



Masters of Science in Environmental Science
Graduate Handbook
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GETTING INTO THE MASTER OF SCIENCE PROGRAM

Review the website (<http://www.tru.ca/science/programs/msces.html>) for more detailed information on courses, potential supervisors and the application criteria and process. Below some of the basic information on the program requirements, tuition, funding etc. is outlined.

Supervisor Requirement

In order to be admitted into the MSc program a student must have a thesis supervisor that agrees to supervise their research. The M.Sc. program is based heavily on the student conducting research that will lead to their written thesis. An applicant is expected to contact and discuss potential supervision BEFORE they apply. Securing a supervisor is up to the applicant – the MSc Coordinator can try and offer direction but the applicant must contact potential supervisors directly. Applicants WILL NOT be admitted into the M.Sc. unless a supervisor has been confirmed. To view a list of eligible faculty, visit:

<http://www.tru.ca/science/programs/msces/faculty.html>

What exactly is a 'supervisor'?

A supervisor is a faculty member who has agreed to help you conduct the research for your thesis. The thesis is the major part of your degree, so this is an incredibly important step to entering the MSc program. This means the supervisor and you have similar research interests. Often, this also means the supervisor is already conducting work in the area of study that you are interested in. It is important to realize that students ARE NOT accepted into the program and then assigned a supervisor. Acceptance into the program will only occur if a supervisor has agreed to help the student with their thesis. Many students with very high grades are unable to identify a supervisor for a number of reasons (no similar research interests and/or no current vacancies in the faculty member's research lab).

Why is it required that I find a supervisor before I enter the MSc program?

This is required because the thesis makes up the major portion of the work you need to do for your degree. When students enter our program, we want to ensure they have at least a general idea on what they are working on for their thesis, and they need to have a faculty member ready to help them get their study started. Often research funds are needed to conduct the thesis research, and again the supervisor is the faculty member who will be able to help find these funds.

Choice of Supervisor

In order to be admitted into the MSc program, a student must have a thesis supervisor that agrees to supervise their research. As you are working and collaborating with your supervisor for two or more years, selection of a supervisor is very important as it will impact the quality of your graduate experience.

When researching potential supervisors, it is useful to obtain information on the individual's research interests, their publications, and the work environment that they create for their students. Profiles, blogs of faculty member can typically be found through department websites and are a good first step to finding a supervisor. The next step is to meet with the potential supervisor and determine if they are compatible. Important topics to discuss during the interview are: expectations, identifying thesis topics, funding and other support to ensure that your thesis is completed in a timely matter. It is also a good

idea to meet with current students and discuss the experiences that they have had working with the potential supervisor and the general work environment.

Faculty approached by students interested in working with them on an MSc degree simply may not have any openings in their lab. But, if they have a potential project in mind, they will be looking for someone who is clearly interested in the type of research they are doing. They may ask you to provide them with your *curriculum vitae* and/or a written statement as to why you want to do a graduate degree, and they likely will want to talk to you. They probably will ask to see a copy of your undergraduate marks in order to determine whether an application by yourself to the program will be successful.

Other Admission Requirements

Detailed program and admissions requirements are outlined on the TRU website. Basically to be admitted to the TRU MSc program applicants must:

1. Identify a thesis supervisor: Applications WILL NOT be processed without a confirmed supervisor.
2. Education Requirement: Applicants must be graduates of a four-year bachelor degree or equivalent (in an appropriate science related field), with a minimum B+, 77-79%, average (GPA of 3.3 on a scale of 4.33) in the last 60 credits.
3. Language Requirement: Applicants who did not complete their undergraduate degree from an English language university normally must have one of the following:
 - a minimum TOEFL score of 570 with a TWE of 4.5 or higher (paper-based test), or
 - minimum 88 with no section below 20 (IBT), or
 - IELTS of at least 6.5 with no bands below 6.0; or
 - CAEL of at least 70 with no subtest below 60; or
 - MELAB of 81+; or
 - CanTest of 4.5+ with no component score below 4.0; or
 - completion of TRU ESAL Level V.
 - completion of TRU ENGL 1100 and ENGL 1290 or equivalent

Application Deadline

Applicants will be considered at any time, but there is no guarantee for applications received within 6 weeks of proposed semester start date that they will receive an admission decision with enough time to complete arrangements they may need to begin on-campus studies. This is especially important for students that require VISA's. Semesters for the MSc program are: fall (September start), winter (January start) and summer (May start). It is generally recommended that students start in the fall semester if possible.

Funding, Scholarships, Teaching Assistant Positions etc.

Currently scholarships and TA positions are all competition based. There is no guarantee of a graduate student receiving funding through these mechanisms. Generally funding for graduate students is through research dollars secured by their supervisors. Students can attend without funding but will be solely responsible for their tuition and research costs. A financial agreement form must be signed at the start of the program.

Tuition

For up to site information see the TRU website <http://www.tru.ca/campus/money/details.html#gs>
Below the fees for the 2016-17 years are summarized. These include only the MSc fee but costs for registration will be higher due to ancillary fees etc. This MSc is program based and so you must remain enrolled until completion unless an official leave is granted (medical, maternity). The program runs 12 months a year (3 semesters per year) and payment is required EACH semester.

Domestic students

\$2,067.61 program based fee per semester – for first 2 years (3 semesters a year). It is a program based fee so you must pay for 6 semesters. Remember additional ancillary fees are on top of this amount. After completion of 2 years (6 semesters) tuition for the MSc drops to the extension fee of \$229.71 per semester. You must complete the program within 5 years (excluding approved leaves).

International Students

\$5, 838.99 program based fee per semester – for first 2 years (3 semesters a year). It is a program based fee so you must pay for 6 semesters. Remember additional ancillary fees are on top of this amount. After completion of 2 years (6 semesters) tuition for the MSc drops to the extension fee of \$891.65 per semester. You must complete the program within 5 years (excluding approved leaves).

Sending in your application

Once you are ready to apply, you should send your documents to The Graduate Admissions Officer. For detailed information on the application process go to the TRU website under graduate admissions: <https://www.tru.ca/campus/admissions/graduate-admission.html> . Applications are now generally done online through: <https://apply.educationplannerbc.ca/tru.jsp> .

