
School of Engineering



1 INTRODUCTION

The Schulich School of Engineering is committed to the goal of being a leading institution in engineering research and education. Attracting, retaining and rewarding top quality engineering professors are keys to achieving this goal. Such a commitment to its faculty members requires the necessary mechanisms to ensure that world-class researchers and educators are recognized and rewarded, and that high calibre junior and senior faculty are recruited to strengthen the School in existing and emerging areas of engineering.

The Schulich School of Engineering *Guidelines and Procedures on Merit Increment Recommendations, Appointment, Promotion and Tenure* define the mechanisms and metrics that will be used to assess the performance of faculty members. The document reflects the School's commitment to excellence within an environment that thrives on its members' diversity of pursuits.

It is required that this document be read in conjunction with the University's documents (http://www.ucalgary.ca/provost/faculty/academic_agreements)

- x *Procedures Pertaining to Appointment, Promotion, and Tenure of Academic Staff* (APT Manual), and
- x *Manual of Policies and Procedures for the [Annual] Assessment of Academic Staff (Salary Increments and Promotions)* (GPC Manual).

1.1 Use of this Document

The purposes of the *Guidelines and Procedures* are:

- x to define standards of performance,
- x to guide faculty members in establishing their goals, and
- x to define procedures for promotion and tenure applications.

Faculty members should use the performance standards defined for the different academic ranks as a general guide to the expectations of the School. Faculty members are strongly encouraged to discuss these standards and expectations with their Heads of Department, and formulate academic and professional goals that are consistent with their individual career objectives and with the goals of their department and the Schulich School of Engineering.

Heads of Department must use the guidelines in carrying out their duty to mentor faculty and ensure that faculty members have a reasonable expectation of achieving their goals and being rewarded for their performance. Heads of Department should make themselves available to faculty to discuss their performance and to assist them in achieving their academic and professional goals.

Heads of Departments, Departmental Promotion Committees, the Faculty Promotion Committee, the Academic Appointment Review Committee and the Dean of Engineering must use the guidelines and procedures defined both in this document and all relevant University documents to assess the performance of individual faculty members. Both specific performance standards and the spirit of these guidelines are to be upheld in the execution of their duties.

1.2 General Guiding Principles

The performance standards and expectations defined in the *Guidelines and Procedures* pertain to all three primary functions of the University, namely:

- x teaching at the undergraduate, graduate, and post-degree continuous learning, levels,
- x research and scholarship, and
- x service to the School, the University, the profession, industry, and the community.

All three functions are important to the success of the School. Individual leadership and excellence in these functions are valued and therefore encouraged. The Schulich School of Engineering further recognizes that the contributions of its faculty members will reflect their rank, seniority, and the diversity of pursuit necessary in a team environment. The strength of the School and its departments stems from the synergy achieved by the variety of professional activities undertaken by individual faculty members.

It is expected that all faculty members will participate and perform in all three functions. However, the balance of the three primary functions may differ from one individual faculty member to another and from one year to the next. Teaching workloads may vary due to the number, type and level of courses taught. Faculty members may want to capitalize on research opportunities, or may be asked to undertake tasks critical to the success of the Schulich School of Engineering and the University. This flexibility allows the departments and the School to succeed as a team. As a result, firm numerical weights for the three functions are not used. However, there is an expectation that lower levels of performance and productivity in one area will be balanced by

opportunities to collaborate on synergistic research projects and establish teams to address challenges in engineering education. Furthermore, the proper functioning of the School requires active participation of individuals with diverse skills to formulate and implement the strategic plans and initiatives of the departments and the School.

Leadership: Key to the success of the School and its goal of being a leading institution is the willingness of individual faculty members to take on leadership roles and act as champions. Leadership must not be limited to individual initiatives or even departmental activities, and needs to extend into the engineering profession and the wider community.

International Outlook: The Schulich School of Engineering has a number of formal international exchange programmes that showcase its international outlook. These programmes must be supported by educational curricula that expose students to international engineering practices and challenges. Faculty members are also encouraged to develop international education activities and consortia (e.g. teaching at institutions outside of Canada). This international outlook on the engineering profession must also extend to research, where faculty must strive to undertake research that is not only relevant to local and national contexts, but also impacts the discipline at an international level. This involves faculty participation in international research initiatives, conferences and exchanges.

1.3 Teaching

One of the School's primary functions is the provision of an excellent education experience to its undergraduate and graduate students. Faculty members are expected to be effective educators and should be actively involved in the design and implementation of appropriate learning environments that maximize the potential for learning, and optimize the use of available resources.

1.4 Research

Research is another primary function of the School; and therefore, considerable emphasis is placed on the pursuit of knowledge, research activities and sc

wider community. Service also has an impact on the outlook of faculty members and on their approach to teaching and research. Faculty members are expected to actively participate within the School's team environment. Faculty members are strongly encouraged to serve in leadership roles and to promote and support teamwork within their capacities.

