



GRADUATE DEGREE PROGRAMS
DEPARTMENT OF SOCIAL SCIENCES
MICHIGAN TECHNOLOGICAL UNIVERSITY
HOUGHTON, MI

MS & PHD IN ENVIRONMENTAL AND ENERGY POLICY

MS & PHD IN INDUSTRIAL HERITAGE AND ARCHAEOLOGY

OSM/VISTA MASTER'S PROGRAM

Information for 2019-2020 and 2020-2021 Academic Year

Table of Contents

1	Introduction.....	5
2	Facilities and General Information	6
2.1	Department Structure	6
2.2	Keys, Desk, Computer, and Research Space Assignments	6
2.3	E-Mail, Mail Service, Photocopier, Supplies, and Printers.....	7
2.4	Teaching and Research Assistant Work Obligations	8
2.5	Safety.....	8
2.6	Absence Policy	9
2.7	Academic Integrity	9
2.8	International Students.....	10
2.9	Stipend, Tuition, and Student Status	10
2.9.1	PhD Student Residency Requirements	11
2.9.2	Candidacy	11
2.10	Health Insurance and Health Care.....	11
3	Advising.....	12
3.1	Course Work Advising.....	12
3.2	Selecting a Graduate Advisor.....	12
3.3	Selecting an Advisory Committee.....	12
3.4	Changing Advisors	13
4	Grievance Policies and Conflict Resolution Procedures	15
4.1	General Guidelines for Student-Initiated Grievances	15
4.2	Additional Resources for Students	16
4.2.1	Ombuds Office.....	16
4.2.2	Graduate School Grievance Procedure	16
4.2.3	Institutional Equity Office and Title IX Reporting Procedures	16
5	Graduate Degree Requirements Overview	18
5.1	MS in Environmental and Energy Policy.....	18
5.1.1	Thesis Option.....	18
5.1.2	Report Option.....	18
5.2	PhD in Environmental and Energy Policy	19
5.3	MS in Industrial Heritage and Archaeology.....	19
5.3.1	Thesis option.....	19
5.3.2	Report option	19

5.4	PhD in Industrial Heritage and Archaeology	20
5.5	Satisfactory Progress in Graduate School	20
5.5.1	Milestones for MS Students.....	20
5.5.2	Milestones for PhD Students	21
5.5.3	Grades and Maintaining a Status of Good Standing.....	22
5.5.4	Conference Attendance and Presentations.....	24
6	Student Feedback.....	25
6.1	End of Semester Feedback	25
6.2	Annual Student Progress Evaluation.....	25
6.3	Student-Advisor Meetings.....	25
7	Responsible Conduct of Research Requirements	26
8	Graduate Curriculum Planning and Degree Milestones	27
8.1	Graduate Curriculum Planning.....	Error! Bookmark not defined.
8.1.1	Curriculum Planning Forms.....	27
8.1.2	Curriculum and Coursework.....	27
8.2	Research Proposal Approval Process for MS Thesis or MS Report	27
8.2.1	Proposal Requirements	28
8.2.2	Timeline and Oral Presentation	28
8.2.3	Committee Approval Process	28
9	MS Thesis/Report and Defense	29
9.1	Written Thesis or Report	29
9.2	Scheduling the Public Defense.....	29
9.3	Oral Examination	30
9.4	Post-Defense Requirements	31
10	PhD Program Qualifying Exams	32
10.1	Purpose	32
10.2	Exam Committee.....	32
10.3	Exam Topics and Content	32
10.4	Reading Lists.....	33
10.5	Timing of Exam.....	33
10.6	Written Exam Structure.....	34
10.7	Evaluating Written Exams.....	34
10.8	Oral Exam.....	35
10.9	Environment and Energy Policy Exam Specifics.....	36

10.9.1	Core Policy (Group A) - Choose at least one:	36
10.9.2	Field Areas (Group B) - Choose at least one:	37
10.10	Industrial Heritage and Archaeology Exam Specifics	38
11	PhD Dissertation Research Proposal Examination and Dissertation Defense.....	39
11.1	Written Proposal.....	39
11.2	Proposal Defense	39
11.3	Completing the Dissertation and Defense	40
11.4	Timeline.....	41
11.5	Scheduling the Defense	41
11.6	Written Dissertation	42
11.7	Oral Examination	43
11.8	Post Defense	44
A	Environmental and Energy Policy – MS Curriculum 2017-2018.....	45
A.1	Thesis Option	45
A.2	Report Option	45
A.3	Course Option.....	45
B	Environmental and Energy Policy – PhD Curriculum 2017-2018	46
C	Industrial Archaeology – MS Curriculum 2017-2018.....	47
C.1	Thesis Option	47
C.2	Report Option	47
D	Industrial Heritage and Archaeology – PhD Curriculum 2017-2018	48
E	Environmental and Energy Policy – MS Curriculum Current.....	49
F	Environmental and Energy Policy – PhD Curriculum Current	50
G	Industrial Heritage and Archaeology – MS Curriculum Current.....	51
H	Industrial Heritage and Archaeology – PhD Curriculum Current	52

1 Introduction

The following information has been compiled to assist graduate students with their adjustment to graduate school and to outline the requirements and procedures for obtaining an advanced degree in the Department of Social Sciences. The information supplied here is more specific than that on the Graduate School website as it applies to our specific graduate degree programs: M.S. in Environmental and Energy Policy, M.S. in Industrial Archaeology, PhD in Environmental and Energy Policy, and PhD in Industrial Heritage and Archaeology.

You should familiarize yourself with this handbook and the general regulations of the Graduate School as found in the Graduate School's Academic Resources web page (<https://www.mtu.edu/gradschool/resources-for/students/academic/>), which covers policies and procedures, degree requirements, necessary forms, and more. The Graduate School website (<https://www.mtu.edu/gradschool/>) also contains a wealth of information for admitted and current students.

2 Facilities and General Information

2.1 Department Structure

The Social Sciences Department is a community of scholars and professional staff. Major administrative responsibilities in the Department are handled by the Department Chair and several important faculty committees.

Department Chair: Hugh Gorman

Graduate Program Director: Chelsea Schelly (3 year term, 2017-2020)

Social Sciences Graduate Program Committee (3 year rotating terms): Tim Scarlett (2019-2022), Roman Sidortsov (2018-2021), Sam Sweitz (2017-2020), and Richelle Winkler (2019-2022)

Industrial Archaeology Lab Director: LouAnn Wurst

Department Staff: Amy Spahn (Research and Program Administrator), Gina Stevens (Department Coordinator) and Christine Flood (Office Assistant)

Graduate Student Government Representative: Karuna Rana (EEP MS student, 2019-2020)

Department Grad Student Representative: Jennifer Rachels (EEP PhD student, 2019-2020)

Key roles for the above, provided for clarification:

- The Department Coordinator assists graduate students with financial paperwork associated with employment and with access to keys and office spaces.
- The Graduate Director is the primary point of contact for graduate students regarding the graduate programs.
- The Graduate Program Committee is comprised of faculty and serves, among other things, as the admissions review and internal funding award review committee.
- Each graduate student will have one Advisor or two co-advisors and will have a Graduate Committee supervising their thesis or dissertation work. Graduate students choose their advisors and are able to change advisors (see below). The composition and selection of graduate committees is described below.
- The Department's Graduate Student Representative attends Department meetings to report back to graduate students about Department activities.

2.2 Keys, Desk, Computer, and Research Space Assignments

Each resident, funded graduate student is provided an office, desk, computer, and 24-hour access to that office. Students will be assigned offices in either the Annex or AOB second floor. Office keys are ordered by the Department Coordinator. Students working on research projects may be issued keys to Annex facilities upon approval of the faculty member responsible for that work

area. Requests for new keys, replacements for lost keys, or swipe-card access to restricted areas should be made to the Department Coordinator. Keys must not be passed on to anyone else, or duplicated, under ANY circumstances. Lost keys need to be reported to supervisors as soon as they are noticed to be missing. A \$100 fee is assessed for any key lost/replaced or not returned to public safety when no longer needed.

Accessing your office after-hours: A student's MTU student identification card and assigned M-number grant after-hours admission to both the Academic Office Building (AOB) and the Annex. The AOB can be accessed after-hours using your student ID card via the west entrance that faces the main faculty parking lot. The Annex can be accessed after-hours using your student id card via the south-facing entrance.

On-campus computer access: All graduate students are provided computer access through the computer lab in the Annex, in graduate student offices, and in multiple locations on campus (<https://www.mtu.edu/it/services/computer-labs/>). Questions and problems with computers should be directed to the Information Technology (IT) Help Desk, found on the first floor in the library or via email at it-help@mtu.edu. The IT staff will supply you with your username and password; change your password the first time you log into your account. Please read the policies for using Social Sciences computers as well as using any Michigan Tech computer facilities as soon as you begin using the computers. Computer use policies are available on our website at <http://www.mtu.edu/policy/policies/general/1-06/> and <http://www.mtu.edu/policy/policies/general/1-09/index.html>.

Students should pay particular attention to Michigan Tech computer use policies regarding copyrights, privacy, passwords, and hacking. These can be found through the link at the above web site, or directly at <https://www.mtu.edu/it/security/policies-procedures-guidelines/standards-acceptable-use.pdf>.

2.3 E-Mail, Mail Service, Photocopier, Supplies, and Printers

E-mail: E-mail is the Department's primary communication tool with graduate students regarding issues such as financial support, graduate program obligations and responsibilities, and semester timelines and deadlines, to name a few. The Department maintains several listservs, including an "ss-grad" listserv for graduate students; all students and faculty can send things to this list and the Graduate Director is the only faculty member who sees the emails sent to this list. There is also an "ss-dept" list for faculty and staff, and graduate students can share announcements with the Department using this list.

You are expected to be responsive to any and all emails coming from the University and the Department. It is appropriate to respond to all emails within 24 hours, unless it is the weekend.

Mail Service: Hard-copy mail is delivered daily to Social Sciences around 1:30 p.m. Student mailboxes are located in the main office, Academic Office Building 209. It is advisable to check your mailbox daily during the week for mail and messages.

Copying/Printing/Office Supplies: Photocopiers, laser printers, and office supplies are available for Social Sciences graduate students to use for research and teaching purposes only.

Departmental resources are limited, so efficiencies such as double-sided printing and copying are appreciated. Please see one of the office assistants for office supplies & your photocopier access code. Also note that there are important national laws regarding photocopying copyrighted materials. If you have a question about copyright law please inquire in the library or see <http://www.admin.mtu.edu/admin/procman/ch13/ch13p10.htm>.

2.4 Teaching and Research Assistant Work Obligations

Students who are supported in the Department (i.e. TA/RA) are contractually obligated to work 20 hours a week. Students are also expected to communicate with their supervisor and complete all required tasks. Teaching assistants are required to be in residence locally and to attend class sessions in person.