Follow the directions on the website. Once your application package is complete, the Officer will forward it to the Coordinator for the MSc Program. Provided a supervisor has been identified, your application will then be evaluated by the MSc Application Assessment Committee. The Graduate Admissions Officer will be informed of the decision, and he/she will then contact you with the decision.

After your application has been accepted

The final step in the admission process is that you and your supervisor must co-sign a Financial Agreement Form (available on the MSc Website). This means that both of you have agree on how you will have an income while you are a student in the MSc program. This is very different than an undergraduate program, where you might have worked in a part-time or summer job in between your academic terms. Students in the MSc Program are expected to be mainly working full-time on their courses and thesis while they are in the program. This means there should be some financing in place to help the student cover the costs of living and their tuition fees. This may be covered through a scholarship, a research grant, or some other form of support. You will want to work out your financial plan with your potential supervisor *before* you sign the Financial Agreement Form.

THE INS AND OUTS OF BEING A GRADUATE STUDENT ON CAMPUS

Getting Your Student Card

The TRU Student Card is a photo identification card required to access Library services, to obtain the Students' Union U-Pass and is used in a variety of ways on campus for identification. The campus card may also provide various student discounts at merchants throughout the City of Kamloops. Photos are taken at the Bookstore in the Campus Activity Centre.

The UPASS

The TRUSU UPASS is an unlimited transit pass for the City of Kamloops provided to every student enrolled at Thompson Rivers University in Kamloops. The UPASS allows you to get to and from classes, work, school, and more at a low cost to both your bank account and the environment. The UPASS also provides you with a 50% discount to a monthly membership to the Tournament Capital Centre and free access to the Canada Games Aquatic Centre.

For current bus schedules and maps for the Kamloops Transit Area please visit

<https://bctransit.com/kamloops/>

Note – if you are on extension fees (have completed over 6 semesters of the MSc program) and are living outside of the Kamloops area and not attending campus you can opt out of the UPASS. For more information on how to get your UPASS, or to opt-out of the UPASS, please see

<http://www.tru.ca/services/campus/campuscard.html>

Accessing your account on myTRU.ca

Students are provided with a myTRU account upon admission. Once your account has been activated, your myTRU portal acts as a core resource for all information necessary for TRU students. It allows you to register for courses online, pay fees and tuition, use your student email, access campus notifications and much more. Your myTRU account is accessible online, both on and off campus.

Please note that students will access the majority of their information through the Student Resources tab in myTRU. If you have difficulty logging to myTRU.ca, you can contact the IT Service Desk at itservicesdesk@tru.ca or by calling toll free within Canada at 1.888.852.8533.

How to log in to myTRU

You need your TRU ID and password to log in to myTRU. The first time you log in, you must use a default password, which myTRU automatically generates for you.

1. Go to the myTRU login page:

Type the URL (mytru.ca) in your web browser address field, or

Click the myTRU link on top right corner of the TRU public web home page (<http://www.tru.ca>).

2. Type your TRU ID in the **User Name** field (See below for TRU ID information).

3. Type your password in the **Password** field. • The first time you log in to myTRU, use the default password the system has assigned you.

4. Click Login.

TRU ID

myTRU requires a password between 8 and 20 characters long. However, you must use a default password the first time you log in to myTRU. You will be forced to change this password upon your first successful login.

Default password - myTRU automatically generates a default password for you when your TRU ID is created. The default is your date of birth - year, month and day - in the format YYMMDD. For example, if you were born on November 25, 1982, your default password would be 821125.

Creating your own password - To protect yourself and your personal information you will be forced to create your own password during the login process. Keep in mind that your new password must be between 8 and 20 characters long, is case sensitive, must be a combination of letters and numbers, and must not be your date of birth.

Alternate Email for Password Recovery Setup - New users to myTRU must provide a valid Alternate Email Address that will be used for Password Recovery. Once the password has been submitted, go to that email address and verify that the email address is correct just in case you need to use the "Forget Password" option for password recovery.

myTRU E-Mail

All correspondence from the program and TRU will go to your myTRU e-mail account. This is located within myTRU. You may choose to auto-forward email to a personal email address by going to the Options tab in myTRU email and select auto-forwarding. For more information regarding this e-mail account, please visit <http://www.tru.ca/mytru/faqs/students/email.html>.

Wireless and Computer Access

Your network access information will give you access to wireless on campus, lab computers and storage on TRU servers. You must know your Network Account to:

- login to the network on lab computers on campus – this provides you with your own private data storage of 1G on the student server – drive F:\
- access the Wireless Network on campus (tru or eduroam)

Your login name will be the same username for the first part of your myTRU email address before the @ sign. Your login name can be found by clicking on the email icon within myTRU (top right hand corner). Your "initial password" will be your birth date in the following format: dd-Mmm-yy (include the dashes and upper case letter). For example: If your birthday is Sept. 10, 1993 your initial password would be 10-Sep-93

Course Registration for MSc Students

MSc students must register through myTRU **every semester** (fall, winter and summer). Failure to do so will result in those fees accumulating and being charged when the student next registers. As the MSc has a program based fee registration is ongoing from the start of the program. Only students on official leaves are exempt from tuition.

Registration opens early each semester and the MSc Coordinator will send out a registration reminder. You can go to the course schedule to see the CRN numbers for the courses you need to register for. All students are required to register for ENV5 5990 (0 credit option) every semester. Once you have successfully defended your thesis and completed the graduation approval form then the MSc Coordinator will enter you into the ENV5 5990 credit option and give you a complete grade. Student that started fall 2014 and on also need to register for ENV5 5400 (0 credit option) each semester. Again the MSc Coordinator will switch you to the 2 credit option once you have completed the requirement for

the course. If you are taking a directed studies course (ENVS 5480) you will need to get the paperwork completed by the course instructor and the MSc coordinator prior to the semester add/drop date.

Registration now requires a deposit to be paid. Please ensure that you pay this deposit and register on time. You must be registered before the add/drop/late registration date for each semester. These dates can be found on the TRU website at: <http://www.tru.ca/campus/current/dates.html>. MSc students must pay their tuition each semester. For the first 6 semesters you will be paying the full tuition fee. After completing 6 semesters you drop to the extension fee for the remainder of your program.

