



The qualifying process for PhD students at UTIAS is employed to determine whether a student should continue in the PhD program. Students must demonstrate a knowledge of their field of engineering research beyond the narrow confines of their PhD thesis topic. The material examined during the qualifying exam represents fundamental knowledge that the student should possess in order to be considered an expert in their field. This is knowledge that is important to the field, but that would not be expected to be assimilated by the student who is narrowly looking at their thesis topic. Hence the assigned material should not be viewed purely through the lens of the research thesis. The qualifying process is in addition to the normal research supervision and assessment provided by the supervisor and the Doctoral Examination Committee. All students entering the PhD program or transferring from the MASc program to the PhD program after August 31, 2017 are required to follow this process.

### **Description of the Qualifying Examination Process**

1. The PhD Qualifying Examination (“qualifier”) will be an oral examination held at the second DEC meeting (approximately 18 months after the start of the PhD program or the transfer into the PhD program from the MASc program).
2. The oral examination will have two components: (a) an examination of the student's research project and progress, consistent with the regular DEC meeting process (“research examination”); and (b) an examination of the of the student's knowledge of the broader field of study (“field examination”). The Qualifying Examination is the combination of the research and field examinations.
3. Consistent with DEC meetings that are not qualifiers, prior to the meeting the student is required to submit a DEC report that will form the basis for the research examination.
4. The topics, syllabus and reading materials for the field examination will be assigned to the student after the first DEC meeting, approximately 10 months before the Qualifying Examination. The topics for the field examination will be chosen by the DEC in consultation with the thesis supervisor(s) and broadly aligned with the student’s field of research. It is expected that each DEC member will assign a separate topic. The material will be of a level appropriate to a senior undergraduate or early graduate student. The total amount of material assigned should be equivalent to one graduate course.
  - a. In case of a substantive change in the focus of the research between the first and second DEC meetings, the student shall submit a one-page Summary of Changes to the DEC at least 6 months preceding the Qualifying Examination. If needed, the DEC members shall provide revised topics for the field examination no more than one month after the Summary of Changes has been submitted.
5. During the PhD Qualifying Examination, the student will deliver a thirty-minute oral presentation of their research findings and plans followed by an oral examination by the DEC of the student's research progress, consistent with DEC meetings that are not qualifiers. The questions in the research examination will cover the student’s research in line with standard DEC meeting practice.
6. The oral field examination will last around 45 minutes and will be conducted after the research examination. The questions in the field examination will cover material from the committee’s list of topics.



7. Following the Qualifying Examination, the DEC will meet to discuss evaluation. Subsequently, the student will be given two evaluations. First, the research progress will be evaluated on the Excellent-Good-Marginal-Unsatisfactory scale consistent with that used for non-qualifier DEC meetings. Second, the student will be evaluated on the totality of the Qualifying Examination, including both the research and field examinations.
8. The possible outcomes of the evaluation for the PhD Qualifying Examination are
  - a. Pass
  - b. No Pass with option to retake
    - i. In this case, the student will be provided the opportunity to take another Qualifying Examination within three months. Failure in the second examination will result in removal from the program.
  - c. Fail (with no option to retake).
9. Determination of the outcome of the evaluation of the PhD Qualifying Examination will be as follows.
  - a. After the candidate has completed the exam, they will be asked to leave the room and the committee will discuss the results of the examination, including both the research and field examination.
  - b. During this discussion, the Committee will determine the evaluation of the candidate for the research examination.
  - c. After the discussion, the Chair will ask each committee member to vote on the outcome of the Qualifying Examination. This includes both the research and field portions of the qualifier. The voting options are “Pass”, “No Pass with option to retake”, or “Fail” if this is the student’s first Qualifying Examination. If this is the second attempt, then the voting options are “Pass” or “Fail”.
  - d. For the first attempt
    - i. If every committee member, or every committee member bar one, votes “Pass”, then the student Passes the Qualifying Examination.
    - ii. Otherwise, if every committee member votes “Fail”, then the student Fails the Qualifying Examination resulting in their removal from the PhD program.
    - iii. Otherwise, the outcome of the Qualifying Examination is No Pass with option to retake.
  - e. For the second attempt
    - i. If every committee member, or every committee member bar one, votes “Pass”, then the student Passes the Qualifying Examination.
    - ii. Otherwise, the student fails the Qualifying Examination resulting in their termination from the PhD program.
10. If the Qualifying Exam is retaken, only the parts of the qualifier that were deemed inadequate will be re-examined. This may be the research examination, the field examination or both.