Forest Resources (MFR, MS, PhD); Wildlife and Fisheries Biology (MWFR, MS, PhD)

Graduate Student Handbook 2022-2023

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Clemson® University

DEPARTMENT OF FORESTRY AND ENVIRONMENTAL CONSERVATION

261 Lehotsky Hall, Clemson, SC 29634-0317 864-656-3302 <u>clemson.edu/fec</u>



Clemson Graduate School Information

These guidelines supplement the current version of the <u>Clemson University Graduate School Policy</u> Handbook (https://www.clemson.edu/graduate/students/policies-procedures/index.html)

The policies and procedures of the Graduate School have been established to ensure that a consistent set of standards are followed from the admissions process all the way through to the awarding of degrees for every Graduate School program.

Graduate School Forms

(https://www.clemson.edu/graduate/students/forms.html)

Graduate School Deadlines

(https://www.clemson.edu/graduate/students/deadlines.html)

Overview of Programs

The Department of Forestry and Environmental Conservation contains two graduate programs, Forest Resources and Wildlife and Fisheries Biology. Each of these programs offers three degrees. Within Forest Resources, students may pursue a Master of Forest Resources (MFR, non-thesis), a Master of Science (MS), or a Doctor of Philosophy (PhD). Within Wildlife and Fisheries Biology, students may pursue a Master of Wildlife and Fisheries Resources (MWFR, non-thesis), a Master of Science (MS), or a Doctor of Philosophy (PhD).

A Forest Resources degree from Clemson is designed to provide students with advanced training for scientific-based management of forest resources, products, and services. Graduates from the program are working in both private and public spheres to help ensure sustainability and quality of resources including timber, water, and recreational value on natural lands.

A degree in Wildlife and Fisheries Biology provides students with advanced training for scientific-based management of wildlife and fisheries populations, their habitats, and broader ecological communities. Our graduate program provides students with the understanding and technical skills to contribute to management and conservation. Graduates from the program have advanced to careers in the areas of environmental consulting, international conservation efforts, state and federal natural resource agencies, and environmental education.

Goal

The goal of the graduate programs in Forestry and Environmental Conservation is to offer advanced training for scientific management and conservation in areas related to natural resources. Graduates will gain the technical skills required to identify, articulate, and solve problems associated with natural resources – especially as it relates to the interface between aquatic or terrestrial systems and human influence on those systems.

What FEC graduates do

Areas of specialization within our department's graduate degrees are aligned with those of the student's major advisor. The most common areas of specialization include research topics in:

- Aquatic ecology and aquatic resource management
- Community ecology
- Conservation biology
- Ecosystem processes
- Fisheries ecology
- Forest ecology
- Forest health
- Forest operations

- Human dimensions of natural resources
- Natural resource economics
- Population biology
- Silviculture
- Soil science
- Wetland ecology
- Water quality
- Wildlife ecology

Professional Licensure

No professional licensure applies to the Graduate Programs in FEC. Students do have access to courses that will lead to certification by several natural resource-related organizations such as Society of American Foresters, American Fisheries Society, and The Wildlife Society.

Approved Locations and Modalities of Delivery

The Master of Wildlife and Fisheries Resources degree is approved for both online and traditional (face-to-face) delivery of content. All other degrees in the department are only approved for traditional content delivery; however, some courses that contribute to degree requirements may be taken online with consent of the instructor and approval by the student's Advisory Committee.

Research credits can be completed on the main campus, Research and Education Centers, or at other locations approved by the Advisory Committee.

Cohort information

No cohort information applies to the FEC Graduate Programs.

