Soil Science MS and PhD

Program Handbook

2024-2025

Department of Soil and Environmental Sciences

Reference this handbook to learn about the unique policies, requirements, procedures, resources, and norms for graduate students in the Soil Science MS and PhD program or those seeking a doctoral minor in Soil Science.

Last updated: Fall 2024

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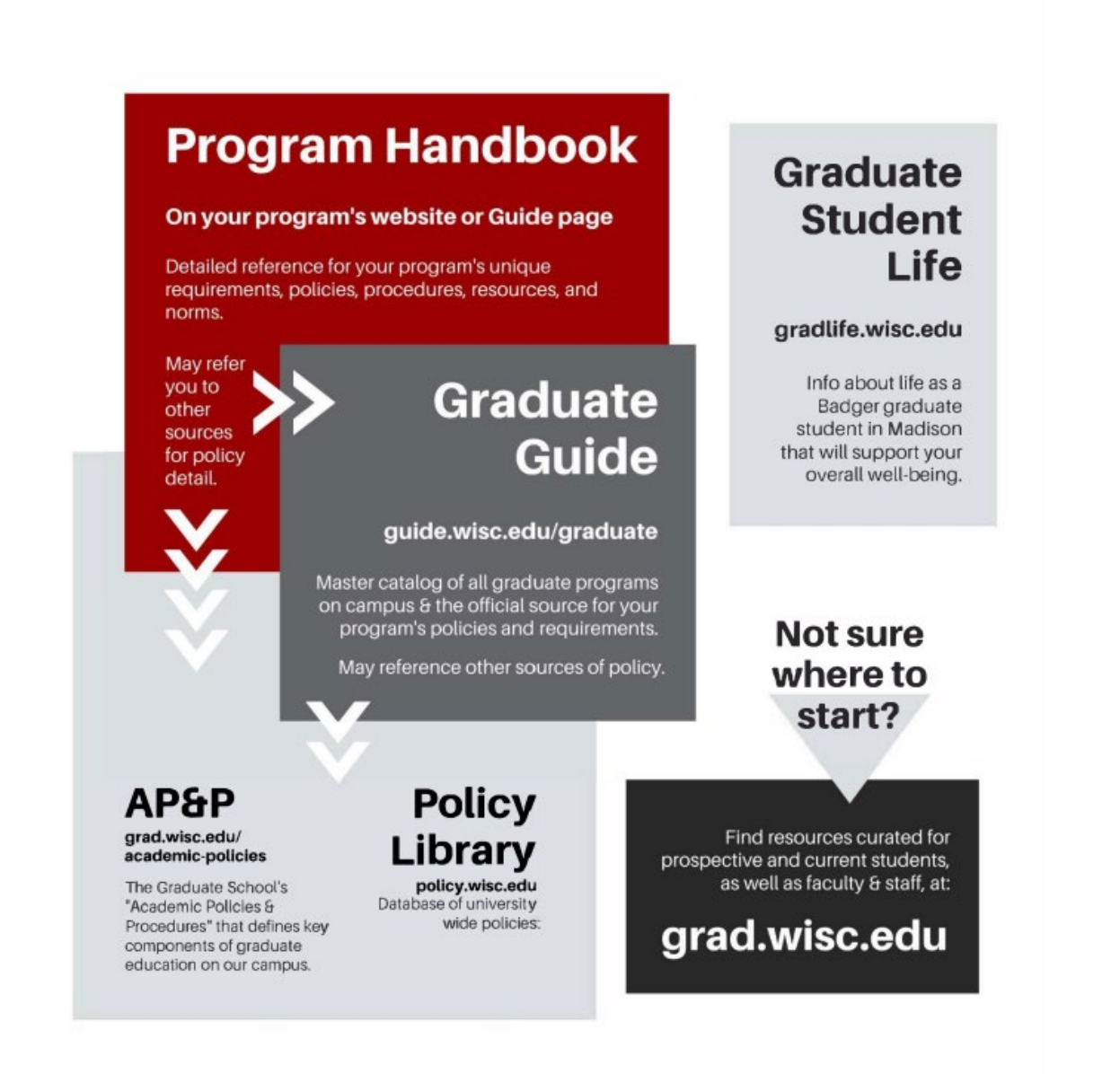
Navigating Policy and Resources at UW-Madison

This handbook is one of many sources to consult as you become familiar with the policies, procedures, requirements, resources, and norms of graduate education at UW-Madison:



Program Handbook (add your hyperlink)
Graduate Guide
Graduate School AP&P
UW-Madison Policy Library
Graduate Student Life
Graduate School at UW-Madison

Whom to Contact for Questions

Many of your questions about how to meet expectations and thrive as a graduate student will be answered by the various sources of policies, procedures, requirements, resources, and norms listed above. Several key positions in this department and on campus are ready to answer your remaining questions:

Graduate Program Coordinator
Each graduate program will have at least one department staff person typically called a Graduate Program Coordinator who serves as a point person for program policy and procedures. Graduate Program Coordinators are well versed in most elements of graduate education that extend beyond academic instruction in your program and will likely be your first stop for questions related to anything in this handbook.

Director of Graduate Studies
Each graduate program has one faculty member designated to direct its educational vision and structure.

Names and contact information of your Graduate Program Coordinator and Director of Graduate Studies can be found on your program's page in the *Graduate Guide* (guide.wisc.edu/graduate). Simply navigate to the "Degrees/Majors" tab, click on your program's name, and look for the contact information box on the righthand side.

Faculty Advisor
Each student will be assigned a faculty advisor in each graduate program in which they are enrolled. Your faculty advisor(s) will be a key source of guidance for your academic development. Further definition can be found here: policy.wisc.edu/library/UW-1232. Guidelines for finding, changing, and working with your advisor can be found in the Advising & Mentoring section below.

The name and contact information of your faculty advisor can be found on your Student Center on MyUW (my.wisc.edu) under "Academic Progress" and then "Advisors."

Graduate School Services
For general inquiries and graduate student services from the Graduate School, see the operations and front desk contact information on this contact page: grad.wisc.edu/contacts.

Department & Program Overview

Mission Statement:
The Department of Soil and Environmental Sciences' mission is to provide instruction, research, and extension leadership in soil chemistry, physics, biology, and pedology for economic and sustainable land use.

Programmatic Overview:
https://guide.wisc.edu/graduate/soil-science/soil-science-ms/
https://guide.wisc.edu/graduate/soil-environmental-sciences/soil-science-phd/

Diversity, Equity, and Inclusion

Diversity Statement:
The Department of Soil and Environmental Sciences is committed to fostering a welcoming community where members of all backgrounds, experiences, and abilities can thrive. As the underlying heterogeneity of soil and landscapes is a source of inspiration in our research and teaching, we recognize that diversity in our department enhances our work, its meaning, and its impact.

It is our moral obligation to advance equity and justice in our academic endeavors. We acknowledge current and historical biases and discrimination that have plagued the pursuit of science and the role that academia plays in upholding systemic discrimination of marginalized communities, while recognizing the substantial corrective role that academia can undertake. We condemn any and all forms of harassment, discrimination, and intimidation and are committed to working towards a more equitable future.

We specifically commit to:

- Creating an environment that is diverse, equitable, inclusive, and welcoming.
- Incorporating place-based environmental knowledge in research, teaching, and outreach.
- Advancing initiatives to recruit and retain underrepresented students, staff, and faculty.
- Ensuring that research performed in the department equitably serves diverse local and global communities.
- Continuing to learn about, allocate resources, and track actions to promote diversity, equity, and inclusion in our department.

Land Acknowledgement:
The University of Wisconsin-Madison occupies Ho-Chunk Land, a place their nation has called Teejop (Day-JOPE) since time immemorial. In an 1832 treaty, the Ho-Chunk were forced to cede this territory. Decades of ethnic cleansing followed when both the federal and state governments repeatedly, but unsuccessfully, sought to forcibly remove the Ho-Chunk from Wisconsin.

This history of colonization informs our shared future of collaboration and innovation. Today, UW-Madison respects the inherent sovereignty of the Ho-Chunk Nation, along with the eleven other First Nations of Wisconsin.

How to Get Involved

As a graduate student at UW-Madison, you have a multitude of opportunities to become involved on campus and in your academic discipline. This involvement often enhances your academic, professional, and personal growth through developing advanced leadership, communication, and collaboration skills. It also provides opportunities for professional networking.

In Our Discipline

Soil Science Society of America (SSSA) membership is free of charge all soil science graduate students. Simply contact the Graduate Program Coordinator for details. The membership benefits include:

- Ability to join up to three professional organizations at once. Soil Science Society of America (SSSA; required with this offer), American Society of Agronomy (ASA; optional), Crop Science Society of America (CSSA; optional).
- Access to and publishing rights with the Tri societies journals.
- Join over 6,000 professionals in the soil and environmental science fields.
- Listings in the Member Directory which is searched by potential employers.
- Free CV/resume posting and job search on the Career Placement website.
- Membership in Communities/Divisions of Interest to develop peer networks and information resources.
- Cultivate leadership skills through service on Committees.
- Notification of scholarship, award, and contest opportunities.
- Reduced registration and presentation rates.

In Our Program/Department

The Department of Soil and Environmental Sciences has a strong, collegial community of graduate students who participate in and/or lead a wide range of activities.

Graduate Student Social
The graduate student body convenes a weekly social event following the Wednesday SOIL SCI 728 seminar. All graduate students are invited to attend.

Soil Science Graduate Student Council
This is an unofficial student organization whose officers are responsible for planning social events and activities, oversight of the Jaya G. Iyer Presentation Award in SOIL SCI 728, attending departmental monthly meetings as representatives of their peers, seek out volunteers for various opportunities that arise during a typical academic year.

Plant Sciences Graduate Student Council
This is an official UW-Madison student organization whose mission is to foster community across plant sciences by bringing together students and paving avenues for personal and professional success. A graduate student representative from the Department of Soil and Environmental Sciences serves on the board of officers. Participation includes:

- Monthly social and professional development events.
- Participation in weekly journal clubs and happy hours.
- Monthly, informal weekend outings.
- Once-per-semester professional development opportunities.
- Annual plant sciences symposium.
- Facilitating a number of student identity groups to foster community and provide advocacy and coordinate outreach opportunities with local schools and youth programs.

On Campus & In the Community

The Wisconsin Idea is the principle that education should influence and improve people's lives beyond the university classroom. For more than 100 years, this idea has guided the university's work.

You will find a list of ways to engage in campus and local community life at:

The Center for Leadership and Involvement (Student Organization Directory)
https://cfli.wisc.edu/discover-an-organization/

The Graduate School's Current Student Page
grad.wisc.edu/current-students

If you are a student actively involved in leadership and service activities, consider nominating yourself for membership in the following honor society:

Edward Alexander Bouchet Graduate Honor Society
grad.wisc.edu/diversity/bouchet

Getting Started as a Graduate Student

New Graduate Student Checklist

Be sure to review all steps listed on these webpages for new graduate students:
Graduate School - New Students
grad.wisc.edu/new-students

International Student Services – International Student Orientation (ISO)
https://iss.wisc.edu/iso/

In Our Program

New and current graduate students are encouraged to attend our department orientation held in September, where there is a departmental welcome, orientation, and introduction to selected campus services. In alternating years, new and current graduate students are also encouraged to attend our annual Research Day held in August. Students will have an opportunity to learn about the research projects taking place in every faculty member's laboratory. Additionally, new students should:

- Schedule an appointment with the Graduate Program Coordinator to review program requirements, timelines, and policies.
- Schedule an appointment with the department's Payroll and Benefits Specialist, if a Research Assistantship (RA) or Teaching Assistantship (TA) appointment, or a Fellowship has been offered.
- Check in at our departmental administration desk to have your photo taken and to get the keys you will need (ask your advisor which ones these would be).
- Contact your Faculty Advisor to learn about your office/desk assignment, to meet fellow lab mates and to schedule a laboratory and building tour.

Advising & Mentoring

Advising relationships are a central part of academia, important to both the experience and development of students and faculty members alike.

The Graduate School's definition of an advisor can be found here: policy.wisc.edu/library/UW-1232. Your advisor has two main roles: 1) To assist you in acquiring the highest possible level of knowledge and competence in the field, and 2) to chair the committee that will determine whether you have performed at an acceptable level in each of your degree milestones (see "Degree Requirements" section below for further information on building your committee). Other roles of your advisor may include tracking your progress in completing your degree (note: this may include use of the Graduate Student Tracking System at gsts.grad.wisc.edu), assisting with course selection and planning your academic path, and helping you identify possible research mentors, committee members, and research opportunities.

For graduate students funded through RA or TA appointments or fellowships, an initial offer letter will be provided prior to the start of your program. The appointment is expected to continue for the duration of your studies with satisfactory progress towards your degree. Appointments run during the fiscal year (July to June), with reappointment letters provided in June.

Both the student and advisor are responsible for making their expectations clear to each other. Be sure to discuss this with your advisor. See "Advising Compact" below for further information about a tool we use in this program to formalize advising expectations. Advising compacts are encouraged.

Finding & Selecting an Advisor

Faculty advisors select advisees during the application process and generally provide funding for their admitted students.[1] Students are not admitted to our graduate programs without a faculty advisor in place.

