Faculty of Science
Guidelines for Peer Review of Teaching
and Summative Assessment

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A. BACKGROUND.

The following guidelines were developed as part of on-going Peer Review of Teaching (PRT) Initiative at UBC, which aims to improve and clarify the processes that underlie peer review of teaching. This initiative will allow the Faculty of Science to emphasize the importance of good teaching to the success of undergraduate and graduate programs. In addition this initiative will allow the teaching review process to be fair, accurate and transparent for all faculty members when they undergo periodic review during reappointment, promotion and tenure. This initiative will also enable the Faculty to provide the Senior Appointments Committee with clear and accurate assessments of teaching performance of faculty members. A further outcome of peer review of teaching is the fostering of a network of instructors within each department that welcome the discussion of teaching related issues.

B. GOALS.

There are two interrelated parts of the peer review of teaching -

1) Summative evaluation is required as part of the collection of evidence for career advancement. This evaluation provides evidence for the overall impact of a faculty member's teaching for periodic reviews such as reappointment, promotion and tenure.

2) A component of the peer review of teaching also includes the potential for formative or mentoring reviews to provide constructive feedback to faculty members. The aim is to support the development of faculty members teaching with the aim to enhance and facilitate the development of teaching skills.

C. OVERVIEW

As part of each department's peer review of teaching, a series of guidelines have been developed to share best practices across the Faculty of Science. These guidelines were developed to assist each department in providing a summative assessment of teaching that fulfills the expectations of the Senior Appointments Committee (SAC) as outlined in Appendix 3 of the SAC guidelines.

In concert with these guidelines, the Faculty of Science has developed a "tool-kit" of approaches and guidelines that can be used to facilitate the peer review of teaching process. The aim of these sections is to make the process transparent and fair for the candidates and their peer reviewers. Departments are encouraged to adapt any of the tool-kit to develop a peer evaluation form to suit their particular teaching and learning environment(s).

This tool kit includes:
Appendix 1: Departmental Protocol Guidelines
Appendix 2: Teaching Dossier Guidelines
Appendix 3: Teaching Evaluation Worksheet
Appendix 4: Guidelines for the Summative Assessment for Promotion and Tenure

D. FACULTY OF SCIENCE GUIDELINES

1. Frequency and Timing of Peer Evaluations and Mentor Visits

Assistant Professor and Instructor I

Normally faculty members will have a formal summative peer evaluation for reappointment, promotion and/or tenure. Formative peer evaluations or mentoring reviews are highly recommended on an annual basis by the teaching committee or by the faculty member's mentors or mentoring committee. Suggested schedules for summative peer evaluation and mentoring reviews are given below:

Assistant Professor

Year 1	Year 2	Year 3	Year 4	Years 5 - 7
		Reappointment		Periodic review or reappointment
Mentoring review	Mentoring review	**Summative Peer Evaluation** for reappointment	Mentoring review	**Summative Peer Evaluation** for promotion and tenure OR reappointment

Instructor I

Year 1	Year 2	Year 3	Year 4	Year 5
		Reappointment		Periodic review
Mentoring review	Mentoring review	**Summative Peer Evaluation** for reappointment	Mentoring review	**Summative Peer Evaluation** for promotion and tenure

Associate Professor: At least one peer evaluation should be performed for faculty in this rank before being reviewed for promotion (and/or tenure in the case of a term appointment). Whenever possible, the latest peer evaluation should be performed during the term prior to the review for promotion (and/or tenure).

Professor: For term appointments in this rank, normally at least one peer evaluation should be performed before being reviewed for tenure. Whenever possible, the latest peer evaluation should be performed during the year prior to review for tenure. The *UBCV Peer Review Working Group* recommends that Full Professors undergo peer review every 5 years.

Returning Sessional and 12-Month Lecturers: Although lecturers are not reviewed for tenure or promotion, where possible regular peer evaluations and mentoring activities are recommended.

Additional Peer review: When a faculty member's teaching evaluations fall below the expected norm for the department, additional peer and/or mentoring visits will be arranged at the

discretion of the Head. Additional peer evaluations may be scheduled at the request of the faculty member.

2. Peer Evaluation Committee Options

Summative Review for Reappointment, Promotion and Tenure:
Option 1: Teaching/Peer Review Committee
A Teaching Committee is responsible for organizing all peer reviews and reports to the Head and/or Ad Hoc Review Committee in preparation for considering faculty members for reappointment, tenure, and/or promotion.