Basic Program Metrics

Typical time to degree (approximate; depends on student project and performance):

Contact Information for Graduate Program Information

Ms. Alexis Jennings
Student Services Coordinator
261 Lehotsky Hall (mail)
253 Lehotsky Hall (office)
Phone: 864-656-1645
award7@clemson.edu

Dr. Thea Hagan
Program Director of Online MWFR Program
261 Lehotsky Hall (mail)
245 Lehotsky Hall (office)
Phone: 864-656-4823
shotali@clemson.edu

Dr. Patrick Jodice Professor

pjodice@clemson.edu

Leader SC Cooperative Research Unit Graduate Program Chair 261 Lehotsky Hall (mail) 238 Lehotsky Hall (office) Phone: 864-656-6190

General Departmental Information

Department Chair: Dr. Todd Petty (<u>itpetty@clemson.edu</u>), 261 Lehotsky Hall, 656-3302 **Administrative Assistant to the Department Chair:** Ms. Sandi Priddy (<u>priddy@clemson.edu</u>), 261 Lehotsky Hall, 656-3302

Contacts for common issues:

Human Resources Paperwork: Ms. Jennifer Hooper (<u>jthoope@clemson.edu</u>), 106 Poole Agricultural Center (P&A), 656-0626

Business Office (submission of receipts and reimbursement forms): Ms. Amanda Massey (admasse@clemson.edu), 272E Lehotsky Hall, 656-9883

Grants: Ms. Angie Harris (harris2@clemson.edu), 105 Poole Agricultural Center (P&A), 656-7627 **FEC Motor Pool:** Mr. Bruce Kesler (bkesler@clemson.edu), 272F Lehotsky Hall, 656-8589

Department number: 0317

The iROAR major codes are as follows:

MFR-FORR-A Master of Forest Resources
MS-FORR-A MS Forest Resources
PHD-FORR-A PhD Forest Resources

MWFR-WFR-A Master of Wildlife and Fisheries Resources (on-campus)
MWFR-WFR-A-AAC Master of Wildlife and Fisheries Resources (online)
MS-WFBL-A MS Wildlife and Fisheries Biology
PHD-WFBL-A PhD Wildlife and Fisheries Biology

Advisory Board

There is no Advisory Board for the Graduate Programs in FEC.

Admission Requirements

Requirements (in addition to Graduate School requirements)

A Bachelor of Science in a field related to natural sciences is desired, but not required, for all FEC Graduate Programs. The Graduate Record Examination (GRE) is not required but will offer an additional source for applicant evaluation. The GRE is encouraged for those applicants with bachelor's degrees unrelated to natural resources, or for applicants with a low GPA. Typically, international students are requested to demonstrate English proficiency by means of standardized test scores, such as TOEFL, but other means as detailed in the Graduate School Policy Handbook are also acceptable.

Academic records, standardized test scores, letters of recommendation, and personal statements are all important components of an application that are considered in granting admission. All applicants to any of our degree programs must have a faculty member that has expressed a willingness to serve as a Major Advisor for the student to be admitted. For students pursuing a Master of Wildlife and Fisheries Resources (MWFR), the MWFR Program Director, Dr. Thea Hagan, serves as default Major Advisor. Applicants to all other programs must identify or be placed with a suitable Major Advisor. Prospective applicants are encouraged to contact faculty directly to identify a suitable advisor prior to applying. A final recommendation for acceptance into one of our programs requires the concurrence of both the faculty member that will serve as Major Advisor and the Graduate Program Coordinator,

but since the faculty member serving as Major Advisor typically has more contact and detailed knowledge of the applicant, as well as being the one who will work most closely with the student, deference is given to their opinion.

Dates and deadlines

MWFR applicant deadline and suggested deadline for all domestic on-campus applicants

October 31 – spring entrance February 28 – summer entrance June 30 – fall entrance

International applicants (per Graduate School recommendations)

October 15 – spring entrance February 1 – summer entrance April 15 – fall entrance

Support Mechanisms

Most students in the department's on-campus graduate programs are supported by Graduate Research Assistantship (GRA). Generally, the GRA is derived from external sources of funding related to a specific project that the student will assist with while pursuing related research objectives.

Additionally, there are some Graduate Teaching Assistantships (GTA) available. The GTA is typically associated with a lab, and the student will be responsible for providing content delivery and general assistance to the instructor of record.

Both types of assistantships are only available through approval by a faculty member in the department who directly manages the external funding or acts as the instructor of record for a course with an available GTA. Final appointments must be approved by the department chair.