[1]Examples of students who may be admitted without programmatic funding might include those with military service benefits, foreign government scholarship/support, or occasionally a self-funded student.

Your advisor will be a faculty member in the program whose expertise and project/research interests match closely with those that you intend to acquire. To learn more about the faculty in your program, visit the Guide webpage: https://guide.wisc.edu/graduate/soil-science/soil-science-ms/#peopletext

All faculty recruiting new students for Research Assistant (RA) appointments for upcoming terms will be listed on our Employment and Funding Opportunities page. We recommend that prospective students reach out to potential faculty advisors within the department before submitting their applications to the program to learn more about available research opportunities in the faculty member's research group. There are many resources available online to help guide applicants in this process, such as the article found here. Finding an appropriate advisor is important not only for securing funding, but also because the advisor will play an integral role throughout a graduate student's experience.

During the process of identifying an advisor, you will likely meet with prospective advisors. Below are some questions to consider asking in such discussions, though it is not a complete list. You should spend some time identifying what is most important to you in your graduate training and ask questions accordingly.

Questions to Ask of Prospective Advisors
Adapted from IPiB handbook

- What research projects would be available to me if I were to join your group?
- What key techniques and approaches would these projects expose me to?
- In general, how accessible are you as an advisor?
- What is your philosophy regarding the amount of guidance the advisor should provide to a student during preparation of the thesis or dissertation proposal, literature seminars, thesis or dissertation writing, etc.?
- What are your expectations for the amount of time I should spend each day/week in your group/lab?
- What activities (e.g., group meetings, joint group meetings, research clubs) does your group participate in that provide an opportunity to get outside input on my research project and to hear about the work of other students and postdocs?
- Do you encourage your students to attend seminars and journal clubs, including those that may be outside of their specific field of research?
- What are your expectations for students in your group/lab with respect to attending professional meetings where they can interact with colleagues/researchers from other institutions?

- Do you include your graduate students in other professional activities that help familiarize them with their field of research, such as reviewing manuscripts and meeting with visiting speakers?
- How long does it typically take students in your lab to complete their MS/PhD?
- What are your former graduate students doing now?
- What is your general philosophy of graduate training and what goals do you have for your graduate students?

Changing Your Advisor

As the advisor-student relationship is one of mutual agreement, it may be terminated by either party. If you decide that you would prefer working with a different advisor, discuss this with your prospective advisor to seek the change. It is important to understand that a change in advisor will likely change or end your funding commitment, could require a new thesis topic, and/or may extend the time needed to complete the necessary research to finish your degree. Because students in our department are largely funded by professors' grants, other professors you would like to work with may not have funding available for an additional student, even if they would be a good fit for you.

Before seeking to change your advisor, we recommend you discuss this confidentially with the Graduate Program Coordinator, who can help you understand the necessary steps. If you change your advisor, you must notify your Graduate Program Coordinator and follow any related procedures. Every graduate student must have an advisor to continue graduate study at UW-Madison. Be sure to follow procedures to re-select a new advisor (as directed by the Graduate Program Coordinator) prior to finalizing the termination of your current advising relationship. You can confirm that the name of your advisor has been updated in the official record by looking in your Student Center on MyUW (my.wisc.edu) under "Academic Progress" and then "Advisors."

A Graduate Student Guide to Working with Faculty Advisors

Through this interactive, self-paced micro-course, graduate students learn about the characteristics of functional and dysfunctional relationships with faculty advisors, strategies for communicating effectively and aligning expectations, as well as program grievance processes and Hostile and Intimidating Behavior resources. Completion of the micro-course takes about 20 minutes and is optional but encouraged for all graduate students.

Advising Compact

Clearly defined expectations for both the student and advisor are a crucial starting point for a strong relationship, and “Advising Compacts” can help clarify and document mutually agreed upon expectations for both the student and advisor. Information about advising compacts can be found here: kb.wisc.edu/grad/page.php?id=35489. While our department does not currently explicitly require them, we recommend all advisors use them and encourage you to discuss this with your advisor.

You may also wish to incorporate further information about Individual Development Plans (IDPs) here if they are to be used in concert with or in lieu of Advising Compacts. Further information about IDPs can be found at: grad.wisc.edu/professional-development/individual-development-plan

Mentoring Networks

In addition to having a formal advisor, you are encouraged to develop a broad network of individuals who can provide academic and professional mentorship during and beyond your time as a graduate student. These may include other professors in your department or across the university, senior members of your lab, such as advanced graduate students or postdocs, mentors from your undergraduate studies, or other individuals who have followed the career paths you are interested in. These relationships are often informal. The Graduate School offers advice and insights on mentorship during grad school: https://grad.wisc.edu/professional-development/mentorship/

Giving & Receiving Feedback (MS & PhD)

All graduate students in the Department of Soil and Environmental Sciences will engage in completing the Student-Advisor Progress Discussion with their advisor during the spring term. The department uses a standardized template (Appendix A) that allows the student and the advisor to share relevant information about successes, challenges, and future goal setting. Upon completing the written sections of the form (both student section and faculty advisor section) the department expects the student and advisor to meet and discuss the information shared by both parties.

Degree Requirements

Master's Degree

All students in the Soil Science Master's Program are responsible for staying aware of the following requirements to complete the degree.

The Master of Science (MS) degree is offered to provide training and skills beyond that ordinarily offered by the bachelor's (BS) degree but without the intensive training in research and creative scholarship required for the Doctor of Philosophy (PhD) degree. The MS degree is granted upon successful completion of a prescribed program of study that involves advanced courses and experience in research.

Master's Requirements

For all current requirements to complete your degree (e.g., credits, courses, milestones, learning outcomes/goals, etc.) see your program's page in the *Graduate Guide*. Navigate to guide.wisc.edu/graduate, then select "Degrees/Majors," your program's name, the "Named Option" of your program (if applicable; found near the bottom of the Requirements tab), and then "Requirements" from the navigation bar on the right side. You will be taken to a subsection of your program's *Guide* page that contains all official requirements for your degree. Similarly, see "Policies" from the navigation bar of your program's page to learn about policies affecting these requirements (e.g., prior coursework, probation, credits per term allowed, time constraints, grievances and appeals, etc.). Note that when you look at the *Guide* to learn about program requirements, you will be viewing the current year's version. To find past versions of program requirements, see the Guide Archive and search for your program and the year you would like to reference.

Grades
Required courses in soil science must be completed with a grade of B or better (BC and C may not be offset by AB and A). For other courses, the program follows the grade requirements of the Graduate School (https://policy.wisc.edu/library/UW-1203).

Certification of Minimum Requirements
A proposed plan to meet the minimum requirements for a MS candidate must be approved by the department's certification committee (see below) by the end of the first semester of the MS graduate work. It is the responsibility of the student and the Major Professor to complete the departmental certification form (Appendix B) and submit the completed forms to the Graduate Program Coordinator prior to scheduling a meeting

with the certification committee. Subsequent changes made to the approved initial plans must be re-evaluated and re-approved by the certification committee prior to the changes taking place.

Certification Committee
Comprised of 4 faculty members within the department, the certification committee meets with all new graduate students during their first semester in the program to review the student's certification forms, learn about the student's intended area of research, and make suggestions and recommendations as needed. The Department's Director of Graduate Studies (DGS) is the chair of this committee. The committee is responsible for approving these documents, any subsequent revisions, and any exceptions to programmatic requirements.

Seminar (SOIL SCI 728)
All MS candidates are expected to enroll in SOIL SCI 728 Graduate Seminar each fall and spring terms and must give at least one presentation in the class during their MS program. The topic of this presentation should be a topic of interest outside the scope of their research project.

Time Requirements for MS Degree Completion
There are no deadlines for completing the MS degree. However, students enrolled full time are generally complete the degree in 2 years.

Double Degree
MS students who wish to pursue a second MS degree should discuss the requirements of this option with the Graduate Program Coordinator. A Double Degree means the student will seek 2 graduate major degrees and receive 2 diplomas. The student must produce 2 theses, have 2 advisors (1 from each program), have 2 separate examination committees, maintain the minimum Graduate School requirements in each degree program, request 2 warrants (1 for each program of study), and provide a list of courses used for each major when requesting both warrants (no more than 25% overlap in courses based on the total credits for the program with the lowest credit requirement). https://grad.wisc.edu/documents/double-joint-dual-degrees-comparison/

Joint MS Degree
MS students who wish to pursue a joint MS degree should schedule an appointment with the Graduate Program Coordinator as soon as possible. Joint degrees are less common and require a detailed written proposal that must be submitted and approved by the Graduate School Dean prior to the beginning of their second year. Students completing a Joint Degree will earn one MS degree with one diploma. The student will

write one thesis, secure two advisors (one from each program), secure one examination committee, and request and receive one warrant.
https://grad.wisc.edu/documents/double-joint-dual-degrees-comparison/

Master's Written Research Plan

Students are expected to present a Written Research Plan to their Examination Committee no later than the end of the third semester of MS graduate work. The Written Research Plan normally includes the following: Title Page, Table of Contents, Introductions, Objectives, Review of Literature, Plan of Proposed Research (early research data showing the feasibility of the proposal is optional) and References. The suggested maximum length of the Written Research Plan is 10 pages, double spaced. The bibliography is not counted as part of the 10 pages. The Written Research Plan should be shared with the examination committee at least 2 weeks prior to the scheduled committee meeting.

Written Research Plan Warrant
Students must complete and submit a Written Research Plan Warrant Request form (Appendix C) to the Graduate Program Coordinator at least 3 weeks prior to the Written Research Plan Committee meeting.

Master's Thesis and Final Exam

A candidate for the MS degree is required to prepare a thesis on original research. Original research includes comprehensive and original interpretations of the literature. It must be approved by the Major Professor under whose guidance it has been produced and by the Examination Committee. A printed, unbound hardcopy and a pdf electronic version must be deposited with the Graduate Program Manager prior to the degree completion dates set forth by the Graduate School.

Examination Committee & Topic

Master's examination committees advise and evaluate satisfactory progress, evaluate a thesis, and/or sign a degree warrant. For general guidance from The Graduate School on the role and composition of the examination committees as well as an online tool to determine if your committee meets minimum requirements, see the following policy page: policy.wisc.edu/library/UW-1201. Your advisor will chair your committee and provide individualized guidance on how to select examination committee members. In addition to this general guidance, this program requires the examination committee to be comprised of at least 3 members of defensible breadth, a minimum of two drawn

from the Soil and Environmental Sciences faculty. Defensible breadth shall be subject to certification committee approval. The third member of the committee must have a degree equivalent to that pursued by the student and be approved by the certification committee.

Your advisor can also provide guidance on selecting your topic. If you find that your topic and/or mentoring needs no longer align with your advisor, see “Advising & Mentoring” section on how to change advisors. Note that your committee composition may or may not need to change as well in this scenario, depending upon your new advisor’s guidance.

Form & Content

The Form and Content of your thesis and the final exam will be determined by your faculty advisor. Please reach out to them for guidance.

Procedures

Timeline
The candidate may take the final examination once all course requirements for the degree have been completed or are concurrently in process.

Requesting Warrants
Students are expected to submit a warrant request form (Appendix D) to the Graduate Program Coordinator at least 3 weeks prior to their scheduled Final Defense Examination. The Graduate Program Coordinator will then prepare all necessary documentation and communicate the next steps to the examination committee members.

Final Defense Examination
Candidates will send a copy of their thesis to the Examination Committee members at least 2 weeks prior to the set Final Defense Examination date. Candidates must present an open seminar on their MS thesis research and pass a comprehensive examination (either oral or an oral-written combination if requested by the candidate) conducted by their examination committee on the graduate work offered in support of their candidacy.

Final Examination Results
In addition to recording the results of the MS examination on the Graduate School Warrant, each member of the Examination Committee must also complete the departmental Graduate Program Examination Evaluation form.

Policy on Permission to Retake the MS Examination
The decision to allow a student to retake the examination is made by the MS examination committee. A student may, if denied the right to retake an MS examination, appeal to the Department Chair who then may appoint a special committee to study the case and make recommendations as to further action. Whenever possible, the examination committee for an examination retake should be the same as the examination committee for the original examination.

Master's Degree Checklist: Timeline & Deadlines

The Graduate School maintains a list of steps to complete your master's degree, including deadlines and important things to know as you progress toward graduation: grad.wisc.edu/current-students/masters-guide. In addition to what is posted on this webpage from the Graduate School, you must meet all required steps of the program (outlined below).