How to Pay Your Tuition and Fees

For a full breakdown of the student fees please refer to the current academic calendar and on the website at: <http://www.tru.ca/campus/money/details.html#gs>

Details for paying fees are available online at: <http://www.tru.ca/campus/money/pay.html>

1. Pay Online through *myTRU* – login to your account and use the “Make a Payment” option (Visa, MasterCard, American Express and Discover)
2. Pay through your Bank – using your bank’s electronic bill payment services. Note: You must use your TRU ID as your reference number.
3. Pay through the Campus Cashier

In person – payments can be made by cash, cheque, money order, debit card, Visa, MasterCard, American Express or Discover. Campus Cashier is located in Old Main, Room 1614.

Telephone – payments can be made over the telephone using Visa, MasterCard, American Express or Discover by calling 250.371.5646 during regular business hours. Please be aware our cashiers are often busy serving students and you may experience delays.

Mail – payments made by cheque or money order can be mailed to the Campus Cashier:

Thompson Rivers University, Campus Cashier, 900 McGill Road, Kamloops, BC V2C 0C8.

Receipts can be printed from your *myTRU* account once your payment has been processed.

Payment Deadlines

For details on deadlines for payment see: <http://www.tru.ca/campus/money/refunds.html>

In general, for domestic students fall semester payment is due at the start of September, for winter semester payment is due at the start of January and for summer semester payment is due by the end of April. Course registrations may be cancelled if payment is not made or deferral is not in place by the fee payment deadline. For international students, tuition is due before registration.

Students whose fees have not been paid in full, or who do not have a fee deferral by the payment deadline may have their registration cancelled and their space made available to students. See Fee Deferral section below for more information.

Reinstatement

Students may be deleted from courses if payment is not received in full by the fee payment deadline. Reinstatement into courses can occur only between the reinstatement dates outlined below upon payment of all outstanding fees and a reinstatement fee. The student must then advise the Registrar’s Office of the payment and courses will be reinstated.

Official Leave of Absence

Leaves of Absence are available to students after completion of a minimum of one term. The form for applying for a Leave of Absence is on the MSc website. Students may request a Leave of Absence on one of the following grounds:

- Medical: a student is experiencing illness or injury that significantly interferes with their ability to pursue a course of study
- Compassionate: a student is experiencing personal or family issues that significantly interferes with their ability to pursue a course of study
- Parental: a student is expecting a child, and/or has primary responsibility for the care of a child immediately prior to or following birth or an adoption and this significantly interferes with their ability to pursue a course of study

Leaves of Absence are normally granted in 4-month blocks, to coincide with the usual registration terms. Time taken on a Leave of Absence is not included in the time period for completion of the degree and deadlines will be adjusted accordingly. All other program requirements and academic unit expectations remain the same. Students cannot undertake any form of academic work or use any of the university's facilities during a period of leave.

Tuition fees are not assessed during leaves, but students are automatically enlisted for Continuing Graduate Student status. All Graduate awards will be paid according to the conditions established by the donor or granting agency during the period of leave. Students are responsible for communicating with the Office of Research and Graduate Studies prior to requesting leave in order to request the appropriate award interruption.

Leave of Absence requests and appropriate documentation (ie. letter from student explaining the circumstances, a letter from physician or other qualified professional) should be submitted to Graduate Admissions. Prior to submitting the request, students may wish to investigate academic supports that could support the student to remain in their studies - for example Disability Services (academic accommodations), Counselling (personal/career counselling), Writing Centre (Graduate-specific writing supports). Please contact Student Services at 250-828-5023 for more information.

Withdrawal Policies

In order to withdrawal from the program a student must complete the "program withdrawal form" available from the MSc Coordinator. This needs to be signed by the student's supervisor and the MSc Coordinator. Once a student has officially withdrawn from the program they cannot reenter without going through the full application process.

Fee Deferral Information

The Financial Aid & Awards Office is responsible for the approval of fee deferrals. Students who: 1) Cannot pay the balance of their fees by the deadline dates, 2) Have been approved for full-time student loans through Student Aid BC prior to the start of classes, and 3) Have a loan amount greater than their total fees owing, will have their fees deferred automatically.

Students who can provide proof of funding from a province other than BC may also be granted a fee deferral. Where fees are deferred for students on semesterized programs, the schedule of payment is

the last day of add/drop. Students who will be applying for Student Loans are strongly encouraged to apply two months in advance of their fee payment/fee deferral deadline.

Health and Dental Plans

For domestic students enrolled in 9 or more credits of on-campus study, the health and dental plan is automatically included in your annual student fees and is managed through TRUSU. The Thompson Rivers University Students' Union runs an extended health and dental plan for members for one reason - to make health coverage affordable. Because students have fixed incomes and face the astronomical costs of post-secondary education, unexpected medical bills can be devastating. Extended Health and Dental coverage not only gives you peace of mind, but also helps you maintain a high quality of health and ensures that medical emergencies do not endanger your studies.

Opt-In: If you have previously opted-out of the health and dental plan, you are not considered a full-time student, or are an online student and would like to get on to the health and dental plan you must opt-in. In order to opt-in to the TRUSU Health and Dental program you must come to the Members' Services Desk in the Students' Union Building. You will need to complete a Health and Dental Opt-In Form and pay the health and dental fee. The plan fee is \$248.00 for the year and can be paid by debit, credit, or cash. Keep in mind that if you opt-in to the TRUSU Health and Dental Plan you are not automatically enrolled every year and you will need to opt-in manually again in the following year to maintain your coverage. If you have a partner or a family member without health and dental coverage you can add them to the TRUSU Health and Dental Plan. You will need to add your family members to the plan for each year that you would like to have health and dental coverage. Health and Dental Opt-In Form: <http://trusu.ca/services/health-dental/opting-in/>

Opt-Out: If you already have extended health and dental coverage through another provider, you are able to apply to be opted out of the TRUSU Health and Dental Plan. You must show proof of your coverage by completing an opt-out form online that includes your health and dental provider as well as your policy number. All health and dental opt-outs must be done in registration section on your myTRU account. The opt-out deadline for academic students is within 30 days of the start of classes. The opt-out deadline for vocational students is within 30 days of their course start date. Below you will find the step by step instructions to opt out of health and dental coverage.

To opt-out of the Health and Dental coverage, please contact the student's union with proof of your current coverage: Email: info@trusu.ca, Phone: (250) 828 – 5289, Fax: (250) 852 – 6350, Mail: TRU Student Union, 900 McGill Road Kamloops, BC V2C 0C8.