Some fellowships and awards are also available to assist with tuition or expenses (see "Assistantships" tab at the following link for a partial list: https://www.clemson.edu/cafls/forestry-environmental-conservation/students/graduate.html). Tuition and fees can be found using the University's tuition and fee calculator.

Appointment standards for Graduate Assistantships:

- Graduate assistants are granted partial remission of tuition.
- Research assistantships are provided from the major advisor's grants or department funds, as available.
- A research assistantship includes project deliverables as specified by sponsor agreements,
 which are the responsibility of the student and his or her adviser to address.

- Partial or full teaching assistantships may be provided. TAs should be provided to students
 who can teach effectively.
- For all students on assistantship, minimum enrollment is 9 hours per semester during the
 academic year and 6 for full summer term. Minimum enrollment for students not on
 assistantship is 12 hours per semester during the academic year for full-time status. Graduate
 students who are Clemson employees should refer to the section entitled, Employees Enrolled
 in Graduate Degree Programs for work-graduate program.

Hours of work for Graduate Assistantships:

- Details specific to an individual's assistantship will be present in the letter of offer.
- Average work effort for a 0.5 FTE assistantship is 20 hours per week on research other than thesis or dissertation research.
- Holidays (spring break, fall break, Christmas holidays, etc.) are granted for graduate assistants; students are still responsible for meeting deadlines and expectations for project deliverables, regardless of holidays.
- Domestic students are limited to 28 hours per week from all jobs on campus during the fall, spring and summer semesters. International students are prohibited by Federal law (Federal Code CFR 214) from working more than 20 hours per week when school is in session (inclusive of total hours worked from all jobs held by the student on campus).
- Violation of the hourly limit by the student could lead to loss of future authorization to work in the USA and having to apply for reinstatement of student status. Violation of this hourly limit by the employer could lead to civil monetary fines and up to imprisonment.

A few fellowships or other merit-based scholarships are also available to be awarded on a competitive basis. Prospective advisors should inform students of these opportunities as appropriate.

- Fellowships awarded from sources inside or outside the Department may be given to graduate students, in addition to any previously promised or negotiated assistantship.
- Out-of-state tuition may be waived for non-resident students receiving a fellowship, but students pay full in-state tuition fees rather than the reduced rate paid by graduate assistantships.
- In some cases, the department may award fellowships under its control, in lieu of an assistantship.
- Several fellowships also are available to graduate students through the Graduate School and through the College of Agriculture, Forestry & Life Sciences. Deadlines for applying for these fellowships are usually in February.

Student Hourly Employment: If funds are available and the graduate student is enrolled for at least 3 credit hours during fall and spring and at least 1 credit hour during summer sessions, hourly employment is permitted in place of or in addition to an assistantship. As stated above, Domestic

students are limited to 28 hours per week from all jobs on campus during fall and spring semesters. International graduate students should review the section on "International Student Employment" in the Graduate School's Policies and Procedures manual for the current academic year, which contains information regarding hourly employment both on and off campus.

Fees

No Program-specific Fees apply to the Graduate Programs in FEC.

Transfer Credits

The Graduate Programs in FEC follow Graduate School guidelines for transfer credits.

Requirements for Degree

Minimum Degree Requirements

The minimum requirements for each of our degree programs are detailed below. Please note that your major advisor or Advisory Committee (AC) may, and often will, impose addition coursework requirements depending upon the educational background and the research emphasis of individual students. These will be specified in the Plan of Study – GS2 Form (see below).

- Master Wildlife and Fisheries Resources (non-thesis): Students must successfully
 complete at least 30 credit hours of graduate coursework. Students are expected to take
 Graduate Seminar (FNR 8080) twice, or a combination of FNR 8080 and other graduate
 reading group or seminar courses, as approved by the AC, for a total of 2 credits. Seminar or
 reading group classes count toward the required 30 credits of coursework. At least one-half of
 the total graduate credit hours required by the AC must be selected from courses at the 8000level or above.
- Master of Science in Wildlife and Fisheries Biology (with thesis): Students must successfully complete at least 24 credit hours of graduate coursework plus at least 6 credit hours of thesis research (WFB 8910). Students are expected to take Graduate Seminar (FNR 8080) twice, or a combination of FNR 8080 and other graduate reading group or seminar courses, as approved by the AC, for a total of 2 credits. Seminar or reading group classes count toward the required 24 credits of coursework. No more than 6 credit hours can be Special Problems (WFB 8630). There is no limit to allowed credit hours of Special Topics (WFB 8610). At least one-half of the total graduate credit hours required by the AC, exclusive of thesis research, must be selected from courses at the 8000-level or above.

