
How to prepare for your candidacy examination (specific to the CME Department)

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February 21, 2017

The purpose

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:

- ✓ an adequate knowledge of the discipline and of the subject matter relevant to the thesis.
- ✓ the ability to pursue and complete original research at an advanced level.

During the candidacy examination, only minor attention should be given to work done on the thesis.

Note: Document listing complete examination procedures is available at

<http://www.cme.engineering.ualberta.ca/FacultyStaff/Resources/~/media/cme/Graduate/Documents/ExamProcedures2016Nov.pdf>



Possible outcomes

- **Adjourned** (majority of examiners must agree; extraordinary circumstances, code of conduct violations)
- **Pass** (all/all but one examiners must agree)
- **Conditional pass** (majority; specific conditions to be met in a reasonable time frame – usually within 6 months)
- **Fail and repeat the candidacy** (majority; exam performance inadequate but performance/work to date indicate potential to perform at the doctoral level)
- If the student fails the second candidacy, fail with a recommendation to terminate the doctoral program (all/all but one; performance and work completed to date both inadequate) or for a change of category to a master's program (all/all but one; performance inadequate but potential indicated for masters program).
- **Fail with termination** at first attempt possible, but unusual.



What are examiners looking for?

- Internal consistency in hypotheses/objectives, methods, and work to date
- Critical evaluation of the literature and one's own work
- Reasonable/feasible scope, realistic timelines
- The ability to offer reasoned speculation when one doesn't know the answer

Purpose:

- ✓ an adequate knowledge of the discipline and of the subject matter relevant to the thesis
- ✓ the ability to pursue and complete original research at an advanced level

How can students prepare?

- Preparation starts as soon as your research topic has been chosen
- Stay on top of the literature
- Critically evaluate your work at regular intervals, be aware of its strengths and weaknesses
- Discuss with your supervisor/supervisory committee regularly
- Practice presentation multiple times, have a mock candidacy
- Be aware of departmental requirements and expectations/culture
- Think like an examiner

The research proposal (report)

- Submit within 13 months (six copies)
- Develop in consultation with your supervisor (give him/her enough time to provide feedback)
- Guidelines: ≥ 12 point font, ≤ 20 pages (excluding references, table of contents)
- Cannot be modified after submission

Research proposal: good practices

- Format is flexible, but generally includes introduction/motivation, literature survey, objectives/hypotheses, work done to date and proposed work.
- Maintain clear distinction between literature survey, hypotheses, preliminary work and proposed work for clarity.
- You will likely not know the composition of your examining committee when you write the report. Prepare the report for a technical audience that is likely to be a mixture of experts and non-experts.

Before the exam

- Practice presentation multiple times, have a mock candidacy (to get the feel of answering questions, but don't expect it to be exactly like the real thing)
- The chair of your examining committee is supposed to discuss procedures with you approximately a week before the examination – request a meeting yourself if that does not happen
- Refresh your knowledge of the general field
- Try to figure out if you speak faster or slower when you are nervous, test your presentation with your computer in the room where the exam will be held
- Your supervisor may ask you for a short CV

At the exam

- Arrive early and set up your computer and presentation
- Bring a copy of your research proposal with you, also dry erase markers and water/a beverage if you think you might need it
- You will have a maximum of 25 minutes for your presentation (20 is ideal)
- Two rounds of questioning, 10-20 minutes per examiner per round, 5 examiners (3 in supervisory committee, 2 at arm's length). The chair oversees conduct of the exam and moderates proceedings, but does not ask questions.
- Can take a short break between rounds

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- You will be asked to leave twice:
 - The first time is after the purpose of the exam has been stated. This is to discuss your background, courses, etc.
 - The second time is after both rounds of questioning are completed. At this point, the committee deliberates on the outcome of the exam and recommends one of these outcomes: pass, conditional pass, fail, adjourned

After the exam

- If the outcome is a pass, the real work begins
- If it is a conditional pass, you will be informed of the specific conditions and the timeline to meet them
- If it is a fail, you will (most likely) be given another chance at the exam. Take all feedback you get into account in preparing for it.
- If the outcome is a pass and you have a Masters degree, discuss the possibility of obtaining exemptions for up to two courses

Other general guidelines

- Do not approach your examining committee before the exam to inquire about their possible line of questioning at the exam
- Do not be needlessly argumentative with examiners, i.e., don't pick a fight. State your answers and respectfully disagree if needed.
- Keep in mind that the outcome of the examination is not a reflection on you, but on your potential to complete a PhD successfully.
- Informed speculation is encouraged when you aren't sure of the answer, wild guessing is not. Be prepared to back up your speculation with cogent reasoning. 'I don't know' is also a valid response (if not used too often).

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