Toronto Metropolitan University
Graduate Programs
Computer Science

Doctoral Program in Computer Science
Defence Procedures

Introduction

The purpose for the oral examination of a Doctoral Candidate ("the Defence") is to ensure that the Candidate is able to present and defend the dissertation and its underlying assumptions, methodology, results, and conclusions in a manner consistent with the expectations of the Doctoral program in Computer Science at Toronto Metropolitan University (TMU), the requirements of its governing bodies, and the expectations of the broader academic community at the university and beyond.

Participants

The following individuals are required to participate in a Doctoral defence;

Position	Number Required	Special Instruction
Chair	1	Nominated by the program to the Vice-Provost and Dean-YSGPS[1]. The chair is a non-voting member.
Supervisor and second supervisor/co-supervisor (where one exists)	1	The supervisor is a voting member. If there is a second supervisor/co-supervisor, they share 1 vote with the supervisor.
Internal Member	2	Member of YSGPS, member of Doctoral Program, voting member
Internal-to-TMU External Member	1	Member of YSGPS, not a member of Doctoral Program, voting member
External Examiner	1	Not a member of Toronto Metropolitan University, subject matter expert, voting member
Optional Member	at most 1	Approved by Vice-Provost and Dean-YSGPS, voting member

Activities Prior to a Defence

Time Before Defence	Input	Actors	Activity	Output
16 weeks (112 days)	Thesis document near completion	Supervisory team, Candidate, Graduate Program Administrator (GPA)-Computer Science (CS)	Plan timeline for defence and completion of program	Plan communicated to the Graduate Program Director (GPD)-CS

[1] Nominees for Chair must be full members of both YSGPS and another graduate program other than Computer Science.

12 weeks (84 days)	Thesis document complete and reviewed by supervisory team	Supervisor team, Candidate	Negotiate defence date[2]	Date of defence
9 weeks (63 days)	Suggestions for potential external examiner and examination committee members	Supervisory team, GPD, GPA	Complete: External Examiner Nomination Form[3], Dissertation Examination Committee Nomination Form[4]	Complete form submitted to GPA
9 weeks (63 days)	Electronic thesis document	Candidate	Distribute thesis document to internal examination committee	Confirmation by Candidate to Graduate Program Administrator that the thesis has been distributed
6 weeks (42 days) (step 1)	Complete thesis document	Proposed examining committee (less external examiner), Candidate	Conduct an Internal Defence (IDef) of the Candidate[5]	Approval by the examining committee to proceed (possibly with thesis amendments)
6 weeks (42 days)[6] (step 2)	Completed nomination forms	GPD, GPA, Vice-Provost and Dean-YSGPS	Submit nomination forms	Approved examination committee by Vice-Provost and Dean-YSGPS
6 weeks (42 days) (step 3)[7]	Vice-Provost and Dean-YSGPS approval of nominees	Supervisory team, GPA, Candidate	Distribute electronic copy of thesis to committee members[8]	Distributed thesis
3 weeks (21 days)	Completed Chair's defence package[9]	GPA, Chair	Distribute Chair's package including this document	Distributed Chair's package

[2] In cases where consensus between the supervisory team and the Candidate cannot be reached, the Candidate may petition the GPD to allow a defence to be scheduled. If the GPD is a part of the supervisory team, the Candidate may petition the Vice-Provost and Dean-YSGPS.
[3] Including supporting documentation.
[4] Including supporting documentation.
[5] See the Types of Defence Section of this document
[6] Step 1 must be successfully completed before step 2 can begin
[7] The approval of step 2 is required before step 3 can begin
[8] External examiner thesis copy will be accompanied with additional correspondence as required
[9] Package includes the thesis, external examiner correspondence, Candidate's academic record, YSGPS regulations and guidelines governing doctoral examinations, pre-filled examination report

2 weeks (14 days) (step 1)	External examiner's report	GPD, GPA, Chair	Distribute external examiner's report (received by GPD) to GPA and Chair	Narrowly distributed report[10]
2 weeks (14 days) (step 2)[11]	Notice of defence	GPA	Post defence details online, distribute notice appropriately by email	Distributed notice
2 weeks (14 days) (step 3)	External examiner visit logistics	Supervisory team, GPA	Activities associated with assisting the external examiner to arrive at examination on time and ready.	Prepared external examiner
1 week (7 days)	External examiner's report	GPD, supervisory team, Candidate	GPD distributes the external examiners report	Broadly distributed report
1 week (7 days)	Confirmed date, time and location of examination	GPA, GPD, examining committee, Candidate	GPA confirms all details concerning examination event	Confirmed details
Day of (0 days)	Oak Pace Stick	GPA, Chair	GPA provides Pace Stick to Chair	Pace stick-equipped Chair

Conduct of a Defence

Types of Defences

Doctoral Candidates will undergo the examination process (the "Defence") twice. The first examination is the Internal Defence (IDef) and is conducted to ensure that the thesis document and Candidate are ready to undergo examination with the participation of an expert External Examiner present during the Public Defence (PDef). The IDef is conducted in a similar manner to the PDef but excludes the public and the External Examiner and the Chair of the examining committee shall be the GPD (or designate).