- Master of Forest Resources (non-thesis): Students must successfully complete at least 36 credit hours of graduate coursework, which cannot include thesis research (FOR 8910). At least 18 credit hours must be from courses numbered 7000 or above, including at least 2 credit hours of Special Problems (FOR 7070). Students are expected to take Graduate Seminar (FNR 8080) twice, for a total of 2 credits, although substitutions of other graduate reading group or seminar courses for one or both credits may be approved by the AC and Graduate Coordinator. Seminar or reading group classes count toward the required 36 credits of coursework. Requirements for MFR students who do not have a degree in forestry include those required for a bachelor's degree in forestry, including summer camp. Specifically, FOR 2050, 2210, 2060, 2510, 2520, 2530, 2540, 3020, 3040, 3080, 3410,4060, 4080, 4100, 4130, 4150, 4160, 4170, 4180, 4250, 4310, 4340, 4650, and FNR 2040. Equivalent course substitutions shall be approved by the instructor of the relevant forestry course. A forestry review committee composed of 3 forestry faculty members holding a first professional degree in forestry may approve substitutions in cases where course equivalency is not obvious. All required courses will be taken for a grade (A to F; not pass/fail).
- Master of Science in Forest Resources (with thesis): Students must successfully complete at least 24 credit hours of graduate coursework plus at least 6 credit hours of thesis research (FOR 8910). Students are expected to take Graduate Seminar (FNR 8080) twice, for a total of 2 credits, although substitutions of other graduate reading group or seminar courses for one or both credits may be approved by the AC and Graduate Coordinator. Seminar or reading group classes count toward the required 24 credits of coursework. No more than 6 credit hours can be Special Problems (FOR 7070). There is no limit to allowed credit hours of Special Topics (FOR 8930). At least one half of the total graduate credit hours required by the AC, exclusive of thesis research, must be selected from courses at the 8000-level or above.
- Doctor of Philosophy in Wildlife and Fisheries Biology: A minimum of 30 credits past the master's and 60 credits past the bachelor's degree, inclusive of research credits, are required to earn a PhD in Wildlife and Fisheries Biology. A minimum of 18 credits of doctoral research (WFB 9910) is required. A minimum of 12 credit hours of non-research courses numbered 8000 or above is required. The coursework must include two graduate-level courses in statistics, unless this requirement is modified or waived by the AC and Graduate Coordinator (e.g., if the student had sufficient training in statistics prior to entering the doctoral program). Students are expected to take Graduate Seminar (FNR 8080) twice, or a combination of FNR 8080 and other graduate reading group or seminar courses, as approved by the AC, for a total of 2 credits. Seminar or reading group classes count toward the required 12 credits of non-research 8000-level coursework.
- Doctor of Philosophy in Forest Resources: A minimum of 30 credits past the master's and
 60 credits past the bachelor's degree, inclusive of research credits, are required to earn a PhD

in Forest Resources. A minimum of 18 credits of doctoral research (FOR 9910) is required. A minimum of 12 credit hours of non-research courses numbered 8000 or above is required, of which at least 8 credit hours must be FOR courses. Special Problems (FOR 7070) can be taken for a maximum of 6 credit hours. Students are expected to take Graduate Seminar (FNR 8080) twice, for a total of 2 credits, although substitutions of other graduate reading group or seminar courses for one or both credits may be approved by the AC and Graduate Coordinator. Seminar or reading group classes count toward the required 12 credits of non-research 8000-level coursework.