Option 2: Ad Hoc Committee
An ad hoc committee struck to consider a faculty member for reappointment, tenure and/or promotion. This committee is responsible for organizing and providing a teaching report to form the basis of the summative assessment of teaching, a critical component of the promotion/tenure package.

The assigned peer reviewers will be of the same or higher rank as the faculty member being evaluated. Until the full integration of the new Professor of Teaching rank, Senior Instructors will be considered senior faculty. The review committee should consist of a minimum of two evaluators both of whom have the necessary expertise relevant to the evaluation of the disciplinary content and teaching. It is recommended that one of the reviewers be external to the unit or group within the department.

The department may wish to designate specific faculty members as peer review specialists to undergo specific training to help conduct the peer review of teaching. However, all faculty conducting visits should be appropriately prepared for the peer review process and be accomplished teachers with knowledge of sound principles of teaching and learning.

Mentoring review:
Based on department's mentoring guidelines, either individual mentors or mentoring committees should be assigned within the first year for each new faculty member. Review of teaching by mentors or other peers on an annual basis for new faculty is strongly recommended. Instructors are encouraged to take advantage of the Peer Teaching Network (http://www.skylight.science.ubc.ca/PTN) or participate in the Peer Review Program (http://wiki.ubc.ca/Documentation:CTLT_programs/PRT) for informal assessment of teaching. Feedback from the mentor is provided directly to the visited faculty member and is not to be used by the formal summative peer evaluation process.

3. Peer Review of Teaching Protocols
Each department should provide a description of the protocol underlying the peer review of teaching including: details on the frequency, committee structure, initial meetings, classroom visits, feedback and the writing of the report (examples are provided Appendix 1). The aim is to make the peer review process and writing of the summative report as equitable, consistent and transparent as possible for periodic review such as reappointment, promotion and tenure.

4. Classroom/Teaching Session Review

Each reviewer should attend two different classes each and complete separate observation forms for each visit; the reviewers should consult with the instructor to ensure that the classes are representative of various levels (e.g. large lectures, tutorials, labs etc.) The instructor should be informed of the period over which they may expect in-class visits. Some departments choose to disclose the specific schedule of classroom visits. The instructor should inform the committee of any days on which a classroom visit would be inappropriate (e.g., midterm exam or guest lecturer scheduled).

Prior to visiting the teaching session, observers should be provided with a course syllabus, the context of the lesson within the course, relevant course materials, the teaching dossier and the concerns of the instructor identified. An initial visit with the instructor is strongly recommended.

Departments are encouraged to develop a teaching observation worksheet (an example is provided in Appendix 3). The observation worksheet could be appropriate for use in both mentoring reviews and summative peer evaluation of teaching as well as award adjudication. The list of criteria on the worksheet is intended to focus the attention of the observer and help set the basis for comments during the teaching session. The worksheet can help to summarize and provide evidence to support an assessment of the teaching session and in the writing of the teaching report.

Some departments also choose to interview undergraduate students where a member of the committee will interview the class or lab as a group for 10 minutes, without the instructor present. The interview is confidential and no student names will be recorded.

5. Peer review of teaching report

The teaching report should be a summary of observations from the classroom visits, student interviews, and supporting teaching materials. In the case of a summative evaluation, the report should address those criteria stipulated in the Guide to Reappointment, Promotion and Tenure Procedures at UBC (a template is provided in Section E: Appendix 4).

SAC guidelines: "Evaluation of teaching should be based on the effectiveness rather than the popularity of the instructor. Indicators of effectiveness include: command over subject matter, familiarity with recent developments in the field, preparedness, presentation, accessibility to students, and influence on the intellectual and scholarly development of students. Consideration shall be given to the ability and willingness of the candidate to teach a range of subject matter and at various levels of instruction."

The final report should not contain attribution of comments to any specific reviewer but rather represent the opinion of the committee. The peer review report should describe the means of obtaining information about the faculty members teaching, identify the sources of data and provide a qualitative assessment of teaching. The summative report needs to document the quantity of teaching of all kinds (including lectures, undergraduate/graduate supervision, mentoring activities, advising etc.), a quantitative summary and qualitative assessment of student evaluations, a summary of peer classroom observations and interviews with students, and a

description of other major teaching activities.

