

Department of Chemical and Materials Engineering

Procedures for the

Selection of Supervisory Committees

And for

Conducting M. Sc. And Ph. D. Final Oral Examinations and Ph. D. Candidacy Examinations

Summary: This document summarizes the procedures to be followed when forming supervisory and examination committees and conducting oral final and candidacy examinations. It is important that the procedures set out in this document are followed to ensure compliance with program, FGSR and University requirements.

1. Selection of Supervisor

As per current practice, no student is admitted to the thesis-based graduate programs in Chemical and Materials Engineering (CME) without a supervisor (or supervisors) being assigned. Each thesis-based graduate student should have at least one supervisor from the CME Department who belongs to category A1.1 as defined in the University's Recruitment Policy (Appendix A) Definition and Categories of Academic Staff and Colleagues (available at <https://policiesonline.ualberta.ca/PoliciesProcedures/Procedures/Recruitment-Policy-Appendix-A-Definition-and-Categories-of-Academic-Staff-Administrators-and-Colleagues.pdf>).

The Associate chair for graduate studies acts as the advisor for course-based graduate students.

2. Selection of a Ph.D. Supervisory committee

Every doctoral student's program shall be under the direction of a supervisory committee approved by the department. A supervisory committee shall be appointed before the end of the first year of a student's first registration as a PhD student. The supervisory committee shall meet formally with the student at least once per year to review the student's progress and place a report for the same in student's file. A doctoral supervisory committee must have at least three members, and must include all the supervisors. The supervisory committee meetings will be chaired by one of the supervisors. The supervisor is responsible for ensuring committee meetings are held and making arrangements.

Compliance with the University of Alberta's Conflict Policy - Conflict of Interest and Commitment, and Institutional Conflict is mandatory.

3. Composition of examining committees

Formal examining committees are required for thesis-based master's final examination, doctoral candidacy examinations, and doctoral final examinations. Members of these examining committees perform two functions: 1) they bring knowledge and expertise to the assessment of the thesis, and 2) they ensure that the University's expectations are met regarding the conduct of the examination, adherence to all relevant policies, and the suitability of the thesis for the degree.

It is the duty of the supervisor to form the appropriate examining and supervisory committees with appropriate composition. Each examining committee is chaired by an impartial chair. The role of the chair is to ensure fairness and adherence to the rules. The chair is responsible for moderating the discussion and directing questions. It is the chair's responsibility to ensure that departmental and FGSR regulations relating to the final examination are followed. The chair is not considered as an examiner and does not count towards the required numbers in the rules given below. The impartial chair DOES NOT ask questions nor offer an opinion as to the performance

of the candidate. The chair must be completely unbiased. The chair must be from the Department of Chemical and Materials Engineering (CME).

Ex-officio Examiners: The supervisor(s) and, for doctoral students, the other members of the student's supervisory committee are ex-officio members of the examining committee. By definition, no individual can be both an ex-officio and an arm's length examiner on the same examining committee.

Arm's length examiner: An arm's length examiner is knowledgeable in the field and comes fresh to the examination. They must not be (or have been) a member of the supervisory committee, or have been connected with the thesis research in a significant way. The examiner should not have been associated with the student, outside of usual contact in courses or other non-thesis activities within the University, nor be related to the student or supervisor(s). The arm's length examiners should not be a former supervisor or student of the supervisor(s) or an active collaborator of the supervisor(s). The arm's length examiner may be from any department at the University of Alberta, including the CME Department.

In the CME department, the following guideline is used to decide whether someone is a close collaborator of the supervisor: In the past two years, if the person has co-supervised students or was a co-investigator on a funded project or has co-authored refereed publications with the supervisor(s), they would be regarded as a close collaborator and not be eligible to act as an arm's length examiner.

External examiner: An external examiner is required for doctoral final oral examinations. The external examiner, who will not be from the University of Alberta:

- Will be a recognized authority in the specific field of research of the student's thesis;
- Will be experienced in evaluating doctoral area work; and
- Must be in a position to review the thesis objectively and to provide a critical analysis of the work and the presentation.

It is essential that the External not have an association with the student, the supervisor, or the department within the last six years as this could hinder objective analysis. For example, a proposed External who has within the last six years been associated with the student as a research collaborator or coauthor would not be eligible. Also, a proposed External must not have had an association within the last six years with the doctoral student's supervisor (as a former student, supervisor, or close collaborator, for instance).

Under normal circumstances the same person will not be used as an External at the University of Alberta if that External has served in the same capacity in the same department at this University within the preceding two years; this does not preclude an External serving in another department.