Students must file a Plan of Study or graduate degree curriculum (Form GS2) in accordance with the Office of Enrolled Student Services' timeline (See "Suggested Timetable..." section below). This is an online form which is completed in a two-phase process. First, the student must submit their advisory committee (AC) selection for approval. Once the AC selection is approved, the student submits a Plan of Study which includes all courses required by the degree program plus any additional requirements imposed by the major advisor or the AC. The submitted Plan of Study will then be routed to the individuals necessary for approval, including the AC and Graduate Coordinator. Fines will be imposed if the student fails to submit a GS2 by the appropriate deadline. If circumstances later warrant a change in the Plan of Study, the student may submit a modified GS2 for approval. A GS2 that correctly reflects the student's coursework must be approved by the deadline set before graduation. See the Graduate School Policy Handbook for details. For instructions on using the online form, go to: http://www.clemson.edu/graduate/students/plan-of-study/index.html

Advisory Committees

In consultation with your major advisor, you need to select an Advisory Committee. Students pursuing the Master of Wildlife and Fisheries Resources degree are an exception to this rule, as only a Chair is needed (by default this is the Director of the MWFR degree program). The Department strongly recommends that committee selection occur within the first semester of enrollment, although circumstances (e.g., approval of graduate faculty status for a non-Clemson committee member) may sometimes necessitate a delay. In any case, a valid advisory committee must be formed in time to approve the Plan of Study (GS2 Form, see below) which must be filed with the Graduate School. As representatives of the faculty, this committee governs nearly all aspects of your graduate program. Care should be exercised to select committee members that can actively and meaningfully contribute to the student's education and research. The GS2 form can be revised to restructure of the advisory committee if changes in research emphasis, member availability, or other circumstances warrant. Students are advised to consult with their major advisor and/or the Graduate Coordinator prior to changing the AC, so that the implications of the change on progress toward degree are fully understood.

FEC degree programs follow the Graduate School Policy Handbook regarding the number of members and composition of the advisory committee, but since the requirements on composition are sometimes a source of confusion, a brief explanation is offered here.

- All members of the advisory committee must be current members of the graduate faculty at Clemson University. This may include individuals who are external to the University if they are first approved by the department before being added to the advisory committee. Students wishing to add an Advisory Committee member who is not currently on the graduate faculty should consult their major advisor to begin the process.
- The majority of the advisory committee, including the major advisor, must be comprised of full-time Clemson University Regular or Administrative Faculty. These are generally tenured or tenure-track faculty with job titles of Assistant Professor, Associate Professor, or Professor. Research faculty (e.g., Research Assistant Professor), extension faculty, emeritus faculty, lecturers, and adjunct faculty may be able to serve on an advisory committee, but do not count toward the majority requirement. The faculty members meeting this requirement must have full-time appointments at Clemson University, but they do not necessarily need to be in the Department of Forestry and Environmental Conservation. Note that a strict majority is required, so, for instance, two full-time tenure-track Clemson faculty on a four-member committee is only 50%, which is insufficient.
- A list of faculty is on the department website at https://www.clemson.edu/cafls/forestry-environmental-conservation/directory/faculty.html. The Graduate Program Coordinator or Student Services Program Coordinator can assist you in determining which faculty satisfy the above criteria.
- If the status of a committee member changes during the pursuit of your degree (e.g., the
 faculty member leaves Clemson University for another position or retires), please consult with
 your advisor and the Graduate Program Coordinator to ensure this change does not
 necessitate a revision of committee membership.

Preliminary Exams

Preliminary exams are not conducted for FEC Graduate Programs.

Research proposals, Comprehensive Exam, and Final Exam

MWFR: No research proposal, comprehensive exam, or final exam required.