E. PEER REVIEW OF TEACHING TOOLKIT

Appendix 1: Departmental Protocol Guidelines
Appendix 2: Teaching Dossier Guidelines
Appendix 3: Classroom Evaluation Worksheet
Appendix 4: Guidelines for the Summative Assessment of Teaching

Appendix 1: Departmental Protocol Guidelines

Aim: To clearly explain to the candidate the protocol and steps involved in generating a teaching report for the summative assessment of teaching needed for periodic review such as reappointment, promotion and tenure. Each section specifies topics to be discussed with the candidate and provides examples taken from different departments. A simplified protocol could be developed for mentoring reviews of teaching.

1. Frequency
Explain the timing of the summative reviews.

2. Committee/Review Team
Explain the nature of the peer review committee (departmental or ad hoc teaching/peer review committee).

Example 1: A faculty member that is new to the department, applying for reappointment, promotion or tenure will meet with the department head to determine the appropriate schedule for peer evaluation of teaching. In consultation with the faculty member the department head will appoint three colleagues to form a peer evaluation committee. The Head will designate one of its members to serve as chairperson.

Example 2: Peer reviews should be conducted by teams of at least two peer reviewers, at least one of who has some expertise/training in peer review evaluation. The Head might provide the instructor with a list of potential internal peer reviewers from which the instructor may select several as agreeable. One of the peer reviewers should be external to the unit or group within the department. The peer reviewers will normally be of the same or higher rank as the candidate.

3. Initial meeting
Outline the protocol for an initial meeting with the faculty member.

Example: The chair of the teaching committee will set up a meeting to outline the procedures to be followed in the review. This should be done before the middle of the teaching term, in order to allow enough time for discussion and classroom observation. At the initial meeting, instructors will provide course materials, including schedules, syllabi and lab manuals (where applicable). Having a complete teaching dossier available for this meeting is strongly recommended. This meeting is an opportunity for the instructor to discuss their instructional goals, identifying strengths, concerns, special considerations relevant to the course, and areas that the instructor would like to improve. At this meeting, the peer evaluation committee will review all relevant course materials and set up a strategy for classroom visits.

4. Classroom observation
Outline the protocol for the classroom observations.

Example: Each member of the peer evaluation committee will observe at least 1 teaching session of each course taught. For instance, a committee consisting of 3 members will observe at least 3 classes. In the case where more than one course is being taught, the committee will visit each course at least twice. In the case where laboratory instruction is a component of the instructor's teaching, the reviewers will be advised by the candidate what portion of the lab session is most appropriate for observation. The departmental classroom observation form will be used to help structure and standardize the evaluation of the Instructor's classroom performance. An example of this form is attached.

During the last 10 minutes, for one class in each course, a member of the committee will interview the class as a group, without the instructor present. In the case of lab instructors, the interview will take place in the lab. The committee member conducting the interview will state that the committee is interested in the students' views of the instructor and the course, and that no student names will be recorded. The committee will ask the following questions:
"How does this instructor help you to learn?"
"Are there areas in which you would suggest improvement?"

5. Feedback to faculty member
Outline the protocol if necessary for any informal feedback to instructors.

Example: After the classroom visits, the committee or a subset of the committee meets with the instructor to provide informal feedback.

6. Teaching report
Outline the protocol for writing the teaching report. For most cases the teaching report forms the basis of the summative assessment of teaching needed for promotion and tenure decisions.

Example 1: The committee will prepare a draft of the teaching report, which will be a summary of observations from the classroom visits, student interviews, the Faculty of Science student evaluations of teaching and supporting teaching materials. The report should address those criteria stipulated in the SAC Guide to Reappointment, Promotion and Tenure Procedures at UBC. The summative report needs to document the quantity of teaching of all kinds, a quantitative summary and qualitative assessment of student evaluations, a summary of peer evaluations, and a description of other major teaching activities.

The committee will send a draft copy of the teaching report to the instructor, with a request to review it and to send comments to the committee by a certain date. If the instructor submits comments, the committee will consider them. If the committee agrees with the comments, the report is modified to reflect them. If the committee does not agree with the comments, the instructor's comments are included as an addendum to the report. The final report will be submitted to the Head and to the Promotion and Tenure Committee.