Each student's performance will be assessed each semester via written feedback provided by all faculty with whom each student interacts (in class, as a TA or RA, and as an advisor or committee member). This feedback is provided confidentially to the Graduate Director and shared with each student's advisor, who can provide feedback about the evaluation if they desire or at the student's request. If the student's performance is deemed unacceptable, the Graduate Director and student's advisor will communicate with the TA/RA supervisor, either in writing or via an in-person meeting, about the specific conditions warranting concern. The Graduate Director and the student's advisor will then meet with the student to discuss the concerns and the plan for improvement. The first semester of concern warranting a meeting will result in a probationary period; the second semester of concern will result in a termination of funding support.

The same standards and requirements apply to a student who was given an assignment by the university or the department on an ad hoc basis, for example if the student is paid hourly during the semester or the summer for a particular work assignment. The party who issued the assignment shall assume the rights and responsibilities of this student's supervisor as outlined above.

In the event that a student receives a second report of unsatisfactory performance as a TA/RA, the Graduate Director, student advisor, and Department Chair will expect communication from the TA/RA supervisor, either in writing or via an in-person meeting, about the specific conditions warranting concern. The Graduate Director, student advisor, and Department Chair will then meet with the student to discuss the deficiencies and the plan for improvement. Given the sustained evidence of unsatisfactory performance, the student's funding will be revoked.

2.5 Safety

There are a number of safety policies and procedures in effect at Michigan Tech that particularly apply to graduate students, such as those concerning hazardous waste, housekeeping, and safety orientation. Copies of these policies are supplied separately; please read them carefully. Questions can also be directed to safety coordinator or Department Chair. For safety purposes, visitors are not permitted in research and instructional labs unless written permission has been granted by the Department Chair; this includes spouses and children. There have been incidents

in other departments where unauthorized visitors, including children, have had accidents causing themselves harm. This rule is designed to prevent this type of tragedy. For your reference, the Michigan Tech safety manual is available on line at <http://www.mtu.edu/ehs/documents/safety-manual/safetymanual.html>.

2.6 Absence Policy

Students receiving financial aid through the University (teaching assistantship, research assistantship, fellowship) are entitled to staff holidays, but please note that the breaks between academic terms and the break at Christmas are not automatically considered as holidays or time off. In the case of GRAs, excused absences must be arranged with the faculty advisor, and approved by the Department Coordinator. GTAs follow a similar policy, but require the approval of their advisor and GTA supervisor before a planned absence or travel. GTAs are expected to remain on campus through finals week until grading is completed. All GRAs and GTAs must have the approval of supervisors for a planned absence from duties.

In addition to being granted approval for excused absence, written approval is required for international travel: <http://www.mtu.edu/fso/forms/travel/>.

2.7 Academic Integrity

The University and the Social Sciences Department expect all students to maintain the highest level of academic and scientific integrity in all aspects of their studies, from class work to exams to research. If you are unsure of or have specific questions about assignments, projects, examinations, etc., please ASK your instructor. A detailed booklet describing Michigan Tech's academic integrity policy and procedures, including definitions of plagiarism, cheating, fabrication, and facilitating academic dishonesty, is available from the Dean of Students office, or on the web at: <http://www.admin.mtu.edu/usenate/policies/p109-1.htm>.

All graduate students should carefully read this policy. Students must also view the orientation module on academic integrity at: <http://www.mtu.edu/gradschool/admissions/admitted/online-orientation/>.

Further information on Misconduct in Research may be found at: <https://www.mtu.edu/research/administration/integrity-compliance/misconduct/>.

Graduate students in MS and PhD programs in the Department of Social Sciences are encouraged to build on their work in more than one class to produce high-quality publishable papers. Hence, students are allowed to build on their work, including course papers from previous courses, for this purpose, subject to their instructor's permission. Terms and conditions of such reuse must be discussed with your instructor and both the student and the instructor must agree on the terms and conditions of the use of previously written work. Students are encouraged to seek written permission from the course instructor to the extent that obtaining it is practicable.

2.8 International Students

Upon arrival on campus all international students must register with the Office of International Programs and Services located in room 200 of the Administration Building. All matters concerning employment practice, visa renewals, and related matters are handled through this office. Changes in I- 20 forms are handled in the Graduate School. All international students whose native language is not English must take an English Language Assessment. The assessment takes place in the Michigan Tech Testing Center, Center for Teaching and Learning, Van Pelt and Opie Library 226. Visit the Testing Center to schedule a time to take the assessment or contact them at 906-487-1001, techttesting-1@mtu.edu. More detail can be found at: <http://www.mtu.edu/ctl/for-graduate-teaching-assistants/language-assessment/>.

Additionally, all first-time international students must visit the International Graduate Student Communication and Cultural Center (IGSC3). Students' language skills and their cultural competency will be assessed, and students will be provided with services on an as-needed basis so they can provide better service to our undergraduates and faculty while serving as graduate teaching assistants. Additional information is found here: <https://www.mtu.edu/ctl/for-graduate-teaching-assistants/igsc3/>.

In order to be visa compliant, international students must register as full time students. Questions regarding I-20 forms, visa status, and full-time student status may be directed to the Graduate School.

2.9 Stipend, Tuition, and Student Status

Graduate teaching assistants and graduate research assistants are paid a stipend set by the Graduate School and, in some cases, their research advisor. Stipend levels generally increase as you progress toward your degree (i.e. complete program milestones such as those required to become ABD) and submit the required forms (see the Graduate School website for details). Stipend payments provided by MTU are issued bi-weekly; some external funding sources may provide monthly payments. Supported graduate students must be enrolled for 9 credits each semester during the academic year and 1 credit in the summer, with tuition paid directly by the Department or research grant. Tuition charges in excess of these values will be your responsibility, along with student voted fees and late registration fees. Limited summer appointments are available to graduate students making satisfactory progress toward their degree, but these are dependent on need and availability of funds. If you are in need of summer funding, you should discuss your options with the Graduate Director and the Department Chair as soon as possible.

International students and students receiving financial support from the department as an RA or TA must maintain full-time status. Part-time students are accepted on a case-by-case basis. Students seeking part-time student status should consult with the Graduate Director. Students entering the program in or transitioning to part-time status are not eligible for RA/TA funding support and are also encouraged to consult with the Student Financial Services Center (<https://www.mtu.edu/finaid/>) and loan lenders to inquire about implications for student loan repayment. Further information can be obtained from the Graduate School.

2.9.1 PhD Student Residency Requirements

University policy requires that doctoral students spend at least four semesters (including summer) on campus at Michigan Tech beyond attainment of a bachelor's degree or two semesters on campus at Michigan Tech beyond attainment of a Master's degree in a formal program of study and research under direct supervision (see: <https://www.mtu.edu/gradschool/policies-procedures/requirements/phd/>). Continuous enrollment in the fall and spring semesters is also required. This requirement may be waived under special circumstances with pre-approval.

The Graduate School requires that the qualifying examination must be taken within five years, and all requirements must be completed within eight years, from the time of a student's first enrollment in the doctoral program.

2.9.2 Candidacy

All MS and PhD students are eligible to register for credits at a reduced tuition rate once they meet specific requirements. MS students must complete all required coursework for their degree plus the required number of credits for their degree. PhD students must complete their qualifying exams and dissertation proposal defense successfully. The Graduate School has details about entering Candidacy status: <https://www.mtu.edu/gradschool/policies-procedures/academic/candidacy/>.

2.10 Health Insurance and Health Care

Health care - Graduate students are required to enroll in the Michigan Tech graduate student health insurance program or provide proof of comparable insurance coverage. Financially supported students (GRA, GTA) receive partial support toward their health insurance cost. More information about health insurance and health care can be found at: <https://www.mtu.edu/hr/students/insurance/>.

3 Advising

Advisors help students structure a program of study that addresses their needs and satisfies degree requirements. New MS students are initially assigned a temporary advisor. They must have a permanent advisor before the end of their second semester. PhD students are accepted into the program on the condition that a faculty member agrees to be their advisor, but students have the right to change advisors at any point (see below).

3.1 Course Work Advising

A first-year student with a Graduate Teaching Assistantship typically takes three 3-credit courses each semester. After 3 semester of full time course work, students typically shift to taking more research credits, as their time is devoted to research. The University requires that full time graduate students receiving stipends register for 9 credit hours per semester. To be considered full time during the summer semester, students must register for a minimum of 1 credit. Please consult with your advisor and with the Graduate Program Director for updates regarding rules for support and full-time status, especially during the summer and in the semesters approaching graduation. Once students finish required courses and examinations, they may submit the petition the Graduate School to enter research mode (<https://www.mtu.edu/gradschool/policies-procedures/forms-deadlines/>). Students who have reached “candidacy” or research mode must maintain student status but are eligible for a lower full-time research tuition rate. Check with the Graduate School in advance for the most up-to-date requirements.

3.2 Selecting a Graduate Advisor

For most students, the process of selecting a permanent faculty research advisor should begin during the fall semester of the first year of residence. First-year students unable to find a research advisor must notify the Graduate Director so that the process can be facilitated.

There is a form that must be submitted to formally identify the advisor, and it is up to the student and their advisor to fill out, get signed, and submit the appropriate forms to the Graduate School at the appropriate times (see this link for current forms and instructions): <http://www.mtu.edu/gradschool/policies-procedures/forms-deadlines/>

3.3 Selecting an Advisory Committee

Each student accepted into the graduate program in the Department of Social Sciences should work with their advisor to select an Advisory Committee by the end of their second semester in residence, and no later than the beginning of their third semester. For MS students, three members from the Department are required. It is advisable for MS students to have their committee in place and have met with the student by the end of the second semester.

For PhD students, the Advisory Committee should be in place by the end of their third semester in residence. The Comprehensive Exam committee must be comprised of three members; a fourth external member (see below) may but is not required to serve on the committee for the

purposes of the comprehensive exam. The same Advisory Committee may continue to operate as the Advisory Committee for the dissertation, or the student may choose to change the members of the Advisory Committee. For this committee to satisfy the requirements of a dissertation committee, there must be one member from outside the Department; this member may be external to the Department or external to the University. All students must file a form for their advisory committee by the end of their third semester in residence. If a student changes the composition of the advisory committee, a new form must be filed with the Graduated School.

3.4 Changing Advisors

Students can change advisors during their graduate program. While it is hoped that the student/advisor relationship will prove satisfactory for all concerned, in those instances where expectations are not met, it is possible for a student to change advisors. This process can be initiated by a student or by a faculty advisor. It can also occur per mutual agreement of both sides. This section focuses on instances when the change is initiated by the student or by mutual agreement. Please note that switching advisors will not result in any punitive consequences. Consult with the Department of Social Sciences Graduate Director if you are considering changing advisors and do not feel comfortable discussing this with your current advisor.

Before initiating the process to change your Graduate Advisor, please consider all the options listed on the Graduate School's website for how to address difficulties in the student-advisor relationship (see <https://www.mtu.edu/gradschool/resources-for/students/academic/succeeding/index.html>).

Once you have decided to change your Graduate Advisor or reached such an agreement with your current advisor, follow the steps listed below.