Programmatic Checklist:

- (Required) Schedule an appointment with the Graduate Program Coordinator prior to the start of your last semester.
- (Required) In coordination with your faculty advisor and your entire examination committee, schedule the date and time of your final presentation and defense examination.
- (Optional) Reach out to the Graduate Program Coordinator for assistance in reserving rooms for your public presentation and the closed-door committee examination.
- (Required) Request your warrant from the Graduate Program Coordinator at least 3 weeks prior to your examination. (Appendix D) The Graduate Program Coordinator will communicate to the examination committee members how to access and sign the warrant as well as how to access and complete the evaluation.
- Apply to Graduate (via MyUW Portal)
    - (Required) All students must 'Apply to Graduate' once they have determined when they plan to complete their degree regardless of whether they wish to have their name printed in the commencement ceremony program.
    - (Optional) In order to have a student's name printed in the commencement ceremony program, students my 'Apply to Graduate' by the deadline established by campus, which can be found here: https://commencement.wisc.edu/

- (Required) A printed, unbound hardcopy, a completed binding request form (Appendix E), and a pdf electronic version must be deposited with the graduate program coordinator prior to the degree completion dates set forth by the Graduate School.
- (Optional) If you and/or your advisor wish to have additional hard copies bound, please print the desired number you wish to have bound and deliver to the graduate program coordinator.
- (Optional but *may be required by individual faculty advisors*) Students may choose (or be required by their advisor) to deposit their final thesis paper at the Memorial Library. Students will need to complete and submit directly to the Memorial Library the following forms along with their final thesis when choosing this option.
    - Minds@UW Distribution License form: https://cms.library.wisc.edu/www/wp-content/uploads/sites/2/2023/12/MINDS-Distribution-License.pdf
    - Proxy authorization form: https://cms.library.wisc.edu/www/wp-content/uploads/sites/2/2023/12/MINDS@UW-Proxy-Authorization.pdf

Sequence of Events – MS

Doctoral Degree

All students in the Soil Science Doctor of Philosophy program are responsible for staying aware of the following requirements to complete the degree.

The Doctor of Philosophy (PhD) degree, the highest degree offered by the University, is a research degree and is never conferred solely as a result of any prescribed period of study, no matter how faithful. The degree is granted solely upon evidence of general proficiency, distinctive attainment in a special field, and particularly on ability for independent investigation as demonstrated in a dissertation presenting original research or creative scholarship with a high degree of literary skill.

Requirements

For all current requirements to complete your degree (e.g., credits, courses, milestones, and learning outcomes/goals) see your program's page in the *Graduate Guide*. Navigate to guide.wisc.edu/graduate, then select "Degrees/Majors," your program's name, the "Named Option" of your program (if applicable; found near the bottom of the Requirements tab), and then "Requirements" from the navigation bar on the right side. You will be taken to a subsection of your program's *Guide* page that contains all official requirements for your degree. Similarly, see "Policies" from the navigation bar of your program's page to learn about policies affecting these requirements (e.g., prior coursework, probation, credits per term allowed, time constraints, grievances and appeals, etc.). Note that when you look at the *Guide* to learn about program requirements, you will be viewing the current year's version. To find past versions of program requirements, see the Guide Archive and search for your program and the year you would like to reference.

Grades
Required courses in soil science must be completed with a grade of B or better (BC and C may not be offset by AB and A). For other courses, the program follows the grade requirements of the Graduate School (https://policy.wisc.edu/library/UW-1203).

Certification of Minimum Requirements
A proposed plan to meet the minimum requirements for a PhD candidate must be approved by the department's certification committee (see below) by the end of the first semester of the PhD graduate work. It is the responsibility of the student and the Major Professor to complete the departmental certification forms (Appendices F, G, H) and submit the completed forms to the Graduate Program Coordinator prior to scheduling a meeting with the certification committee. Subsequent changes made to the approved

initial plans must be re-evaluated and re-approved by the certification committee prior to the changes taking place.

Certification Committee

Comprised of 4 faculty members within the department, the certification committee meets with all new graduate students during their first semester in the program to review the student's certification forms, learn about the student's intended area of research, and make suggestions and recommendations as needed. The Department's Director of Graduate Studies (DGS) is the chair of this committee. The committee is responsible for approving these documents, any subsequent revisions, and any exceptions to programmatic requirements.

Breadth Requirement (often referred to as 'minor')

Breadth is a required component of doctoral training at UW–Madison. Students achieve breadth through a doctoral minor, graduate/professional certificate, or other means as determined by their doctoral major program. https://policy.wisc.edu/library/UW-1200

Option A (external doctoral minor): Requires a minimum of 9 credits in a doctoral minor program (single disciplinary or multi-disciplinary) outside of the student's doctoral major program. Fulfillment of this option requires the approval of the doctoral minor program. https://guide.wisc.edu/graduate/#doctoralminorstext

Option B (distributed doctoral minor): Requires a minimum of 9 credits in one or more programs forming a coherent topic and can include coursework in the student's doctoral major program. Fulfillment of this option requires the approval of the student's doctoral major program.

Option C (graduate/Professional certificate): Requires successful completion of a Graduate/Professional certificate in a program outside of the student's doctoral major. https://guide.wisc.edu/graduate/#graduateprofessionalcertificatestext

Approval: The Minor, whether Option A, Option B, or Option C, is designed to represent a coherent body of work, and should not be simply an after-the-fact ratification of a number of courses taken outside the Major department. To ensure coherence, a Minor program must be approved by the Minor department (Option A or C) or by the Department of Soil and Environmental Sciences Graduate Admissions and Certification Committee (Option B) no later than the end of the second semester of PhD graduate work (not including summer sessions). A copy of the completed Minor agreement form is needed to obtain the warrant for the preliminary exam. A Soil Science Breadth Agreement Form is included within the PhD Certification form (Appendix G). However, students

selecting Option A or C should use the Minor/Certificate department's agreement form if one is available from the Minor/Certificate department. In the event the external program does not have its own form, students should utilize the Soil Science Breadth Agreement Form. It is the responsibility of the student and the Major Professor to arrange for completion of the PhD Breadth Agreement within the time frame identified above.

SOIL SCI 799 Practicum in Soil Science Teaching

PhD Soil Science students are required to complete a teaching practicum. Students may elect to enroll in 1-3 credits based on the amount of work they will conduct in the practicum. (Appendix H).

The purpose of this practicum in Soil Science is to provide an opportunity for PhD students to develop, practice, and refine their instructional skills in a traditional classroom setting or through outreach and extension activities. The specific learning outcomes of the practicum are to 1. develop a list of one or more learning outcomes for the activity consistent with a Backward Design model, 2. demonstrate mastery in the communication of soil science content using the modality appropriate to the chosen audience, 3. develop and execute an assessment plan to evaluate the learning outcomes, and 4. write a short (5 pages or less) metacognitive reflection paper (structure determined by student in conjunction with his/her major advisor) that demonstrates lessons learned from the activity.

The Teaching Practicum experience must be supervised by a faculty member in the department. The major professor will typically serve in this supervisory role however another faculty member can serve as the direct supervisor as long as it is done in collaboration with the major professor. The specific practicum can include a variety of activities so long as it includes a teaching, extension or outreach motif and is consistent with the venue for delivery. The minimal level of effort expected per credit hour of the teaching practicum is 45 hours in a semester, including time spent during training, preparation, and evaluation.

It is strongly encouraged that the major professor and/or supervisor of the practicum provide timely and substantive feedback to the student following an activity. Specifically, the student should meet with their supervisor weekly to assess progress. Discuss the style, speed, preparedness, and thoroughness (clarity, depth, and accuracy) appropriate for the activity. Also discuss upcoming prepared activities, homework, assessments (both formative and summative) to determine clarity, depth, and accuracy of meeting the learning outcomes. The evaluation should be reasonable, explicit, written, and transparent to the student.

A written plan shall be prepared by the student in conjunction with his/her advisor and approved by the Certification Committee. The plan shall include the process/procedure for mentoring of the student, evaluation of their performance, and letter grade assignment.

The practicum should consist of four phases: 1. Instructional Orientation, 2. Direct Teaching Experience, 3. Experience in Testing and Evaluation of Students, and 4. Analysis of the Graduate Student's Performance.

SOIL SCI 728 Graduate Seminar
All PhD candidates are expected to enroll in SOIL SCI 728 Graduate Seminar each fall and spring terms and must give at least two presentations in the class during their PhD program. One of the presentations must be on the student's prospectus. (see Prospectus Exam section for more information) The other presentation should be a topic of interest outside the scope of their research project.

Doctoral Committee

Doctoral committees advise and evaluate satisfactory progress, administer the prospectus and final oral examinations, evaluate a thesis or dissertation, and/or sign a degree warrant. Students and their major advisor may choose to utilize this same committee for the preliminary exam, or they may choose to create a separate committee. For general guidance from The Graduate School on the role and composition of committees as well as an online tool to determine if your committee meets minimum requirements, see this policy page: policy.wisc.edu/library/UW-1201. In addition to this general guidance, this program requires the following of doctoral committees:

Doctoral Committee
Your advisor will chair your committee and provide individualized guidance on how to select committee members. The Doctoral Committee, chosen by the student and major professor, is a committee of four or more members representing more than one graduate program, three of whom must be UW-Madison graduate faculty or former UW-Madison graduate faculty up to one year after resignation or retirement. At least one of the four members must be from outside of the student's major program or major field (often the minor field) and approved by the department's certification committee. A minimum of two must be from the Soil and Environmental Sciences faculty. At least three committee members must be designated as readers. For students doing an external doctoral minor (breadth option A), representation of the Minor Department is

the option of the Minor Department, but the Department of Soil and Environmental Sciences recommends that a professor representing the minor be on the Committee.

The required 4th member of the Doctoral Committee, as well as any additional members, may be from any of the following categories, as approved by the executive committee: graduate faculty, faculty from a department without a graduate program, academic staff (including emeritus faculty), visiting faculty, faculty from other institutions, scientists, research associates, and other individuals deemed qualified by the Executive Committee (or its equivalent) provided the individual has a PhD degree or its equivalent.

It is the responsibility of the student and the Major Professor to form a Doctoral Committee and schedule a meeting before the end of the second semester (not including summer sessions) of PhD graduate work. It is recommended that the doctoral committee meet at least annually (which may include exam meetings) to help ensure the student is making satisfactory progress, that the committee remain aware of the student's research directions, and to support the student in progressing within their degree program.

A student who does not meet deadline requirements in this document will not be allowed to register in the subsequent semester until a written plan for meeting the requirements has been approved by her/his major advisor and the department Graduate Admissions and Certification Committee (GACC).

Preliminary Committee (if different than the Doctoral Committee makeup)

The student and major professor may choose to establish a Preliminary Examination Committee separate from the doctoral committee. A Preliminary Examination Committee, chosen by the student and major professor, is composed of four or more members representing more than one graduate program, three of whom must be UW-Madison graduate faculty or former UW-Madison graduate faculty up to one year after resignation or retirement. At least one of the four members must be from outside of the student's major program or major field (often the minor field) and approved by the Certification Committee. A minimum of two must be from the Soil Science faculty.

Prospectus Exam

The PhD Prospectus, consisting of the Prospectus Seminar and the Written Prospectus, is to aid the candidate in developing a viable research problem and to provide experience in evaluating the literature, writing, and research planning.

Committee
The Doctoral Committee is responsible for evaluating and approving the PhD Prospectus.

Timeline
The Written Prospectus and the Prospectus Seminar must be completed by the end of the third semester (not including summer sessions).

Requesting Prospectus Warrant
The PhD student must complete and submit a Prospectus Warrant request form (Appendix I) from the Graduate Program Coordinator at least 3 weeks prior to the established Prospectus presentation and examination date. The Graduate Program Coordinator will then prepare all necessary documentation and communicate the next steps to the examination committee members.

Written Prospectus
The Written Prospectus normally includes the following: Title Page, Table of Contents, Introduction, Objectives, Review of Literature, Plan of Proposed Research (early research data showing the feasibility of the proposal is optional) and References. The maximum length of the Written Prospectus is suggested to be 30 pages, double spaced. The bibliography is not counted as part of the 30 pages. Early approval of the Written Prospectus will reduce the chances of deficiencies in the dissertation. The Written Prospectus should be shared with the Doctoral Committee members at least 2 weeks prior to the scheduled examination date.

Prospectus Seminar
The student shall present a Prospectus Seminar as one of the two credits of the required graduate seminar (Soil Sci 728). A major part of the Prospectus Seminar is a critical review and synthesis of the literature, followed by statement of the objectives and plan of research. The Prospectus Seminar grade is assigned by the Graduate Seminar Committee presiding during the semester the Prospectus Seminar is given.

After the Prospectus Seminar, usually within the same semester, the Doctoral Committee should meet with the candidate to evaluate and approve or disapprove the Written Prospectus.

Examination Results
A copy of the Prospectus warrant, completed Soil Science Graduate Program Examination Evaluation forms, and the PhD Certification forms, are retained in the student's departmental file.

If the Written Prospectus is disapproved, the Doctoral Committee must decide if the candidate may revise and resubmit the Written Prospectus. A student may, if denied the right to resubmit the Written Prospectus, appeal to the Department Chair who may then appoint a special committee to study the case and make recommendations as to further action.

Preliminary Exam

The preliminary examination is an examination of the candidate's general knowledge of soil science. It is generally an oral examination, although written questions can be submitted as part of the examination at the option of the individual members of the Preliminary Examination Committee.

Committee
The Preliminary Examination Committee, which may be the same or different than the Doctoral Committee, is responsible for evaluating and approving the PhD Preliminary exam.

Timeline
The Preliminary Exam may only be conducted after all coursework requirements are completed or are in process and after the Prospectus Exam has been passed. All PhD students must take the Preliminary Examination by the end of the fourth semester (not including summer sessions) of PhD graduate work. Candidates who are approved to retake a failed examination must have passed by the end of the fifth semester.

Requesting Preliminary Warrant
The PhD student must complete and submit a Preliminary Warrant request form (Appendix I) to the graduate program coordinator at least 3 weeks prior to the established Preliminary examination date. The Graduate Program Coordinator will then prepare all necessary documentation and communicate the next steps to the Preliminary Examination Committee members.