Graduate Commons

The Graduate Student Commons is a collaborative student engagement space. Filled with natural light, the space adjacent to the Main Library is open via 24/7 secured access. The Commons is designed to allow quiet study as well as act as an informal gathering place complete with kitchen area and complementary coffee and tea. Long tables and nearby whiteboards are ideal for small-to medium-sized groups, and a meeting room holds up to eight students. The Commons is equipped with audio-visual equipment, making it ideal for presentations as well. The graduate commons area and is located in the bottom area of the library building with the entrance is by a side door over near the clock tower building or through the library.

Students must have a card pass to gain access to this area. In order to get a card, you need to contact the MSc Coordinator and they will assign one to you. When you no longer need this card you must return it to the MSc coordinator. There is not a cost up front but if you lose the card there is a \$20 fee to get a replacement.

Students that received a card prior to September 2016 did so through the Office of Research and Graduate Studies and paid a \$20 deposit. These students must return there cards to Research and Graduate Studies office in order to get their deposit back.

Graduation and Convocation

For details on graduation and convocation see: <http://www.tru.ca/campus/current/graduation.html>
Students must apply to graduate through their myTRU account. If they are close to defending and would like to attend convocation they must complete this by the deadlines listed below. Failure to do so will mean that they cannot attend convocation. If you are unsure about what term to apply in, please contact the MSc Coordinator and they can assist you.

There are two deadlines to apply to graduate:

- June ceremony: You must apply by **March 31** if you wish to convocate at the June ceremony.
- October ceremony: You must apply by **July 31** if you wish to convocate at the October ceremony.

DETAILS ON THE MSc PROGRAM

MSc Policies

The MSc in Environmental Science is a thesis based program. Students must follow the program requirements as outlined in the current TRU calendar and must adhere to all TRU policies <http://www.tru.ca/policy/allpolicy.html>

The MSc program requires continued enrollment (students must register every semester – fall, winter and summer and pay their tuition fees each semester). Students cannot take a semester off unless they are on an official leave of absence (see information in earlier section of the handbook). Generally, students complete the program in 2.5 to three years but students have a maximum of 5 years to complete the program.

Satisfactory Academic Performance

Policy ED 3-2 (Satisfactory Academic Progress) outlines that all students taking undergraduate or graduate courses at the University are expected to maintain a minimum standard of academic performance and that Faculties/Schools can set progression standards for specific program as long as they are not below the minimum required by TRU. As the MSc program is thesis based and the majority of the credits are related to completing ENVS 5990 (Thesis) which only has a complete grade the MSc program will also assess satisfactory academic progress based on other program specific criteria. For a student to show satisfactory progress and be deemed in good standing they need to:

- Maintain continued enrollment (paid registration) in the MSc program every semester
- Submit an inaugural committee meeting report to the MSc Coordinator within 2 months of starting the program
- Submit their approved research proposal to the MSc coordinator within 1 year of starting the program
- Submit progress reports from committee meetings (approximately 2 times a year) and these reports must show that the student is making satisfactory progress

5 Year Time Limit

As outlined on the current TRU Calendar there is a 5-year maximum time for completing a Masters program. If students do not complete by the 5-year time limit they can submit a request for a one-year extension to the MSc Coordinator. This request will then be reviewed by the MSc committee. The request is due prior to the end of the 5-year term and must include:

- A written letter from the student outlining the reasons for the extension request
- Copies of their committee meeting progress reports showing (these should show regular meetings and that satisfactory progress is being made)
- A letter of support from their supervisor
- A clear and detailed timeline of how they are going to complete their work within the extended time period

Registration

Students in the MSc program must be registered every semester (fall, winter and summer). Registration deadlines are clearly outlined in the TRU calendar and on the TRU website. It is your responsibility to pay the required deposit and register through myTRU before the semester add/drop date each semester.

Failing to register by that date means that you will be removed from the program and to be re-instated you will require a letter from your supervisor and registration will need to be done manually by the graduate admissions office.

Email Contact

As outlined in the TRU Calendar your TRU email address is the university's official electronic mailing address for all students. The account holder is responsible for reading and attending to email sent to this address. This is the main mechanism for the MSc Coordinator to contact all the students. Therefore, it is important that you make sure to check this email account regularly or forward it to your personal account.

Roles and Responsibilities

Supervisors

Generally, the role of the supervisor is to provide advice, guidance, instruction and encouragement to their students. The supervisor must be a full graduate faculty member. They are responsible for:

- Aiding in the development of a research topic that is appropriate for the graduate student level and is able to be completed in the time frame of the degree program.
- Ensuring that the roles of the student and the supervisor are clear to the student.
- Being available for regular meetings with students.
- Helping the student create a timeline and following up to ensure that they are on track.
- Ensuring that the student has the skillset or has the means to learn the skills that they need to conduct quality research.
- Providing constructive feedback on thesis related work in a timely manner (normally within two weeks)
- Encouraging international students to ask questions to prevent misunderstandings from arising or escalating into significant challenges or conflict. In particular, to ensure that situational and cross cultural factors have been considered in assessing competence and progress, supervisors should encourage students to identify and work on areas that could be a barrier to academic success (for example, issues relating to English as an additional language, academic writing, essential foundational knowledge required for the research program). Effective supervision of international students, in particular students from different cultures, requires attentive and pragmatic mentorship: for example, helping your student establish a social network, encouraging an inclusive environment in your lab/program, and bridging cultural differences in communication and interaction between supervisor and student.

Graduate Students

As a graduate student, you have committed yourself to uphold academic integrity and conduct the highest quality research of your abilities to further knowledge in your field. As a full-time student it is your responsibility to conduct research, complete a thesis and fulfill the academic requirements of the graduate program within the allotted 5-year duration. As a student, your responsibilities include:

- Understanding and following program procedures, requirements and policies.
- Meeting program deadlines and following regulations.
- Working with your supervisor to produce a research question and create a plan and timeline for your project.
- Providing your supervisor with research updates and maintaining an open line of communication.

- Respectfully receiving advice and feedback offered by your supervisor on thesis related work and tactfully discussing differences of opinion.
- Getting help and support from your supervisor, supervisory committee or other university services when needed.