3.1 M.Sc. final oral examination:

- The minimum size of a master's final examining committee is three examiners. The maximum size is five examiners.
- The ex officio members of the committee are the supervisors.
- There must be one arm's length examiner.
- At least half of the examiners must hold a master's degree or higher.
- At least half of the examiners must fulfill the criteria of University of Alberta examiner (a tenured, tenure-track, or retired University of Alberta faculty member, or Faculty Service Officer, (current or retired categories A1.1, A1.3, or current category C1.1, as defined in the University of Alberta's Recruitment Policy (Appendix A) Definition and Categories of Academic Staff and Colleagues)).

While these are the guiding principles for the structure of the examining committee, the authority for the appointment of final examining committees rests with the Dean of the department's Faculty, and has been delegated to the department.

3.2 Ph.D. candidacy examination:

- The minimum size of a doctoral candidacy committee is five examiners. The maximum size is seven examiners.
- The ex officio members of the committee are the supervisor(s) and the supervisory committee members.
- There must be two arm's length examiners.
- At least half or more of the examiners must hold a doctoral degree or higher.
- At least half of the examiners must fulfill the criteria of University of Alberta examiner (see above)

The authority for the appointment of doctoral candidacy examining committees rests with the department.

3.3 Ph.D. final oral examination:

3.3.1 Composition of the committee

- The minimum size of a doctoral final examining committee is five examiners. The maximum size is seven examiners.
- The ex officio members of the committee are the supervisor(s) and the supervisory committee members.
- There must be two arm's length examiners, one of whom must be a reader or examiner external to the University
- At least half of the examiners must hold a doctoral degree or higher.

- At least half of the examiners must fulfill the criteria of University of Alberta examiner (see above)

The authority for the appointment of final examining committees rests with the Dean of the department's Faculty, and has been delegated to the department.

3.3.2 Inviting the External Examiner or Reader

For doctoral thesis examinations, it is the responsibility of the department chair (or delegate) to nominate an external examiner or reader and to submit the name to the FGSR for approval. This should be done on form to 'Approve External Reader or Examiner for Final Doctoral Oral Examination', which should be prepared by the department normally at least two months in advance of the examination date (FGSR Council, 1989/06/19). The form is available on the FGSR website at <https://uofa.ualberta.ca/graduate-studies/about/resources-for-faculty-and-staff/forms-cabinet>.

The submission must include a brief CV of the external examiner and a short statement regarding the external's qualifications. Of particular interest are the external examiner's current scholarly publications and research activities and experience with graduate student education, including supervision and serving on committees for Ph.D. final oral examinations.

Once the external has been approved, the Associate chair for graduate studies will invite the external examiner officially, with a copy of the letter of invitation to the department.

The external shall receive the thesis at least four weeks before the final oral examination. The external should not be contacting the supervisor directly regarding the thesis or making arrangements related to the examination.

Ideally, the approval of the external examiner should be forwarded to FGSR at least two months prior to the date of the examination (use the form titled "Approve external reader or examiner for final doctoral oral exam").

4. Attendance at Exams

In the absence of unforeseen circumstances, it is essential that all examiners attend the entire examination. Attendance means participation in the examination either in person or via teleconferencing. The only exception allowed is the External Reader for a doctoral final examination, who participates by providing a detailed report and a list of questions.

It is recommended that no more than two participants use teleconferencing (defined as all forms of distance conference facilitation including telephone, video and synchronous electronic communication). Use of teleconferencing must be submitted for approval (i.e. indicated in the relevant form) at the time the examination committee is approved. Students must attend their candidacy examinations in person. In exceptional circumstances, for the final examinations,

students may participate by teleconferencing. It is recommended that if the student is the remote participant, no remote committee members be used.

If any member of the examining committee cannot attend the examination for any reason, the committee chair should contact the graduate assistant and Associate chair for graduate studies immediately, and they will contact the Dean, FGSR for advice. FGSR deals with these situations on a case-by-case basis, but it may be necessary that the examination be postponed and re-scheduled, or the examiner be replaced.

Except for the Dean, FGSR, the Dean of the department's Faculty, or a Pro Dean (the representative of the Dean, FGSR), who may participate fully in the examination, persons other than the examiners (i.e., guests and visitors) may attend only with the approval of the Dean, FGSR, the Dean of the department's Faculty, or the chair of the committee. Faculty members of the student's home department as well as members of FGSR Council (or their alternates) have the right to attend doctoral examinations but should notify the chair of the examining committee in advance.