Examination Results
Upon satisfactory completion of the preliminary examination, the signed warrant will be submitted to the Graduate School by the graduate program coordinator initiating the status of ‘Dissertator’.

A copy of the signed Graduate School warrant, completed preliminary evaluation forms, and the PhD certification forms, are retained in the student’s departmental file.

If the candidate fails the preliminary examination, the Preliminary Examination Committee must decide if the candidate may retake the examination. The format and extent of the second examination is determined by the Preliminary Examination Committee. A student may, if denied the right to retake an examination, appeal to the Department Chair who then may appoint a special committee to study the case and make recommendations as to further action. Whenever possible, the Preliminary Examination Committee for an examination retake should be the same as the Preliminary Examination Committee for the original examination.

Candidates who do not adhere to this deadline must show justification for the delay to the Department Certification Committee.

Dissertator Status
https://policy.wisc.edu/library/UW-1247.

Dissertation & Final Oral Exam/Defense

Topic

You will work closely with your advisor in selecting and developing your dissertation topic. You will receive further feedback from your committee and members of the department and broader community at your prospectus exam and seminar.

Form & Content

The form and content of your dissertation and the final defense exam will be determined in consultation with your faculty advisor. In our department, dissertations typically include introduction and conclusion sections or chapters, in addition to the research chapters. The research chapters may take the form of papers that are published, under review, or prepared for submission to journals, or they may be prepared specifically for your dissertation. Further formatting guidelines are stipulated by the graduate school as described below.

Procedures

Committee
The Doctoral Committee is the dissertation reviewing committee (reading committee) that evaluates the substantial merit of the PhD dissertation. Their report is endorsed on the advisor signature page of the dissertation and on the official warrant.

Timeline
All degree requirements must be completed in order to be eligible to take the final examination.

Requesting Final Defense Warrant
The PhD student must complete and submit a Final Defense Warrant request form (Appendix I) to the graduate program coordinator at least 3 weeks prior to the established final defense examination date. The graduate program coordinator will then prepare all necessary documentation and communicate the next steps to the examination committee members.

PhD Dissertation
The PhD dissertation must be the candidate's own work. It may be the result of research enterprises in which others have collaborated, but in such cases, candidates are required to clearly indicate the portions that represent their own contribution. The dissertation should be sent to the committee at least 2 weeks prior to the final defense examination date.

Detailed information concerning the current requirements for the preparation of the dissertation and abstract of the dissertation should be obtained from the Graduate School webpage, *Completing your Doctoral Degree* (https://grad.wisc.edu/current-students/doctoral-guide/). The dissertation is required to be deposited with the Memorial Library via the ProQuest/UMI ETD portal and following the guidelines prescribed by the Graduate School. In addition, the department requires a pdf and bound copy of the final dissertation.

Defense
Candidates must present an open seminar on their PhD research findings, followed by a closed oral defense of the dissertation with the Doctoral Committee.
PhD candidates are subject to a final oral examination on their dissertation and the general fields of the major and minor studies. The preliminary examination is typically construed as the final benchmark for these subject matter fields. The final examination is usually focused on the findings of the research and the overall dissertation. The candidate should, however, be prepared to answer questions in the major and minor fields as well. In addition to recording the results on the Graduate School warrant and the official advisor signature page of the dissertation, the Doctoral Committee must complete the department PhD Defense Evaluation form for inclusion in the student’s file.

Policy on Permission to Retake the PhD Final Examination
The decision as to whether or not a student may retake the examination is ordinarily made by the Doctoral Committee. A student may, if denied the right to retake the Final Examination, appeal to the Department Chair, who may then appoint a special committee to study the case and make recommendations as to further action. Whenever possible, the Doctoral Committee for an examination retake should be the same as the Doctoral Committee for the original examination.

Doctoral Degree Checklist: Timeline & Deadlines

The Graduate School maintains a list of steps to complete your doctoral degree, including deadlines and important things to know as you progress toward graduation: grad.wisc.edu/current-students/doctoral-guide. In addition to what is posted on this webpage from the Graduate School, you must meet all required steps of the program (outlined below).
Programmatic Checklist

- (Required) Schedule an appointment with the Graduate Program Coordinator prior to the start of your last semester.
- (Required) In coordination with your faculty advisor and your entire examination committee, schedule the date and time of your final presentation and defense examination.
- (Optional) Reach out to the Graduate Program Coordinator for assistance in reserving rooms for your public presentation and the closed-door committee examination.
- (Required) Request your warrant from the Graduate Program Coordinator at least 3 weeks prior to your examination. (Appendix I) The Graduate Program Coordinator will communicate to the examination committee members how to access and sign the warrant as well as how to access and complete the evaluation.
- Apply to Graduate (via MyUW Portal)
    - (Required) All students must ‘Apply to Graduate’ once they have determined when they plan to complete their degree regardless of whether they wish to have their name printed in the commencement ceremony program.
    - (Optional) In order to have a student’s name printed in the commencement ceremony program, students my ‘Apply to Graduate’ by the deadline established by campus, which can be found here: https://commencement.wisc.edu/

- (Required) A printed, unbound hardcopy, a completed binding request form (Appendix E), and a pdf electronic version must be deposited with the graduate program coordinator prior to the degree completion dates set forth by the Graduate School.
- (Optional) If you and/or your advisor wish to have additional hard copies bound, please print the desired number you wish to have bound and deliver to the graduate program coordinator.
- (Required) Follow all Graduate School requirements found on their webpage, *Completing your Doctoral Degree* (https://grad.wisc.edu/current-students/doctoral-guide/) for completing your degree.

Sequence of Events – PhD

Certification
- Certification documents approved by GACC (1st Sem.)
- Any future changes made to certified documents requests MUST be GACC approved

Coursework
- Major courses
- Minor courses
- 799 Teaching Practicum

Prospectus Exam
- **Submit Warrant Request form to Grad Program Coord. - 3 weeks before exam**
- Seminar Presentation + Paper + Exam

Preliminary Exam
- **Submit Warrant Request form to Grad Program Coordinator 3 weeks before exam**
- Oral exam on general soil science knowledge

Dissertator
- Research and Writing Phase
- Only 728 and 990 permitted
- 3 credits per term (fall, spring, summer)

Defense Prep
- Meet with Graduate Program Coordinator
- Apply to Graduate in MyUW Portal
- Complete surveys: SED and DES

Defense
- **Submit Warrant Request form to Grad Program Coordinator 3 weeks before exam**
- Public Presentation + Paper + Oral Exam

Deposit
- Follow Grad School formatting and deadline requirements and submit via ProQuest/UMI ETD Administrator

Final Steps
- Submit electronic pdf of paper and printed hardcopy(ies) to Grad Program Coordinator

Graduate!!

Enrollment Requirements

You are responsible for following Graduate School policies related to course enrollment requirements and limitations:

Minimum Enrollment Requirements
Enrollment requirements vary based on many different factors such as citizenship status, employment status (RA, TA, PA, self-funded, etc.), and academic term (beginning term, ending term, summer term). Please ensure you are appropriately enrolled following all Graduate School, employment, and visa requirements: https://policy.wisc.edu/library/UW-1208

Adding / Dropping Courses
grad.wisc.edu/documents/add-drop

Auditing Courses
policy.wisc.edu/library/UW-1224

Canceling Enrollment
grad.wisc.edu/documents/canceling-enrollment

Continuous Enrollment Requirement for Dissertators
policy.wisc.edu/library/UW-1204

Enrollment Accountability
grad.wisc.edu/documents/enrollment-accountability

Programmatic Enrollment Requirements
SOIL SCI 728 Graduate Seminar
All graduate students in the Department of Soil and Environmental Sciences are expected to enroll in SOIL SCI 728 Graduate Seminar each fall and spring term.

- MS students must give at least one presentation in the class during their MS program. The topic of this presentation should be a topic of interest outside the scope of their research project.
- PhD students must give at least two presentations in the class during their PhD program. One of the presentations must be on the student's prospectus. The other presentation should be a topic of interest outside the scope of their research project.

Fall/Spring Enrollment Requirements
Any student on a paid appointment who receives tuition remission is asked to enroll in the maximum number of credits (15 cr.) each fall and spring, and 2 credits of during the summer's DHH session (all 990 credits offered during the DHH summer session). Students who do not receive tuition remission should enroll in 8-15 credits during the fall and spring terms to maintain full-time status but are not required to enroll during the summer term. Follow the Graduate School's requirements if pursuing the degree on a part-time basis.

Academic Exception Petitions

Programmatic academic exceptions will require approval from the Department of Soil and Environmental Sciences Graduate Admissions and Certification Committee (GACC). Please contact the Graduate Program Coordinator to submit a request.

Review by GACC

Academic exceptions are considered on an individual, case-by-case basis and should not be considered a precedent. Deviations from normal progress are discouraged, but the program recognizes that there are in some cases extenuating academic and personal circumstances. Petitions for course exceptions/substitutions or exceptions to the Satisfactory Progress Expectations (academic or conduct) shall be directed to the Graduate Admissions and Certification Committee (GACC). The following procedures apply to all petitions:

1. The specific requirement/rule/expectation pertinent to the petition must be identified.
2. The student should complete a written amendment form (Appendix J).
3. The student's academic advisor must provide written support for the petition.
4. The completed Appendix J and the advisor's supporting statement should be forwarded to the Graduate Program Coordinator.
5. All course work substitutions and equivalencies will be decided by the GACC.

More generally, the Director of Graduate Studies, in consultation with the student's advisor, may grant extensions to normal progress requirements for students who face circumstances (similar to tenure extensions) as noted in university regulations. These include childbirth, adoption, significant responsibilities with respect to elder or dependent care obligations, disability or chronic illness, or circumstances beyond one's personal control. Where

warranted, the petition should provide good evidence of plans and ability to return to conformance with the standard and to acceptably complete the program. The normal extension will be between one and two semesters; anything beyond this will be granted only in the event of extraordinary circumstances. Extensions will be granted formally with a note of explanation to be placed in the student's file.

Keep in mind that some academic exceptions may need to be approved by the Graduate School. For further information about this, contact the Director of Academic Services and see the following webpage: grad.wisc.edu/documents/exceptions

Satisfactory Academic Progress

Your continuation as a graduate student at UW-Madison is at the discretion of your program, the Graduate School, and your faculty advisor. Any student may be placed on probation or dismissed from the Graduate School for not maintaining satisfactory academic progress, and this can impact your academic standing (detailed below), financial aid (see this policy page: policy.wisc.edu/library/UW-1040), or funding (consult your sources of funding, as applicable). Our program has its own definition of satisfactory academic progress and related procedures that supplement Graduate School policy, as described in this section.

Information about how the Graduate School determines satisfactory academic progress can be found at this policy page: policy.wisc.edu/library/UW-1218. The entire Graduate School Policy Library is available at: policy.wisc.edu and the Graduate School's Academic Policies and Procedures are available at: grad.wisc.edu/academic-policies.

In addition to the Graduate School's monitoring of satisfactory academic progress, this program regularly reviews the satisfactory academic progress of its students, defined as the following:

Academic Progress
Required courses in soil science must be completed with a grade of B or better (BC and C may not be offset by AB and A). For other courses, the program follows the grade requirements of the Graduate School (https://policy.wisc.edu/library/UW-1203). The Graduate Program Coordinator is responsible for conducting transcript/GPA reviews at the conclusion of an academic term.

Graduate Student Annual Reviews
All graduate students in the Soil Science graduate programs will be evaluated annually during the spring term. The department uses a standardized template (Appendix A) that allows the student and the advisor to share relevant information about successes, challenges, and future goal setting. Upon completing the written sections of the form (both student section and faculty advisor section) the department expects the student and advisor to meet and discuss the information shared by both parties.

Not Meeting Academic Expectations

Student progress is assessed at a number of points, including evaluation of academic progress (grades), as reviewed by the Graduate Program Coordinator and described above, annual reviews, as reviewed by the graduate student and advisor and described above, and the PhD exams described above. Students will typically also receive feedback from their committee about their progress at their annual meetings.

In addition to the responses to specific issues such as inadequate course grades or not passing exams, which are described above, a lack of satisfactory progress is typically identified by the student's advisor. The decision to dismiss a student for lack of satisfactory progress should be made by a committee comprised of the faculty advisor, the graduate admissions and certification committee, and the department chair. Typically, the advisor will present their rationale for this decision and will also explain how and when they discussed the developing lack of progress and communicated necessary actions to remedy this to the student before seeking a formal decision to dismiss the student. If the student is determined by the committee to have a lack of progress, they will be informed in a letter, including the rationale for this decision, and the proposed action, which may include dismissal or one semester of probation. If a student wishes to appeal any decision stemming from this review process, they can do so within 2 weeks of the date of the decision letter through submitting a letter to the chair and requesting a new hearing with the addition of a faculty member external to the original Steering Committee.