Supervisory Committee

Committee members must be graduate approved faculty members. Committee members are responsible for:

- Attending committee meetings to assess the student's progress and provide constructive feedback and guidance on future work.
- Providing constructive feedback on thesis related work in a timely manner (normally within two weeks).
- Being available to meet with students and provide consultation and guidance related to their project.

Courses

As per TRU policy ED 3-5 (<http://www.tru.ca/policy/allpolicy.html>) graduate students must receive a mark of 70% or higher in a course in order to pass.

Required

Following is a summary of the required course for MSc students starting from fall 2014 onwards. Students starting the program prior to this date have different course requirements and should contact the MSc Coordinator for details.

ENVS 5100 - Environmental Science I: History, Philosophy and Concepts (3 credits). Offered fall semester. This course provides an introduction to the field of environmental science at the graduate level. Focus on history and philosophy of science in general, and environmental science in particular; guest seminars by faculty and researchers inside and outside of academia; examines the role of environmental science.

ENVS 5200 - Environmental Science II: Conducting Science (3 credits). Offered winter semester. This course continues from ENVS 5100 by shifting to the proposal, design, and conducting of scientific research, particularly in the field of environmental science; includes overview of analytical methods used in different disciplines.

ENVS 5300 - Environmental Sciences: Topics and Case Studies (2 credits). Offered winter semester. This course uses the Environmental Science Seminar series as a foundation for exploring established and emerging topics in the field. In addition to scheduled class time, students must attend the seminars and meet with speakers to discuss their work. Students also become directly involved in the hosting of speakers.

ENVS 5400 – Environmental Science: Dissemination and Outreach (2 credits). No set class time but approximately 30 contact hours. Students must complete this in first 6 semesters of the program. Students design and deliver oral presentations and poster displays on their thesis research at the Master of Science research forum; students also required to demonstrate that they have extended their work into the public forum through a variety of possible avenues.

Details on ENVS 5400: Following is a list of examples of mechanisms by which students in ENVS 5400 may meet the requirement of thesis extension into the public realm. Note that this is considered a

guide, not a definite list. Students planning on using an activity not listed here should, through their supervisor, notify the Coordinator of the MSc Program who will seek verification from the MSc Program Committee. The required form for completion of ENV5 5400 is available on the MSc website.

Acceptable activities:

- An oral presentation of a significant duration to a non-scientific audience. This includes public presentations and/or lectures to a non-specialist audience (i.e. removed from the student's discipline).
 - Presentations to first year courses would be considered extension as the audience would be non-specialists.
- An article principally focused on the student's research. The article should be senior-authored by the student, or written by a third-party, such as a member of the media. Articles written by the supervisor will not normally be acceptable.
 - Articles meeting the above criteria may appear in hardcopy (i.e. newspaper, booklet, promotional material, etc.) or in an electronic format.
 - Reports principally aimed at a broad, layperson audience are acceptable. Articles or reports submitted to a granting agency or industry partner, for example, will not be considered acceptable.
- An interview, or recorded, through a media outlet (e.g. television, radio, webcast, etc.)
- The development of signage, posters, brochures, web material, or some other educational tool that uses the products of the student's work in an educational purpose.

Activities that do not count towards ENV5 5400 credit:

- Presentation(s) at scientific or management conferences, workshops, or meetings, where the audience consists individuals with a professional interest in the topic.
- Publications of any sort that are targeted towards professionals or those with a vested interest in the topic.
- Guest lectures or presentations to formal classes of students where the topic of the research falls within the course's subject matter or curriculum.

ENV5 5990 - Master of Science Thesis (18 credits). Requires an original research project conducted by graduate students in the Master of Science Program in Environmental Science under the direction of a faculty supervisor and a thesis advisory committee. Students register in this course each semester that they are in the program until all requirements for the thesis have been met.

Directed Studies

If supported by the committee students may take additional courses. To be included in the MSc program fee these must be graduate level courses. With the permission of an instructor students can take 3 and 4th year courses and with some additional content have these meet the requirements for a graduate level course. In the MSc program all of these courses are run under the course number ENV5 5480 (Directed Studies).

Forms for directed studies are available on the MSc website or from the MSc Coordinator. Please contact the coordinator for any assistance in completing the paperwork. These forms must be submitted BEFORE the course add/drop date which is listed on the TRU calendar.

Western Deans Agreement Process

If a graduate level course required by a student is not available at TRU but can be found at another Western Canadian University than a student may apply to take that course through the Western Deans Agreement (WDA). The cost of this course is covered by the students MSc tuition but the student will be required to pay additional ancillary fees to the University offering the course. The student's grade for the course will be on a spate transcript, granted from the University offering the course.

To apply for a WDA the student needs to contact the MSc Coordinator with the details on the course (university, course name/number, course description). The WDA paperwork must be completed and signed off by both the MSc Coordinator and by The Office of Research and Graduate Studies before being sent to graduate admissions and then to the other institution. This paperwork needs to be processed well in advance of the course start date.

Committee Meetings

The committee must consist of at least 3 members and meet the following conditions:

- the Supervisor or Co-Supervisors – the Supervisor or at least 1 Co-Supervisor must be one of the TRU faculty (excluding adjunct faculty) approved to supervise MSc students;
- additional committee members are drawn from the list of TRU faculty approved to sit on MSc thesis committees (this can include adjunct faculty);
- at least one committee member must be associated with an academic discipline outside the student's area of specialization;

In addition to the core members, thesis committees may include additional TRU faculty, or non-voting members from agencies, companies, government ministries, other universities, or any other organization outside of TRU. Only TRU faculty or adjuncts approved to sit on MSc committees hold voting rights.

Inaugural

Within 1 month of starting the MSc program a student should have their inaugural committee meeting. This meeting is for the student to meet with all the committee members, discuss possible ideas for their research and finalize their course selection for the MSc program. The 'Inaugural Committee Meeting Form' is available on the MSc website. It should be completed by the student and all committee members and a scanned version should be sent to the MSc Coordinator.

Progress Reports

The role of the committee is to assess the student's progress and provide constructive feedback and guidance on future work. Therefore, it is important that the student meets with their committee periodically to give updates on their progress and to allow for feedback in a timely fashion. It is recommended that students should be meeting with their committee's at least 2 times a year. At each meeting the supervisor should bring a copy of the 'Graduate Student Committee Meeting Form (Progress Report)' which is available on the MSc website. This form needs to be signed by the student and committee members and a copy provided to the MSc Coordinator. These forms are an important part of tracking student progress.