Except for a Dean or a Pro Dean who may participate fully in the examination, persons who are not members of the examining committee:

- may participate in the questioning only by permission of the chair of the committee, but
- are not permitted to participate in the discussion of the student's performance and must withdraw before such discussion commences

Attendance and Responsibilities of a Pro Dean at Examinations: A Pro Dean is a full voting member when attending an examination. The Pro Dean's presence is in addition to the regular membership. Attendance of the Pro Dean may be at the request of a committee member, student, chair, the Associate chair for graduate studies, the Dean of the department's Faculty, or the Dean, FGSR. The Pro Dean's role is to ensure the proper conduct of the examination and will intercede actively to correct procedural problems. The Pro Dean has the power to adjourn an examination. If problems are encountered, the Pro Dean is asked to submit a brief report to the Dean, FGSR.

5. Duties of the Supervisor for all oral exams

It is the responsibility of the supervisor(s) to ensure that:

- proper arrangements are made for the student's examination,
- the exam is scheduled and held in accordance with FGSR and departmental regulations,
- committee members are informed of meetings and details of examinations
- the student does not make these arrangements, and
- the student provides a copy of the thesis (master's and doctoral final examination) to the individual delegated by the program to distribute the thesis to the examiners (e.g., chair of the examination, program administrator, supervisor). Supervisors are responsible for ensuring that all examiners receive the thesis in a timely way (timelines provided below).

The supervisor should carry out the following tasks:

If a final oral examination is to be scheduled, examine the student's file to ensure that the student is eligible to convocate. Check that the following requirements have been met:

- Course requirements (available in the CME graduate program handbook)
- Performance standards (refer to the CME graduate program handbook for guidance)
- residence requirement (available at https://calendar.ualberta.ca/preview_program.php?catoid=29&poid=27958. The residence requirement is two four month terms of full-time attendance at the University of Alberta for thesis-based Masters students and two academic years of full-time attendance at the University of Alberta for doctoral students)
- Presentation of a seminar at an acceptable venue (i.e conference or equivalent, refer to the CME graduate program handbook for further guidance)
- Ethics requirement (successful completion of ENGG 600)
- Professional development requirement (refer to the CME graduate program handbook for guidance)

Prepare a written summary of the student's record which will be distributed to the examining committee on the day of the examination. This summary should include information on the previous degrees received, date of initial registration, the date(s) of any change(s) of status, the dates of full-time residence at the University of Alberta, the date on which the departmental seminar was given (if already given), a listing of the student's courses and the grades obtained, plus anything else which the supervisor believes is relevant. If a requirement, such as the seminar requirement, has not yet been satisfied, indicate the date (if known) when the requirement will be satisfied.

If a Ph.D. candidacy examination is to be held, ask the student to prepare a written summary of the research completed on the thesis topic, and of the research proposed. The summary should be printed in 12 point font and not exceed 20 pages in length (excluding table of contents and list of references). Best practices are to include sections on motivation, background/literature review, hypothesis/objectives, methods, results, results and proposed work. Note that this summary must be submitted to the department within 13 months of the start of the program, and the candidacy examination should be held within 16 months of the start of the program.

Form the examining committee according to the rules given in Section 3. Note that the impartial chair is not counted when determining if the examining committee has the correct membership. Give a copy of the summary of the student's record to the impartial chair.

Select a date for the examination. For a final exam, have the student distribute copies of the thesis to all members of the examining committee and the impartial chair. This distribution must occur **at least** three weeks prior to the examination. For a PhD Candidacy exam, the candidacy report will be distributed to the committee by the department. Note that prior to a Ph.D. oral examination, a copy of the thesis should not be sent to the external examiner until each member of the Ph.D. supervisory committee has agreed in writing that the thesis is of adequate substance to warrant that the student proceed to the final examination (the form "Preliminary Acceptance of Thesis" is used for this purpose). The external examiner must receive the thesis **at least** four weeks prior to the oral examination.

Note that once the external examiner has been approved and invited formally, the supervisor(s) and students should not contact the external examiner directly for any purpose, including providing the thesis or making arraignments for teleconferencing/travel, until the examination is completed. A graduate assistant (presently, Amy Chow) will conduct these communications on behalf of the student and supervisors.

Reserve a conference room for the examination.

Instruct the student to prepare a short presentation which will be given prior to the start of the question period portion of the examination. This presentation should be a summary of the research and could provide a context of the student's work. The presentation should be approximately 20 minutes in length, and cannot exceed 25 minutes under any circumstance.

At least three weeks before the examination, submit a completed "Notice of Examining Committee and Examination Date" form to FGSR through a graduate assistant. Copies of this form will be given to each member of the examining committee (and for the student's file) prior to submitting the form to FGSR.

Take the student's file to the examination and, when requested by the chair, distribute the summary of the student's record to the committee and describe the contents therein.