Professional Conduct

The Office of Student Conduct and Community Standards maintains detailed guidance on student rights and responsibilities related to learning in a community that is safe and fosters integrity and accountability. You are responsible for being aware of their policies and procedures, found at the following page: conduct.students.wisc.edu

Academic Misconduct

Academic misconduct is governed by state law, UW System Administration Code Chapter 14. For further information on this law, what constitutes academic misconduct, and procedures related to academic misconduct, see:

The Graduate School

Academic Policies & Procedures: Misconduct, Academic
grad.wisc.edu/documents/misconduct-academic

Office of Student Conduct and Community Standards

Academic Misconduct Website
conduct.students.wisc.edu/academic-misconduct

Academic Misconduct Flowchart
conduct.students.wisc.edu/documents/academic-misconduct-flow-chart

Non-Academic Misconduct

Non-academic misconduct is governed by state law, UW System Administration Code Chapters 17 and 18. For further information on these laws, what constitutes non-academic misconduct, and procedures related to non-academic misconduct, see:

The Graduate School

Academic Policies & Procedures: Misconduct, Non-Academic
grad.wisc.edu/documents/misconduct-nonacademic

Office for Student Conduct and Community Standards

Non-Academic Misconduct Website
conduct.students.wisc.edu/nonacademic-misconduct

University of Wisconsin System (UWS)

Chapter 17: Student Non-Academic Disciplinary Procedures
docs.legis.wisconsin.gov/code/admin_code/uws/17

Chapter 18: Conduct on University Lands
docs.legis.wisconsin.gov/code/admin_code/uws/18

Research Misconduct

Graduate students are held to the same standards of responsible conduct of research as faculty and staff. Further information about these standards and related policies and procedures can be found at:

The Graduate School

Academic Policies & Procedures: Responsible Conduct of Research
grad.wisc.edu/documents/responsible-conduct-of-research

Office of the Vice Chancellor for Research and Graduate Education

Research Policies
research.wisc.edu/compliance-policy

Hostile and Intimidating Behavior (Bullying)

Hostile and intimidating behavior (HIB), sometimes referred to as "bullying," is prohibited by university policy applicable to faculty, academic staff, and university staff. For further definition, policy, and procedures related to HIB see: hr.wisc.edu/hib. Students who feel they have been subject to HIB are encouraged to review the informal and formal options on the "Addressing HIB" tab of this website.

Grievance Process

Each college or program on campus has a grievance process that students can use to address other concerns regarding their experience in the program. This program's grievance process can be found detailed at:

UW-Madison Guide Soil Science MS Policies:
https://guide.wisc.edu/graduate/soil-environmental-sciences/soil-science-ms/#policiestext

UW-Madison Guide Soil Science PhD Policies:
https://guide.wisc.edu/graduate/soil-environmental-sciences/soil-science-phd/#policiestext

Process and Sanctions for Violations of Conduct Standards

In cases where conduct standards as described above are violated, the departmental Administrative Committee will determine appropriate disciplinary actions, which might include but are not limited to:

- Written reprimand
- Denial of specified privilege(s)
- Imposition of specific terms and conditions on continued student status
- Removal of funding
- Probation
- Restitution
- Removal of the student from the course(s) in progress
- Failure to promote
- Withdrawal of an offer of admission
- Placement on leave of absence for a determined amount of time
- Suspension from the program for up to one year with the stipulation that remedial activities may be prescribed as a condition of later readmission. Students who meet the readmission condition must apply for readmission and the student will be admitted only on a space-available basis. See the Graduate School policy on readmission: policy.wisc.edu/library/UW-1230.
- Suspension from the program, ranging from one semester to four years
- Dismissal from the program
- Denial of a degree

In addition to the program's disciplinary actions, the Dean of Students Office may also have grounds to issue one or more of the following:

- Reprimand
- Probation
- Suspension
- Expulsion
- Restitution
- A zero or failing grade on an assignment/exam
- A lower grade or failure in the course
- Removal from course
- Enrollment restrictions in a course/program
- Conditions/terms of continuing as a student

Incident Reporting (Hate, Bias, Sexual Assault, Hazing, Students of Concern, Bullying)

The Dean of Students Office maintains a portal to report incidents of hate, bias, sexual assault, hazing, dating/domestic violence, stalking, missing students, and students displaying other concerning behaviors at UW-Madison:

Dean of Students Incident Reporting
doso.students.wisc.edu/report-an-issue

As noted above in "Personal Conduct Expectations," students who feel they have been subject to hostile and/or intimidating behavior (i.e., bullying) are encouraged to review the informal and formal options for addressing this behavior (including filing complaints when desired) at:

Human Resources Hostile and Intimidating Behavior Website
hr.wisc.edu/hib

Funding, Employment, and Finances

"Funding" is a term used to describe university employment or support to cover some or all of your costs of graduate education. It varies in kind, amount, and level of guarantee. In Soil Science graduate research-based programs, students are typically fully funded at the departmental stipend rate for the full year as Research Assistants and/or Teaching Assistants. Examples of students who may be funded through other mechanisms might include those with military service benefits, foreign government scholarship/support, or in rare circumstances a self-funded student.

The Graduate School maintains policies related to graduate student funding/employment:

Maximum Levels of Appointments
grad.wisc.edu/documents/maximum-levels-of-appointments

Concurrent Appointments for Fellows/Trainees
grad.wisc.edu/documents/concurrent-appointments

Enrollment Requirements for Graduate Assistants
policy.wisc.edu/library/UW-1208

Eligibility for Summer RA, TA, PA, and LSA Appointments
policy.wisc.edu/library/UW-5089

Finding Funding Without a Guaranteed Appointment

Campus-Wide and External Sources

To help you find resources to pay for costs related to graduate education, the Graduate School provides a comprehensive overview of the funding process on campus as well as descriptions of the types of funding available, sources of funding, minimum stipend rates and benefits, and links to applicable human resources policies (e.g. GAPP) at:

Graduate School: Funding and Financial Aid
grad.wisc.edu/funding

External Fellowship Database
grad.wisc.edu/funding/external-fellowship-database

UW-Madison Libraries Grants Information Collection
library.wisc.edu/memorial/collections/grants-information-collection

Additional Policies & Resources

Graduate School Policy: Residence for Tuition Purposes
grad.wisc.edu/documents/residence-for-tuition-purposes

Employee Disability Resources
employeedisabilities.wisc.edu

Graduate Assistantship Policies and Procedures (GAPP)
hr.wisc.edu/policies/gapp

Professional Development

When you participate in professional development, you build skills needed to succeed academically and thrive in your career. The following are professional development activities that we recommend for your consideration. Required professional development will be detailed in “Degree Requirements” above.

On Campus

The Graduate School develops and curates a wide variety of resources for professional development, including a tool to assess your skills, set goals, and create a plan with recommended activities on campus (e.g., the popular “Individual Development Plan” or IDP) as well as programming to help you explore careers, prepare for a job search, build your network and learn from alumni, manage projects, communicate about your research, and much more.

DiscoverPD helps master’s and doctoral students at UW-Madison advance their academic and professional goals with customized recommendations based on a skills self-assessment. The 400+ professional development recommendations available in the DiscoverPD database are available in a range of formats to best meet your diverse needs, including in-person, virtual, asynchronous, and synchronous opportunities. All of this can be found at:

Professional Development from the Graduate School
grad.wisc.edu/professional-development

The Graduate School communicates professional development opportunities through an e-newsletter, *GradConnections*, that all graduate students receive at their wisc.edu email. Graduate students in traditional graduate degree programs receive the newsletter weekly during the academic year and every other week in the summer. Graduate students in online degree programs receive the newsletter every other week during the academic year and monthly during the summer.

In Our Program/Department

Additional opportunities for professional development in our department include the Graduate Student Council representatives, our departmental representative on the Plant Sciences Graduate Student Council, and Social organizers for the 728 seminar.

Resources and awards related to professional development include the Jaya G. Iyer Presentation Award in SOIL SCI 728, and departmental travel awards (Appendix K). The graduate school also offers travel and research-related awards: https://grad.wisc.edu/funding/grants-competition/. Students should also keep an eye out for travel or research presentation awards associated with conferences.

Appendices

Appendix A: Student-Advisor Progress Discussion
Appendix B: MS Program Requirements
Appendix C: MS Written Research Plan Request
Appendix D: MS Warrant Request
Appendix E: Department Bindery Request
Appendix F: PhD Program Requirements
Appendix G: PhD Breadth/Minor Agreement
Appendix H: PhD 799 Practicum in Soil Science Teaching
Appendix I: PhD Warrant Request (Prospectus, Preliminary, and Final Defense)
Appendix J: Planned Program Amendment Request
Appendix K: Travel Awards – Policy and Procedures

Department of Soil Science – Student-Advisor Progress Discussion

Student Name:
Advisor Name:
Co-Advisor Name (if applicable):
Graduate Program:
Date:

Student responses:
➢ What have I done well on or have accomplished in my research so far?
➢ What am I struggling to complete?
➢ What barriers are preventing me from accomplishing with which I struggle? (e.g., time, lack of proper resources or equipment, homework from courses, personal/family issues, lack of interest, medical condition, etc.)
➢ What skills, abilities, training, etc. do I need to acquire to become successful and meet project goals? (e.g., time management, organizational, scientific writing, etc.)
➢ What is a fair timeline for me to be successful and to meet project goals? (Be specific and list soft and firm deadlines as necessary)

Advisor's responses:
➢ What has the student done well or has accomplished in their research so far?
➢ What is the student struggling to complete?
➢ What barriers do you recognize as affecting the student's progress? (e.g., lack of time spent on research work, enrolling in too many classes, lack of proper resources or equipment, weather conditions affecting research, etc.)
➢ What skills, abilities, training, etc. does the student need to acquire to become successful and meet project goals? (e.g., time management, organizational, scientific writing, etc.)
➢ What is a fair timeline for the student to meet project goals and achieve success? (Be specific and list soft and firm deadlines as necessary)

Part 3: Overall assessment and goals for next year (to be completed together with the student and advisor):

Signatures

Student:

Major Advisor:

Date:

Master's of Soil Science

Written Research Plan Notification Form

Written Research Plan: Students are expected to present a written research plan to their committee *no later than the end of the third semester* of M.S. graduate work. The Written Research Plan normally includes the following: Title Page, Table of Contents, Introduction, Objectives, Review of Literature, Plan of Proposed Research (early research data showing the feasibility of the proposal is optional) and References. The maximum length of the Written Research Plan is 10 pages, double spaced. The bibliography does not count as part of the 10 pages.

Students will notify the graduate program manager 3 weeks prior to the written research plan committee meeting by completing and submitting this form. The student's committee members will be notified by the program manager with instructions on how to complete and sign the required approval document and student evaluation.

Student name _____

Date and time of Written Research Plan committee meeting _____

Title of Written Research Plan _____

Advisor name _____

Committee members' names, department or other affiliation, and email address

_____

_____

_____

_____

Please return this completed form to the Graduate Program Manager three weeks prior to the meeting.

Warrant Request Form (M.S. Soil Science)

Student Name _____ Campus ID: _____ Date of Exam: _____
First M.I. Last mm/dd/yyyy

Do you wish to use a preferred name instead of your legal name on the Warrant? □ Yes □ No
Do you need assistance in reserving a room for your presentation and/or oral exam? □ Yes □ No
If yes, please list the preferred rooms you would like me to try and reserve. There are no guarantees these rooms will be available. _____

Will you be continuing for a Ph.D. in this department? Check one: □ Yes □ No	Thesis/Independent Study Title:

Prior coursework (You may include up to 7 credits from a B.S. degree. Coursework listed will have been approved by the department's Graduate Admissions and Certification Committee at the time of the student's initial certification committee meeting.)

Term	Course #	Course Title	Grade	Credits

Committee Members

1. The committee must be comprised of at least three members.
2. Two of the committee members must be UW–Madison graduate faculty or former UW–Madison graduate faculty within one year of resignation or retirement. The Department of Soil Science stipulates that 2 members of the committee must be graduate faculty from its department demonstrating. Affiliate appointments may be used to satisfy these requirements. The department further stipulates that the three members comprise a defensible breadth of soil science and related knowledge.
3. The third member and any additional members may be from any of the following categories, as approved by the program executive committee (or its equivalent): graduate faculty, faculty from a department without a graduate program, academic staff (including emeritus faculty), visiting faculty, faculty from other institutions, scientists, research associates, and other individuals deemed qualified by the executive committee (or its equivalent).
4. All committee members have voting rights. To receive a master's degree, students cannot receive more than one dissenting vote from their committee on the final degree warrant.

Please list your committee members below. If any committee members are not UW-Madison employees, then please include their email address as well.

Name	Title	Department/Affiliation	Email address

Return this form to the Graduate Program Manager once it is completed and at least 3 weeks prior to the scheduled defense date.

DEPARTMENT OF SOIL SCIENCE BINDERY REQUESTS

General Bindery Information

Instructions: Complete this form. Provide the completed form and hard copies of the theses to Julie. Insert a sheet of colored paper between copies.

Current rates: about $14.00/copy ($12.00 for bindery, ~$2.00 for shipping to the department). This is for pick-up at the department office. If you need them sent to you, a quote for postage will be provided once the finished product is received.

Payment: you will be billed once the finished product arrives from the bindery. You may pay by cash or check (UW-Madison Dept. of Soil Science). Occasionally, faculty advisors may provide some funding towards bindery. If this is the case, the advisor must provide an account number.

Time: 4-6 weeks (I try to mail multiple orders at once to keep shipping charges low.)