Research Proposal

For the MSc program it is recommended that students complete their research proposals within the first year of their program and prior to starting data collection. For the research proposal students need to

complete a written proposal that gives a brief summary of the current literature on their subject area, clearly outlines their research question(s), gives a fairly detailed overview of the proposed research methodology and also contains an approximate timeline for their research project. Guidance on the proposals should come from your supervisor but you can also contact the MSc Coordinator to see examples of other proposals.

The research proposal should be sent to the committee members at least 1 week prior to the Research Proposal Presentation. At the committee meeting students should give a brief (15-20 minute) presentation highlighting the key information from the written proposal. The committee will then discuss the current proposal and may offer some recommendation. The committee is required to complete the 'Thesis Proposal Approval' Form that is available on the MSc website. A signed copy of this form along with the full research proposal and any required ethics approvals must be submitted to the MSc Coordinator. The form and proposal will then be sent to the Office of Research and Graduate Studies for final approval.

MSc Showcase

All MSc students are required to participate in the MSc Showcase during their first and second years. For the students starting in fall 2014 and later this is considered part of the requirement for you ENV5 5400 course. Detailed guidelines for each year will be sent out by the MSc Coordinator well in advance of the event.

General Event Information

This event is generally very well attended by faculty, fellow students and the general public (industry partners, government researchers etc.). The idea is to allow you – the MSc graduate students – to showcase your work to the TRU and Kamloops community. We generally have 70 plus people in attendance. The event is generally held in early March on a Thursday (in lieu the Environmental Science Seminar Series) from 3 to 7 pm. A rough schedule follows:

1:30 – 3:00 pm ~ Room open for setting up of posters and proofing of oral presentations

3:00 pm ~ Doors open, refreshments available

3:30 – 4:30 pm ~ A stimulating assortment of 4-minute oral presentations by 1st year MSc students

4:30 – 5:30 pm ~ A sensational selection of poster presentations, with 2nd year MSc students in attendance to address any inquiries

6:30pm ~ Award ceremony for best 1st year oral presentation and best 2nd year poster presentation

7:00pm ~ Closing

First Year MSc Students – Presentations

ALL first year MSc students must give a 4-minute presentation on their research. The presentation should cover basic background information/justification for your research, your research question(s) and how you plan to answer your question. This is given to a broad audience and depending on the number of presentations we may also be able to allow for 1 question per presentation.

The slides need to be prepared in advance and submitted to the MSc Coordinator by the assigned deadline. Once you have submitted the slides you cannot edit them – so make sure you have practiced your presentation BEFORE you submit them. It is recommended that you send a copy of your slides to your supervisor and committee for feedback prior to submitting them. Please send the presentation electronically as a PowerPoint file (not a pdf).

You will also be required to submit a short paragraph or abstract covering the basic material that will be in your presentation. We will be compiling these abstracts into a booklet that we will post on the MSc website. Include your name, a title and the names of your supervisor and committee members. Please send the file electronically as a word document.

The room will be equipped with a computer, projector, an automatic slide changer and a microphone. Due to the size of the venue the use of the microphone will be required. Students are encouraged to come to the venue during set-up (1:30-3 pm) to practice with the mic.

Second Year MSc Students – Posters

ALL second year MSc students must prepare and present a poster on their research. Posters are often used as a format to communicate your research but building a good poster can be a challenge. A poster presents work in a more graphic way than a paper and should be able to present a clear message to the viewer in under 5 minutes.

Poster printing will be paid for by the MSc program. In order to have posters printed in time they must be submitted to the MSc Coordinator by the assigned due date. If your poster is not received by this time/date you will be responsible for printing of the poster. Please send the file electronically as both a PowerPoint file and a pdf. Text should be easy to read from a distance of 4 feet away. Due to space constraints poster MUST be portrait layout with a height of 36 inches and a width of 24 inches. Please use these dimensions for your slide layout.

You will also be required to submit a short paragraph or abstract on your poster. We will be compiling these abstracts into a booklet that we will post on the MSc website. Include your name, a title and the names of your supervisor and committee members. Please send the file electronically as a word document.

MSc Conference Stipend

All MSc students in the Environmental Science Program effective with the 2013 cohort are eligible to apply for up to \$1500 in funds to cover travel and/or expenses associated with presenting at a conference. Details and forms associated with this process are available on the MSc website. The following restrictions apply:

- The total amount received will not exceed \$1500 per student. Further, students that have entered the fourth year of their tenure as an MSc student are no longer eligible to access these funds.
- The funds must be used for costs associated with attending and presenting at a conference or workshop in the student's discipline, normally via an oral paper or poster display. Further, the conference or workshop must be national or international in scope. Requests to cover travel costs to local or regional meetings normally will not be entertained. Students should consult with their Supervisor and/or the MSc Program Coordinator *before* registering for conferences or booking travel arrangements.
- Students must submit a detailed budget outlining their anticipated costs.
- Conference support through the MSc program must follow TRU policy ADM 22-1. To submit a request for funds, students must complete the steps outlined in the MSc Conference Stipend Form (available on the MSc website). Supervisors **must** sign off on their student's request. Request for support must be made at least **one** month prior to travel for conferences within Canada and **two** months prior to travel for conferences outside Canada.

- For students travelling outside of Canada a more detailed risk assessment is required along with paperwork and mandatory attendance at a workshop. The paperwork must be completed **BEFORE** the MSc funding can be supplied. It requires a risk assessment form, student waivers, STAR tracking form and attendance at risk management workshop held by TRU world (30-40 minutes).
- NOTE – This is awarded as a stipend and therefore is considered taxable income.

Request for Conference Stipend (For Travel within Canada)

Students are required to follow TRU policy ADM 22-1 which can be found at:

http://www.tru.ca/_shared/assets/student_off_campus_safety_and_travel_policy30433.pdf

- 1) Complete MSc Request for Conference Stipend Form along with your budget, have it signed by your supervisor and submit to the MSc Coordinator one month PRIOR to travel.
- 2) As travel is being supported by TRU students must follow TRU policy ADM 22-1. For domestic travel this requires: Form and student waivers
- 3) Collect all receipts for money spent (conference registration, accommodation, travel fees, meal costs etc.). Please put these with your original budget and submit to the MSc Coordinator within **1 week** of your return from the conference.