2 EXPECTATIONS AND ASSESSMENTS

Quality performance is required to meet the Schulich School of Engineering's imperative of excellence. As a result, all faculty members are expected to strive for quality performance in the primary functions of the University: teaching, research and service. The assessment process must ensure that the quality and impact of the contributions are fully considered, and that quantity

day-to-day academic and research activities, as well as on special projects, and mentor relationships with internship students provide scope for effective education.

Effective teaching performance and accomplishment is encouraged through numerous activities including:

- x developing clearly articulated teaching and learning objectives;
- x planning, preparing and updating course curricula;
- x creating appropriate and challenging but fair assignments and examinations for assessment purposes;
- x interacting with and mentoring students through lectures, labs, tutorials, seminars, supervision, field work, office hours, meetings;
- x providing coordination, as required, for multi-section courses, including common assessment methods;
- x developing teaching styles that recognize and accommodate various student learning styles;
- x developing an inclusive and respectful classroom climate;
- x

Peer evaluations of teaching performance are another measure of teaching performance. With prior notification to the Head of the Department or coordinator of a multi-disciplinary programme, a faculty member may request peers to attend his/her lectures, to audit and review teaching capabilities and proficiencies, and to provide written input to the Department Head, the Dean, the coordinator of a multi-disciplinary programme, or their delegates. The Department Head may also arrange for peer evaluations of a faculty member.

The Head of the Department, the Dean, the coordinator of a multi-disciplinary programme, or their delegates may also gather information on an individual faculty member's teaching performance and accomplishments by attending instructional periods, such as lectures, tutorials and laboratories. For courses that are part of the common curriculum, the Associate Dean (Academic and Planning) is considered to be the equivalent of a Department Head.

It is required that faculty members receive reasonable notification prior to visits. Notice should be given as to the session in which visits may take place and should be received by the faculty member at least one week in advance. Information gathered during these visits is provided to the faculty member, the Departmental Merit Committee (see Section 3.2.2), the Faculty Promotion Committee (see Appendix A), and the General Promotions Committee, when appropriate.

2.2.3 Teaching Dossier

Development of a teaching dossier is encouraged for all faculty members but is of particular importance for the Instructor ranks. For applications for promotion or tenure, this should be included in the overall dossier submitted for tenure or promotion, as evidence of teaching effectiveness. The dossier could include lectures notes, examples used, course development, descriptions of teaching innovations, student comments, and self-evaluation. Guidelines for the format of the Schulich School of Engineering's dossier are included in Appendix C, Documentation.

2.2.4 Supervision, Examination and Graduation of Students

An integral component of a faculty member's teaching responsibility is the supervision and timely graduation of graduate students at both the masters and doctoral levels. Factors for assessment may include: number of graduate students supervised and graduated, level of participation in supervisory and examining committees, and mentoring students regarding involvement in teaching activities. Graduation of MEng degree students is important to the overall goals of the School. It is recognized that thesis-based masters students require more supervision than course-based MEng students.

Mentoring and supervision of engineering internship students and students involved in design and final year projects, as well as design competitions, are important teaching contributions to the undergraduate curriculum. Factors of assessment may include: number of students supervised, level of interaction, quality of project and/or pub

2.2.5 Other Teaching and Scholarship Activities

Development and publication of widely circulated teaching materials, course materials, and textbooks which, for example, have become recognized as a standard in industry or academia, are also recognized as valuable contributions to teaching and scholarship activities.

2.3 Research Expectations

Faculty members are expected to conduct research, either of a fundamental or applied nature, that will advance knowledge and understanding, yield engineering innovations, and have national and international relevance. Faculty members must be actively involved in the dissemination of research results and new knowledge through publication and transfer of intellectual property that result in positive contributions to society.

Research performance can be measured in terms of quality, impact, and quantity. It must be noted that quality and impact must be regarded as the most relevant parameters indicating performance. Successful through publication, review, and dissemination of research results, and the active involvement of faculty members in the dissemination of research results and new knowledge through publication and transfer of intellectual property that result in positive contributions to society.

2.3.1 Peer-Reviewed Publications

The most important research publications are those that have been reviewed and accepted by informed peers. Research published in peer-reviewed journals of international reputation is therefore recognized as high quality research and plays a prominent role in the assessment of a faculty member's performance. The impact of the publication, inherent in the review process, may be further substantiated by external referees, or published impact factors.

2.3.1.1 Full Peer-Reviewed Papers in Conference Proceedings

The publication of research results and new knowledge in conference proceedings is a recognized activity within research performance. The quality of such publications can be ascertained by the quality of the conference, as well as by external referees. Papers published in conference proceedings on the basis of peer-review of the full-paper are recognized as high quality research output. Faculty members applying for Promotion, or for Appointment with Tenure should provide evidence of the peer-review process for peer-reviewed papers in conference proceedings.

2.3.1.2 Other Publications

approaches to fundamental and/or applied research. Grants and contracts awarded under a competitive process are deemed better indicators of research performance than funding awarded under a noncompetitive process. Grants and contracts involving rigorous peer review processes are the best measure. This latter determination is based on the fact that the peer review process associated with the grant or contract provides a mechanism to validate the quality and impact of the research.

