

## Defending the MSc thesis – what’s involved? (updated Jan 2015)

This document is meant to help guide you through the general process. It should be used in conjunction with the ‘Thesis Preparation and Defence Guidelines’ booklet and associated forms that are all available on the MSc website. Below is a brief summary of the overall process.

### Summary of Overall Process

Timeline	Activity	Forms/Additional Requirements
At least 3 months prior to the defence	The supervisor will identify an external examiner for approval by the Office of Research and Graduate Studies	External Examiner Nomination form
In term student plans to defend	Apply through myTRU for graduation	Student completes Application to Graduate form through online through myTRU account
Approximately 2 months before defence	Have thesis approved by supervisor and send to committee members (allow 2 weeks for their review)	n/a
Preferably 6 weeks prior to defence	Thesis approved by supervisory committee	Complete the Request for Thesis Defence form and submit to MSc Coordinator
Preferably 6 weeks prior to the defence	Thesis submitted to external examiner (allow 2 weeks for review)	Requires a pdf of the thesis (final draft)
At least 2 weeks prior to the defence	The thesis is approved by the external examiner	External Examiner Report
At least 1 week prior to the defence	The defence is announced campus wide	n/a
Defence date	The examining committee assesses the thesis and the defence	Thesis Defence Report
Following the defence	The student completes any revisions requested by the examining committee and is approved for graduation	Graduation Approval form Thesis Non-Exclusive Licence PDF of final thesis 3 Hardcopies of final thesis

Note – In order to complete within a given semester (and not pay tuition the following semester) you must complete the ‘Graduation Approval’ form by the deadline for Faculty to submit semester grades (as per Policy ED 3-11). These deadlines are shown in the Academic Calendar.

## ***So you are getting close to finishing.....what do you do?***

### **STEP 1 - GET YOUR THESIS APPROVED BY YOUR SUPERVISOR**

Produce a draft of your thesis that both you and your supervisor are satisfied with. This may take quite a number of drafts, but it is worth it. The better your draft going into your thesis defence, the more likely of success and your revisions being less onerous.

Your defence draft should be correctly formatted with attention to detail (see the MSc Thesis Guidelines posted on the MSc website). You will be assessed mainly on its content, but also on its appearance. Figures and tables should all be clean, well-sized, legible and professional looking. The draft should be free of typos and poor grammar. Illustrations should be sharp and not blurry. In addition to your supervisor, it really doesn't hurt to get a friend or colleague to read it over as well. Probably both you and your supervisor will have read over the thesis multiple times, so a fresh pair of eyes may pick up things that would go unnoticed.

How long will this take? Your supervisor should try to give you a reasonable 'turnaround time' on drafts that you hand to him or her. But, your revision time also needs to be factored in. Don't assume that just because you have the first draft done that you will be sending it immediately to your committee. Good work takes time.

### **STEP 2 – GET YOUR THESIS APPROVED BY YOUR COMMITTEE MEMBERS**

Once your supervisor has agreed the thesis draft is ready, then you need to give it to your committee members. The general rule of thumb is that the committee members should be allowed at least two weeks to read over the thesis and decide whether they feel it is ready to defend. If you and your supervisor can give them some head notice that the thesis is coming to them, so much the better.

Ask your committee members if they want you to provide them with an electronic or hardcopy of your thesis to review.

***What should you to expect to get back from your committee members?*** This depends. If they feel the thesis is ready to defend that may be all that they relay to you and/or your supervisor. On the other hand, they may have comments, edits, questions, or major suggestions that they feel you need to address before they agree the thesis is ready to defend. In this case, they may return the thesis draft to you with their recommendations. Don't be discouraged if this happens – it's actually a good thing. You definitely want significant issues like this taken care of before you go into your defence. So, be prepared to produce a revised version of your draft, and your supervisor likely will want to review it before you give it back to your committee members. Be prepared for this.

When your committee members feel the thesis is ready to defend, then your supervisor must have them sign the 'Request for Thesis Defence' form. Your supervisor also must sign this form. **This is an incredibly important part of the defence process.** By signing this form, your supervisor and your committee members are stating that they feel the thesis is defensible and they see no problems with it that are significant enough to make the defence unsuccessful. **Note** this is not saying that the success of your defence is guaranteed, or that you won't need to make substantial revisions afterwards. But it does

verify that after reading the thesis your committee does not see any major shortcomings. You want this in writing, don't you?

If a committee member is based of town, your supervisor still needs to get him/her the form so they may sign and return it. The form can be sent electronically and a signed scanned form returned. The MSc Coordinator also is required to sign off on this form.

After your entire committee has signed the Request for Thesis Defence form, then (and only then) the thesis may be sent to your External Examiner (see the next step).

### **STEP 3 - GET YOUR THESIS APPROVED BY THE EXTERNAL EXAMINER**

***Why is an External Examiner needed?*** Your supervisor and the rest of the thesis committee have been working with you and your thesis for probably at least two years. Because they have become very familiar with your work (especially your supervisor), the thesis is subjected to review by an external authority who can provide a fresh, objective evaluation. This is an extremely valuable process that will ultimately provide you with confidence in the content and presentation of your final thesis.