Request for Conference Stipend (For Travel Outside of Canada)

Students are required to follow TRU policy ADM 22-1 which can be found at:

http://www.tru.ca/_shared/assets/student_off_campus_safety_and_travel_policy30433.pdf

For students travelling outside of Canada a more detailed risk assessment is required along with paperwork and mandatory attendance at a workshop. The paperwork must be completed BEFORE the MSc funding can be supplied. It requires a risk assessment form, student waivers, STAR tracking form and attendance at risk management workshop held by TRU world (30-40 minutes).

The steps for applying for the funds are detailed below:

- 1) At least two months prior to the conference the student must complete the Request to Access Conference Stipend Form and budget, and submit to the MSc Coordinator.
- 2) The student's supervisor will work with the student to complete the required risk assessment form which can be accessed from the MSc Coordinator.

The student and supervisor must sign this form and submit it to the MSc Coordinator. This will then go to TRU World and to the Provost.

- 3) The student must then complete the following forms and bring these along with a copy of their passport and travel insurance and plan id card to the MSc coordinator.
 - Complete the relevant forms (Release of Liability, Waiver of Claims Agreement (for participants over 19 years), Informed Consent for Release of Liability Waiver of Claims Agreement (for participants under the age of 19), Behaviour Contract, Freedom of Information, Media Consent) for off campus travel which can be found on the website at:

http://www.tru.ca/_shared/assets/Off_Campus_Travel_Forms_for_Individual_Participants32063.pdf
 - Complete the Student Travel Abroad Registry (STAR) which can be accessed from the MSc coordinator.

- If a student driver is transporting other students in their private vehicles to the US then a driver consent form needs to be completed.
- 4) The MSc coordinator will submit all the paperwork to TRU World and then the student must arrange with the Study Abroad Centre to attend a 30-40 minute pre-departure risk management seminar. Please notify TRU World if you have completed one of these previously as you may be exempt.
 - 5) Once all paperwork is complete and the approval is received from the Provost's office the MSc Coordinator will submit a cheque requisition and the conference stipend will be given to the student.
 - 6) Collect all receipts for money spent (conference registration, accommodation, travel fees, meal costs etc.). Please put these with your original budget and submit to the MSc Coordinator within 1 week of your return from the conference.

Graduate Scholarships

For information on graduate student awards: http://www.tru.ca/research/grad_studies/funding.html
Below is a summary of the main scholarships/awards available to student in the MSc program but please refer to the website for up to date information.

TRU Graduate Student Research Mentor Fellowship (application deadline generally end of September).

These awards will go to TRU graduate students who are engaged in research and who wish to serve as mentors for undergraduate research, scholarship and creative enquiry for the academic year. Mentors will volunteer with the Research Office on a variety of projects related to the enhancement of student research, and will have the opportunity to work as a team, mentoring students from a variety of majors and backgrounds, pooling resources and collaborating with faculty. Each graduate program has been allotted a minimum of three Mentor awards, valued at \$7,000 each (two installments of \$3,500). The graduate mentors will be encouraged to volunteer around 5 hours per week, or 50 hours per semester. For the MSc program students need to have completed Either ENVS 5100 or 5200 in order to be eligible.

Ken Lepin Graduate Student Award (application deadline generally mid August). The Ken Lepin Graduate Student Awards are available to help students who are entering their first or second year of a full-time graduate studies program for students studying on campus or online. The awards will be given on the basis of outstanding academic achievement in course work, research, and will take into account leadership activities. Five awards valued at \$5,000 each are available to students entering or continuing in TRU's graduate programs.

Environmental Science and Natural Resource Science Fellowship Award (application deadline generally mid November). The fellowship was generously created by an anonymous donor for the development of two awards; one for Environmental Sciences and one for Natural Resource Sciences. Recipients — either senior undergraduate or graduate students — will be selected based on their scholarly achievements, their commitment to research and their demonstrated potential for future contributions to our understanding of the environment. The fellowship is a prestigious award with a value of \$7,500 for each recipient.

Graduate TA Positions

Teaching assistant positions are available on campus but they are competition based and you must apply. Postings for teaching assistant positions and other student employment at TRU can be found through the following link: http://www.tru.ca/careereducation/stu_employ/workoncampus.html . The

Teaching assistant opportunities are advertised in the relevant department as well as in the TRU Career Education Department. The MSc Coordinator will also forward any TA postings that they receive.

Defence Process

This section 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.

Overview of Process

Timeline	Activity	Forms/Additional Requirements (available on MSc Website)
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, TRUSpace Non-Exclusive Licence, PDF of final thesis, 2 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.

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 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 MSc Coordinator will send an official request for the external to participate in the defence. They will need a copy of the abstract of your thesis to send with this. The MSc Coordinator 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 MSc Coordinator 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 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. The MSc Coordinator will work to formally organize the defence. Note that generally 2 weeks is 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 MSc Coordinator will confer with your supervisor as to whether the External will be physically present at your defence, or whether some sort of audiovisual or teleconference hook-up is needed. (2) A Chair for your defence will be selected by the MSc Coordinator. 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 go 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 will pay for only 2 copies of your thesis to be bound – one for yourself (very important!) and one for your supervisor. Only digital copies are now stored in the TRU library.

The cost of binding these 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 be signed off by your supervisor and a completed 'Theses NonExclusive License' and 'TRU Library Space 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 Timeline 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:

Action	Time Required
• Drafting of thesis to the satisfaction of the supervisor	variable
• Approval of thesis by committee members	at least 2 weeks
• Approval of thesis by the External Examiner	at least 2 weeks
• Time to arrange the actual defence	at least 2 weeks
• 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 an 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.

INFORMATION FOR GRADUATE FACULTY

How to Become a Graduate Faculty Member

In order to participate in graduate studies (eg. sit on MSc committees, teach graduate courses or supervise students) you must apply to become a graduate faculty member. There are three categories available (Graduate Course Instructor, Associate Graduate Instructor/Co-supervisor and Graduate Instructor/Supervisor). The details on these categories can be found in the document titled “Graduate Instruction and Supervision at TRU” available on the Office of Research and Graduate Studies website. A brief summary is also included below.