Name: _____ M.S. _____ PhD _____

Email: _____ Phone: _____

Mailing address, if shipping to you is requested:
_____
_____
_____

Copies to order:

_____ Department library copy (required only for Soil Sci MS/PhD students (Black with gold stamping)

_____ Advisor copy –may be optional (Advisor's name: _____)
(Cover Color: _____ Stamping: Gold ___ Black ___ White ___)

_____ Personal copy (s)
(Cover Color: _____ Stamping: Gold ___ Black ___ White ___)

_____ Total # of copies to be ordered

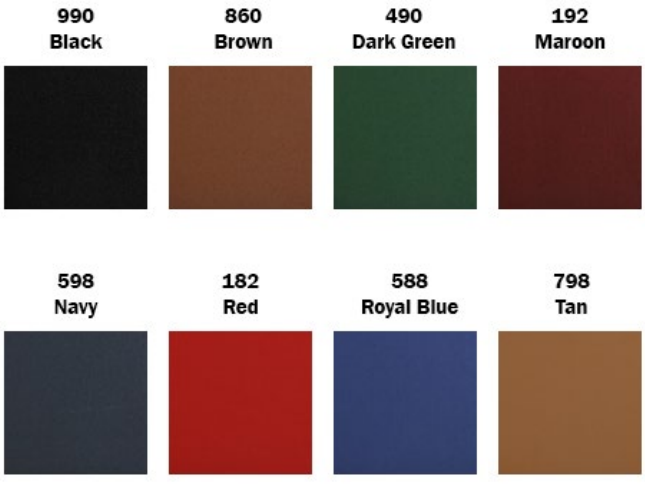
Payment Options:

_____ I will be paying with cash or check, including any shipping fees if necessary.

_____ My advisor will be paying
_____ partial
_____ full

The account number my advisor has agreed to charge for this payment:
_____.

Cover Color Options:



DOCTOR OF PHILOSOPHY
Major in Soil Science - Program Requirements

Student Name:		**Proposed Timeline for completion of PhD degree**	
Campus ID:		Program Start Date:	
SIS ID:		(By end of 1st Sem) Cert. Forms Approved:	
Email:		(By end of 3rd Sem) Prospectus Exam:	
Advisor:		(By end of 4th Sem) Preliminary Exam:	
Area of Research:		Final Defense Exam:	
		Note: Changes to timeline requires a written justification and GACC approval	

Academic History:	College or University	Major Subject & Degree earned	Degree	Date earned

Suggested Prior coursework:	Subject	Course taken	Cr.	Grade	Term taken	Institution
	Calculus I & II					
	Intro Stats					
	Gen. Chem.					
	Gen. Physics					
	Gen. Biology					

Required Courses: (Minimum of 51 credits required)	Course subject, number, & title	Cr.	Grade	Term Taken	Institution
	SOIL SCI 301 General Soil Science	3			
	SOIL SCI 302 Meet Your Soil Lab	1			
	Environmental Sci: SOIL SCI 324 -OR- SOIL SCI 327	3-4			
	Soil Physics: ATM OCN 532 -OR- SOIL SCI 622	3			
	Soil Chem: SOIL SCI 430 -OR- SOIL SCI 451[1] -OR- SOIL SCI 621 -OR- SOIL SCI 626 -OR- SOIL SCI 631	3			
	Soil Biology: SOIL SCI 451[1] -OR- SOIL SCI 523	3			
	[1] Students who take Soil Sci 451 Environmental Biogeochemistry may use the credits toward the Soil Chemistry requirement or the Soil Biology requirements, but it cannot count towards both categories.				
	Any subject, non-research credits and not fulfilling requirements above	6			
	SOIL SCI 728 Grad Seminar (Prospectus Presentation)	1		3rd semester	UW-Madison
	SOIL SCI 728 Grad Seminar (2nd presentation)	1			UW-Madison
	SOIL SCI 799 Practicum in Soil Science Teaching	1-3			
	SOIL SCI 990 Research	16		Every term	UW-Madison

Breadth Requirement Options - Select one. List named option if choosing Option A or C:			
	A. External Doctoral Minor		https://guide.wisc.edu/graduate/#doctoralminorstext
	B. Distributive Doctoral Minor	Min. of 9 credits in one or more programs forming a coherent topic and approved by GACC	
	C. Grad/Prof Certificate		https://guide.wisc.edu/graduate/#graduateprofessionalcertificatestext

Doctoral Committee Makeup: (Prospectus Exam & Final Defense Exam)	The Doctoral Committee, chosen by the student and major professor, is a committee of four or more members representing more than one graduate program, three of whom must be UW-Madison graduate faculty or former UW-Madison graduate faculty up to one year after resignation or retirement. At least one of the four members must be from outside of the student's major program or major field (often the minor field) and approved by the Certification Committee. A minimum of two must be from the Soil Science faculty. At least three committee members must be designated as readers. Representation of the Minor Department is at the option of the Minor Department, but the Department of Soil Science recommends that the Minor Professor be on the Committee. Members should represent a defensible breadth of knowledge in soil science and related fields.

Your Doctoral Committee::	**Role**	**Name**	**Title**	**Subject Area Expertise**	**Department/Institution/Agency**
	Major Prof.:				
	Major Prof. (if co-advised):				
	Minor Prof. (optional):				
	Soil Science Faculty:				
	Additional or Other:				
	Additional or Other:				
	Additional or Other:				

Prelim Exam Committee Makeup: (Prelim Exam)	The Preliminary Examination Committee, chosen by the student and major professor, is composed of four or more members representing more than one graduate program, three of whom must be UW-Madison graduate faculty or former UW-Madison graduate faculty up to one year after resignation or retirement. At least one of the four members must be from outside of the student's major program or major field (often the minor field) and approved by the Certification Committee. A minimum of two must be from the Soil Science faculty. The composition of this committee should include soil science faculty demonstrating a defensible breadth of knowledge since the Preliminary Examination is an oral exam on the student's general knowledge of soil science.

Your Preliminary Examination Committee:	**Role**	**Name**	**Title**	**Subject Area Expertise**	**Department/Institution/Agency**
	Major Prof.:				
	Major Prof. (if co-advised):				
	Minor Prof. (optional):				
	Soil Science Faculty:				
	Additional or Other:				
	Additional or Other:				
	Additional or Other:				

Certification of Documents

Approval of Academic Plan		**Approval of Committees**		**Approval of Teaching Practicum Plan**	
Advisor Signature	Date	Advisor Signature	Date	Advisor Signature	Date
Certification Committee Signature	Date	Certification Committee Signature	Date	Certification Committee Signature	Date
Certification Committee Signature	Date	Certification Committee Signature	Date	Certification Committee Signature	Date

UNOFFICIAL LOG - Student is responsible for verifying all minimum requirements of the Graduate School and Department are met.													
				Subject area elective courses									
Term	Course Subject, numbr and title	Credits	Grade	Env. Soil Science	Soil Physics	Soil Chem	Soil Biology	SOIL SCI 301 & 302	SOIL SCI 799	Minor	SOIL SCI 728	SOIL SCI 990 Research	Add'l non-rsrch crses
	Required:	51	3.00 GPA	3-4	3	3	3	4	1-3	9<	2	16	6
Sem & Yr	Completed:	0		0	0	0	0	0	0	0	0	0	0
	Sub Name + crse # Course Title												

DOCTOR OF PHILOSOPHY MINOR AGREEMENT FORM FOR SOIL SCIENCE MAJORS

Soil Science Program Requirements: All Soil Science PhD students must complete a breadth requirement with an External (named) minor, Distributed minor, or a Professional Certificate. Students should complete this form, or the required paperwork for an External minor or Professional Certificate, and return the complete form, with signatures, to the Soil Science Graduate Program Manager prior to completing the Graduate School Requirement.

Graduate School Requirement: All Graduate School students must utilize the Graduate Student Portal in MyUW to add, change, or discontinue any doctoral minor or graduate/professional certificate. To apply to this minor or a certificate, the Graduate School requires you to log in to MyUW, click on Graduate Student Portal, and then click on Add/Change Programs. Select the information for the doctoral minor or graduate/professional certificate for which you are applying.

Name:			
Student ID #:		**Date:**	

MINOR OPTION (choose one)

□ Option A – External*	Minor Name:
□ Option B – Distributed**	
□ Option C – Professional Certificate***	Certificate Name:

LIST MINOR COURSES

Department Name	Course Number	Course Title	Credits	Grade	Sem/Yr Taken

SIGNATURES

Option A – External – Option C – Professional Certificate

Major Professor Signature	Minor Professor Signature/Professional Certificate Signature
Major Professor Signature	Date Approved

Option B - Distributed

Major Professor Signature	Certification Committee Signature
Major Professor Signature	Certification Committee Signature
	Date Approved

***Option A – External**

Requires a minimum of 9 credits in a single department/major field of study. Selection of this option requires the approval of the minor department. If the minor department has a different form to complete, please use it and submit a signed copy of it to the Soil Science Graduate Coordinator.

****Option B – Distributed**

Requires a minimum of 9 credits in one or more departments and can include coursework in the major department. Selection of this option requires the approval of the major department.

*****Option C – Professional Certificate**

Requires successful completion of a Graduate/Professional certificate in a program outside of the student's doctoral major program.

SOIL SCI 799 Practicum in Soil Science Teaching

Ph.D. Soil Science students are required to complete a teaching practicum. Students may elect to enroll in 1-3 credits based on the amount of work they will conduct in the practicum.

The purpose of this practicum in Soil Science is to provide an opportunity for Ph.D. students to develop, practice, and refine their instructional skills in a traditional classroom setting or through outreach and extension activities. The specific learning outcomes of the practicum are to 1. develop a list of one or more learning outcomes for the activity consistent with a Backward Design model, 2. demonstrate mastery in the communication of soil science content using the modality appropriate to the chosen audience, 3. develop and execute an assessment plan to evaluate the learning outcomes, and 4. write a short (5 pages or less) metacognitive reflection paper (structure determined by student in conjunction with his/her major advisor) that demonstrates lessons learned from the activity.

The practicum experience must be supervised by a faculty member in the department. The major professor will typically serve in this supervisory role however another faculty member can serve as the direct supervisor as long as it is done in collaboration with the major professor. The specific practicum can include a variety of activities so long as it includes a teaching, extension or outreach motif and is consistent with the venue for delivery. The minimal level of effort expected per credit hour of the teaching practicum is 45 hours in a semester, including time spent during training, preparation, and evaluation.

It is strongly encouraged that the major professor and/or supervisor of the practicum provide timely and substantive feedback to the student following an activity. Specifically, the student should meet with their supervisor weekly to assess progress. Discuss the style, speed, preparedness, and thoroughness (clarity, depth, and accuracy) appropriate for the activity. Also discuss upcoming prepared activities, homework, assessments (both formative and summative) to determine clarity, depth, and accuracy of meeting the learning outcomes. The evaluation should be reasonable, explicit, written, and transparent to the student.

A written plan shall be prepared by the student in conjunction with his/her advisor and approved by the Certification Committee. The plan shall include the process/procedure for mentoring of the student, evaluation of their performance, and letter grade assignment.

The practicum should consist of four phases: 1. Instructional Orientation, 2. Direct Teaching Experience, 3. Experience in Testing and Evaluation of Students, and 4. Analysis of the Graduate Student's Performance.

Instructional Orientation

1. Students must enroll in and attend the CALS-CoE New Educator Orientation (NEO) training (https://ceete.engr.wisc.edu/ta-training/) prior to the start of either the Fall or Spring term.
2. Students must attend a campus Graduate Assistants Equity Workshop (https://diversity.wisc.edu/graduate-assistants-equity-workshops/) offered throughout the year.
3. If applicable, list additional experiences and training opportunities the PhD student has that have prepared them for the Teaching Practicum.

Directed Teaching Experience

Course Number and Name, or Outreach/Extension Activity: _____

Term: _____

Practicum credits (1 cr. equals to at least 45 hours of work): _____

Instructor of Record or person supervising Outreach/Extension Activity: _____

Supervisory Instructor for Practicum: _____

1. Identify the activity, objective(s), topic(s), and venue in which the Ph.D. student will be responsible for leading.
2. Plan, develop, and document learning outcomes of the instructional activity.
3. Develop an assessment plan to evaluate the learning outcomes.
4. Document an evaluation structure to assess the Ph.D. student's performance in the practicum.

Warrant Request Form

Student Name _____ Campus ID: _____ Date of Exam: _____
First M.I. Last mm/dd/yyyy

Do you wish to use a preferred name instead of your legal name on the Warrant? □ Yes □ No
Do you need assistance in reserving a room for your presentation and/or oral exam? □ Yes □ No
If yes, please list the preferred rooms you would like me to try and reserve. There are no guarantees these rooms will be available. _____

Check one: □ Prospectus Exam □ Preliminary Exam □ Final Defense Exam	Dissertation Title:

Prior coursework

1. Graduate credits earned at other institutions (max. 12 credits earned not more than 10 years ago)
2. Undergraduate credits earned at other institutions or UW-Madison (max. 7 credits earned not more than 10 years ago)

Term	Subject & Course #	Course Title	Grade	Credits

Committee members

1. The committee must be comprised of at least four members representing more than one UW-Madison graduate program. Affiliate appointments may be used to satisfy this requirement.
2. Three of the committee members must be UW-Madison graduate faculty or former UW-Madison graduate faculty within one year of resignation or retirement.
3. At least three of the committee members will be designated as readers
4. The fourth member and any additional members may be from any of the following categories, as approved by the program's executive committee (or its equivalent): graduate faculty, faculty from a department without a graduate program, academic staff (including emeritus faculty), visiting faculty, faculty from other institutions, scientists, research associates, and other individuals deemed qualified by the executive committee (or its equivalent).
5. All committee members have voting rights. To receive a doctoral degree, students cannot receive more than one dissenting vote from their committee on the final degree warrant.
6. The Department of Soil and Environmental Sciences stipulates that 2 members of the committee must be graduate faculty from its department and show defensible breadth. Affiliate appointments may be used to satisfy these requirements.