It is important to emphasize that it is the award of the grant or contract that is the primary metric under this heading. The reduced importance placed on the size of the grant or contract is based on a recognition that the available sources and their funds vary widely with the discipline and field of research. The type of research, whether computational, experimental or theoretical in nature, also influences the financial resources needed to undertake the research and therefore the size of grant or contract.

While there are many sources available for funding, the Schulich School of Engineering has identified NSERC research grants (or equivalent national or international research council grants) as important indicators of research performance.

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software are all examples of valid research contributions that are recognized in the assessment of a faculty member's research performance. Due to the nature of these contributions, each creative research activity under this heading must be assessed on a case-by-case basis. Faculty members are encouraged to collect information that demonstrates the impact of these contributions to the discipline and the engineering profession. External referees may also be used to substantiate the quality and impact of a creative research activity.

Conferences play an important role in the dissemination of research results. An invitation to organize conference sessions, to give a keynote address, participate in a plenary session, or to chair a conference can be indicative of a faculty member's recognition in the discipline and the profession.

The practical or field implementation of a faculty member's research results is a measure of research performance. In some engineering disciplines, such implementation may involve the incorporation of research results and improved methodologies within design codes and standards. Requests to use or license software, hardware, methodology, or a database developed by a faculty member are also indicative of valid research contributions.

2.3.5 Other Research Contributions

The following are some examples of other contributions that can be indicators of a faculty member's research accomplishments and recognition.

- x Awards for research publications and/or accomplishments, special distinctions, and honorary degrees.
- x Editorship of peer-reviewed journals.
- x Fellowship of a prestigious scientific or professional society.
- x Invited conference presentations, keynote addresses; plenary sessions.
- x Organizing or chairing conferences or conference sessions.
- x Invited lectures or distinguished professorships at prestigious universities and institutes.
- x Invitations to collaborate on multi-institutional research projects; Co-investigator in a consortium of high quality researchers.
- x Incorporation of research results and improved methodologies in licenced software, hardware, design methodology or developed databases.
- x Authorship of books or book chapters, special issues of reputable journals; reproduction of publications in books or collections

- x Membership in a national or international body on research policies and plans.
- x Interviews by the news media and writing technical articles for the general public.
- x Scholarships and awards held by supervised graduate students and postdoctoral fellows.

2.4 Service Expectations and Assessment

Service is the third primary function of faculty members. It is essential that faculty members actively participate in and promote the team environment activities of the service function. Service

There are several approaches to industry service and collaborative initiatives with industrial partners. Faculty members could cooperate with industry, including non-engineering sectors, in educational and research ventures. Industry advisory boards for departments, programmes and

More information regarding merit assessment and increment recommendations is available in the University's documents (http://www.ucalgary.ca/provost/faculty/academic_agreements):

- x *Procedures Pertaining to Appointment, Promotion, and Tenure of Academic Staff* (APT Manual), in particular Sections 3.0 and 6.0, and
- x *Manual of Policies and Procedures for the [Annual] Assessment of Academic Staff (Salary Increments and Promotions)* (GPC Manual), in particular Sections 2.5, 5.0 – 9.0.

3.1 Academic Performance Report

In accordance with the University of Calgary guidelines, each faculty member must prepare and submit a performance report to the Head of the Department prior to the stated deadline. More information on performance reports is available through the myUofC portal.

It is the responsibility of the faculty member to fully document contributions and achievements in teaching, research and servi1.22 Tm.ilinmaocon/rch70.oTm0 Tc0 Tw(ab{mmendat)4.4tiono)8.3.4 and Pcult-n

with those of faculty members of similar rank and seniority. A numerical value for the merit increment is then recommended.

It should also be noted that merit increment recommendations are relative and depend on the total departmental allocation. As a result, the merit increment for a given level of performance may vary from one assessment period to another.

Where the first assessment of an academic staff member is in the intervening year, s/he will receive a default increment equivalent to the average increment provided to the Faculty per full time equivalent member by the General Promotions Committee. On any future report, this shall be identified as a default increment rather than an assessed value.

3.2.1 Guidelines for Merit Increment

The University's General Promotion's Committee (GPC) has determined that when the evaluation of a staff member's performance is satisfactory, that member shall be awarded an increment unit called the "Career Progress Adjustment" (CPA). Currently, CPA is 0.4 of a merit increment unit.

Faculty receiving an increment of 1.4 or above will normally be considered as having overall performance deemed "outstanding".

GPC's *Manual of Policies and Procedures for the [Annual] Assessment of Academic Staff (Increments and Promotions)* notes that any increment award above 0.4 units recognizes meritorious performance. The award of increments shall be interpreted in the context of the following:

Table I
Guidelines for Merit Increment

Increment Unit	Performance Assessment
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3.2.2 Role of the Department Head and the Departmental Merit Committee

It is the responsibility of the Head of the Department to summarize and evaluate the contributions of each individual faculty member in a written format, using the form titled *Schulich School of Engineering - Department Head's Assessment and Recommendation to FPC*. In the event of a faculty member being a member of a multi-disciplinary programme, the Head shall seek written input from the Coordinator of the programme. The Department Head will provide an opportunity to discuss this assessment with the faculty member prior to submitting the recommendation to the Faculty Promotions Committee (FPC).