MS-WFB; MS-FR; MFR

- Research Proposal: A research proposal should be delivered to your AC (except for MFR students, unless otherwise noted by your AC). Following approval of the research proposal, the AC should file the GS-ResearchApproval form
 (https://www.clemson.edu/graduate/files/pdfs/GS-ResearchApproval.pdf) with the Graduate School and submit a copy to the Student Services Coordinator. The department does not have a standard format for the research proposal, so each student should work with their major advisor to present the format best suited for a given project.
- Final Exam: The final oral exam occurs during the defense of thesis (MS) or project (MFR). It includes general knowledge in subject matter as well as the thesis or project. Detailed policies regarding the final exam are contained in the Graduate School Policy Handbook. The AC must notify the Graduate School of the results of the exam using Form GS7M. http://www.clemson.edu/graduate/files/pdfs/GS7M.pdf.

PhD - WFB

- Research Proposal: A research proposal should be delivered to your AC. Following approval of the research proposal, the AC should file the GS-ResearchApproval form (https://www.clemson.edu/graduate/files/pdfs/GS-ResearchApproval.pdf) with the Graduate School and submit a copy to the Student Services Coordinator. The department does not have a standard format for the research proposal, so each student should work with their major advisor to present the format best suited for a given project. All PhD students are required to provide a public presentation of their research proposal to the department.
- Comprehensive Exam: A comprehensive examination will be used to determine the student's scholarly development and ability to develop logical thought and implement concepts. The exam is scheduled after the student has completed most of the required course work (typically near the mid-point of the student's program of study). The comprehensive examination is composed of both written and oral components, which are developed by the advisory committee. Students should consult with members of their committee well in advance of the exam to identify steps for exam preparation. The written component tests knowledge of the topics represented by the committee, synthetic thinking, writing ability, and comprehensive understanding not only of the given field but any intersecting with it. The oral portion provides an opportunity to follow up on the written responses, and other areas the committee feels would be beneficial to explore. Other policies regarding the comprehensive exam are contained in the Graduate School Policy Handbook. Successful completion of this examination admits the student to candidacy after the committee has completed and signed form GS5D. At the discretion of the AC, the exam may be retaken in part or whole. The Comprehensive Exam must be completed six (6) months prior to the anticipated graduation date.
- **Final Defense of Dissertation:** The final defense of dissertation includes a presentation open to the public and a closed oral examination. The AC has discretion over format and content of

presentation and oral examination. Detailed policies regarding the dissertation defense and final oral examination are contained in the Graduate School Policy Handbook.

PhD - FR

- Research Proposal: A research proposal should be delivered to your AC. Following approval of the research proposal, the AC should file the GS-ResearchApproval form (https://www.clemson.edu/graduate/files/pdfs/GS-ResearchApproval.pdf) with the Graduate School and submit a copy to the Student Services Coordinator. The department does not have a standard format for the research proposal, so each student should work with their major advisor to present the format best suited for a given project. All PhD students are required to provide a public presentation of their research proposal to the department.
- Comprehensive Exam: A comprehensive examination will be used to determine the student's scholarly development and ability to develop logical thought and implement concepts. The exam is scheduled after the student has completed most of the required course work (typically near the mid-point of the student's program of study). The comprehensive examination is composed of both written and oral components, which are developed by the advisory committee. Students should consult with members of their committee well in advance of the exam to identify steps for exam preparation. The written component tests knowledge of the topics represented by the committee, synthetic thinking, writing ability, and comprehensive understanding not only of the given field but any intersecting with it. The oral portion provides an opportunity to follow up on the written responses, and other areas the committee feels would be beneficial to explore. Other policies regarding the comprehensive exam are contained in the Graduate School Policy Handbook. Successful completion of this examination admits the student to candidacy after the committee has completed and signed form GS5D. At the discretion of the AC, the exam may be retaken in part or whole. The Comprehensive Exam must be completed six (6) months prior to the anticipated graduation date.
- **Final Defense of Dissertation:** The final defense of dissertation includes a presentation open to the public and a closed oral examination. The AC has discretion over format and content of presentation and oral examination. Detailed policies regarding the dissertation defense and final oral examination are contained in the Graduate School Policy Handbook.

Note to Advisory Committees of all degree types with a final exam: An Assessment Report should be submitted following the final exam. These reports can be obtained from, and should be submitted to, the Student Services Program Coordinator, Alexis Jennings.