Your committee

Name	Title	Department/Affiliation	Email address

Return the completed form to the Graduate Program Manager at least 3 weeks prior to the defense date.

Amendment Request Form

Student Name _____ Campus ID: _____ Date: _____
First M.I. Last

Type of change being requested:

□ Committee makeup
□ Course requirement
□ Practicum in Teaching Soil Science
□ Breadth requirements
□ Timeline

Please describe briefly your current plan, outline the changes you wish to make, and provide your rationale for making this request in the space provided below.

_____	_____	_____	_____
Major Professor Signature	Date	Certification Committee Signature	Date
_____	_____	_____	_____
Minor Advisor Signature (if needed)	Date	Certification Committee Signature	Date

Appendix K

Administration Committee Approved
May 10, 2024
October 8, 2021
April 5, 2017
Revised September 14, 2018

DEPARTMENT OF SOIL SCIENCE TRAVEL AWARDS

FUNDING

The Department of Soil Science has a limited amount of funds to partially support soil science graduate and undergraduate student travel to professional meetings, such as (but not limited to) the annual Soil Science Society of America, Pedometrics, etc. Travel within the United States and Canada are awarded $1,000. Travel outside of the US and Canada are awarded $1,500.

ELIGIBILITY

Master's students advised by Soil Science faculty are eligible to receive up to 2 travel awards and PhD students are eligible to receive up to 4 travel awards during their course of study regardless of whether requests are domestic or international. The Administrative Committee reserves the right to consider exceptions to any of these guidelines based on individual specific request needs. Priority for awards will be:

- students who are giving a scientific paper
- group travel involving shared accommodations
- students in later rather than beginning stages of their research
- students who have not received travel awards previously
- matching research project funds

Students may apply at any time during the year, but the request must be made at least three weeks before the scheduled trip. To apply for an award, submit a written request (email is acceptable) addressing the priorities listed above to Carol Duffy (cjduffy@wisc.edu). Students submitting a request must include a note or statement from their advisor supporting the travel and verifying matching contributions.

Department of Soil Science – Student-Advisor Progress Discussion

Student Name:
Advisor Name:
Co-Advisor Name (if applicable):
Graduate Program:
Date:

Student responses:
➢ What have I done well on or have accomplished in my research so far?
➢ What am I struggling to complete?
➢ What barriers are preventing me from accomplishing with which I struggle? (e.g., time, lack of proper resources or equipment, homework from courses, personal/family issues, lack of interest, medical condition, etc.)
➢ What skills, abilities, training, etc. do I need to acquire to become successful and meet project goals? (e.g., time management, organizational, scientific writing, etc.)
➢ What is a fair timeline for me to be successful and to meet project goals? (Be specific and list soft and firm deadlines as necessary)

Advisor's responses:
➢ What has the student done well or has accomplished in their research so far?
➢ What is the student struggling to complete?
➢ What barriers do you recognize as affecting the student's progress? (e.g., lack of time spent on research work, enrolling in too many classes, lack of proper resources or equipment, weather conditions affecting research, etc.)
➢ What skills, abilities, training, etc. does the student need to acquire to become successful and meet project goals? (e.g., time management, organizational, scientific writing, etc.)
➢ What is a fair timeline for the student to meet project goals and achieve success? (Be specific and list soft and firm deadlines as necessary)

Part 3: Overall assessment and goals for next year (to be completed together with the student and advisor):

Signatures

Student:

Major Advisor:

Date:

MASTER OF SCIENCE
Major in Soil Science - Program Requirements

Student Name:		**Examination Committee**		
Research Focus Area:		**Member**	**Title and Area of Specialization**	**Department or Affiliation**
Campus ID:				
SIS ID:				
Email:				
Advisor:				

Academic History:	**College or University**	**Major Subject & Degree earned**	**Degree**	**Date earned**

Timeline:

Program Start Date:		
Certification Forms Approved:		(Must be approved by the end of the 1st semester)
Written Research Plan:		(Must be completed by the end of the 3rd semester)
Final Exam:		

Recommended Prior coursework:

Subject	**Course completed**	**Credits**	**Grade**	**Term taken**	**Institution**
Calculus					
Intro Stats					
Gen. Chem.					
Gen. Physics					
Gen. Biology					

Required Courses:

Course subject, number, & title	**Credits**	**Grade**	**Term Taken**	**Institution**
SOIL SCI 301 General Soil Science	3			
SOIL SCI 302 Meet Your Soil Lab	1			
SOIL SCI 728 Graduate Seminar	4		Every Fall/Spring term	UW-Madison
SOIL SCI 990 Research	1		Every term (1-12 credits)	UW-Madison

Elective Courses:
Complete one course from 4 of the 5 subject areas (min. 15 cr.)

UW Courses	**Credits**	**Grade**	**Course Taken**	**Term Taken**	**Institution**
Soil Physics: ATM OCN 532 -OR- SOIL SCI 622					
Soil Chemistry: SOIL SCI 321 -OR- SOIL SCI 451[1] -OR- SOIL SCI 621 -OR- SOIL SCI 626					
Soil Biology: SOIL SCI 323 -OR- SOIL SCI 451[1] -OR- SOIL SCI 523					
Soil Fertility: SOIL SCI 326					
Env. Soil Sci: SOIL SCI 324 -OR- SOIL SCI 327					

[1] *Students who take Soil Sci 451 Environmental Biogeochemistry may use the credits toward the Soil Chemistry requirement or the Soil Biology requirements, but it cannot count towards both categories.*

Additional:
6 cr.,500-level+, non-research, & not completed courses above)

Course subject, number, & title	**Credits**	**Grade**		**Term Taken**	**Institution**

UNOFFICIAL LOG - Student is responsible for verifying all minimum requirements of the Graduate School and Department are met.

Requirements: Min. Grad Coursework (50%) Min. Grad Degree Credit Min. Grad Residence Cr. Program Requirements

Term	Course Subject, numbr and title	Credits	Grade	Subject area elective courses List area (Soil Physics, Soil Chem, etc.)					SOIL SCI 301 & 302	SOIL SCI 728 Seminar	SOIL SCI 990 Research	Add'l non-research cr. not counted elsewhere
				Soil Physics	Soil Chem	Soil Biology	Soil Fertility	Env. Soil Science				
Fall/Spr/Sum and Year	Required:	30	3.00 GPA	15 minimum					4	1	4	6
	Completed:	0		0	0	0	0	0	0	0	0	0

Master's of Soil Science

Written Research Plan Notification Form

Written Research Plan: Students are expected to present a written research plan to their committee *no later than the end of the third semester* of M.S. graduate work. The Written Research Plan normally includes the following: Title Page, Table of Contents, Introduction, Objectives, Review of Literature, Plan of Proposed Research (early research data showing the feasibility of the proposal is optional) and References. The maximum length of the Written Research Plan is 10 pages, double spaced. The bibliography does not count as part of the 10 pages.

Students will notify the graduate program manager 3 weeks prior to the written research plan committee meeting by completing and submitting this form. The student's committee members will be notified by the program manager with instructions on how to complete and sign the required approval document and student evaluation.

Student name _____

Date and time of Written Research Plan committee meeting _____

Title of Written Research Plan _____

Advisor name _____

Committee members' names, department or other affiliation, and email address

_____

_____

_____

_____

Please return this completed form to the Graduate Program Manager three weeks prior to the meeting.

Warrant Request Form (M.S. Soil Science)

Student Name _____ Campus ID: _____ Date of Exam: _____
First M.I. Last mm/dd/yyyy

Do you wish to use a preferred name instead of your legal name on the Warrant? □ Yes □ No
Do you need assistance in reserving a room for your presentation and/or oral exam? □ Yes □ No
If yes, please list the preferred rooms you would like me to try and reserve. There are no guarantees these rooms will be available. _____

Will you be continuing for a Ph.D. in this department? Check one: □ Yes □ No	Thesis/Independent Study Title:

Prior coursework (You may include up to 7 credits from a B.S. degree. Coursework listed will have been approved by the department's Graduate Admissions and Certification Committee at the time of the student's initial certification committee meeting.)

Term	Course #	Course Title	Grade	Credits

Committee Members

1. The committee must be comprised of at least three members.
2. Two of the committee members must be UW–Madison graduate faculty or former UW–Madison graduate faculty within one year of resignation or retirement. The Department of Soil Science stipulates that 2 members of the committee must be graduate faculty from its department demonstrating. Affiliate appointments may be used to satisfy these requirements. The department further stipulates that the three members comprise a defensible breadth of soil science and related knowledge.
3. The third member and any additional members may be from any of the following categories, as approved by the program executive committee (or its equivalent): graduate faculty, faculty from a department without a graduate program, academic staff (including emeritus faculty), visiting faculty, faculty from other institutions, scientists, research associates, and other individuals deemed qualified by the executive committee (or its equivalent).
4. All committee members have voting rights. To receive a master's degree, students cannot receive more than one dissenting vote from their committee on the final degree warrant.

Please list your committee members below. If any committee members are not UW-Madison employees, then please include their email address as well.

Name	Title	Department/Affiliation	Email address

Return this form to the Graduate Program Manager once it is completed and at least 3 weeks prior to the scheduled defense date.

DEPARTMENT OF SOIL SCIENCE BINDERY REQUESTS

General Bindery Information

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Current rates: about $14.00/copy ($12.00 for bindery, ~$2.00 for shipping to the department). This is for pick-up at the department office. If you need them sent to you, a quote for postage will be provided once the finished product is received.

Payment: you will be billed once the finished product arrives from the bindery. You may pay by cash or check (UW-Madison Dept. of Soil Science). Occasionally, faculty advisors may provide some funding towards bindery. If this is the case, the advisor must provide an account number.

Time: 4-6 weeks (I try to mail multiple orders at once to keep shipping charges low.)

Name: _____ M.S. _____ PhD _____

Email: _____ Phone: _____

Mailing address, if shipping to you is requested:
_____
_____
_____

Copies to order:

_____ Department library copy (required only for Soil Sci MS/PhD students (Black with gold stamping)

_____ Advisor copy –may be optional (Advisor's name: _____)
(Cover Color: _____ Stamping: Gold ___ Black ___ White ___)

_____ Personal copy (s)
(Cover Color: _____ Stamping: Gold ___ Black ___ White ___)

_____ Total # of copies to be ordered

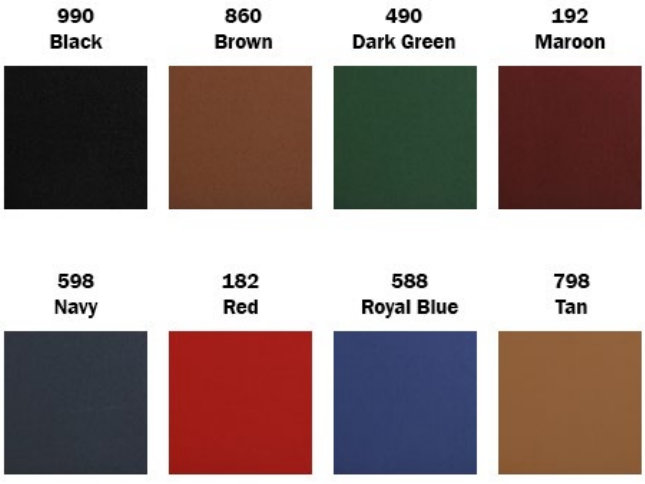
Payment Options:

_____ I will be paying with cash or check, including any shipping fees if necessary.

_____ My advisor will be paying
_____ partial
_____ full

The account number my advisor has agreed to charge for this payment:
_____.