For faculty members holding Initial Term, Contingent Term or Limited Term appointments, the Head of the Department, in years between merit assessments, will provide the same summary, without recommendation as to merit. All Initial Term, Contingent Term or Limited Term academic staff are required to meet with the Department Head in the intervening year to discuss their career progress. The staff member must sign the Head's summary to signify that they have read the comments from the Department Head. Staff may appeal the Head's summary to FPC, in accordance with the University's guidelines and procedures.

Each department within the Schulich School of Engineering is to establish a Departmental Merit Committee (DMC). DMC is advisory to, and chaired by, the Department Head. It should include at least two additional full-time faculty members. They shall be chosen by draw such that, in the long term, all full-time department members will participate in DMC. Student teaching evaluations and Academic Performance Reports will be made available to DMC.

The Department Head has the full responsibility for recommending the merit increment for each departmental faculty member. This recommendation is conveyed to the faculty member, DMC and FPC. The faculty member may appeal the Department Head's recommendation, in accordance with the University's guidelines and procedures.

3.2.3 Role of the Faculty Promotions Committee and the Dean

The Faculty Promotions Committee (FPC) is advisory to, and chaired by, the Dean. FPC evaluates the individual performance of faculty members of the School and a recommendation is made to the Dean. FPC makes every effort to ensure that inequities do not occur at the School level. On the basis of all information and advice available, the Dean makes a recommendation to the General Promotions Committee (GPC).

The performance of Heads, Associate Deans and similar positions who are in office at the time that the FPC meets or have held such positions during the period under review will be reviewed in the first instance by the GPC on recommendation from the Dean.

If the Dean modifies the recommendation of the Faculty Promotions Committee, the Dean will advise the General Promotions Committee, the Faculty Promotions Committee, the Head and the academic appointee in writing, specifying the change and giving the reasons for such action. The faculty member can appeal the Dean's recommendation to GPC under either of the following two circumstances:

1. The faculty member has appealed the Department Head's original recommendation; or,
2. The Department Head's recommendation was higher than the final merit increment recommended by the Dean.

More information is available on FPC, its membership and procedures in Appendix A: Faculty Promotions Committee and Its Procedures.

3.3 Leaves

A faculty member, who has spent a portion of the reporting period on research and scholarship leave, must include a report of his/her activity in the Academic Performance Report. This activity will be evaluated during the next regular performance review following their return, according to the proposed objectives of the approved leave.

Faculty members on leaves without pay are not eligible for merit increments for the period on leave without pay.

For more information on leaves and merit assessment and increment recommendations, please refer to the *Manual of Policies and Procedures for the [Annual] Assessment of Academic Staff (Salary Increments and Promotions)* (GPC Manual), in particular Section 7.

4 PROMOTION

Through promotion, the Schulich School of Engineering seeks to identify and reward individuals who serve as leaders, team players, and role models, and who strengthen the foundations upon which the School can build its future. A candidate's suitability for promotion is assessed by investigating the development and progression of his/her complete career, including periods of leave and/or absence.

When applying for promotion, faculty members are expected to address the expectations associated with teaching, research, and service, as described in Section 2 of this manual, keeping in mind the key characteristics as described in Section 1.2: technical competence, integrity, collegiality and teamwork, leadership, and international outlook. Students, departments, the School, the University, the profession, industry and the community, at local, regional, national and international levels, are all served well by leaders, team players, role models and mentors.

In order for a faculty member to be considered for promotion, certain achievements are anticipated. Table V, in Appendix D, provides typical career academic achievement guidelines for achievements in key activities. These achievements are not absolute but rather are guidelines and meant to demonstrate the School's commitment to standards of excellence. The individuals and committees involved in the assessment process must ensure that the quality and impact of the contributions are fully considered, and that quantity metrics do not play a dominant role in the process.

Some research disciplines and fields may have specific norms that define quality performance. For more information on specific norms, please refer to the sixth paragraph of Research Assessment, Section 2.3.

Diversity, in the balance of productivity in the three primary functions, is respected. There is an expectation that lower levels of contributions in one function will be balanced by heightened performance in one or both of the remaining functions. The promotion assessment process is flexible with a variety of ways in which faculty members can be recognized for pursuing and achieving excellence.

Documentation Required for Application for Promotion

Rank	Cover Letter	Curriculum Vitae	Dossier	Best Peer-reviewed Publications	Minimum No. of References (External to U of C)
Senior Instructor *	Yes	Yes	Yes	3	0
Associate Professor	Yes	Yes	Yes	5	0
Professor	Yes	Yes	Yes	5	3 ^{**}

In support of an application for promotion

5 INITIAL TERM RENEWAL AND APPOINTMENT WITH TENURE

Tenure is a long-term commitment on the part of both the School and the faculty member. Tenure is awarded only to faculty members who show, through evidence of performance and external evaluation by eminent referees, that they are, and have the potential to continue to be, valuable contributors in their academic activities.