6. Duties of the Examining Committee Chair: Prior to the Exam

On receiving your copy of the “Notice of Examining Committee and Examination Date” form, check the date you received it and the date of the examination to ensure that these dates are at least three weeks apart.

Check that the composition of the examining committee is correct. Refer to Section 3 for details.

If the copy of the thesis has not yet been received, ask the supervisor if the thesis will be available **at least** three weeks prior to the examination. In the case of a Ph.D. final oral examination, ask if the external examiner will receive the thesis **at least** four weeks prior to the examination. If these time frames are not going to be met, tell the supervisor(s) that the examination may have to be rescheduled and consult with the Associate chair for graduate studies. **Note:** For a PhD Candidacy exam, check with the department (i.e a graduate assistant) if the research summary was distributed to the examining committee.

Inspect the summary of the student’s record which has been received from the supervisor. If all FGSR and departmental requirements have not been met and will not be met by the time of the exam, tell the supervisor(s) that the examination may have to be rescheduled and consult with the Associate chair for graduate studies. **It is the responsibility of the committee chair to be familiar with all FGSR and departmental requirements. Graduate assistants and the Associate chair for graduate studies can provide guidance on these requirements.**

Check that the room has been reserved for the examination.

About one week before the examination, arrange to see the student and explain the procedures which will be followed. Stress that the talk should be approximately 20 minutes in length, and under no circumstances should it be longer than 25 minutes in length.

For Ph.D. final oral examinations, obtain the external examiner/reader’s report from the Associate chair for graduate studies or a graduate assistant (if has not been provided already) and confirm that the external examiner/reader has indicated that the examination can proceed (i.e. they have not indicated to the Dean, FGSR that the thesis is unacceptable without major revisions).

7. Duties of the Examining Committee Chair: MSc final exam

Introduce everyone including the student and any guests and visitors who may be in attendance.

State the purpose of the meeting by reading the following statement aloud:

It is the purpose of this committee to conduct an oral examination designed to test the student's knowledge of the thesis subject. The decision of the examining committee will be based both on the content of the thesis and on the candidate's ability to defend it.

Summarize the procedures which will be followed as outlined in this document for the benefit of the student and the examining committee, including the order of examiners, the number of rounds of questions, the length of time allotted to each examiner and whether interjections by other examiners are permitted.

Ask the student to leave and then ask the supervisor to distribute and describe the written summary of the student's record. **It is the committee's responsibility to verify that all faculty and departmental degree requirements have been met.**

Re-admit the student and ask the student to give a presentation on the thesis work. Emphasize that this presentation is supposed to be a summary because the committee members have read the thesis. Tell the student that you will give a 5 minute warning after 20 minutes, if necessary. If necessary, tell the student to stop at 25 minutes.

Following the presentation start the questioning, which should not exceed 2 hours and is ideally around 1.5 hours in duration. The chair of the committee is responsible for moderating the discussion and directing questions but **will not** participate in the questioning. There should be two rounds of questions. Each round should follow the same order of questioners, typically starting with the arm's length examiners and ending with the supervisor(s). Ideally, allow approximately 10-15 minutes for each questioner for each round.

The questioning should focus on establishing the quality of the thesis and the student's breadth and depth of understanding at a level appropriate to the degree qualification.

Final comments: Ask the committee members for any final statements and/or questions. Ask if the student wishes to make a final statement, emphasizing that this is optional.

Deliberation:

Ask all guests and visitors to leave. The FGSR representative, if one is present, may remain and participate fully. Ask the student to leave and to take their personal belongings including electronic devices with them.

The deliberations are confidential proceedings. The committee will agree on the report to be provided to the student with the outcome of the examination.

The examiners are to be asked to give their opinions on the quality of the thesis and the defense in the same order as questioning occurred. All examiners must provide their opinion before a final decision is made.

If the outcome of the first vote does not result in a decision, the chair will allow for further discussion and attempt to reach a decision. Only in cases where a decision cannot be reached in a reasonable time will the student be informed and matter referred to the Dean FGSR, who will determine the appropriate course of action. Please consult the Associate chair for graduate studies in such cases.

The chair of the Examination Committee may sign the thesis examination form on behalf of an examiner who is participating from a remote location.

Read the following statement to the committee:

The decision of the examining committee should be based both on the content of the thesis and on the candidate's ability to defend it. The committee can make one of four recommendations: (1) student passes, (2) student passes with thesis revision, (3) examination adjourned, or (4) student fails.

The circumstances in which these four possible outcomes should be used, and the actions to follow are outlined below. Explain these options to the committee.