1. Meet with the Department of Social Sciences Graduate Program Director to initiate the process to change advisor.
2. Discuss the following with the Graduate Program Director and, if appropriate, the current advisor:
 - The impact of the change of advisor on your time to complete the degree. Coursework, qualifying exam(s), and the research proposal examination are all factors that could be impacted with a change in advisor.
 - Your current and future funding.
 - Research already conducted. Whether this will be incorporated into the dissertation, thesis, or report, and if so, how.
 - Impact on immigration status (if any). Consult International Programs and Services (IPS), if necessary.
 - Whether additional resources within or outside the Department (such as the Ombuds Office - <https://www.mtu.edu/ombuds/>) could help resolve the situation.

3. Please create and preserve the record of all communications regarding the matter in writing, including communications with all affected faculty advisors. Make sure to provide the record to the Graduate Program Director and all affected faculty advisors.
4. File an updated Advisor and Committee Recommendation Form for approval by the Graduate School (<https://www.mtu.edu/gradschool/documents/policies-procedures/forms/advisor-committee.pdf>).
5. If the student and the Graduate Program Director are unable to reach agreement on the advisor change, contact the Assistant Dean of the Graduate School (<https://www.mtu.edu/gradschool/about/staff/>) to determine additional steps to resolve the situation.

4 Grievance Policies and Conflict Resolution Procedures

The Department of Social Sciences strives to ensure that all students are treated equitably in accordance with university policies. Students have the right to fair and equal treatment by faculty, MTU administrators and staff, and fellow students. Students should also expect professional behavior from all MTU faculty. Professional behavior includes such matters as a respect for expertise, individual beliefs, and personal privacy.

The following informal and formal procedures are designed to protect the rights and privacy of both students and faculty and to equitably adjudicate conflicts among faculty and students.

Grievance and conflict resolution procedures vary based on the nature of the grievance or conflict. Students with general concerns or complaints about the behavior of faculty or other students in professional situations or interpersonal relationships should follow the General Guidelines for Student-Initiated Grievances described below.

Note that instances of discrimination and sexual assault follow a different grievance procedure, as described below under “Title IX Reporting Procedures.”

4.1 General Guidelines for Student-Initiated Grievances

Interpersonal conflicts may arise during your time as a graduate students. For general grievances, when an issue arises students should follow the steps described below:

1. **Discuss your issue with the person(s) it concerns:** Wherever possible, students who have a concern or complaint about faculty, administrators, staff, faculty, or another students should first discuss the issue with the person or persons concerned. If resolution is not possible using this route, the complaint will be referred to the student’s academic advisor.
2. **Seek help from academic advisor:** If the complaint cannot be resolved informally amongst concerned parties, the student should discuss their complaint with their academic advisor and seek advice and/or assistance in resolving the matter. The academic advisor will attempt to resolve the problem through discussions with relevant parties. If resolution is not possible using this route, the complaint will be referred to the Director of Graduate Studies.

NOTE: If the complaint concerns the student’s academic advisor, they should seek help from the Director of Graduate Studies. If the student concern is related to the Director of Graduate Studies, students should seek help from the Department Chair.

3. **Seek help from the Social Sciences Director of Graduate Studies:** The Director of Graduate Studies will attempt to resolve the problem through discussions with relevant parties. Any and all communications with the Director of Graduate Studies are confidential. No adverse action will be taken against a student initiating a complaint.

4. If resolution is not possible using this route, the complaint will be referred to the Department Chair. The Department Chair will determine a procedure for balancing discussion with the relevant parties while maintaining confidentiality and will provide a written response summarizing issues and providing recommendations for action.

NOTE: If the issue raised by the students cannot be resolved by the Graduate Program Director and Department Chair or in the case of a conflict of interest (e.g., the complaint concerns one or more of these individuals), the student can consult the campus Ombudsperson (<http://www.mtu.edu/ombuds/>). See 4.2.1 below for more details on Ombuds Office resources.

4.2 Additional Resources for Students

MTU provides a number of informal and formal conflict resolution and grievance filing and resolution procedures. These resources are available to all MTU students in addition to the within-department procedures described above. Complaints that involve faculty actions or classroom occurrences that cannot be resolved within the Department are handled under the Academic Grievance Policy (see <https://www.mtu.edu/deanofstudents/academic-policies/grievance/>).

The Graduate School Grievance procedure is an option if all other means have not resolved the grievance/conflict (<https://www.mtu.edu/gradschool/policies-procedures/academic/grievance/>).

4.2.1 Ombuds Office

The Ombuds Office (<https://www.mtu.edu/ombuds/>) provides members of the MTU community with independent, neutral, and confidential informal conflict mediation services. This includes helping individuals resolve concerns fairly and informally as a precursor to any formal grievance procedures.

4.2.2 Graduate School Grievance Procedure

The Graduate School at Michigan Tech has established formal procedures for students to file grievances <http://www.mtu.edu/gradschool/policies-procedures/academic/grievance/>. If within-department conflict resolution procedures prove unsatisfactory, students may file a formal grievance with the Graduate School to seek resolution.

4.2.3 Institutional Equity Office and Title IX Reporting Procedures

Title IX of the Education Amendments of 1972 is a Federal civil rights law that prohibits discrimination on the basis of sex in educational programs and activities that receive Federal Funds. Under Title IX, discrimination on the basis of sex can include gender discrimination, pregnancy and parenting discrimination, sexual harassment or sexual violence, such as rape, dating violence, domestic violence, stalking, sexual assault, sexual battery, and sexual coercion, and intimate partner violence (including dating and domestic violence), and nonconsensual sexual contact or intercourse (including sexual assault).

Students who have been subjected to discrimination based on sex or gender or subjected to sexual harassment should notify Title IX staff (<https://www.mtu.edu/title-ix/>) within the Institutional Equity Office (<https://www.mtu.edu/equity/>) as soon as possible.

To complete a Title IX/Sexual Misconduct Report and access other resources, see <https://www.mtu.edu/title-ix/report/report/>. You can also contact the MTU Title IX Coordinator directly at titleix@mtu.edu, 906-487-3310, 306 Administration Building. MTU Public Safety and Police Services (<https://www.mtu.edu/publicsafety/>) can be contacted at 906-487-2216, 206 Macinnes Drive.

See Institutional Equity Office Policies and Procedures website (<https://www.mtu.edu/equity/policies-procedures/complaint/>) for instructions on how to File a Complaint or Report a Concern. You can also report your concern or grievance to the Office of Academic and Community Conduct (<https://www.mtu.edu/deanofstudents/students/concern/>).

5 Graduate Degree Requirements Overview

Current (2019-2020) graduate students are utilizing current curriculum requirements for all MS and PhD programs. MS students who started in Fall 2017 may opt to graduate under the 2018-2019 curriculum, or they may decide to remain in the older 2017-2018 curriculum. PhD students who began in Fall 2016 and Fall 2017 may choose to graduate under the older or the newer curriculum for their program. Consult with the Graduate Director for details and to confirm your choice.

5.1 MS in Environmental and Energy Policy

5.1.1 Thesis Option

The thesis option requires a research thesis prepared under the supervision of the advisor. The thesis describes a research investigation and its results. The scope of the research topic for the thesis should be defined in such a way that a full-time student could complete the requirements for a master's degree in twelve months or three semesters following the completion of course work by regularly scheduling graduate research credits. See Appendix for more details regarding the specific courses required in this curriculum.

The minimum requirements are as follows:

Course work (minimum)	20 credits
Thesis research	6-10 credits
Total (minimum)	30 credits
Distribution of course work credit	
5000-6000 series (minimum)	12 credits
3000-4000 level (maximum)	12 credits

5.1.2 Report Option

The Report option requires a report describing the results of an independent study project. The scope of the research topic should be defined in such a way that a full-time student could complete the requirements for a master's degree in twelve months or three semesters following the completion of course work by regularly scheduling graduate research credits. See Appendix for more details regarding the specific courses required in this curriculum.

Of the minimum total of 30 credits, at least 24 must be earned in course work other than the project:

Course work	24 credits
Report	2-6 credits
Total (minimum)	30 credits
Distribution of course work credit	
5000-6000 series (minimum)	12 credits
3000-4000 level (maximum)	12 credits

5.2 PhD in Environmental and Energy Policy

Completion of a PhD requires a research dissertation prepared under the supervision of the advisor. See Appendix for more details regarding the specific courses required in this curriculum.

The minimum requirements are as follows:

Required credits:	
Department courses	15 credits
Required electives	15 credits
Electives possible	6-18 credits
Required research	0-6 credits
Total credits required with a master's	30 credits

5.3 MS in Industrial Heritage and Archaeology

5.3.1 Thesis option

This option requires a research thesis prepared under the supervision of the advisor. The thesis describes a research investigation and its results. The scope of the research topic for the thesis should be defined in such a way that a full-time student could complete the requirements for a master's degree in twelve months or three semesters following the completion of course work by regularly scheduling graduate research credits. See Appendix for more details regarding the specific courses required in this curriculum.

The minimum requirements are as follows:

Course work (minimum)	20 credits
Thesis research	6-10 credits
Total (minimum)	30 credits
Distribution of course work credit	
5000-6000 series (minimum)	12 credits
3000-4000 level (maximum)	12 credits

5.3.2 Report option

This option requires a report describing the results of an independent study project. The scope of the research topic should be defined in such a way that a full-time student could complete the requirements for a master's degree in twelve months or three semesters following the completion of course work by regularly scheduling graduate research credits. See Appendix for more details regarding the specific courses required in this curriculum.

Of the minimum total of 30 credits, at least 24 must be earned in course work other than the project:

Course work	24 credits
Report	2-6 credits
Total (minimum)	30 credits

Distribution of course work credit	
5000-6000 series (minimum)	12 credits
3000-4000 level (maximum)	12 credits

5.4 PhD in Industrial Heritage and Archaeology

Completion of a PhD requires a research dissertation prepared under the supervision of the advisor. See Appendix for more details regarding the specific courses required in this curriculum.

The minimum requirements are as follows:

Required credits:	
Department courses	15 credits
Required electives	15 credits
Electives possible	15 credits
Required research	15 credits
Total credits required with a master's	30 credits

5.5 Satisfactory Progress in Graduate School

The Graduate School limits the amount of time any student can take for each step along the road to degree completion (Master's degree must be completed within five (5) calendar years, PhD must be completed within eight (8) calendar years; PhD students must complete their Qualifying Exam no later than the end of the 5th year and their Research Proposal Exam no later than the end of the 6th year). Students who are within one academic year of these deadlines must keep the Graduate Director informed of their plans for completion.

Note for International Students: Visa requirements for international students often change. International students should stay well informed of current visa requirements through the offices of International Programs or Graduate School related to timelines and possible changes of status after graduation.