In executing the activities associated with the three primary functions of teaching, research, and service, faculty members are expected to keep in mind the key characteristics as described in Section 1.2: technical competence, integrity, collegiality and teamwork, leadership, and international outlook.

Appointment with tenure is based both on career accomplishments and on the performance of the faculty member since being appointed to the Schulich School of Engineering at the University of Calgary. Achievements since the initial appointment are given stronger emphasis. Excellence in teaching, research and service performance, within the context of the diversity of pursuit, must have been sustained since the faculty member's appointment and should be indicative of the candidate's potential future track record.

Diversity, in the overall balance of teaching, research and service productivity, is respected. There is an expectation that lower levels of contributions in one function will be balanced by heightened performance in one or both of the remaining functions. The appointment with tenure assessment

Service (Section 2.4):A candidate for tenure should also be actively participating in service to the department and the profession, and should be participating at the School level and with the community.

In order for a faculty member to be considered for appointment with tenure, certain achievements are anticipated. Table VI in Appendix D provides typical academic achievement guidelines for achievements in key activities. These are not absolute, but are average annual achievements in the ranks held since appointment that the applicant should have met since the beginning of his/her Initial Term appointment. These achievements are guidelines and meant to demonstrate the individual's overall capacity for quality and productivity, as well as the School's commitment to standards of excellence.

Renewal of Initial Term is based both on career accomplishments and on the performance of the faculty member since being appointed to the Schulich School of Engineering at the University of Calgary. Achievements since the initial appointment are given stronger emphasis. The candidate should exhibit identifiable development in teaching,

5.2 Role of the Head of the Department and Academic Appointment Review Committee

The Head of the Department will seek advice on tenure applications and applications for renewal of initial term from the Departmental Promotions Committee (DPC), if applicable. All tenured staff within the department must be given an opportunity to give input on each tenure application. In the event of a faculty member being a member of a multi-disciplinary programme, the Head shall seek written input from the Coordinator of the programme. The individuals and committees involved in the assessment process must ensure that the quality and impact of the contributions are carefully considered, and that quantity metrics do not play a dominant role in the assessment process.

For appointment with tenure, the Academic Appointment Review Committee (AARC) shall obtain signed, written advice from referees within the discipline. The applicant and the Department Head will each provide the Dean with a list of five references. These lists shall contain names from both inside and outside the University. The Dean will select at least two referees from the applicant's list and at least two referees from the Head's list. The Dean is free to add to the list of references. At least three letters of reference must be on file prior to the meeting of AARC. The majority of these letters must be from referees external to the University, except for Tenure applications within the Instructor ranks. The referees' comments are confidential and will not be provided to the candidate.

More information is available on AARC in Appendix E: Academic Appointment Review Committee and Its Procedures.

5.3 Leaves

If a leave causes a delay in the application for tenure, there are administrative mechanisms in place that can prolong the Initial Term appointment or defer the consideration for tenure.

For more information on leaves and appointment with tenure, please refer to the *Manual of Policies and Procedures for the [Annual] Assessment of Academic Staff (Salary Increments and Promotions)* (GPC Manual), Section 7, and to the *Procedures Pertaining to Appointment, Promotion, and Tenure of Academic Staff* (APT Manual), in particular Sections 5.4.7 through 5.4.12.

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Conflicts of interest must be avoided. Committee members are required to disclose all possible conflicts of interest, actual or perceived. If the Head of the Department or a committee member believes that he/she may have a conflict of interest concerning the vacancy, an applicant, or for any other reason, this member is excused and is expected to withdraw from serving on the committee. Upon request, the Dean will make the final decision. A new member will then be appointed by the Head of the Department.

The Academic Selection Committee approves an advertisement for the vacant position, obtains the Dean's approval, and establishes a timetable for filling the vacancy.

All efforts must be made to encourage candidates from both genders to apply for the position. All applications are reviewed, and a list is created of applicants who warrant further investigation, including both genders whenever possible. At least three of the top candidates for the position will normally be interviewed.

The hiring process should ensure that candidates possess technical competency and teaching ability. Department and faculty members should be given an opportunity to meet with the candidates, and to provide written feedback to the Academic Selection Committee.

The Academic Selection Committee is advisory to the Chair. The Chair will report both the committee's recommendation and his/her own (if different) recommendation to the Dean, who makes the final recommendation to the President or his/her designate.

The Extraordinary Procedures for Expedited Spousal Hiring in Section 4.8 of the *APT Manual* shall be considered the equivalent of the formal Academic Selection process for all purposes.

More information on the Academic Selection Committee and its procedures is available in Appendix F: Academic Selection Committee and Its Procedures.

6.1 New Appointments

In order to maintain the School's commitment to excellence in education, research and service, new appointments to Associate Professor and to Professor must meet or surpass the standards set for the promotion of continuing faculty appointees. Equivalent experience in government or industry will also be considered. For career academic achievement guidelines for new appointments, please refer to Table VI, Appendix D.