Pass: *All or all but one of the examiners must agree to an outcome of Pass.* Pass is the decision given when the only revisions required are typographical or minor editorial changes. If the student passes the examination, the department should submit a completed Thesis approval/Program Completion form to the FGSR. If one of the examiners fails the student, that examiner does not have to sign this form.

Pass subject to revisions: *All or all but one of the examiners must agree to an outcome of Pass subject to revisions.* This is to be chosen when the student has satisfactorily defended the thesis but the revisions to the thesis are sufficiently minor that it will not require a reconvening of the examining committee.

If the examining committee agrees to a "Pass subject to revisions" for the student, the chair of the examining committee must provide in writing, within five working days of the examination, to the student, the Associate chair for graduate studies, and FGSR:

- the reasons for this outcome,
- the details of the required revisions,

- the approval mechanism for meeting the requirement for revisions (e.g., approval of the examining committee chair or supervisor, or approval of the entire examining committee, or select members of the committee), and
- the supervision and assistance the student can expect to receive from committee members.

The student must make the changes within six months of the date of the final examination. These changes should be checked and approved by the chair of the examining committee or supervisor, who does not sign until the required changes are satisfactorily completed. Other committee members may also wish to withhold their signature until they can verify that their required revisions have been made to their satisfaction.

Once the required revisions have been made and approved, the department shall submit a completed Thesis Approval/Program Completion form to the FGSR indicating “pass subject to revisions”. If one of the examiners fails the student that examiner does not have to sign the form. If the required revisions have not been made and approved by the end of the six months deadline, the student will be required to withdraw.

Adjournment: *A majority of the examiners must agree to the outcome of Adjourned.* An adjourned examination is one that has been abandoned officially. The final oral examination should be adjourned in the following situations:

- The revisions to the thesis are sufficiently substantial that it will require further research or experimentation or major reworking of sections, or if the committee is so dissatisfied with the general presentation of the thesis that it will require a reconvening of the examining committee. In such circumstances the committee cannot pass the student, and must adjourn the examination.
- The committee is dissatisfied with the student's oral presentation and defence of the thesis, even if the thesis itself is acceptable with or without minor revisions.
- Compelling, extraordinary circumstances such as a sudden medical emergency taking place during the examination.
- Discovery of possible offences under the Code of Student Behaviour after the examination has started.

If the examination is adjourned, the committee should:

- Specify in writing to the student, with as much precision as possible, the nature of the deficiencies and, in the case of revisions to the thesis, the extent of the revisions required. Where the oral defence is unsatisfactory, it may be necessary to arrange some discussion periods with the student prior to reconvening the examination.
- Decide upon a date to reconvene. If the date of the reconvened examination depends upon the completion of a research task or a series of discussions, it should be made clear which

committee members will decide on the appropriate date to reconvene. This new examination must be held within six months of the initial examination.

- Make it clear to the student what will be required by way of approval before the examination is reconvened (e.g., approval of the committee chair or supervisor, approval of the entire committee, or of select members of the committee).
- Specify the supervision and assistance the student may expect from the committee members in meeting the necessary revisions.
- Advise the Dean, FGSR, in writing of the adjournment and the conditions. Keep the Associate chair for graduate studies informed about the adjournment and the conditions.
- When the date is set for the adjourned final examination, the department will notify the FGSR. Normally a Pro Dean attends the examination. The Pro Dean should be included on all correspondence for the rescheduling of the examination.

Fail: All or all but one of the examiners must agree to an outcome of Fail. If the examination result is a Fail, no member of the examining committee signs the Thesis Approval / Program Completion form.

When the outcome is a Fail, the committee chair will provide the reasons for this decision to the department. The department will then provide this report, together with its recommendation for the student's program, to the Dean, FGSR, and to the student.

An Associate Dean, FGSR will normally arrange to meet with the student, the Associate chair for graduate studies, and others if needed, before acting upon any departmental recommendation that affects the student's academic standing.

As mentioned earlier, if the examining committee fails to reach a decision (i.e. with any voting pattern that is not covered in the cases above), the matter must be referred to an Associate Dean at FGSR; please consult the Associate chair for graduate studies about this.

Note: When making the preceding decision, the chair of the committee is responsible for moderating the discussion, but does not participate in any votes which are held and does not offer an opinion on the candidate's performance. After the decision is reached, the chair should re-admit the student and explain the decision of the committee, thank everyone and close the examination.

8. Duties of the Examining Committee Chair: PhD Candidacy exam

Introduce everyone including the student and any guests and visitors who may be in attendance.