Example 2: A final summative report (suggested two pages) should be written by the chair of the committee or the external reviewer based on the contributions of all reviewers; other reviewers must sign off on the report indicating approval before being submitted to the Head. The final report would not contain attribution of comments to any specific reviewers, and any dissenting views from a consensus could be recorded. Instructors will have access to the

final summative report, subject to the Head's discretion to protect confidentiality including that of students. The Head will arrange for a meeting with the instructor to discuss the results of the review, provide the instructor with the opportunity to respond and determine any follow-up if and as appropriate.

7. Protocol for Joint Appointments
Outline the protocol for faculty members who have joint appointments

Example: Instructors with joint appointments will be assessed by a committee made up of members from both departments (two members from each) appointed in consultation with the instructor and both department heads.

Appendix 2: Teaching dossier guidelines

A teaching dossier is prepared to describe an instructor's educational values, practices and impact on students. Each dossier will be a unique document and can serve as evidence of teaching accomplishments. Some common components are listed below.

Statement of Teaching Philosophy
>Description of personal goals in teaching
>Explanation of the choice of teaching strategies
>Identification of teaching activities that support learning goals

Teaching Activities
>Identify number of courses taught, indicating level, format and size.
>Course Syllabi
>- o Include course logistical information
>- o Outlines course goals, objectives or learning outcomes
>- o Outlines methods of student assessment and grading policies
>Examples of student assessment linked to learning outcomes
>- o Assignments
>- o Exams
>- o Examples of feedback to students

Evidence of teaching effectiveness:
>Student evaluations and summary of student feedback, including comments
>Summary of student evaluations
>- o Description of trends
>- o Explanation of anomalies
>- o Examples of incorporating feedback from students, peers

Other contributions/innovations
>Web site development
>Curriculum, course/lab development
>Publications at conferences, peer reviewed journals, etc.
>Outreach activities (High Schools, Science Fair, etc.)
>Advising including undergraduates, graduates and other instructors/faculty
>Supervision of graduate students, undergraduate research projects

Teaching Awards
>Examples of awards and other recognition

Professional development
>Examples of professional development including conferences, courses, workshops

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Further resources:

CTLT UBC: http://ctlt.ubc.ca/resources/teaching/portfolios/
Ohio State UCAT: http://ucat.osu.edu/teaching_portfolio/teaching_port.html

Appendix 3: Teaching Evaluation Worksheet

Name of Instructor:	**Course Title:**
Course:	**Section:**
Date:	**Day:**
Visitor's Name:	**Signature:**

1. Clarity and Organization
- Clearly states purpose / objectives of the lesson
- Presents clearly defined learning goals
- Presented overview of lesson
- Relates lesson to previously covered material
- Presents material in a logical sequence
- Paces lesson appropriately
- Summarizes major points of lesson

How did the instructor demonstrate organization of the subject matter?

2. Effective Communication
- Projects voice, with intonation; easily heard
- Demonstrates and stimulates enthusiasm for subject
- Varied explanations for complex and difficult material, using examples to clarify points
- Defines unfamiliar terms, concepts and principles
- Uses humor appropriately to maintain attention and strengthen retention
- Listens to students' questions and comments

What were the most and least helpful things the instructor did to communicate effectively?

3. Interaction with Students
- Maintains student attention
- Responds to nonverbal cues of confusion, boredom and curiosity
- Encourages student questions or discussion
- Asks questions to monitor student progress
- Listens to students' questions and comments
- Gives satisfactory answers to student questions
- Uses appropriate techniques to engage students

How did the instructor show interest in the students and their learning?

4. Instructional Materials

- Prepares students for lesson with appropriate assigned reading
- Presentation follows handout / syllabus
- Present appropriate amount of material at suitable level of complexity; material up-to-date
- Presents helpful audiovisual materials to support lesson organization and major points
- Has prepared helpful written materials (syllabi and objectives, handouts) to reinforce key points

Did the instructor incorporate various instructional methods appropriate for the material presented? What other methods would be effective?

5. Content Knowledge and Relevance

- Material is relevant to education of a science student
- Material appropriate for student level
- Demonstrates command of subject matter; information up-to-date

What content appeared to be the most important component of the lesson?