5.5.1 MS Student Required Forms

Current versions of all MS degree forms, including a more detailed submission schedule, are available online at: <http://www.mtu.edu/gradschool/policies-procedures/timelines/thesis/>

Form	Term Due
Advisor & Committee Recommendation Form	Second term
Degree Schedule Form	Term prior to defense term
Pre-Defense Form	Two weeks prior to event
Verification of Final Degree Requirements	Two weeks after oral exam or at the end of final exam week of final semester

Report on Final Oral Examination Form	After oral exam is complete and before submitting final draft of dissertation, thesis, or report.
Degree Completion Form	See deadlines on Graduate School website.

5.5.2 MS Degree Milestones – Sample Timeline

The following table outlines a typical timeline for completion of an MS degree in the Department of Social Sciences.

Program Objectives	Summer Year 0	Fall Year 1	Spring Year 1	Summer Year 1	Fall Year 2	Spring Year 2
Orientation	X					
Diagnostic Meetings		X			X	
Courses		X	X	X	X	
Field School (if applicable)	X			X		
Proposal			X	X	X	
Thesis Research/Writing			X	X	X	X
Department Presentation			X			X
Conference Presentation			X	X	X	X
Thesis Submission						X
Defense						X

All students are required to attend the Department graduate student orientation prior to the start of their first semester. Students should discuss their academic performance and progress toward degree completion with their advisor at least once per year. These diagnostic meetings are in addition to regular (weekly or bi-weekly) meetings with advisor that students should schedule and attend throughout the duration of the program. Formal coursework is typically completed in the first three semesters of the four semester MS program. Field School is required for some IHA students; please work with the Graduate Director and your advisor to ensure you meet this requirement if it applies to you.

MS students must defend a thesis or report proposal, typically in the beginning of their second year. Thesis research and writing is typically the focus of the second year of the MS program. Students are expected to present within the Department and at an external professional conference at least once per year. A public thesis defense is required prior to thesis submission, and both are typically completed by the end of the second year in the MS program.

5.5.3 PhD Student Required Forms

Current versions of all PhD degree forms, including a more detailed submission schedule, are available online at: <https://www.mtu.edu/gradschool/policies-procedures/timelines/dissertation/>

Form	Term Due
Advisor & Committee Recommendation Form	Second term

Degree Schedule Form	Semester prior to oral defense semester. Prior to moving to research only mode.
Petition to Enter Candidacy Form	One week prior to target semester chosen for Research Mode. At least 30 credits need to be completed and all required courses must be completed.
Pre-Defense Form	Two weeks before defense.
Report on Final Oral Examination Form	Day of oral defense
Verification of Final Degree Requirements	Two weeks after oral exam or at end of final exam week of final semester.
Approval of a Dissertation, Thesis, or Report Form	Submit final/revised dissertation within one week of submitting this form.
Graduate Student Workspace Cleanout Form	Semester of graduation

5.5.4 PhD Degree Milestones – Sample Timeline

The following table outlines a typical timeline for completion of an MS degree in the Department of Social Sciences.

Program Objectives	Year 1				Year 2				Year 3				Year 4			
Orientation	X															
Diagnostic Meetings			X		X				X				X			
Courses	X	X	X	X	X	X	X									
Field School				X												
Comprehensive Exams				X	X	X	X	X	X							
Proposal						X	X	X	X	X						
Dissertation Research/Writing						X	X	X	X	X	X	X	X	X	X	X
Department Presentation(s)						X	X	X	X	X	X	X	X	X	X	X
Conference Presentation(s)						X	X	X	X	X	X	X	X	X	X	X
Dissertation Submission															X	X
Defense															X	X

All students are required to attend the Department of Social Sciences Graduate Student Orientation prior to the start of their first semester. Students should expect to have diagnostic meetings with their advisor at least once per year to discuss academic performance and progress toward degree completion. These diagnostic meetings are in addition to regular (weekly or bi-weekly) meetings with advisor that students should schedule and attend throughout the duration

of the program. Formal coursework is typically completed in the first three semesters of the PhD program. Field School is required for some IHA students; please work with the Graduate Director and your advisor to ensure you are meeting this requirement if it applies to you.

PhD students in the Department typically prepare for and complete comprehensive exams by the end of second year or the beginning of their third year in the program. PhD students are required to hold a public proposal defense, which is typically completed before the end of the third year in the program. Dissertation research and writing is typically the focus of the third and/or fourth year in the PhD program. Students are expected to present within the Department and at an external professional conference at least once per year, starting in the second year of the PhD program. A public dissertation defense is required prior to dissertation submission, and both are typically completed by the end of the fourth year in the PhD program.

5.5.5 Grades and Maintaining a Status of Good Standing

The MTU Graduate School provides a formal policy detailing 'good standing,' including an overview of the processes of probation, suspension, and dismissal that would occur if the student does not make satisfactory progress in their degree program:

<https://www.mtu.edu/gradschool/policies-procedures/academic/good-standing/>.

The Department of Social Sciences also has expectations related to satisfactory progress that include three areas: grades, teaching, and timeliness toward degree.

1. Students are permitted to include up to 6 credits of BC/C grades in their graduate degree schedule toward degree completion. However, if a student is earning these grades, the Department views these as a serious indication of deficiency in the student's progress in the graduate program. Thus, in the event of receiving a grade of BC/C, the following actions may be followed.
2. In the event that a student earns below a B in a course, the Graduate Director and student's advisor will communicate with the faculty member teaching the course, either in writing or via an in person meeting, about the specific conditions warranting the student's earned grade. The Graduate Director and the student's advisor will meet with the student to discuss the deficiencies and will provide a plan for improvement (e.g., time management, professional development, etc.).
3. In the event that a student earns below a B in another course in a subsequent semester, the Graduate Director, student's advisor, and Department Chair will communicate with the faculty member teaching the course, either in writing or via an in person meeting, about the specific conditions warranting the student's earned grade. The Graduate Director, student advisor, and Department Chair will then meet with the student to discuss the deficiencies and the plan for improvement. The student's funding may be revoked for one semester so that the student can focus on improving coursework and performance. If the poor performance in coursework results in academic probation via the Graduate School (which is based on GPA), student support via TA/RA and access to Department funding for travel and research funds will be revoked so that students can focus solely on improvement in coursework performance.

5.5.6 Conference Attendance and Presentations

Students are expected to attend the weekly brown bag series in the Department. Students are expected to present in the Department of Social Sciences and at an external professional conference at least once per year. Students in the MS program present a public thesis or report defense; students in the PhD program present a public dissertation proposal defense and a public dissertation defense. All students have the opportunity to present at the Department brown bag lecture series. Conference travel funding is available from the Department (announcements and deadlines for consideration once per semester), from Graduate Student Government (GSG), and from various center and institute funding opportunities on campus.

6 Student Feedback

The Department of Social Sciences has several different means for providing timely written feedback for graduate students.

6.1 End of Semester Feedback

All faculty review the strengths and areas for potential improvement for all graduate students with whom they interact in the capacity of an advisor, instructor, or co-author at the end of every semester. This feedback is shared with student advisors and is available to students upon request. This feedback will be discussed with the student at a meeting with the advisor.

6.2 Annual Student Progress Evaluation

There is a yearly evaluation of student progress that is completed by each graduate student in the Department. This formal process ensures that both students and advisors are aware of the student's academic progress and plans for the future. A link to the [form](#) used in our Department. When completed by the student and advisor, the copies are provided to the student, advisor, and Graduate Program Director. If deficiencies are identified in a student's performance, written feedback will be provided, specifically addressing the area(s) of deficiency, timeline for making up the deficiency, and consequences for continued unsatisfactory performance.

6.3 Student-Advisor Meetings

Students are also encouraged to schedule and attend regular (weekly or bi-weekly) meetings with their advisor to ensure satisfactory progress. In the event that satisfactory progress is not being met, there are several processes involved in providing opportunities to discuss areas for improvement (in course grades and/or TA/RA duties, as outlined above) with student advisor, Graduate Director, and Department Chair.

7 Responsible Conduct of Research

Responsible Conduct of Research (RCR) Training is an important aspect of being an effective scholar and is mandatory for both Masters and Doctoral degree candidates. Graduate students are responsible for fulfilling two training requirements:

1. Basic training must be completed within the first two semesters at MTU or a registration hold will be placed on the student's account.
2. Advanced training must be completed by the end of the third semester. Students may not graduate or enter research only mode if RCR training is not complete:
<http://www.mtu.edu/gradschool/administration/academics/resources/rcr/>.
The Research Design course in the Department meets Advanced RCR requirements. If students do not complete this course, they will need to complete the Advanced RCR requirements by another means, no later than the end of their third semester.

8 Graduate Curriculum Planning and Degree Milestones

The Department offers a variety of courses designed to fill requirements for each degree. Students must be aware that there are certain courses that are required as core courses and considered foundational for all students seeking either a M.S. or PhD degree in either Environmental Energy and Policy or Industrial Heritage and Archaeology, irrespective of intended research specialty. Each student should have the approval of their Advisor and, be in consultation with their Advisory Committee members on choice of non-core courses.

Students may request a waiver from the Graduate Director of a required course ONLY if they have taken a graduate course similar to a required course in the curriculum. The waiver requires a syllabus from the previous course and the approval of the request by the advisor before consideration of the Graduate Director.

8.1 Curriculum Planning Forms

The Graduate Degree Requirements are translated into Curriculum Planning forms that enable the student and their advisor to plan ahead so that all required courses are completed within the first two years. These forms are available in the Appendix. Each Fall semester, the Graduate Director will a list of the Graduate Courses offered for the subsequent two years (by course number and year/semester offered) available so that students can plan and complete their requirements on time. The Appendix also contains the list of specific courses required for each degree.

8.2 Curriculum and Coursework

A minimum of 30 course and/or research credit hours beyond the MS degree, or a minimum of 60 course and/or research credit hours beyond the Bachelor's degree are required for the PhD degree. The core course and disciplinary elective requirements are detailed above under Graduate Degree Requirements. Additional coursework is determined by the student's Advisory Committee and early discussions with the committee in this regard are recommended. Once students have an advisor they may enroll in Directed Reading and/or Research courses. After all required courses are completed, and no later than the semester prior to the final oral examination, the M5 (MS students) or the D5 (PhD students) form should be completed, reviewed by the Graduate Director, and filed with the Graduate School. A copy must be provided to the Graduate Assistant for Department files. For more information, see <https://www.mtu.edu/gradschool/policies-procedures/timelines/>.

8.3 Research Proposal Approval Process for MS Thesis or MS Report

The Social Sciences Department requires students in the MS programs to submit a research or report proposal to their committee prior to completing their thesis or report. The purpose of the research proposal is for students to demonstrate that they have envisioned and planned a feasible project and are prepared to conduct the project. The proposal allows the student's committee to provide detailed feedback and suggestions.

There are two related components of thesis or report completion: (1) the final oral examination and (2) the written thesis or report. They are outlined in the next section. Guidance for how each function in the Social Sciences Department are covered here. Please also see the MTU Graduate School webpage for specific details on additional degree completion forms that are required (<https://www.mtu.edu/gradschool/policies-procedures/forms-deadlines/>).