Cover Color Options:



DOCTOR OF PHILOSOPHY
Major in Soil Science - Program Requirements

Student Name:		**Proposed Timeline for completion of PhD degree**	
Campus ID:		Program Start Date:	
SIS ID:		(By end of 1st Sem) Cert. Forms Approved:	
Email:		(By end of 3rd Sem) Prospectus Exam:	
Advisor:		(By end of 4th Sem) Preliminary Exam:	
Area of Research:		Final Defense Exam:	
		Note: Changes to timeline requires a written justification and GACC approval	

Academic History:	College or University	Major Subject & Degree earned	Degree	Date earned

Suggested Prior coursework:	Subject	Course taken	Cr.	Grade	Term taken	Institution
	Calculus I & II					
	Intro Stats					
	Gen. Chem.					
	Gen. Physics					
	Gen. Biology					

Required Courses: (Minimum of 51 credits required)	Course subject, number, & title	Cr.	Grade	Term Taken	Institution
	SOIL SCI 301 General Soil Science	3			
	SOIL SCI 302 Meet Your Soil Lab	1			
	Environmental Sci: SOIL SCI 324 -OR- SOIL SCI 327	3-4			
	Soil Physics: ATM OCN 532 -OR- SOIL SCI 622	3			
	Soil Chem: SOIL SCI 430 -OR- SOIL SCI 451[1] -OR- SOIL SCI 621 -OR- SOIL SCI 626 -OR- SOIL SCI 631	3			
	Soil Biology: SOIL SCI 451[1] -OR- SOIL SCI 523	3			
	[1] Students who take Soil Sci 451 Environmental Biogeochemistry may use the credits toward the Soil Chemistry requirement or the Soil Biology requirements, but it cannot count towards both categories.				
	Any subject, non-research credits and not fulfilling requirements above	6			
	SOIL SCI 728 Grad Seminar (Prospectus Presentation)	1		3rd semester	UW-Madison
	SOIL SCI 728 Grad Seminar (2nd presentation)	1			UW-Madison
	SOIL SCI 799 Practicum in Soil Science Teaching	1-3			
	SOIL SCI 990 Research	16		Every term	UW-Madison

Breadth Requirement Options - Select one. List named option if choosing Option A or C:			
	A. External Doctoral Minor		https://guide.wisc.edu/graduate/#doctoralminorstext
	B. Distributive Doctoral Minor	Min. of 9 credits in one or more programs forming a coherent topic and approved by GACC	
	C. Grad/Prof Certificate		https://guide.wisc.edu/graduate/#graduateprofessionalcertificatestext

Doctoral Committee Makeup: (Prospectus Exam & Final Defense Exam)	The Doctoral Committee, chosen by the student and major professor, is a committee of four or more members representing more than one graduate program, three of whom must be UW-Madison graduate faculty or former UW-Madison graduate faculty up to one year after resignation or retirement. At least one of the four members must be from outside of the student's major program or major field (often the minor field) and approved by the Certification Committee. A minimum of two must be from the Soil Science faculty. At least three committee members must be designated as readers. Representation of the Minor Department is at the option of the Minor Department, but the Department of Soil Science recommends that the Minor Professor be on the Committee. Members should represent a defensible breadth of knowledge in soil science and related fields.

Your Doctoral Committee::	**Role**	**Name**	**Title**	**Subject Area Expertise**	**Department/Institution/Agency**
	Major Prof.:				
	Major Prof. (if co-advised):				
	Minor Prof. (optional):				
	Soil Science Faculty:				
	Additional or Other:				
	Additional or Other:				
	Additional or Other:				

Prelim Exam Committee Makeup: (Prelim Exam)	The Preliminary Examination Committee, chosen by the student and major professor, is composed of four or more members representing more than one graduate program, three of whom must be UW-Madison graduate faculty or former UW-Madison graduate faculty up to one year after resignation or retirement. At least one of the four members must be from outside of the student's major program or major field (often the minor field) and approved by the Certification Committee. A minimum of two must be from the Soil Science faculty. The composition of this committee should include soil science faculty demonstrating a defensible breadth of knowledge since the Preliminary Examination is an oral exam on the student's general knowledge of soil science.

Your Preliminary Examination Committee:	**Role**	**Name**	**Title**	**Subject Area Expertise**	**Department/Institution/Agency**
	Major Prof.:				
	Major Prof. (if co-advised):				
	Minor Prof. (optional):				
	Soil Science Faculty:				
	Additional or Other:				
	Additional or Other:				
	Additional or Other:				

Certification of Documents

Approval of Academic Plan		**Approval of Committees**		**Approval of Teaching Practicum Plan**	
Advisor Signature	Date	Advisor Signature	Date	Advisor Signature	Date
Certification Committee Signature	Date	Certification Committee Signature	Date	Certification Committee Signature	Date
Certification Committee Signature	Date	Certification Committee Signature	Date	Certification Committee Signature	Date

UNOFFICIAL LOG - Student is responsible for verifying all minimum requirements of the Graduate School and Department are met.													
				Subject area elective courses									
Term	Course Subject, numbr and title	Credits	Grade	Env. Soil Science	Soil Physics	Soil Chem	Soil Biology	SOIL SCI 301 & 302	SOIL SCI 799	Minor	SOIL SCI 728	SOIL SCI 990 Research	Add'l non-rsrch crses
	Required:	51	3.00 GPA	3-4	3	3	3	4	1-3	9<	2	16	6
Sem & Yr	Completed:	0		0	0	0	0	0	0	0	0	0	0
	Sub Name + crse # Course Title												

DOCTOR OF PHILOSOPHY MINOR AGREEMENT FORM FOR SOIL SCIENCE MAJORS

Soil Science Program Requirements: All Soil Science PhD students must complete a breadth requirement with an External (named) minor, Distributed minor, or a Professional Certificate. Students should complete this form, or the required paperwork for an External minor or Professional Certificate, and return the complete form, with signatures, to the Soil Science Graduate Program Manager prior to completing the Graduate School Requirement.

Graduate School Requirement: All Graduate School students must utilize the Graduate Student Portal in MyUW to add, change, or discontinue any doctoral minor or graduate/professional certificate. To apply to this minor or a certificate, the Graduate School requires you to log in to MyUW, click on Graduate Student Portal, and then click on Add/Change Programs. Select the information for the doctoral minor or graduate/professional certificate for which you are applying.

Name:			
Student ID #:		**Date:**	

MINOR OPTION (choose one)

□ Option A – External*	Minor Name:
□ Option B – Distributed**	
□ Option C – Professional Certificate***	Certificate Name:

LIST MINOR COURSES

Department Name	Course Number	Course Title	Credits	Grade	Sem/Yr Taken

SIGNATURES

Option A – External – Option C – Professional Certificate

Major Professor Signature	Minor Professor Signature/Professional Certificate Signature
Major Professor Signature	Date Approved

Option B - Distributed

Major Professor Signature	Certification Committee Signature
Major Professor Signature	Certification Committee Signature
	Date Approved

***Option A – External**

Requires a minimum of 9 credits in a single department/major field of study. Selection of this option requires the approval of the minor department. If the minor department has a different form to complete, please use it and submit a signed copy of it to the Soil Science Graduate Coordinator.

****Option B – Distributed**

Requires a minimum of 9 credits in one or more departments and can include coursework in the major department. Selection of this option requires the approval of the major department.

*****Option C – Professional Certificate**

Requires successful completion of a Graduate/Professional certificate in a program outside of the student's doctoral major program.

SOIL SCI 799 Practicum in Soil Science Teaching

Ph.D. Soil Science students are required to complete a teaching practicum. Students may elect to enroll in 1-3 credits based on the amount of work they will conduct in the practicum.

The purpose of this practicum in Soil Science is to provide an opportunity for Ph.D. students to develop, practice, and refine their instructional skills in a traditional classroom setting or through outreach and extension activities. The specific learning outcomes of the practicum are to 1. develop a list of one or more learning outcomes for the activity consistent with a Backward Design model, 2. demonstrate mastery in the communication of soil science content using the modality appropriate to the chosen audience, 3. develop and execute an assessment plan to evaluate the learning outcomes, and 4. write a short (5 pages or less) metacognitive reflection paper (structure determined by student in conjunction with his/her major advisor) that demonstrates lessons learned from the activity.

The practicum experience must be supervised by a faculty member in the department. The major professor will typically serve in this supervisory role however another faculty member can serve as the direct supervisor as long as it is done in collaboration with the major professor. The specific practicum can include a variety of activities so long as it includes a teaching, extension or outreach motif and is consistent with the venue for delivery. The minimal level of effort expected per credit hour of the teaching practicum is 45 hours in a semester, including time spent during training, preparation, and evaluation.

It is strongly encouraged that the major professor and/or supervisor of the practicum provide timely and substantive feedback to the student following an activity. Specifically, the student should meet with their supervisor weekly to assess progress. Discuss the style, speed, preparedness, and thoroughness (clarity, depth, and accuracy) appropriate for the activity. Also discuss upcoming prepared activities, homework, assessments (both formative and summative) to determine clarity, depth, and accuracy of meeting the learning outcomes. The evaluation should be reasonable, explicit, written, and transparent to the student.

A written plan shall be prepared by the student in conjunction with his/her advisor and approved by the Certification Committee. The plan shall include the process/procedure for mentoring of the student, evaluation of their performance, and letter grade assignment.

The practicum should consist of four phases: 1. Instructional Orientation, 2. Direct Teaching Experience, 3. Experience in Testing and Evaluation of Students, and 4. Analysis of the Graduate Student's Performance.

Instructional Orientation

1. Students must enroll in and attend the CALS-CoE New Educator Orientation (NEO) training (https://ceete.engr.wisc.edu/ta-training/) prior to the start of either the Fall or Spring term.
2. Students must attend a campus Graduate Assistants Equity Workshop (https://diversity.wisc.edu/graduate-assistants-equity-workshops/) offered throughout the year.
3. If applicable, list additional experiences and training opportunities the PhD student has that have prepared them for the Teaching Practicum.

Directed Teaching Experience

Course Number and Name, or Outreach/Extension Activity: _____

Term: _____

Practicum credits (1 cr. equals to at least 45 hours of work): _____

Instructor of Record or person supervising Outreach/Extension Activity: _____

Supervisory Instructor for Practicum: _____

1. Identify the activity, objective(s), topic(s), and venue in which the Ph.D. student will be responsible for leading.
2. Plan, develop, and document learning outcomes of the instructional activity.
3. Develop an assessment plan to evaluate the learning outcomes.
4. Document an evaluation structure to assess the Ph.D. student's performance in the practicum.

Warrant Request Form

Student Name _____ Campus ID: _____ Date of Exam: _____
First M.I. Last mm/dd/yyyy

Do you wish to use a preferred name instead of your legal name on the Warrant? □ Yes □ No
Do you need assistance in reserving a room for your presentation and/or oral exam? □ Yes □ No
If yes, please list the preferred rooms you would like me to try and reserve. There are no guarantees these rooms will be available. _____

Check one: □ Prospectus Exam □ Preliminary Exam □ Final Defense Exam	Dissertation Title:

Prior coursework

1. Graduate credits earned at other institutions (max. 12 credits earned not more than 10 years ago)
2. Undergraduate credits earned at other institutions or UW-Madison (max. 7 credits earned not more than 10 years ago)

Term	Subject & Course #	Course Title	Grade	Credits

Committee members

1. The committee must be comprised of at least four members representing more than one UW-Madison graduate program. Affiliate appointments may be used to satisfy this requirement.
2. Three of the committee members must be UW-Madison graduate faculty or former UW-Madison graduate faculty within one year of resignation or retirement.
3. At least three of the committee members will be designated as readers
4. The fourth member and any additional members may be from any of the following categories, as approved by the program's executive committee (or its equivalent): graduate faculty, faculty from a department without a graduate program, academic staff (including emeritus faculty), visiting faculty, faculty from other institutions, scientists, research associates, and other individuals deemed qualified by the executive committee (or its equivalent).
5. All committee members have voting rights. To receive a doctoral degree, students cannot receive more than one dissenting vote from their committee on the final degree warrant.
6. The Department of Soil and Environmental Sciences stipulates that 2 members of the committee must be graduate faculty from its department and show defensible breadth. Affiliate appointments may be used to satisfy these requirements.

Your committee

Name	Title	Department/Affiliation	Email address

Return the completed form to the Graduate Program Manager at least 3 weeks prior to the defense date.

Amendment Request Form

Student Name _____ Campus ID: _____ Date: _____
First M.I. Last

Type of change being requested:

□ Committee makeup
□ Course requirement
□ Practicum in Teaching Soil Science
□ Breadth requirements
□ Timeline

Please describe briefly your current plan, outline the changes you wish to make, and provide your rationale for making this request in the space provided below.

_____	_____	_____	_____
Major Professor Signature	Date	Certification Committee Signature	Date
_____	_____	_____	_____
Minor Advisor Signature (if needed)	Date	Certification Committee Signature	Date

Appendix K

Administration Committee Approved
May 10, 2024
October 8, 2021
April 5, 2017
Revised September 14, 2018

DEPARTMENT OF SOIL SCIENCE TRAVEL AWARDS

FUNDING

The Department of Soil Science has a limited amount of funds to partially support soil science graduate and undergraduate student travel to professional meetings, such as (but not limited to) the annual Soil Science Society of America, Pedometrics, etc. Travel within the United States and Canada are awarded $1,000. Travel outside of the US and Canada are awarded $1,500.

ELIGIBILITY

Master's students advised by Soil Science faculty are eligible to receive up to 2 travel awards and PhD students are eligible to receive up to 4 travel awards during their course of study regardless of whether requests are domestic or international. The Administrative Committee reserves the right to consider exceptions to any of these guidelines based on individual specific request needs. Priority for awards will be:

- students who are giving a scientific paper
- group travel involving shared accommodations
- students in later rather than beginning stages of their research
- students who have not received travel awards previously
- matching research project funds

Students may apply at any time during the year, but the request must be made at least three weeks before the scheduled trip. To apply for an award, submit a written request (email is acceptable) addressing the priorities listed above to Carol Duffy (cjduffy@wisc.edu). Students submitting a request must include a note or statement from their advisor supporting the travel and verifying matching contributions.