The Canadian Engineering Accreditation Board requires that a significant proportion of the School's faculty members be registered professional engineers; therefore, except in special cases, appointees should be registered professional engineers in Alberta, or have the competence and willingness to be applicants for registration.

6.2 Assistant Professor

Appointment to the rank of Assistant Professor normally requires evidence of successful teaching ability and appropriate research activity (beyond that involved in the completion of academic training), or evidence of professional experience. An earned doctorate is normally required.

6.3 Associate Professor

A new appointment to the rank of Associate Professor requires evidence of teaching ability, recognized research achievements, and a good record of service. An earned doctorate is normally required. Professional and industrial experience is also considered in the evaluation. The criteria outlined for promotion to Associate Professor must be met. More information is available on the guidelines for promotion to Associate Professor in Section 4.4 and Table V, Appendix D.

6.4 Professor

A new appointment to the rank of Professor is based on a high level of sustained achievement in research and service, and on demonstrated teaching and leadership capabilities. An earned doctorate is normally required. Professional and industrial experience is also considered in the evaluation. The criteria outlined for promotion to Professor must be met. More information is available on the guidelines for promotion to Professor in Section 4.5 and Table V, Appendix D.

6.5 All Instructor Ranks

Applicants for an appointment at the Instructor Ranks require evidence of superior teaching ability and professional experience and/or professional/educational qualifications appropriate to the intended duties of the position. Information on the requirements for appointment to the Instructor ranks is available in the *Procedures Pertaining to Appointment, Promotion, and Tenure of Academic Staff* (APT Manual), in particular Sections 3.9, 3.10 and 3.11.

APPENDIX B SCHOOL RESEARCH AND TEACHING STATISTICS

In Table IV, the rank of Professor has been divided into two categories: those with less than eight years experience as Professors, and those eight years or more of experience as Professor. The latter are considered to be Senior Professors and have higher levels of expectations placed on them by the School. This table is based on faculty statistics and will be updated biennially.

Table IV

APPENDIX C DOCUMENTATION

All applicants for promotion and appointment with tenure must submit an application, a curriculum vitae, a dossier and his/her best publications. This appendix outlines:

- x the Schulich School of Engineering Standardized Format for Curriculum Vitae
- x guidelines for preparation of a dossier

C.1 Curriculum Vitae

A faculty member's curriculum vitae is a record of his/her career accomplishments. It is an important element of documentation for the tenure and promotion processes. In order to ease the burden on committees, and the sheer number of applications they must deal with each period, the School has adopted a standardized format for the curriculum vitae. The Schulich School of Engineering's Standardized Format for Curriculum Vitae is presented below in Appendix C.1.1. It is the faculty member's responsibility to ensure that their C.V. conforms to this Appendix and includes all relevant information for assessment.

C.1.1 Schulich School of Engineering Standardized Format for Curriculum Vitae

I. BIOGRAPHICAL DATA

Name
Date of Birth (optional)
Present Position
Full Address
E-mail

II. PROFESSIONAL RECORD

A. Academic Record

i) Undergraduate

Degree, date completed
Specialty
Institution/City/Country

ii) Graduate

Degrees, dates completed
Specialty
Institution/City/Country

iii) Post-doctoral or other special training

Title/degree, dates
Specialty
Institution/City/Country

B. Academic and Other Appointments (current first)

(Give position, institution, time)

C. Administrative Responsibilities

- i) Department*
- ii) School*
- iii) University*

D. Professional Certification and Memberships in Learned Societies

(Specific referral to P.Eng. status is required)

E. Awards, Distinctions and Fellowships

III. EDUCATIONAL ACTIVITIES

A. Instruction

(Give course name/number, period, responsibilities (e.g., lecture, lab, tutorial, etc.), and include teaching evaluation information (USRI data for each course))

Undergraduate Level

Graduate Level

Continuing Education

Teaching at foreign institutions

International schools/workshops

Invited seminars/lectures

B. Graduate and Undergraduate Supervision

(List names, students' departments, years of supervision, degree, year of actual or expected completion. Clearly indicate graduate students who are co-supervised)

Current graduate students

List of past-supervised graduate students

Examiner/supervision committee

External supervision

External examiner

Supervision of visiting/exchange students

Supervision of senior undergraduate students (e.g., group projects, summer students, etc.)

C. Postdoctoral Fellow Trainees

(Give name, topic, period, source(s) of funds)

IV. SCHOLARLY ACTIVITIES

A. Research Support

(Include funding agency, dates, prorated amount allocated to you, project title, investigators. Specify whether you are principal or co-investigator)

Grants

Contracts

B. Invited Keynote Addresses

C. Publications

Peer-reviewed journal papers (author list, published, in press, submitted)

Peer-reviewed full conference papers

Other peer-reviewed conference papers (e.g., reviewed abstracts)

Books

Chapters

Other non-reviewed publications

Abstracts

Communications

Technical reports and other publications

D. Technology Transfer

Consulting

Licensing

Patent (approved, filed)

V. SERVICE ACTIVITIES

A. University Service

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There is no definitive format which must be followed by all individuals, but the School suggests that the following ideas be used to facilitate its use in evaluative processes:¹

- x **Teaching Philosophy** This provides the faculty member with a forum to describe their beliefs, ethics, style and values as they pertain to the teaching process. Questions one might consider addressing include:
 - What are my commitments to teaching?
 - How do students best learn in my discipline?
 - By what mechanisms do I attempt to facilitate the learning process?
 - How do my teaching activities contribute to the Department/Program discipline goals?