The proposal describes the central elements of the proposed thesis or report. The thesis proposal will vary in length. Students should consult with their advisor for style guidelines, which vary by discipline and approach. Examples of past proposals and faculty templates are available - check with the Graduate Director for access. Students may draft the proposal in the Research Design course, but this is not required.

8.3.1 Proposal Requirements

The proposal should:

- a) Identify a research problem and state the research or practical significance
- b) Place the research problem within the literature or case context
- c) Describe methods to be used in data collection and analysis
- d) Provide a list of references
- e) Specify a timeline
- f) Summarize the structure and purpose- report or thesis

For students in the EEP program, their proposal should also identify the environmental/energy policy issue/area to which their research will contribute and how it will advance policy solutions.

8.3.2 Timeline and Oral Presentation

Students will generally submit their thesis proposal early in their 3rd semester. In their second year, all MS students are expected to share their research plans/progress in a short (5-10 minutes) public presentation in the MS Research Colloquium that is held annually in the fall semester as part of the Social Sciences Department Brown Bag series. The Graduate Director organizes this colloquium and works together with the Brown Bag series coordinator to schedule the event. The presentation is not a formal defense, but rather a chance to share ideas, receive feedback, and learn from others.

8.3.3 Committee Approval Process

The committee reviews the proposal and makes a determination. If the proposal is approved, the student may proceed with the thesis work. If the proposal is not accepted, the student will revise based on the committee's comments; then the student will re-submit the proposal for another review. Upon acceptance of the proposal, the student may proceed with conducting research. If the proposed research involves human subjects, before students may begin collecting data for their research project, the student and her/his advisor must receive formal approval from the Michigan Tech Institutional Review Board (IRB) for the Protection of Human Subjects. The plan for and status of the IRB approval process should be clearly stated in the proposal.

9 MS Thesis/Report and Defense

Once the proposal is approved by the Advisory Committee, the MS student prepares a written thesis or report that will be publicly defended.

9.1 Written Thesis or Report

Students present their Master's degree research in the form of either a monograph, report, or academic article. Students work with the advisor and committee to determine which style is most appropriate. Regardless of style, the written document must be prepared adhering to the Graduate School guidelines (*The Guide* published by the MTU Graduate School), and the final document must be submitted to the Graduate School, along with forms required by the Graduate School. The final version will become a permanent acquisition of the MTU library and publicly available via Digital Commons (<https://digitalcommons.mtu.edu/>).

Students will work with the advisor to determine the length and other expectations. Typically, the monograph is structured with an introduction, comprehensive review of relevant literature, research methods, final conclusion and summary, and bibliography. The candidate is sole author.

For students writing a report, the product will typically have an applied purpose. The format of the product may vary depending on the audience and purpose and may include, for example, a policy brief/agency report, a professional white paper, original database with documentation, film, National Register nomination, and so on. The student should work with her/his committee to evaluate acceptable products and formats. The Graduate School requires that students submitting reports also submit an overview text document describing the work.

For students writing an academic article, they should follow manuscript guidelines as published by a peer-reviewed journal where they plan to submit the work. When submitting to the Graduate School, students must follow their guidelines for submitting a thesis. For co-authored papers, the student should be lead author and undertake the majority of the work. In these cases, students should include an introductory section that describes their role in the research and writing in comparison to co-authors.

For students in the EEP program, their project should identify the environmental/energy policy issue/area to which their research will contribute and how it will advance policy solutions.

9.2 Scheduling the Public Defense

Students are expected to work with the advisor and committee prior to the thesis or report defense to seek feedback on drafts to ensure a defensible project that is well-written and in a professional writing style.

Students must let their advisor know they plan to graduate by the start of the semester of planned graduation. By the first week of the semester, the student should work with their advisor and committee to develop a completion plan. This planning process includes sharing drafts and setting deadlines for completion. The committee will provide feedback and direction for

revisions. Based on these, the advisor and student will determine if the thesis is defensible. Four weeks prior to the defense, the student must schedule the defense with the advisor and committee.

Students work with the Administrative Assistant to schedule a room, reserve any necessary technology, and to announce the defense to the Department of Social Sciences and broader MTU community.

At least two weeks prior to the scheduled defense, students must (1) distribute the completed final draft of the thesis or report to the advisor and committee; (2) submit the pre-defense form with the graduate school, found here: <https://www.mtu.edu/gradschool/documents/policies-procedures/forms/pre-defense.pdf>; and (3) submit the complete defense draft of the thesis/report to the Graduate School (via Canvas) for formatting review (it should already be formatted to graduate school specifications).

9.3 Oral Examination

Students present their thesis research in a public oral examination at the defense. They should prepare a formal public presentation lasting 25-35 minutes explaining the project. Following the presentation, students should be prepared to take questions from the audience.

At the conclusion of the public defense, the student meets with the examining committee. The student is expected to defend and support the entirety of the research included in the written thesis/report. This discussion is an examination to determine whether the student has a good command of the topic under investigation, the related broader literature, and the methods employed. The student may also be asked to respond to broader questions to demonstrate expertise in field of degree. This meeting might also include a discussion of suggested revisions that committee members would like to see made to the written document. Students need to bring a copy of the Report on Final Oral Examination (see Graduate School) to the defense.

At the conclusion of the examination, the student will be asked to leave the room to allow the committee to confer. The committee will decide: (1) whether the student has passed the Final Oral Examination, and (2) if and what revisions to the written document are required before graduation. The student's oral examination results (pass or fail) must be reported to the Graduate School on the Report on Final Oral Examination Form: <https://www.mtu.edu/gradschool/documents/policies-procedures/forms/report-final-oral-exam.pdf>. This form is meant to capture the results of the oral exam and should be submitted to the graduate school following the oral defense and before submitting the final thesis or report. A student may pass the oral examination but still have extensive revisions to the written document required.

If revisions are required, the student's advisor should work with the full committee to document what specific revisions are required before final submission to the Graduate School and granting the degree. The advisor and committee should complete this document as soon as is reasonable so that the student has an opportunity to make revisions before the final degree deadlines at the end of the semester.

If the student fails to pass the oral examination, they may be dismissed from the program. Alternatively, the student and their advisor can make the case that a second attempt should be allowed. To request a second attempt, the student should submit to their advisor a one-page document justifying why she/he believes a second chance is warranted. The advisor will comment, sign, and share the document with the committee and the Graduate Director. If the committee and the Graduate Director agree to a second attempt, it will be granted. The second attempt may not be scheduled in the same semester as the original. Failure to pass a second attempt will result in dismissal from the program.

9.4 Post-Defense Requirements

Following the successful oral defense, the student makes all required revisions (as directed by the committee) and all formatting revisions (as required by the Graduate School). When the final document has been approved by the advisor and committee, the student must file the Approval of a Dissertation, Thesis, or Report Form to the Graduate School along with a copy of the final thesis/report by the deadline for the semester she/he wishes to complete the degree (the Monday of Week 13). Please note: Students who do not meet the Graduate School deadline will not graduate and will be required to maintain continuous enrollment (1 credit) until they complete their degree.

The Graduate School conducts a final formatting review (TDR review), which may take up to two weeks. The Graduate School will notify the student if there are formatting corrections that need to be made. If so, the student must complete these by the Friday of Final Exams Week to avoid additional fees.

Students should also check with the Graduate School and file any other additional completion of degree forms or exit surveys.

10 PhD Program Qualifying Exams

PhD students are required by the Michigan Technological University Graduate School to pass both a written and an oral qualifying exam before advancing to candidacy or entering “Research Only Mode,” and “ABD” status.

There is a typical structure for the PhD qualifying exam process in the Social Sciences Department for both the *Environmental and Energy Policy* and *Industrial Heritage and Archaeology* programs. There may be deviations from this typical structure when it meets the needs of the advisor, student, and committee. Structures that deviate from what is described below should be described in a written document, signed by the student and exam committee (with all agreeing to the structure), and submitted to the Graduate Director.

10.1 Purpose

Students build competence and demonstrate expertise in professional fields of scholarship. After successfully defending their exam, students will be able to teach and conduct research in their chosen fields.

10.2 Exam Committee

The comprehensive exam committee consists of at least 3 graduate faculty members. The committee will include the student’s Dissertation Committee Chair (advisor) and at least one faculty member with expertise in each of the chosen fields of study. This may or may not be the same people as serve on the dissertation committee. Each committee member suggests questions for inclusion in the exam and provides these to the Committee Chair. The committee then reviews the questions and works together to determine the exam content.

10.3 Exam Topics and Content

Students select three field areas within which to take exams. The areas correspond to recognized professional fields of scholarship and/or to courses that we regularly offer. This gives students an opportunity to engage with base material in a classroom format and then more fully develop the areas in which they want to concentrate. Courses provide the starting point for learning material, but students are expected to take ownership of the process of more fully developing their expertise well beyond what is presented in class.

All students are required to submit a ~1,000 word synthetic statement to their committee defining the exam areas, justifying or explaining the focus or scope, and specifying the relationship between the exam areas and the dissertation plan. That statement will be reviewed and signed by the exam committee and submitted to the Graduate Director for inclusion in the student’s file.

Exams are an analytical task, beyond simply describing what other scholars have found. This means that students are expected to be able to synthesize material from multiple, different sources, critically engage in debates within the fields and make arguments, and identify gaps in

the fields. Students are expected to present evidence in the form of citations to scholarly work and sometimes to present empirical examples to support their claims.

The exam may include material presented in related courses, but students are expected to read beyond what is covered in class (as agreed on by the committee) especially in the parts of that field that are directly related to the student's' dissertation topic. For example, a student with a dissertation topic related to mining in the Keweenaw who chooses to take the Environmental History exam should know the core ways of thinking, topics, and debates in environmental history as presented in courses and recommended readings. She/he should also expand that knowledge focusing specifically on environmental histories of mining regions. Think of the courses as a starting point. Students meet with their exam committee the semester prior to define the agreed upon exam content and develop their synthetic statement. Exact content, length, and depth are at the discretion of the committee but should not include more than students should reasonably be expected to know within 4 semesters of graduate school.

10.4 Reading Lists

Students will develop a reading list for each field area in consultation with their advisor and members of the examination committees. Students sign these lists and then provide copies to the advisor and each committee member within the first three weeks of the semester when the exam will be taken. For exams that build on course material, reading lists should include both a list of courses for which material on the syllabus (and recommended readings) are included *and* additional materials expanding the student's knowledge in that area. The lists developed should be broader than the specialized research pursued in the dissertation and extend beyond what is covered in courses. Reading lists may also include a summary statement/cover sheet (~ 1000-4000 words) that describes and justifies the scope and breadth of each exam, whether or not this summary is required is at the discretion of the committee.

10.5 Timing of Exam

Students typically take the qualifying exam after the completion of coursework and before the dissertation proposal. The committee Chair (advisor) and student together determine the exact timing. Students should typically choose their field areas by their third semester in residence and plan to take the exam in their fourth or fifth semester. Students should meet with each member of their exam committee during the semester before the exam to define the exam content, refine reading lists, and develop the synthetic statement. The Graduate School requires that students successfully pass the qualifying exam and submit the Report on Qualifying Examination form within five years after enrolment. This report is submitted to the Department only, and the Department records the completion in an online system accessible for the Graduate School.