***When is the External Examiner identified?*** At any time in your program of study, you and your supervisor may start discussing who would make an appropriate External Examiner for your thesis and defence. Note that there are constraints on who you can ask:

- (1) The External Examiner should be recognized as being capable of providing a good, critical and independent review of your thesis. That means they should have the expertise needed to evaluate the thesis.
- (2) The External Examiner must not have a personal relationship to you (i.e. you should not be friends or close acquaintances). He or she should also not be overly familiar with your work. This means you should not have had substantial contact or lengthy or on-going discussions on your thesis with him/her. They may know of your work, and you may know each other (e.g. perhaps you met them at a conference), but your relationship must be impartial. The key is that they must be able to be objective in evaluating both your thesis and defence.
- (3) The External Examiner must be capable of taking part in your defence, either in person or through audio or visual communications. Of course, this means they need to be given some idea of when you will likely defend. You and your supervisor have to make a judgement call on when you can do this. A targeted defence date certainly can change, depending on whether the External feels the draft you supply him/her with is ready to defend, whether it needs more work, and whether he/she wants to see it again before signaling it is ready to defend. Bottom line: you cannot set anything more than a tentative date for the defence until your External has read and approved thesis. If you set this tentative date far enough ahead of time, then you will be more likely to accommodate further revisions to the thesis. This may be important if you are planning to have your External travel to TRU for the defence; travel arrangements, especially plane trips, may be difficult to change or expensive to make at the last minute. Talk through this with your supervisor.

Once you and your supervisor have agreed on an external, your supervisor (not you!) should contact him/her to determine their interest and availability, which (as said above) may require you to have a rough idea of the defence date. They should also be given an approximate time when they will receive the thesis to read. Note that this too may change depending on whether your committee members request a new draft, but at least this gives your External some advance notice.

In the MSc program you are allowed to know who your external is in advance of the defence. However, you should not be contacting your external. You can however do some research on your external to get a sense of their area of expertise.

Your supervisor is required to submit the 'External Examiner Nomination' form at least 3 months prior to the planned defence date. This form outlines the criteria that the external must meet and the supervisor must also supply a summary of these qualifications. This form is sent to the MSc Coordinator and then to the Office of Research and Graduate Studies. The external **MUST** be approved by the AVP of Research and Graduate Studies so it is important to get this paper work well in advance of the defence.

Once the external is approved the Office of Research and Graduate Studies will send an official request for the external to participate in the defence. They will also be responsible for sending the final thesis to the external.

***How long does the External Examiner have to review the thesis?*** The External has two weeks to review the thesis once you provide them with it. The Office of Research and Graduate Studies will be responsible for ensuring that they understand and agree to this. Any discussion regarding the thesis should take place through your supervisor and the External.

As with your committee members, the External may request changes, improvements, or alternations to the thesis, which he/she may want to see before they agree the thesis is ready to defend.

***Once the External Examiner agrees the thesis is ready to defend, then what?***

Once the External agrees that the thesis is ready to defend, they will complete the 'External Examiner Report' form and return it to the MSc Coordinator. At this point, the MSc Coordinator will have signatures from your entire committee and the External Examiner to verify that the thesis is ready to defend.

The Coordinator will 'sign off' and then alert the Director of Graduate Studies to formally organize the defence. **Note that at least 3 weeks (15 working days) are required between this step and the actual defence date.** This also provides you with time to prepare yourself for the defence.

**This is important:** at this point make absolutely sure that all of your committee members have identical copies of the thesis draft that you will be defending. Failure to ensure this can make for a very awkward defence, and in a worse case scenario, lead to the defence being suspended.

#### **STEP 4 - GET THE DEFENCE FORMALLY ORGANIZED**

The MSc Coordinator in conjunction with the Director of Graduate Studies (in the Office of Research and Graduate Studies) will do the following in anticipation of the defence:

- (1) The room for the defence will be booked. The Director will confer with your supervisor as to whether the External will be physically present at your defence, or whether some sort of audio-visual or teleconference hook-up is needed.
- (2) A Chair for your defence will be selected by the Director for Graduate Studies. This will be a member from the list of faculty eligible to supervise graduate students at TRU. The Chair, like your External, will be at arms-length from you and your work. However, as the Chair's primary responsibility is to steer the defence, they do not need to have expertise in the area of the study. The Chair will be provided with a copy of your thesis and the Thesis Preparation and Defence Guidelines which include a section on defence procedure.
- (3) An email notice will be sent across campus at least 7 days prior to the defence. You will be asked to provide your abstract for this email.

All this may sound intimidating, but you should look at it as the culmination of a great deal of hard work on your part. Getting through the course work, collection of data, analysis, and the preparation of your thesis is a very significant achievement on your part, and now it's your chance to show the fruits of your labour. Remember, you know more about your thesis than anyone else on the planet, so it's time to showcase your knowledge and get any last-minute feedback.