- x **Teaching Contributions:** This section is the primary history section of the dossier. It should include your complete teaching record. Examples of categories to document:
 - Courses taught
 - Undergraduate Projects Supervised
 - Graduate Theses Supervised – possibly including their thesis title, and an abstract of their thesis

- x **Courses Developed/Modified:**It is important to detail what are commonly the extensive efforts necessary to develop and or modify courses. This primarily should be in prose with reference to relevant syllabi included in the last section.

- x **Description of Efforts to Improve Teaching** In general, teaching effectiveness is a growth process and faculty members continually change their approach to improve their effectiveness and in some cases perception of quality on the part of students. Documentation of peer evaluation and a listing of teaching courses taken should be provided. As well efforts toward improving the learning experience beyond those courses directly responsible for, to include curricula evolution both within and beyond the Department/Program, should be highlighted.

- x **Recognition of Teaching Activities** Evidence of acknowledgement of efforts such as nomination and/or being awarded teaching awards

- x **University Service:** This could include committees that you have been active on; initiatives that you have been involved with (e.g. WISE), retreats that you have participated in, etc.

- x **Technical Service:** This relates to involvement in the particular scholarly area in which you are involved. This could include committees, acting as a reviewer for grants and publications, conference organization, conference chair, membership in learned societies, etc.

- x **Community Service:** The School recognizes that many faculty are involved in various volunteer activities in the community that are not directly related to engineering, and recognizes that this is a valuable contribution to the society as a whole. Activities to highlight in this area could be e.g. coaching, serving on community boards, helping organize benefit concerts, etc.

C.3 Letters of Reference

Letters of reference are usually only required in applications for promotion to the rank of Professor, or appointment with tenure, and typically concern an individual's research performance, although feedback in teaching and service are often included. Lists of referees are compiled by a faculty member and by the Head of the Department independently. These individuals are familiar with the candidate's field of research but not necessarily with the candidate. Referees may be from Canadian and international academic institutions or, if appropriate, from government or industry. The referees should not have collaborated in research with the candidate in the previous six years and should not be former research supervisors of the individual.

The Dean will ask referees to provide letters of reference. The Dean may request references from experts not listed by the candidate. The external referees are requested to provide confidential assessments of the candidate's scholarly and professional reputation.

APPENDIX D GUIDELINES FOR PROMOTION, APPOINTMENT AND FOR APPOINTMENT WITH TENURE

Tables V and VI provide typical career achievements expected from faculty members who apply for promotion and appointment. The achievements in the tables are not absolute but rather are guidelines. Achieving all criteria does not guarantee promotion or appointment, neither does missing certain criteria automatically mean that promotion and appointment will not be granted. It must be emphasized that both reviewers and applicants must regard these tables as guidelines only.

Table V provides typical career academic achievement guidelines for promotion and appointment.

Table VI provides typical academic achievement guidelines for appointment with tenure. These are annual achievements that have accrued since the Initial Term appointment and are not absolute.

Table VI
 Typical Academic Achievement Guidelines For Appointment With Tenure
 (Average Annual Achievements since the Initial Term Appointment)

Academic Activity	Assistant Professor	Associate Professor	Professor
Student Ratings on <i>University of Calgary Universal Student Ratings of Instruction</i>	Good	Good to Very Good (5.5)	Good to Very Good (5.5)
MSc/MEng Students Supervised	1.5	2	3
MSc/MEng Students Graduated (Thesis-based)	0.5	1	1.5
PhD Students Supervised	N/A	1	2
Peer-reviewed Journal Papers (see Section 2.3.1)	1.5	2.5	3
Conference Proceedings Papers/Abstracts	1.5	2.5	4
Competitive Research Grants (e.g. NSERC or comparable)	Yes	Yes	Yes
Impact of Research	National with International Potential	National with International Potential	National and International
P. Eng.	Desired	Highly Desired*	Normally Expected
University Service	Participation	Participation Some Leadership*	Demonstrated Leadership
Service to the Profession and to Industry	Desired	Desired*	Highly Desired
Service to the Community	Desired	Desired*	Highly Desired

* on

APPENDIX E ACADEMIC APPOINTMENT REVIEW COMMITTEE AND ITS PROCEDURES

- x An Academic Appointment Review Committee (AARC), advisory to and chaired by the Dean, shall review and give recommendations on applications for:
 1. Renewal of Initial Term Appointments, and
 2. Appointments with Tenure.