Example Comprehensive Exams Schedule:

Semesters 1-2	Take courses and consider field areas
Semester 2	Initial meeting with committee members
Semesters 2-3	Confirm field areas
Semesters 3-4	Finalize and meet with exam committee; Develop reading lists and synthetic statement; Submit statements/lists to Graduate Director before 4 th week of the semester the exam will be taken
Semester 4-5	Determine exam structure; Obtain signatures on exam plan 4 weeks prior to exam Take exam

10.6 Written Exam Structure

The written exam should be taken over the course of no more than one week (M-F, 8:00am-5:00pm). It will be composed of three sets of questions that evenly represent all field areas. The sections may be taken as: 1) four-hour sit-down exams; 2) eight-hour take-home exams (each must be completed within an eight hour time frame); 3) five-day take-home exams (given question on Monday and submit by Friday); or 4) a combination of the above. Whichever option is chosen must be made in consultation with the advisor and be approved by all members of the examination committee. The committee will decide on an open or closed book format. The plan should be determined at least four weeks before the exam begins and signed by student and committee.

Format Examples:

- 5-day take home: 5 days to write well-developed response(s) (~7,500-10,000 words)
- 1-day take home: 8 hours to write response(s) (~ 4,000 words)
- 4-hour exam: 4-hours to write response(s), may be closed book (~2,000-3,000 words)

The committee will work collaboratively to develop the exam from questions submitted by each committee member, making sure that each of the student's chosen fields are adequately and fairly represented. The committee Chair will administer the exam as per the committee's recommendation. At the conclusion of the exam, the Chair will collate and distribute the questions and the student's answers to the entire committee.

10.7 Evaluating Written Exams

Students should make sure their answers clearly respond to the questions, and present coherently developed arguments and detailed treatments of the texts chosen to discuss as evidence. Students may introduce texts that do not appear on the reading lists, but the questions and responses are expected to prioritize the agreed upon content developed in the synthetic statement and reading lists.

Quality of writing is a factor in the evaluation of exams, but the exam committee will not penalize students for superficial blunders or stringent writing style standards, particularly if the

exams are taken in the four-hour sit-down format. Take home (especially 5-day) exams will be held to a higher standard in this regard.

Regardless of how the exams are done, they are read by the full examination committee, which then by consensus decision-making confers as to whether or not the student has passed. It is possible that students would pass one field area and fail another. Students will be notified of the results within two weeks of the end of the exam. Committees may record a result of pass with distinction, pass, conditional pass, or fail. Decisions are made by committee consensus, rather than pass/fail a particular section given by a particular faculty member. Regardless of the results, examination committees should communicate clearly to students about the strengths and weaknesses of the exam.

Pass with Distinction- this is reserved for those rare cases where the student has achieved really excellent and superior work across the full exam. The exam critically engages with the fields of study, synthesizes material from diverse sources, is well written, makes strong arguments citing relevant evidence, identifies important gaps in the field, and demonstrates creative and critical thinking. All questions are answered completely and appropriately, and for most questions the student goes beyond what is required.

Pass- The exam critically engages with the fields of study, synthesizes material from diverse sources, is written well enough, makes good arguments citing relevant evidence, and identifies gaps in the fields as asked. All questions (except one in some cases) are answered completely and appropriately. Up to one question, may be questionable. Above all, the student demonstrates she/he knows and understands the core scholarship in these fields, can think about it critically, and can make solid arguments.

Conditional Pass- The exam demonstrates that the student generally knows and understands the core scholarship in the fields, can engage in debates, and makes arguments. However, one or two questions may be incomplete, contain inappropriate responses or illogical thinking, or lack evidence. The committee feels the student probably knows the material and is generally prepared to move on to candidacy, but some important questions remain, and the committee would like to offer the student the opportunity to demonstrate their knowledge in an oral exam. A conditional pass says that passing the written exam is conditional on the student's performance in the oral exam and suggests that supplementary work may be required.

Fail- The exam fails to demonstrate core competency and/or analytical thinking in the chosen fields. Responses to two or more questions are incomplete, contain inappropriate responses or illogical thinking, or lack evidence. Students who fail the written exam do not move on to the oral exam, but they may retake the written exam after at least 30 days have passed from the end of the initial exam. Students may take the written exam up to two times. After two failures of the written exam, students will be asked to leave the program.

10.8 Oral Exam

The oral exam is held after the written exam has been passed and within 30 days of the end of the written exam. It should be no more than three hours in length. The oral exam is an opportunity for the committee and student to discuss core arguments/debates in the fields and hear the

student's opinion on these. It may cover any of the same material/topics agreed on for the written exam. The examination committee has the discretion to structure the oral questions according to its determination of what is necessary for the student to pass the examination. Students should expect that if there are portions of the written exam that were insufficient or underdeveloped, these are topic areas that will likely be stressed in the oral exam. This can be an opportunity for students who scored a "conditional pass" to demonstrate that they do know the material and to achieve a passing grade on the examination as a whole.

Evaluation of the oral exam will be by consensus decision of the committee. Possible results are pass with distinction, pass, conditional pass, or fail (described above). Receiving a conditional pass indicates that the student will need to undertake supplemental work. The exact nature of supplemental work required is at committee's discretion, but it should be reviewed and approved by the full committee before an official passing grade on the full exam will be conferred.

Ultimately, a pass or fail grade will be reported to the Graduate School for the exam as a whole, not separately for the written and oral components or by field area, on the Report on Qualifying Examination form. In the instance that a student fails one field area, the committee decides whether the issues are serious enough to give an overall fail, and if so, how to administer a retake. If a student fails the qualifying exam twice, it cannot be retaken. In this case, the student will be dismissed from the program or transferred into the M.S. degree program, if this is acceptable to the advisory committee.

10.9 Environment and Energy Policy Exam Specifics

The Department requires EEP PhD students to complete exam questions in three field areas. Students choose at least one area in Core Policy (Group A) and at least one Substantive/Disciplinary Area (Group B). The third area could be from either list or it could be focused on one or more research methods. Whether or not students choose a methods field area in the qualifying exam, they will be expected to answer both broad and specific questions about the methods they propose to use for dissertation research at their dissertation proposal defense.

The courses listed below are starting points- they are not required but suggestions. Students develop reading lists for each Field Area (in consultation with the examination committee) which may be based in associated coursework but then go deeper into a specific area of student interest beyond that which was required for the courses.

10.9.1 Core Policy (Group A) - Choose at least one:

Policy Theory - deep focus on the theory and practice of doing policy: SS 5301 The Policy Process; SS 3621 Introduction to Public Policy and Public Management; SS 3636 Perceptions of The Modern State and Governance

Environmental and Natural Resource Policy - focus on knowing basic environmental and natural resource policies in US and/or international context, as well as foundational material on policy theory and application: SS 5300 Environmental and Natural Resource Policy; SS 5313 Sustainability Science, Policy, and Assessment; SS 5325 Water, Policy History and Governance;

EC 5640 Natural Resource Economics; 5301 The Policy Process; SS 5635 International Environmental Policy. *Other potential courses:* SS 3300 Environmental Problems; FW5400 Advanced Conservation Biology; FW5376 Advanced Forest and Environmental Resource Management

Energy and Climate Policy - focus on knowing basic energy policies in US and/or international context, as well as foundational material on policy theory and application: SS6100 Energy and Climate Policy; SS 5330 Special Topics in Energy Policy; 5301 The Policy Process; UN 5990 Climate Science and Policy; EC 5620 Energy Economics; SS 3800 Energy Technology and Policy; SS 3635 Climate Change Adaptation; SS 38XX Energy and Society; SS 3521 Energy in American History

10.9.2 Field Areas (Group B) - Choose at least one:

Open Topic: Field of choice determined by student and advisor.

Community Engagement & Planning: SS 4700 Communities & Research; SS 4380 Landscape Ecology and Planning; SS 3XXX Applied Anthropology; SS 5501 Industrial Communities

Environmental Anthropology: SS 4200 Environmental Anthropology; SS 5201 Cultural Dimensions of International Immersion and Research; SS 4210 Global Change in Culture and Society since 1400; SS 3410 World Resources and Development

Environmental Governance: SS 5302 Environmental Governance and Decision making; SS 5325 Water, Policy History and Governance

Environmental History: SS 5550 Global Environmental History; SS 5325 Water, Policy History and Governance; SS 3520 US Environmental History

Environmental/Energy Justice: SS 3810 Energy Security & Justice; SS 3750 Social Inequality; SS 5530 Deindustrialization and Urban Environments; SS 4100 Native American and Indigenous Communities; SS 5315 Population and Environment; SS5400 Environmental Sociology

Environmental Sociology: SS 5400 Sociology of the Environment; SSFW 3760 Human Dimensions of Natural Resources

Methodological Focus: SS 6001 Research Design; any additional courses offered in the method of choice, such as Environmental Policy Analysis, Ethnographic Methods, GIS for Social Science, Statistics for Social Science, Survey Methods, Computational Social Science, Historiography, etc. and may include methods-related courses offered outside the Social Sciences Department.

Science and Technology Studies: SS 3581 History of Science; SS 3801 Science, Technology & Society; SS 3820 Ethical, Legal, and Societal Implications of Nanotechnology; SS 5340 Principles of Interdisciplinary Team Science

10.10 Industrial Heritage and Archaeology Exam Specifics

The Department requires the student to complete exam questions from three areas of expertise, which can be topical, theoretical, geographic or methodological in focus. Students develop a synthetic statement that defines the exam areas, justifies or explains the scope, and specifies the relationship to the dissertation prospectus. At the committee's discretion, they may be asked to develop a ~1,000 word summary statement for each of the three exam areas. Students also develop reading lists for each exam area in consultation with the examination committee. The exams should support but also be broader than the specialized research pursued in the dissertation.

Developing the synthetic statement provides the student an opportunity to describe the content and boundaries of the exam areas. For this reason, it is essential that students work with their advisor and examination committee early in the process. It is expected that students demonstrate proficiency with the exam areas. Note that the exam areas could be based in associated coursework, but that it is expected that the student goes well beyond that which was required for the courses.

Whether or not students choose a methods field area in the qualifying exam, they will be expected to answer both broad and specific questions about the methods they propose to use for dissertation research at their dissertation proposal defense.

11 PhD Dissertation Research Proposal Examination and Dissertation Defense

The structure for a Ph.D. student dissertation research proposal exam process in the Social Sciences Department is similar for both the Environmental and Energy Policy and Industrial Heritage and Archaeology programs.

Ph.D. students are required by the Michigan Technological University Graduate School to pass a research proposal examination before advancing to candidacy or entering “research only mode.”

The purpose of the research proposal is for students to demonstrate that they are prepared to independently conduct a research project. The oral defense provides an opportunity to publicly present research plans and solicit feedback. It also allows the dissertation committee to collectively discuss the student’s proposal with a view toward facilitating implementation of the research project.