State the purpose of the meeting by reading the following statement aloud:

*Students in doctoral programs are required to pass a candidacy examination in subjects relevant to their general field of research. Students must demonstrate to the satisfaction of the examining committee that they possess: (a) an adequate knowledge of the discipline and of the subject matter relevant to the thesis; and (b) the ability to pursue and complete original research at an advanced level. **During the candidacy examination only minor attention should be given to the work done on the thesis.***

Summarize the procedures which will be followed as outlined in this document for the benefit of the student and the examining committee, including the order of examiners, the number of rounds of questions, the length of time allotted to each examiner and whether interjections by other examiners.

Ask the student to leave and then ask the supervisor to distribute and describe the written summary of the student's record. **It is the committee's responsibility to verify that all faculty and departmental degree requirements have been met.**

Re-admit the student and ask the student to give a presentation on the thesis project. Tell the student that you will give a 5 minute warning after 20 minutes, if necessary. If necessary, tell the student to stop at 25 minutes.

Following the presentation start the questioning, which should be about 2 hours in duration. The chair of the committee is responsible for moderating the discussion and directing questions but **will not** participate in the questioning. There should be two rounds of questions. Each round should follow the same order of questioners, typically starting with the arm's length examiners, then the members of the supervisory committee and ending with the supervisor(s). Allow approximately 10-15 minutes for each questioner for each round.

Final comments: Ask the committee members for any final statements and/or questions. Ask if the student wishes to make a final statement, emphasizing that this is optional.

Deliberation:

Ask all guests and visitors to leave. Ask the student to leave and to take their personal belongings including electronic devices with them.

The deliberations are confidential proceedings. The committee will agree on the report to be provided to the student with the outcome of the examination.

The examiners are to be asked to give their opinions in the same order as questioning occurred. All examiners must provide their opinion before a final decision is made.

If the outcome of the first vote does not result in a decision, the chair will allow for further discussion and attempt to reach a decision. Only in cases where a decision cannot be reached in a reasonable time will the student be informed and matter referred to the Dean FGSR, who will determine the appropriate course of action. Please consult the Associate chair for graduate studies in such cases.

Read the following statement to the committee:

Is the student's general knowledge of the discipline and of the subject matter relevant to the thesis sufficient to pass the candidacy? Four decisions are possible: (1) the student passes the candidacy examination, (2) the student passes conditionally, (3) the student fails the candidacy examination (with a recommendation to repeat the candidacy, terminate the doctoral program, or for a change of category to the Masters program), or (4) adjournment.

The circumstances in which these possible outcomes should be used, as well as actions to follow are outlined below. Explain these options to the committee.

Adjourned: *A majority of examiners must agree to an outcome of Adjourned.* The candidacy examination should be adjourned in the event of compelling, extraordinary circumstances such as a sudden medical emergency taking place during the examination or possible offences under the Code of Student Behaviour after the examination has started.

Pass: *All or all but one of the examiners must agree to an outcome of Pass.* If the student passes the examination, the department should submit a completed Report of Completion of Candidacy Examination form and submit it to the FGSR.

Conditional Pass: *A majority of examiners must agree to an outcome of Conditional Pass.* A Conditional Pass is appropriate when the student has satisfied the committee in all but a very discrete area of deficiency that can be addressed through a reasonable requirement (e.g., coursework, literature review, upgrading of writing skills). Reworking of the entire candidacy proposal is not an acceptable condition and in that case, the examiners should consider the options available for a student that has failed the examination.

If the candidacy examining committee agrees to a conditional pass for the student, the chair of the examining committee will provide in writing within five working days to the Dean, FGSR, the Associate chair for graduate studies and the student:

- the reasons for the recommendation,

- the details of the conditions,
- the timeframe for the student to meet the conditions, , but which should be no less than six weeks and no more than six months,
- the approval mechanism for meeting the conditions (e.g. approval of the committee chair or supervisor, or approval of the entire committee, or select members of the committee) and
- the supervision and assistance the student can be expected to receive from the committee members.

Conditions are subject to final approval by the Dean, FGSR.

At the deadline specified for meeting the conditions, two outcomes are possible:

- All the conditions have been met. In this case, the department will complete the Report of Completion of Candidacy Examination form and submit to the FGSR; or
- Some or all of the conditions have not been met. In this case, the outcome of the candidacy examination is a Fail, and the committee must be reconvened to make the recommendation as described below.