#### **STEP 5 - DEFENCE DAY!**

Finally the day arrives! Your supervisor, not you, should handle hosting the External Examiner if necessary: you have enough on your mind as it is.

After the Chair officially convenes the defence, he or she will normally make introductions. Then you will be asked to give a 15-20 minute presentation of your thesis. Following that, your committee will take turns asking questions, starting with the External.

How should you prepare for the defence? There are many different ways. Ask recent students, your supervisor, and other faculty what they did, and what they suggest. It's almost a given that you should practice your defence in front of some of your peers. Look at the 'Thesis Defence Report' form to get an idea of the possible outcomes of the defence (don't let it intimidate you). Also review the guidelines for the defence as outlined in the 'Thesis Preparation and Defence Guidelines' booklet. Talk to your supervisor about this.

Be at the room slated for your defence well ahead of time. Make sure your presentation is loaded and that your fonts, images, animations, etc. all appear as intended. If you want to use an electronic pointer, make sure that is available and working. Make sure there is a pen for writing on the whiteboard if one is present. Have a glass or bottle of water on hand if you think you'll want one.

## STEP 6 - COMPLETING REQUIREMENTS AFTER THE DEFENCE

Unless things goes *extremely* well, there will be at least some revisions required to the thesis. These may be very minor or quite substantial. In any case, it is now your job to get them done. How long this will take you is, of course, dependent on the extent of the revisions and how quickly you are able to apply yourself to the task. Generally speaking, the sooner you do this the better.

Once you have a copy of your thesis that meets all of the expectations of your supervisor, committee members, External Examiner, and yourself, you can get everyone's signature on the 'Thesis Defence Report' form that was brought to your defence (and should be now in the possession of your supervisor).

Note that your thesis must also conform to the format instructions for the thesis (see the 'MSc Thesis Format Guidelines' document). This includes appearance, font spacing, paper quality, everything! If you have any concerns or uncertainties, check with the Coordinator for the MSc Program **before** you print off the final multiple copies of your thesis. You don't want to have to chuck all of them because of some inconsistency. The MSc program does not cover the costs of printing the thesis (but does pay for the binding).

Decide how many hardcopies of your thesis are required. The MSc Program currently requires that at least 3 hardcopies of your thesis are hardbound:

- one for yourself (very important!); one for your supervisor; one for the TRU Library

The cost of binding these three copies of your thesis are covered by the MSc Program. However, you and/or your supervisor may want additional hardbound copies (for family, people or organizations that played a major role in facilitating your thesis, etc.). The cost of these additional hardbound theses must be covered by you or some other source of funds (e.g. grant money). Ask the Coordinator of the MSc Program for the approximate cost of binding theses if you need this information.

The original signed copy of the 'Thesis Defence Report' form should now be delivered along with all of your thesis hardcopies to the Coordinator for the MSc Program. You will also need to bring the 'Graduation Approval' form that needs to signed off by your supervisor and a completed 'Theses Non-Exclusive License' form. Make sure that the MSc Coordinator has the FINAL pdf of your thesis (the one that you are getting bound). Bring a cheque to cover the cost of the binding any extra copies of the thesis that you may want (make the cheque out to TRU), and/or get your supervisor to provide an 'Inter Department Invoice' form to show what account will be charged if they are going to cover these extra binding costs. Also make sure you have completed the 'Application to Graduate' information through your myTRU account.

The Coordinator will do a final check to ensure the thesis is consistent with the formatting guidelines, and that you have completed all requirements (including tuition) for the MSc degree in Environmental Sciences. Assuming everything is fine, then he/she will sign the 'Graduation Approval' form and you will then deliver the hardcopies along with the necessary paperwork to the Director of Graduate Studies in the Office of Research and Graduate Studies.

**And guess what? This means you've got your degree! Congratulations!**

## BRIEF SUMMARY OF THE TIME LINE FOR THE DEFENCE

Once you have read the preceding information on the steps needed to complete your thesis requirements, then you should understand this following time line:

<u>Action</u>	<u>Time Required</u>
• Drafting of thesis to the satisfaction of the supervisor	variable
• Approval of thesis by committee members	<u>at least 2 weeks</u>
• Approval of thesis by the External Examiner	<u>at least 2 weeks</u>
• Time to arrange the actual defence	<u>at least 2 weeks</u>
• Public notice issued by RIGS one week prior to defence	
• Time after defence to make final revisions and submit the very final copies of your thesis	variable

As you can see, it will take at the **very least 6 weeks** to complete your thesis requirements *after* your supervisor has agreed the thesis is ready to defend. This would be exceptionally quick timeline, as it means there are zero thesis revisions or other delays that occur as you move from one step to another, and it means that the travel plans for your External are flexible. Make sure you plan accordingly and do not under-estimate the time required to do this properly.

Note – In order to complete within a given semester (and not pay tuition the following semester) you must complete the 'Graduation Approval' form by the deadline for Faculty to submit semester grades (as per Policy ED 3-11). These deadlines are shown in the Academic Calendar.