11.1 Written Proposal

The dissertation proposal should be academically rigorous and defensible. Students might use the proposal assignment from the Research Design class as an example for the type of structure and style required. Students should also consult with their advisor for style guidelines, which may vary by discipline and approach. Examples of past proposals and faculty templates are available—check with the Graduate Director for access. Students may generate a proposal that is similar in content and style to those submitted to a major, student-based research grant (e.g., National Science Foundation (NSF) doctoral dissertation improvement grant or SSHRC dissertation proposal).

The proposal should:

- a) Define the research problem and state the research significance
- b) Place the research problem within the literature and its broader context
- c) Describe detailed methods to be used in data collection and analysis
- d) Provide a list of references
- e) Specify a timeline
- f) Summarize the structure that the dissertation will take (book style dissertation, set of peer-reviewed papers, etc.)

For students in the EEP program, their proposal should also identify the environmental/energy policy issue/area to which their research will contribute and how it will advance policy solutions.

11.2 Proposal Defense

When the dissertation proposal is near completion and the student and her/his advisor feel it is appropriate, the student will schedule her/his proposal defense. Students should work with the Department Administrator to reserve a room for the presentation and to announce the proposal defense to the Department.

Students must submit the full research proposal to the committee for review at least 2 weeks prior to the public presentation.

The defense includes a formal public oral presentation of the proposal lasting approximately 30 minutes followed by time for questions, feedback, and audience discussion. The student then meets privately with the examination committee who will provide feedback and suggestions. During this discussion, the student will be asked to demonstrate methodological expertise in areas pertinent to their proposed research. Ultimately, the committee determines whether to pass the student on to candidacy status.

Upon passing the proposal defense, the student may proceed with conducting dissertation research. The student is also eligible to advance to candidacy and for “research only mode” if they have already passed the qualifying exams. However, if the committee determines that the student has not successfully defended their proposed research, they may require the student to revise and resubmit the written proposal. If revisions are required, the committee withholds signatures on the graduate school proposal defense form until a revised version is approved.

Graduate School Deadlines and Forms: The Graduate School requires a Report on Research Proposal Examination form to be signed by the committee and submitted to the Graduate School at the successful completion of the dissertation proposal defense.

It is the responsibility of the student and Chair to consider Graduate School deadlines for passing the research proposal examination and submitting the required Report on Research Proposal Examination. The Graduate School website provides guidelines.

Timeline: Students will generally defend their dissertation proposal in their 5th or 6th semester.

NOTE: If the proposed research involves human subjects, before students may begin collecting data for their research project, the student and her/his advisor must submit a research protocol to the Michigan Tech Institutional Review Board (IRB) for the Protection of Human Subjects. This protocol must be approved (or exempted) before the start of data collection.

11.3 Completing the Dissertation and Defense

This document describes the process of completing the dissertation in the Social Sciences Department for both the *Environmental and Energy Policy* and *Industrial Heritage and Archaeology* programs. A dissertation is the culmination of a research project and a professional representation of not only the student's work, but the advisor, program, and Michigan Tech. It is important that dissertations are prepared professionally in order to best reflect the quality and intellectual merit of the work.

There are two related components of dissertation completion: (1) the final oral examination (public defense) and (2) the written dissertation document. Guidance for how each function in the Social Sciences Department are covered here. Please also see the MTU Graduate School webpage for specific details on additional degree completion forms that are required.

Students should recognize that multiple drafts of dissertation articles/chapters are almost always written and revised before the dissertation defense, and that significant revisions often occur even after the dissertation defense. If you are writing the first version in one semester, that will very rarely be the semester of defense.

11.4 Timeline

This table summarizes steps and timelines. The first section lays out a general timeline for meeting key PhD milestones. The second section on semester of defense includes deadlines that must be met to graduate on time. These deadlines are the absolute last minute, and students should be aware that if they are waiting until these deadlines, it is unlikely that everything will go perfectly and that they will graduate in that semester. Students defending on the last possible date, often do not have sufficient time to complete revisions in time to graduate that semester.

Students are advised to anticipate the deadlines in the semester prior to their planned graduation, and to have a very near complete draft of the full dissertation by the very beginning of the semester of planned graduation. Students should consider scheduling their defense for earlier in the semester.

PhD Milestones Example Timeline:

Semester 4 or 5	Qualifying Exam
Semester 5 or 6	Dissertation Proposal Defense
Semesters 6-9	Dissertation Defense/Complete Degree
Semester of Defense/Degree Completion (dates listed are last possible-plan to do sooner)	
Week 1	Develop a plan for degree completion with advisor and committee
Week 2-Week 7	Schedule defense & reserve room
Two weeks prior to defense (Tuesday of Week 10 is last possible if you are defending on last possible day)	Submit final dissertation draft to committee and Graduate School; File pre-defense form with Graduate School
Tuesday of Week 12	Hold public defense
Soon after the defense	File Oral Examination Form with Graduate School
Thursday of Week 12	Make revisions and submit to advisor/committee for approval
Monday of Week 14	Submit final, committee-approved version of dissertation to Graduate School; Submit Approval of Dissertation form to Graduate School

11.5 Scheduling the Defense

According to the MTU Graduate School, students may schedule their dissertation defense at least two academic-year semesters after successful completion of the qualifying examination and at least one academic-year semester following successful completion of the research proposal examination. The exact semester of defense will vary depending on type of research and speed of

progress. While in “research mode,” students should remain in close communication with their advisor and committee about progress and plans for degree completion. Please note that committee members *may* not be available for summer defenses.

Students are expected to work with the Committee Chair (advisor) and other committee members (as necessary) sharing drafts of written work for several months prior to the dissertation defense. Advisors (and potentially other committee members) read and provide feedback on early drafts to ensure a defensible research project that is well-written and in a professional and publishable writing style.

Students must let their advisor know they plan to graduate by the start of the semester of planned graduation. By the first week of the semester, the student should work with their advisor and committee to develop a completion plan. This planning process includes sharing segments that are already completed, sharing work in progress, and setting deadlines for completion. The committee will review, make comments, and suggest revisions on current versions. Based on this feedback, the student confers with the advisor to determine if the dissertation is defensible that semester.

Five to seven weeks prior to the defense, the student schedules a time to conduct the defense with the advisor and committee. Students need to work with the Administrative Assistant to schedule a room, reserve any necessary technology, and to announce the defense to the Department and MTU community.

At least two weeks prior to the scheduled defense, students must (1) distribute the completed final draft of the dissertation to the full advisory committee; (2) submit the pre-defense form with the graduate school, found here: <https://www.mtu.edu/gradschool/documents/policies-procedures/forms/pre-defense.pdf>; and (3) submit the complete defense draft of the dissertation to the Graduate School (via Canvas) for formatting review (it should already be formatted to graduate school specifications).

11.6 Written Dissertation

Students present the research they undertake as culmination of the doctoral degree program in the form of either a monograph or a collection of academic articles. Students work together with their advisor and committee to determine which style is most appropriate. Regardless of style, the written document must be prepared adhering to the Graduate School guidelines (the *The Guide* published by the MTU Graduate School), and the final document must be submitted to the Graduate School, along with forms required by the Graduate School. The final version will become a permanent acquisition of the MTU library and publicly available via Digital Commons (<https://digitalcommons.mtu.edu/>).

Students writing a monograph will work with the advisor to determine the length and other expectations. Typically, the monograph is structured with chapters that include an introduction, comprehensive review of relevant literature, research methods, final conclusion and summary, and bibliography. The candidate is sole author.

For students writing a collection of academic articles, they will typically write 3 to 4 articles about a related topic/policy or following a consistent theme. Each article should typically be prepared for submission to a peer reviewed journal. If different audiences or formats are expected for one or more of the articles (i.e. a magazine article, policy brief, white paper, blog, website, database, video, National Register nomination, agency report, etc.), the student should work with her/his committee to evaluate those possibilities.

Students taking the collection of articles approach are also required to write an overview chapter that introduces the collection, describes how the multiple pieces fit together to address an overarching research and/or policy goal, explains how the collection fits within the larger body of scholarship on the topic/policy or in the field/sub-field, summarizes the findings and interprets what they (together) mean and their joint implications, and describes the overall research process/methods. If the collection includes co-authored papers, the overview chapter should also include a description of the broader research project of which the dissertation is a part and clarify the student's specific role(s) in designing, conducting, and writing the included research. For co-authored papers to be included, the student should be first author and clearly explain the student's own role in co-authored papers, in comparison to co-authors.

11.7 Oral Examination

Students present their doctoral dissertation research in a public oral examination at the defense. They should prepare a formal public presentation lasting 30-40 minutes explaining the dissertation research. The presentation may not cover all aspects of the work conducted, due to time constraints. For instance, a student who has written 3 articles, may choose to only very briefly review two of the articles and focus the public presentation on the third article. In the presentation, the candidate should justify the validity of the methods and conclusions contained in the dissertation and should demonstrate familiarity with the significance of the study in relation to the existing body of knowledge. Following the presentation, students should be prepared to take questions from the audience.

At the conclusion of the public meeting, the student meets privately with the examining committee. The student is expected to defend and support the entirety of the research included in the written dissertation. This discussion is an examination to determine whether the student has a good command of the topic under investigation, the related broader literature, and the methods employed. The student may also be asked to respond to broader questions to demonstrate expertise in field of degree. This meeting might also include a discussion of suggested revisions that committee members would like to see made to the written document. Students need to bring a copy of the Report on Final Oral Examination (see Graduate School) to the defense.

At the conclusion of the examination, the student will be asked to leave the room to allow the committee to confer in private. The committee will decide: (1) whether the student has passed the Final Oral Examination, and (2) if and what revisions to the written document are required before graduation. The student's oral examination results (pass or fail) must be reported to the Graduate School on the Report on Final Oral Examination Form. This form is meant to capture the results of the oral exam and should be submitted to the graduate school following the oral defense and before submitting the final dissertation. A student may pass the oral examination but still have extensive revisions to the written document required.

If revisions are required, the student's advisor should work with the full committee to document what specific revisions are required before final submission to the Graduate School and granting the degree. The advisor and committee should complete this document as soon as is reasonable so that the student has an opportunity to make revisions before the final degree deadlines at the end of the semester.

If the student fails to pass the oral examination, they may be dismissed from the program. Alternatively, the student and their advisor can make the case that a second attempt should be allowed. To request a second attempt, the student should submit to their advisor a one-page document justifying why she/he believes a second chance is warranted. The advisor will comment, sign, and share the document with the committee and the Graduate Director. If at least three committee members (including the advisor) and the Graduate Director agree to a second attempt it will be granted. The second attempt may not be scheduled in the same semester as the original. Failure to pass a second attempt will result in dismissal from the program.