Fail: All or all but one of the examiners must agree to an outcome of Fail. The options available to the examining committee when the outcome of a student's candidacy exam is "Fail" are:

- **Repeat the Candidacy:** Repeating the Candidacy is not an option after a second failed examination. A majority of examiners must agree to an outcome of Fail and Repeat the Candidacy. If the student's first candidacy exam performance was inadequate but the student's performance and work completed to date indicate that the student has the potential to perform at the doctoral level, the examining committee should consider the possibility of recommending that the student be given an opportunity to repeat the candidacy exam. Normally, the composition of the examining committee does not change for the repeat candidacy exam. If the recommendation of a repeat candidacy is formulated by the examining committee and approved by the FGSR, the student and Associate chair for graduate studies are to be notified in writing of the student's exam deficiencies by the chair of the examining committee. The second candidacy exam is to be scheduled no later than six months from the date of the first candidacy. In the event that the student fails the second candidacy, the examining committee shall recommend one of the following two options to the department:
- **Change of Category to a Master's Program:** All or all but one of the examiners must agree to an outcome of Fail and Change of Category to a Master's Program. This outcome should be considered if the student's candidacy examination performance was inadequate and the student's performance and work completed to date indicates that the student has the potential to complete a master's, but not a doctoral, program; or
- **Termination of the Doctoral Program:** All or all but one of the examiners must agree to an outcome of Fail and Terminate the Doctoral Program. If the student's performance

was inadequate, and the work completed during the program is considered inadequate, then the examining committee should recommend termination of the student's program. *Since only minor attention should be given to the work done on the thesis at the time of the candidacy examination, the committee should take great care in performing their assessment of the work completed during the program and its (in)adequacy.*

If the candidacy examining committee agrees that the student has failed, the committee chair will provide the reasons for this recommendation to the department. The Associate chair for graduate studies will then provide this report, together with the department's recommendation for the student's program, to the Dean, FGSR, and to the student.

For failed candidacy examinations, an Associate Dean, FGSR, normally arranges to meet with the student and others as required before acting upon any departmental recommendations.

If the examining committee fails to reach a decision (i.e. with any voting pattern that is not covered in the cases above), the matter must be referred to an Associate Dean at FGSR; please consult the Associate chair for graduate studies about this.

Note: When making the preceding decision, the chair of the committee is responsible for moderating the discussion, but does not participate in any votes which are held, and does **not** offer opinions on the candidate's performance. After the decision is reached, the chair should re-admit the student and explain the decision of the committee, thank everyone and close the examination.

9. Duties of the Examining Committee Chair: PhD final exam

Introduce everyone including the student and any guests and visitors who may be in attendance.

State the purpose of the meeting by reading the following statement aloud:

It is the purpose of this committee to conduct an oral examination based largely on the thesis. The decision of the examining committee will be based both on the content of the thesis and on the candidate's ability to defend it.

Summarize the procedures which will be followed as outlined in this document for the benefit of the student and the examining committee, including the order of examiners, the number of rounds of questions, the length of time allotted to each examiner and whether interjections by other examiners are permitted.

Ask the student to leave and then ask the supervisor to distribute and describe the written summary of the student's record. **It is the committee's responsibility to verify that all faculty and departmental degree requirements have been met.**

Re-admit the student and ask the student to give a presentation on the thesis work. Emphasize that this presentation is supposed to be a summary because the committee members have read the thesis. Tell the student that you will give a 5 minute warning after 20 minutes, if necessary. If necessary, tell the student to stop at 25 minutes.

Following the presentation start the questioning, which should be about 2-2.5 hours in duration. The chair of the committee is responsible for moderating the discussion and directing questions but **will not** participate in the questioning (except if the external examiner is a reader, in which case the chair reads out the external examiner's report and asks questions on their behalf). There should be two rounds of questions. Each round should follow the same order of questioners. Start with the external examiners; then go to the arm's length examiner; then the FGSR representative, if present; the guests and visitors (if permitted by the chair); then the supervisory committee and the supervisor last. Allow an average of about 15 minutes per examiner per round, with the most time being allotted to the arm's length examiners, including the External Examiner, while the least time is allocated to the supervisor(s).

Final comments: Ask the committee members for any final statements and/or questions. Ask if the student wishes to make a final statement.

Deliberation:

Ask all guests and visitors to leave. The FGSR representative, if one is present, may remain and participate fully. Ask the student to leave and to take their personal belongings including electronic devices with them.

The deliberations are confidential proceedings. The committee will agree on the report to be provided to the student with the outcome of the examination.

The examiners are to be asked to give their opinions on the quality of the thesis and the defense in the same order as questioning occurred. All examiners must provide their opinion before a final decision is made.

If the outcome of the first vote does not result in a decision, the chair will allow for further discussion and attempt to reach a decision. Only in cases where a decision cannot be reached in a reasonable time will the student be informed and matter referred to the Dean FGSR, who will determine the appropriate course of action. Please consult the Associate chair for graduate studies in such cases.

The chair of the Examination Committee may sign the thesis examination form on behalf of an examiner who is participating from a remote location.