The membership of the AARC shall consist of

(i) the following voting members:

- x The Dean (Chair) or delegate who must not be the person who performed the functions of the Head set out in Section 5.6 of the *Procedures Pertaining to Appointment, Promotion, and Tenure of Academic Staff* (APT Manual).
- x Three members selected by the Dean out of a slate of four tenured academic appointees in the Schulich School of Engineering. The Faculty Striking Committee shall propose a slate to the Engineering Faculty Council, which shall elect the slate every year.
- x One member, who is a tenured academic appointee from outside the Schulich School of Engineering, appointed by the Dean.
- x Up to two additional tenured academic appointees in the Schulich School of Engineering, who are appointed by the Dean. When appointing these individuals, the Dean will ensure that both genders are represented on the AARC.

(ii) the following non-voting members:

- x The Department Head or the equivalent who performed the functions of the Head as set

APPENDIX F ACADEMIC SELECTION COMMITTEE AND ITS PROCEDURES

Any academic vacancy will be defined normally in terms of the departmental plan and in consultation with the affected discipline or multi-disciplinary group. The intent to fill a vacancy in a particular area should, with prior notification, be discussed at a meeting of the department.

Academic Selection Committees (ASC), advisory to the Dean, will normally be established for vacancies, regardless of the type or duration of the academic appointment and the source of funding.

The ASC shall consist of the following voting members:

- x The Head of the Department in which the vacancy exists, as the Dean's delegate, to chair the committee;
- x A minimum of three additional departmental academic appointees elected at a meeting of the department;
- x One academic appointee from within the Schulich School of Engineering but outside the department, appointed by the Dean; and
- x One academic appointee from outside the Schulich School of Engineering, appointed by the Head of the Department.
- x In special cases, a member external to the University with the approval of the Department.

In addition, if the vacancy is related to an established multi-disciplinary centre in the Schulich School of Engineering, it will be represented by:

- x Two academic appointees, nominated by the centre's Director or equivalent, in coordination with the Head. These appointees are not normally additional to those listed above.

Both genders shall be represented on the ASC. If necessary, the Dean will nominate another academic appointee, for ensuring the representation of both genders, as a voting member of the ASC.

The quorum for all meetings of the ASC shall be four. Of those present, the majority must be academic appointees in the Schulich School of Engineering.

The ASC shall approve an advertisement for the vacancy, seek the Dean's approval, and establish a timetable for filling the vacancy. It shall also establish the steps that will be taken to seek out fully qualified women, as well as other groups designated under Employment Equity policies, as applicants for the position.

The ASC may designate the Chair and the three departmental appointees to review all applications received in order to arrive at an initial list of applicants who should be pursued further. This list will be submitted to the ASC for approval. A complete list of all applications shall also be provided to

all members of the ASC. Once the ASC approves the initial list, at least three confidential written references will be requested for each applicant. In addition, each applicant on the initial list shall be required to supply an official confirmation of all academic qualifications, particularly the doctoral degree.

A short list, normally of at least three candidates, will be drawn up and the applicants on this list will be invited for interviews. All members of the ASC will fully participate in the interview process. All full-time faculty members in the Department (and, if applicable, in the multi-disciplinary centre) will be afforded an opportunity to meet the candidates as part of the interview process and will be encouraged to submit written input to the Chair of ASC.

Following the interviews, the ASC will meet to discuss all candidates. Each member of the ASC will rank the interviewed candidates. The rankings will be compiled and a list of the combined rankings will be prepared by the ASC. In the event none of interviewed candidates is considered to be acceptable, the ASC may not recommend any candidate. If the ASC is chaired by someone other than the Department Head, the Chair will submit the list of ranked candidates to the Department Head. The Department Head will submit the list of ranked candidates to the Dean. If the vacancy is related to an established multi-disciplinary centre in the Schulich School of Engineering, the Department Head will consult with the centre's Director prior to submitting his/her recommendation to the Dean. If the recommendation of the Department Head is different from that of the ASC (or centre's Director), he/she shall provide the Dean with both sets of rankings and the reason(s) for the different recommendations.

The Dean shall make the final recommendation to the Provost and Vice-President (Academic) or his/her designate. The Dean may choose not to accept the recommendation of the Department Head and/or the ASC; however, the Dean shall communicate the reason(s) for the different recommendation to the Provost and Vice-President (Academic).

The records of all stages of the recruitment and selection process for each academic appointment shall be maintained in the Department for two years.

The procedures, as described above, will generally be followed for all appointments.

More information on academic vacancies and Academic Selection Procedures is available in Section 4.0 of the *Procedures Pertaining to Appointment, Promotion, and Tenure of Academic Staff* (APT Manual).

APPENDIX G UNIVERSAL STUDENT RATINGS OF INSTRUCTION

The Universal Student Ratings of Instruction (USRI) is one of the criteria used to evaluate teaching efficiency. It must be noted that it is not the only parameter considered in assessing teaching performance. The integer numerical values correspond to the rating, e.g. 5.0 = Good, 5.4 to 5.9 = Good to Very Good.

Table VII
The Universal Student Ratings of Instruction's
Numerical Values for the Overall Quality of Instruction and their Corresponding Ratings

Numerical Value	Rating
1	Unacceptable
2	Very Poor
3	Poor
4	Satisfactory
5	Good
6	Very Good
7	Excellent