11.8 Post Defense

Following the successful oral defense, the student makes all required revisions (as directed by the committee) and all formatting revisions (as required by the Graduate School). All revisions need to be approved by the advisor and also potentially by other committee members. When the final document has been approved by the committee, the student must file the Approval of a Dissertation, Thesis, or Report Form to the Graduate School along with a copy of the final dissertation by the deadline for the semester she/he wishes to complete the degree (the Monday of Week 13). Please note: Students who do not meet the Graduate School deadline will not graduate and will be required to maintain continuous enrolment (1 credit) until they complete their degree.

The Graduate School conducts a final formatting review (TDR review), which may take up to two weeks. Students will be notified by the Graduate School if there are formatting corrections that need to be made. If so, these will have to be completed by the Friday of Finals Week to avoid any additional fees.

Students should also check with the Graduate School and file any other additional completion of degree forms or exit surveys.

A Environmental and Energy Policy – MS Curriculum 2017-2018

Prerequisites for admission (taken as electives if necessary): Environmental Sciences, Statistics, and Microeconomics

A.1 Thesis Option

Required Core Courses (15 credits)		
SS 5300	Environmental & Energy Policy	3 credits
SS 5350	Environmental Policy Analysis	3 credits
SS 5400	Sociology of the Environment	3 credits
SS 5550	Global Environmental History	3 credits
Required Electives		11-14 credits
Required Methods		3-4 credits
Area/Topics Courses		6-9 credits
Research		3-5 credits

A.2 Report Option

Required Core Courses (15 credits)		
SS 5300	Environmental & Energy Policy	3 credits
SS 5350	Environmental Policy Analysis	3 credits
SS 5400	Sociology of the Environment	3 credits
SS 5550	Global Environmental History	3 credits
Required Electives		6-9 credits
Required Methods		3-4 credits
Area/Topics Courses		6-9 credits
Research		3-5 credits

Concentration determined by committee Chair in consultation with the committee.
Courses approved by committee Chair.

A.3 Course Option

Required Core Courses (15 credits)		
SS 5300	Environmental & Energy Policy	3 credits
SS 5350	Environmental Policy Analysis	3 credits
SS 5400	Sociology of the Environment	3 credits
SS 5550	Global Environmental History	3 credits
Required Methods		3-4 credits
Area/Topics Courses		11-12 credits
Electives		15 credits

Methods determined by committee chair and Grad Director.

B Environmental and Energy Policy – PhD Curriculum 2017-2018

Minimum total of 30(60) credits if student enter Ph.D. with (without) a M.S. degree.

Required Core Courses (15 credits)		
SS 5004	Statistics for the Social Sciences	3 credits
SS 5300	Environmental & Energy Policy	3 credits
SS 5301	The Policy Process	3 credits
SS 5302	Environmental Governance and Decision Making	3 credits
SS 6002	Research Design	3 credits
Methods Courses (3 credits)		
SS 4211	Ethnographic Methods	3 credits
SS 4380	Landscape Ecology and Planning	3 credits
SS 5003	Survey Methods	3 credits
SS 5005	Computational Social Sciences	3 credits
SS 5350	Environmental Policy Analysis	3 credits
SS 4200	Econometrics	3 credits
Program Electives (6-18 credits possible; maximum 12 credits total of 3000 and 4000-level courses)		
SS 4200	Environmental Anthropology	3 credits
SS 4390	Seminar in Sustainability issues	Varies
SS 4700	Communities and Research	3 credits
SS 5111	Advanced Natural Resource Policy	3 credits
SS 5201	Cultural Dimensions of International Immersion and Research	1 credit
SS 5310	Ecological Economics	3 credits
SS 5313	Sustainability Science, Policy, and Assessment	3 credits
SS 3315	Population and the Environment	3 credits
SS 5318	Public Sector Management	3 credits
SS 3315	Population and the Environment	3 credits
SS 5318	Public Sector Management	3 credits
SS 5320	Special Topics in Environmental Policy	3 credits
SS 5325	Water Policy, History, and Governance	3 credits
SS 5330	Special Topics in Energy Policy	Varies
SS 5340	Principles of Interdisciplinary Sustainability Research	3 credits
SS 5400	Sociology of the Environment	3 credits
SS 5550	Global Environmental History	3 credits
SS 5635	International Environmental Policy	3 credits
SS 5905	Heritage Ecologies: Anthropological Engagements with Nature	3 credits
SS 6100	Advanced Seminar in Energy and Climate Policy	3 credits
Research		0-6 credits

C Industrial Archaeology – MS Curriculum 2017-2018

C.1 Thesis Option

Required Courses (31 credits)		
SS 5500	IA Proseminar	3 credits
SS 5501	IA Proseminar	3 credits
SS 5502	IA Proseminar	3 credits
SS 5503	IA Proseminar	3 credits
SS 5600	Industrial Archaeology	3 credits
SS 5700	Archaeological Field Methods	Varies
SS 5800	Documenting Historic Structures	3 credits
SS 5900	Heritage Management	3 credits
Electives		3 credits
Research		8 credits

C.2 Report Option

Required Courses (28 credits)		
SS 5500	IA Proseminar	3 credits
SS 5501	IA Proseminar	3 credits
SS 5502	IA Proseminar	3 credits
SS 5503	IA Proseminar	3 credits
SS 5600	Industrial Archaeology	3 credits
SS 5700	Archaeological Field Methods	Varies
SS 5800	Documenting Historic Structures	3 credits
SS 5900	Heritage Management	3 credits
Electives		6 credits
Research		5 credits

Electives must contribute to a student's program of learning and must be approved by the program's director.

**D Industrial Heritage and Archaeology – PhD
Curriculum 2017-2018**

Required Courses (6 credits)		
SS 6010	Special Topics in Industrial Heritage	Varies
SS 6020	Special Topics in Industrial History	Varies
Electives		15 credits
Research		15 credits
Total Required		45 credits

E Environmental and Energy Policy – MS Curriculum Current

Prerequisites for admission (taken as electives if necessary): Environmental Sciences, Statistics, and Microeconomics

Required Core (9 credits)		
SS 5300	Environmental & Energy Policy (OR SS 6100 Energy and Climate Policy)	3 credits
SS 5350	Environmental Policy Analysis	3 credits
SS 5950	Professional Development	3 credits
Methods (3 credits)		
SS 4211	Ethnographic Methods	3 credits
SS 5001	Advanced Social Science Methods	3 credits
SS 5003	Survey Methods	3 credits
SS 5004	Social Statistics	3 credits
SS 5049	GIS for Graduate Researchers	3 credits
SS 5050	Advanced GIS Methods and Projects	3 credits
Humans and the Environment* (3 credits)		
*Or alternate subject with advisor and Grad Director Approval		
SS 4200	Environmental Anthropology	3 credits
SS 4700	Communities and Research	3 credits
SS 5400	Sociology of the Environment	3 credits
SS 5310	Ecological Economics	3 credits
SS 5550	Global Environmental History	3 credits
Policy and Governance* (3 credits)		
*Or alternate subject with advisor and Grad Director Approval		
SS 5300	Environmental and Natural Resource Policy OR SS 6100 Energy and Climate Policy	3 credits
SS 5301	Policy Process	3 credits
SS 5313	Sustainability Policy	3 credits
SS 5325	Water Policy, History & Governance	3 credits
Electives (6 credits)¹		
Thesis Research (6 credits)²		

¹Students funded for 2 years have 6 additional credits available to them, usually taken as research credits.

²Students electing to take the Report Option have 9 credits of electives and 3 credits for the Report.

F Environmental and Energy Policy – PhD Curriculum Current

Prerequisites (taken as electives if necessary): Graduate Statistics, Microeconomics

Required Core (9 credits)		
SS 5300	Environmental and Natural Resource Policy OR SS 6100 Energy and Climate Policy	3 credits
SS 5301	The Policy Process	3 credits
SS 5720	Social Thought, Contemporary Issues	3 credits
SS 5950	Professional Development	3 credits
SS 6002	Research Design	3 credits
Methods* (3 credits)		
*Or alternate subject with advisor and Grad Director Approval		
SS 4211	Ethnographic Methods	3 credits
SS 5001	Advanced Social Science Methods	3 credits
SS 5003	Survey Methods	3 credits
SS 5004	Social Statistics	3 credits
SS 5049	GIS for Graduate Researchers	3 credits
SS 5050	Advanced GIS Methods and Projects	3 credits
Humans and the Environment* (3 credits)		
*Or alternate subject with advisor and Grad Director Approval		
SS 4200	Environmental Anthropology	3 credits
SS 4700	Communities and Research	3 credits
SS 5400	Sociology of the Environment	3 credits
SS 5310	Ecological Economics	3 credits
SS 5550	Global Environmental History	3 credits
Policy and Governance* (3 credits)		
*Or alternate subject with advisor and Grad Director Approval		
SS 5300	Environmental and Natural Resource Policy OR SS 6100 Energy and Climate Policy	3 credits
SS 5301	The Policy Process	3 credits
SS 5313	Sustainability Policy	3 credits
SS 5325	Water Policy, History & Governance	3 credits
Electives (6 credits)		
Minimum Credits		30¹

¹Students funded for three years take up to 54 credits; most are taken as research credits (SS6600) but students also can take additional courses, including directed readings (SS6500).

G Industrial Heritage and Archaeology – MS Curriculum Current

Required Core (12 credits)		
SS 6010	Global Industrial History	3 credits
SS 5720	Social Thought	3 credits
SS 6002	Research Design	3 credits
SS 5950	Professional Development	3 credits
Methods (6 credits)		
SS 5700	Archaeological Field Methods	3 credits
SS 5049	GIS for Graduate Researchers	3 credits
SS 5050	Advanced GIS Methods and Projects	3 credits
SS 4211	Ethnographic Methods	3 credits
SS 5230	Arch Analysis and Interpretation	3 credits
SS 5800	Documenting Buildings	3 credits
SS 5503	Material Culture Studies	3 credits
Area/Topics Courses (6 credits)		
SS 5600	Industrial Archaeology	3 credits
SS 5502	Historical Archaeology	3 credits
SS 5501	Industrial Communities	3 credits
SS 5500	History of Technology	3 credits
SS 5900	Heritage Management	3 credits
SS 5530	Deindustrialization and Urban Environments	3 credits
SS 5550	Global Environmental History	3 credits
SS 5010	Directed Study	6 credits
Thesis Research (6 credits max¹)		
Total Required Credits		30²

¹Students electing the Report Option take 3 credits of unrestricted electives and 3 research credits for the Report.

²Funded MS students have up to 36 credits available to them.

H Industrial Heritage and Archaeology – PhD Curriculum Current

Required Core (15 credits)		
SS 6010	Global Industrial History	3 credits
SS 5720	Social Thought	3 credits
SS 6002	Research Design	3 credits
SS 5950	Professional Development	3 credits
SS 5900	Heritage Management	3 credits
Directed Readings (9 credits)		
SS 6500	Qualifying Exams Prep	9 credits
Electives (6 credits)		
Minimum Required Credits		30²

¹A student funded for three years has up to 54 credits available to them--so 6 credits of electives is a minimum not the norm.

²Student w/o a MS when entering the IHA program must take an additional 30 credits.