Small Group / Lab (if appropriate)
- Explains purpose, goals of the session
- Explains how session is organized, or will be conducted; student role is made clear
- Keeps session well-paced & keeps group on target
- Facilitates, rather than directs, discussion. Allows learners to solve problems
- Accommodates different learning styles
- Demonstrates new tasks, procedures
- Checks to see that information is understood
- Provides effective feedback
- Encourages group interaction; ensures participation from all members of the group
- Treats learners and colleagues, team members respectfully
- Ensures summarization of content at end of session

What aspect of the small group session was most effective in enhancing student engagement?

OVERALL SUMMARY

1. What were the Instructor's major strengths demonstrated during this teaching session?

2. If applicable, identify aspects of the Instructor's teaching skills could be improved? Provide suggestions on means of improving these skills.

Appendix 4: Guidelines for the Summative Assessment of Teaching

The Senior Appointments Committee (SAC) requests that each candidate's file include a summative assessment of the entire teaching portfolio and other appropriate evidence of performance as a university teacher and educator. Typically this is written by the Head or the Chair of the Promotion/Tenure committee and is 2-3 pages in length. The peer evaluation of teaching report forms the basis for many sections of the summative assessment for SAC. The assessment should include:

1. Description of the procedure:
Describe the nature of the review process in terms of who conducted the review, when and how the review took place and what material was evaluated by the reviewers.

2. Teaching load:
A quantitative summary of the amount of teaching performed by the candidate and how the amount of teaching compares to the expected norms of the Department. If the amount of teaching in one or more particular areas does not meet the expected norms, an explanation should also be included.

3. Student evaluations:
A quantitative summary and qualitative assessment of the candidate's student evaluations, and how these evaluations compare to the expected norms in the Department. Charts may be helpful in setting out the summary and with the evaluation of any changes to performance. If the candidate's student evaluations in one or more particular areas do not meet the expected norms, a comment or explanatory statement should also be included.

   The candidate has the right to add student comments to the file providing they were obtained through formal procedures. If the student comments are added, it must be a comprehensive set (rather than a selection by the candidate).

4. Peer evaluations:
A summary of qualitative peer evaluations of the candidate's teaching at the undergraduate, graduate and postgraduate levels, and a statement regarding how these assessments compare to the expected norms of the Department.
The peer evaluation of teaching report should form the basis for this section. For instance, this section should summarize observations from the classroom visits (including strengths and weaknesses), student interviews (if carried out), and supporting teaching materials such as the teaching dossier. If the candidate's peer evaluations in one or more particular areas do not meet the normally expected standard, an explanation should be included.

5. Graduate (Undergraduate Research) Supervision:
A statement regarding the candidate's performance as a graduate student supervisor in terms of the students' degree completion, time to completion, publications with students, research awards, and subsequent professional success. This section can also include supervision of undergraduate research such as B.Sc. directed research and Honours theses. For instructors and senior

instructors, professional mentoring of TAs could be included along with membership on thesis committees.

In some departments the promotion and tenure committee or the department head will also conduct a confidential interview with current or previous graduate students of the faculty member being evaluated. The point of the interview is to determine the quality of instruction and support being provided such as accessibility, feedback on work, career support and any concerns. In the case of appointment to Senior Instructor, if laboratory instruction is the primary responsibility, the committee could interview the TAs involved in the lab and/or directed studies students.

6. Other teaching or educational activities:
A description of any other major teaching or educational activities performed by the candidate, along with statements supported by summarized evidence regarding the candidate's effectiveness and the importance of these activities. Included should be such activities as curriculum development, program or course direction, or development of instructional materials (textbooks, course packages) or websites, successful grant applications for course development. Examples of leadership in course/instructional or curriculum development. Outreach and/or courses taught outside of UBC should be listed including the institutions and the impact. This section could also include advising activities including undergraduates, graduates and other instructors.

7. Awards:
A list and brief description of any awards or other recognition of teaching excellence the candidate has received including teaching awards and mentorship awards.

8. Professional Development:
A list and brief description of any special efforts undertaken to improve teaching performance through UBC (such as TAG, CTLT) or outside programs, such as participation in teaching conferences or workshops.

9. Other evidence:
A summary of any other evidence that bears upon the effectiveness or quality of the candidate's teaching. This might include, for example, national professional accreditation of a training program the candidate directs or recognition by a scholarly society of the candidate's educational contributions to the field. Examples could also include conference presentations or publications on the scholarship of teaching.

10. Overall summary:
An overall summary of the candidate's performance as a university teacher and educator, and a statement describing how this compares to the expected norm for the Department.