Read the following statement to the committee:

The decision of the examining committee should be based both on the content of the thesis and on the candidate's ability to defend it. The committee can make one of four recommendations: (1) student passes, (2) student passes with thesis revision, (3) examination adjourned, or (4) student fails.

The circumstances in which these four possible outcomes should be used, as well as actions to follow are outlined below. Explain these options to the committee.

Pass: *All or all but one of the examiners must agree to an outcome of Pass.* Pass is the decision given when the only revisions required are typographical or minor editorial changes. If the student passes the examination, the department should submit a completed Thesis approval/Program Completion form to the FGSR. If one of the examiners fails the student, that examiner does not have to sign this form.

Pass subject to revisions: *All or all but one of the examiners must agree to an outcome of Pass Subject to Revisions.* The student has satisfactorily defended the thesis but the revisions to the thesis it will not require a reconvening of the examining committee. If the examining committee agrees to a "Pass subject to revisions" for the student, the chair of the examining committee must provide in writing, within five working days of the examination, to the student, the Associate chair for graduate studies, and FGSR:

- the reasons for this outcome,
- the details of the required revisions,

- the approval mechanism for meeting the requirement for revisions (e.g., approval of the examining committee chair or supervisor, or approval of the entire examining committee, or select members of the committee), and
- the supervision and assistance the student can expect to receive from committee members.
- A date for the revisions to be resubmitted, as negotiated with the student, but which should be no less than six weeks and no more than six months.

The student must make the revisions within six months of the date of the final examination. Once the required revisions have been made and approved, the department shall submit a completed Thesis Approval/Program Completion form to the FGSR indicating the committee decision was "pass subject to revisions". If one of the examiners fails the student that examiner does not have to sign the form. If the required revisions have not been made and approved by the end of the six months deadline, the student will be required to withdraw.

Adjournment: An adjourned examination is one that has been abandoned officially. **A majority of examiners must agree to an outcome of Adjourned.** The final examination should be adjourned in the following situations:

- The revisions to the thesis are sufficiently substantial that it will require further research or experimentation or major reworking of sections, or if the committee is so dissatisfied with the general presentation of the thesis that it will require a reconvening of the examining committee. In such circumstances the committee cannot pass the student, and must adjourn the examination.
- The committee is dissatisfied with the student's oral presentation and defence of the thesis, even if the thesis itself is acceptable with or without minor revisions.
- Compelling, extraordinary circumstances such as a sudden medical emergency taking place during the examination.
- Discovery of possible offences under the Code of Student Behaviour after the examination has started.

If the examination is adjourned, the committee should:

- Specify in writing to the student, with as much precision as possible, the nature of the deficiencies and, in the case of revisions to the thesis, the extent of the revisions required. Where the oral defence is unsatisfactory, it may be necessary to arrange some discussion periods with the student prior to reconvening the examination.
- Decide upon a date to reconvene. If the date of the reconvened examination depends upon the completion of a research task or a series of discussions, it should be made clear which committee members will decide on the appropriate date to reconvene. The final date set for reconvening shall be no later than six months from the date of the examination. This new examination must be held within six months of the initial examination.

- Make it clear to the student what will be required by way of approval before the examination is reconvened (e.g., approval of the committee chair or supervisor, approval of the entire committee, or of select members of the committee).
- Specify the supervision and assistance the student may expect from the committee members in meeting the necessary revisions.
- Advise the Dean, FGSR, in writing of the adjournment and the conditions. Keep the Associate chair for graduate studies informed about the adjournment and the conditions.
- When the date is set for the adjourned final examination, the department will notify the Dean of the department's Faculty and the FGSR. Normally a Pro Dean attends the examination.

Fail: All or all but one of the examiners must agree to an outcome of Fail. If the examination result is a Fail, no member of the examining committee signs the Thesis Approval /Program Completion form.

When the outcome is a Fail, the committee chair will provide the reasons for this decision to the Associate chair for graduate studies. The department will then provide this report, together with its recommendation for the student's program, to the Dean of the department's Faculty, the FGSR, and to the student.

An Associate Dean, FGSR will normally arrange to meet with the student and with the Associate chair for graduate studies before acting upon any department recommendation that affects the student's academic standing.

As mentioned earlier, if the examining committee fails to reach a decision (i.e. with any voting pattern that is not covered in the cases above), the matter must be referred to an Associate Dean at FGSR; please consult the Associate chair for graduate studies about this.

Note: When making the preceding decision, the chair of the committee is responsible for moderating the discussion, but does not participate in any votes which are held and does not offer an opinion on the candidate's performance. After the decision is reached, the chair should re-admit the student and explain the decision of the committee, thank everyone and close the examination.