may fulfil the mandate of appointing additional members as outlined in the GFC Handbook Part C.3.1.2.iii., iv., and vi.

The Academic Selection Committee shall adhere to all requirements of GFC Handbook Part C. As part of its information gathering, the Committee shall establish mechanisms and document its efforts to allow input from all available members of the department and to take into account informed student opinion. The Committee shall document its efforts to attract a diverse applicant pool and will complete unconscious bias training prior to viewing applications. At the conclusion of its deliberations, the Chair of the Academic Selection Committee shall make a recommendation to the Dean.

C4 Selection Procedures for Academic Appointments – Administrative and Professional and Outside of Faculties

See GFC Handbook, Part C - Section 4.

C5 Expedited Extraordinary Procedures for Spousal and Strategic Hiring

See GFC Handbook, Part C – Section 5.

With reference to GFC Handbook (Part C 5.4), the term "home unit" or "unit" shall be read as "Department" and/or "Program", as appropriate to the context.

When a joint appointment to more than one department or program is proposed, the "home unit" shall include all the Departments and programs concerned.

C6 Equitable & and Inclusive Hiring Initiatives

See GFC Handbook, Part C, Section 6.

C7 Other Appointments

See GFC Handbook, Part C, Section 7.