Preparation

It is the responsibility of the Candidate to prepare the examination room and ensure that sufficient working audio/visual equipment is available to support the oral presentation. As a minimum the Candidate should have;

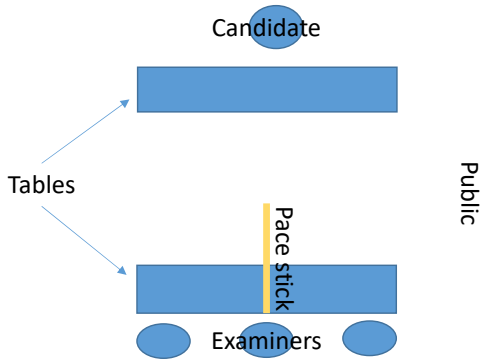
- printed copy of the thesis,
- electronic copy of the presentation
- writing instruments (to take notes where appropriate)

[10] If the report does not recommend the dissertation move on to examination, the GPD will consult with the Chair and Vice-Provost and Dean-YSGPS to devise a way forward

[11] Step 2 is contingent on the successful completion of step 1

Room Arrangement

Normally, the Candidate will be examined at the front of the examination room. The examination committee should be seated so that they might clearly hear and view the material presented. Ideally, they will be seated in a row facing the Candidate. The public shall be accommodated on a first-come, first-served basis and seated at the sides of the room.



The Pace Stick

A peculiarity of the graduate programs in Computer Science at Toronto Metropolitan University are the presence, and implied authority, of the pace sticks present at all significant academic functions related to the programs. The origins of the pace stick can be traced back to the British Royal Regiment of Artillery, who used a "gunner's stick" to measure the distance between guns in the field. In more recent years, it was adopted and adapted by the Infantry as an aid to teaching and measuring drill. Essentially, the pace stick is a metaphor for teaching and measuring in our program.

The Computer Science Doctoral program has an “oak” pace stick on which are affixed brass plaques that have the engraved names of all the Doctoral Candidates who have successfully completed the program and earned the degree. The pace stick points at the Candidate during the examination in accusation that the Candidate is not worthy of the degree they seek.

If the Candidate should pass the PDef, the stick will point away from them and their name will, in turn, be engraved on the stick[12].

The oral examination will not proceed unless the pace stick is present or written permission from the Vice-Provost and Dean-YSGPS (or designate) is granted to proceed without the stick.

[12] Note that, while present during the IDef, the pace stick shall remain pointing at the Candidate throughout the examination.

Chairs Preamble

When all is ready, the Chair shall call for the attention of all present and place the pace stick on the table in front of the examination committee and point it at the Candidate where it shall remain until the end of the examination.

The Chair shall state the following:

- "Welcome to the oral examination of the dissertation of <full name of Candidate>",
- Explain the rules of the examination (as outlined below)
- Call upon the GPD-CS (or designate) to explain the tradition of the pace stick.

Candidate's Oral Presentation

The Candidate shall be given approximately 25 minutes to make a compelling presentation concerning their thesis work.

Examining committee questions

Once the Candidate's oral presentation is complete, two rounds of questioning by the examining committee shall ensue. Each round shall be controlled by the Chair who will ensure that decorum is maintained. The Chair shall remain cognizant of the time.

Each examiner is free to ask any question they wish and follow up as they see fit. However, once they relinquish their opportunity to ask their questions, they cannot interrupt another examiner.

Order of questioning

Each round of questions shall be asked in the following order;

- External Examiner[13]
- Internal-to-TMU External Member
- Internal Members
- Optional Member (if applicable)
- Supervisor and second supervisor/co-supervisor (where one exists)

Public participation[14]

At the end of the second round of questioning, the Chair shall ask the audience if any person present has any questions of the Candidate. The Chair shall ensure that the questions from the audience focus on the thesis document, the ideas presented by the Candidate and their interpretation. The Chair will ensure that the questions from the audience do not constitute another examination but a "curiosity" or "clarification" exercise on the part of the public.

Differences between IDef and PDef

For both the IDef and the PDef the committee must consider the requirements of the examination report[15] form but for different reasons.

[13] Applies to the PDef only
[14] Applies to the PDef only
[15] The examination for the IDef shall clearly indicate that it is for internal use only

In the case of the IDef, the committee shall determine (by consensus) if the Candidate and thesis document are ready to proceed to the PDef and what steps must be taken in order to get them ready if the consensus of the committee is that they are not. As such, the IDef result may impact the timeline of the PDef if significant revision of the thesis document must be undertaken by the Candidate. If consensus cannot be reached, the voting procedure outlined below shall be followed.

In the case of the PDef, the Chair of the examination committee shall be approved by the Vice-Provost and Dean-YSGPS and the committee must determine if the Candidate has fulfilled all the requirements stipulated on the examination report.

Deliberation

Once all the questions have been asked, the Chair shall ask the Candidate and the public (if applicable) to depart and seal the room.

The examination committee shall proceed to deliberate concerning the requirements stipulated on the examination report in a holistic way to reach an overall decision concerning their recommendation. This might mean that certain weaknesses in the performance of a Candidate might be compensated for by other strengths.

Should the decision of the committee be split, the decision of the committee shall be that of the majority after an open vote. Each member of the examination committee has a vote except the Chair. The Chair shall vote only if there is a tie to be broken.

Decision

The decision shall be recorded on the examination report form by the Chair and each member of the committee will sign the form.

The Result

Once the committee has reached its decisions, the Chair will ask the Candidate to reenter the examination room. The room will again be sealed.

Normally, the Candidate will reoccupy the position in the room they were in when undergoing the examination. This is to ensure that the pace stick remains pointing at the Candidate.

The Chair is responsible for:

- Informing the Candidate about the decision of the committee
- pointing the pace stick away from the Candidate should such a requirement arise[16]
- delivering the Chairs Package, including the signed examination form, to the GPD-CS [17]

[16] The pace stick shall not move at any point during the IDef (it shall remain pointing at the Candidate no matter what decision is reached)
[17] For PDef only