The general process for application is as follows:

1. If you are not a TRU faculty member then you must first apply for adjunct status in a Department (you will need to contact the specific Department Chair to get information on this process).
2. If you are a TRU faculty member or adjunct you then need to apply to the Masters of Environmental Science Committee to become a graduate faculty member in the MSc program. For this you need to submit a cover letter along with an up to date CV. In the cover letter clearly identify the graduate faculty category that you are applying for. Review the document titled “Graduate Instruction and Supervision at TRU” and make sure you meet the criteria outlined.

Submit your cover letter and CV to the MSc Coordinator. This will then be reviewed at the monthly meeting of the MSc Committee. If approved by the committee the recommendation will be forwarded to the appropriate Dean for their consideration. Upon approval from the Dean the application will then be submitted to the Graduate Senate Committee (GSC). The MSc Coordinator will present the application and it will be reviewed by the GSC. If approved, it will then go to the AVP of Research and Graduate Studies. The entire process can take between 1-2 months. If approved, the term of the appointment is up to five years.

Graduate Course Instructor

This category applies only to professional or applied Master’s degrees, in which up to 25% of the courses may be delivered by faculty members in this category. Function: 1) Teach graduate courses face-to-face or on-line; 2) Tutor graduate students; 3) Co-supervise graduating or capstone projects; 4) Serve as a second reader or committee member for graduating or capstone projects; 5) May not teach courses directly related to the thesis, such as research methods or preparing a thesis proposal.

Education: Normally holding terminal qualifications or equivalent in their discipline and normally must possess a minimum of a relevant Master’s degree. Research Qualifications: Evidence of a current and ongoing commitment to research and scholarship or outstanding current and ongoing involvement in relevant professional practice that is the equivalent of academic scholarship as outlined in the promotion and tenure documents for the relevant department or faculty. Eligibility: TRU faculty member, OLFM, emeritus faculty member, adjunct faculty member, or otherwise qualified TRU staff.

Associate Graduate Instructor / Co-Supervisor

Function: 1) All of the activities associated with the Graduate Course Instructor category, plus 2) Co-supervise graduate student theses in collaboration with a Full Graduate Instructor/Supervisor; 3) Supervise graduating or capstone projects; 4) Be a member of these supervisory committees, graduate

program committees and examination committees; and 5) May teach courses directly related to the thesis, such as research methods or preparing a thesis proposal.

Eligibility: TRU faculty member, OLFM, emeritus faculty member, adjunct faculty member or otherwise qualified TRU staff. Education: Normally holding terminal qualifications or equivalent in their discipline and normally must possess a minimum of a relevant Masters degree. Research Qualifications: Evidence of a current and ongoing commitment to research and scholarship.

Full Graduate Instructor/Supervisor

Function: 1) All of the activities associated with the Graduate Course Instructor category and the Associate Graduate Instructor / Co-Supervisor category, plus 2) Supervise graduate student theses, projects and internships; and 3) Chair theses supervisory committees, graduate program committees, examination committees.

Eligibility: Tenured or tenure track TRU faculty member, OLFM, or otherwise qualified TRU staff.

Education: Hold terminal qualifications or equivalent in their discipline. Research Qualifications: A substantial record of peer-reviewed and disseminated research, scholarly activity and/or production of creative works; Active in their profession or discipline; and Preferably supported by a successful record of securing external funding.

Renewal of Approval

The Office of Research and Graduate Studies will keep records of when approved graduate supervisors' appointments are to expire. Prior to this date the AVP, Research and Graduate Studies will request an updated cv. At the discretion of the AVP, the supervisor will either be re-appointed for a new term of up to five years, or alternately the AVP may ask the applicant to reapply via the normal appointment pathway, starting with the relevant Graduate Program Committee.

Withdrawal of Approval

Recommendations to withdraw the approval can be initiated by the relevant Graduate Program Committee, by the Dean or by the DPD. Recommendations for withdrawal of approval to participate in graduate studies at TRU should follow the same process as applications for approval: GPC then Dean then GSC then AVP, Research and Graduate Studies.

The MSc Environmental Sciences Graduate Committee

Terms of Reference

The MSc Environmental Sciences Graduate Committee is a faculty-driven organization for the administration of the MSc Environmental Sciences graduate program.

Responsibilities: Reporting to the Graduate Studies Committee of Senate, the MSc Environmental Sciences Graduate Committee will be mandated with the responsibility of administering the MSc program in Environmental Sciences, which will include the following:

- Develop and review program policy and guidelines;
- Review and, when necessary, revise curriculum;
- Manage the MSc Environmental Sciences program budget;
- Review and decide MSc student application packages;
- Identify space needs for research and office;

- Advise on health and safety policy for graduate studies;
- Manage the Environmental Sciences Seminar Series;
- Develop scholarship and research allowance opportunities for graduate students;
- Enhance the academic and social environment for TRU graduate students.

Membership: The MSc Environmental Sciences Graduate Committee will include:

- One faculty representative (or no more than two) with Full Graduate Instructor/Supervisor designation from each of the following departments (Biology, Computer Sciences, Economics, Geography, Natural Resource Sciences, Math and Statistics, Physical Sciences, Tourism);
- Dean of Science (ex officio)
- AVP Research (ex officio)

Faculty members from each department will be selected by majority vote within the departments. Membership will be for a period of three years, renewable for a second three-year term. The annual term will commence on the first of September.

A chair (coordinator) of the MSc Environmental Sciences Graduate Committee will be selected by majority vote from within the MSc Environmental Sciences Graduate Committee. The chair position will run for a three-year period, renewable for a second three-year term.

Sub-Committees

Sub-committees can be formed as deemed necessary by the MSc Committee. Currently two sub-committees exist:

The Application Assessment Committee: Made up of a chair and minimum of 3 other members. This sub-committee is responsible for reviewing all completed applications to the MSc program and based on the MSc criteria assigning each as either 1) unconditional acceptance, 2) acceptance with conditions (conditions are clearly outlined and attached to student's acceptance letter) and 3) not acceptable.

The Awards Committee: Made up of a chair and a minimum of 2 additional members. This sub-committee is responsible for reviewing various award applications according to the supplied award criteria and making recommendations to the appropriate parties.