Expectations for Thesis/Dissertation

The purpose of an MS thesis is to demonstrate your ability to:

- o Formulate a research problem.
- o Demonstrate knowledge relevant to a meaningful resolution of a specific problem or question.

- o Effectively plan the work leading to the completion of the problem.
- Analyze and interpret data.
- Report the results of your research in a concise, precise, professional manner that would be suitable for a peer-reviewed journal.

In addition to the above, a PhD dissertation should also demonstrate your ability to contribute significant new understanding to your field of study.

Other advice related to theses and dissertations

- Thesis or dissertation must be prepared in accordance with guidelines established by the Graduate School (https://www.clemson.edu/graduate/students/theses-and-dissertations/format.html).
- Refer to the list of deadlines at https://www.clemson.edu/graduate/students/deadlines.html to ensure timely completion of all requirements for your degree.
- Do not submit manuscripts to AC without first receiving feedback and permission from your major advisor.
- o Do not schedule defense prior to receiving permission from AC.
- The thesis or dissertation defense will include a presentation of your work to faculty, students, cooperators, and other interested parties.
- When scheduling your defense, allow enough time following your defense to complete revisions and still meet Graduate School deadlines. The more feedback you receive and integrate prior to your defense, the less work you'll be faced with after the defense.
- Your defense must be placed on the Graduate School calendar at least 10 days prior to the defense, using their online form at https://www.clemson.edu/graduate/calendar/defense-form.html
- At the same time (or before), the Department of Forestry and Environmental Conservation
 must be notified of the date and location of the defense. This notification should be given to the
 Student Services Coordinator. Notification of date of defense must be received by the Dean's
 Office (via Student Services Coordinator) 14 days prior to your defense.
- o The thesis or dissertation should be completed and submitted before you leave the University.
- Following a successful defense, and after making any corrections required by your advisory committee and major advisor, you submit your thesis or dissertation to the Graduate School for formatting review. The Manuscript Review Office must approve your final electronic version before you can graduate.
- Electronic submission is the only option; hard copies are not acceptable.
- Whether patentable or not, any inventions, discoveries, or developments which are conceived, developed, or reduced to practice by graduate students during their research activities are retained by Clemson University, as set forth in the Faculty Manual. https://www.clemson.edu/faculty-staff/faculty-senate/manual.html

- Your adviser may publish research in cases where you have not made significant progress towards submission within 12 months of graduation. Student co-authorship will be maintained. Copyright is subject to University policy and organizations responsible for publishing or distributing copyrighted materials (i.e., scientific journals). A plan for publication should be discussed with adviser prior to defense. Publishing prior to defense is acceptable, provided AC is apprised and authorship contributions are documented.
- Follow Clemson University data repository and ownership rules.

Additional Requirements

Some of the trainings listed below are **mandatory** for all new students (e.g., hazardous waste training), whereas others may be required based on the subject of your research (e.g., animal welfare training). Documentation of completion of the training <u>must</u> be submitted to the Graduate Program Coordinator via Student Services Coordinator.

Hazardous Waste Training – all students; **Chemical Hygiene** – students doing any kind of laboratory work; **Biohazardous Waste Management in Laboratories** – all students working with biological materials in the laboratory

- https://www.clemson.edu/research/safety/BioRAFT/Training%20Materials.html (requires login)
- http://www.clemson.edu/research/safety/training/

Animal Welfare Training (through the Collaborative Institutional Training Initiative) – all students working with vertebrate animals

- https://about.citiprogram.org/en/homepage/http://www.clemson.edu/research/compliance/citi.ht
 ml
- http://www.clemson.edu/research/compliance/iacuc/training.html

Human Subjects Research Training (through the Collaborative Institutional Training Initiative)
– all students working with humans as subjects in the research.

http://www.clemson.edu/research/compliance/irb/training.html

Teaching Assistant/Grader Training – All new TAs and Graders should enroll and complete this training within 90 days of being enrolled in the program. The GradTeaching program was created with support from the Graduate School, Clemson Online, the Office of Inclusion and Equity, the Academic Success Center, and the Office of Student Advocacy and Success.

• https://clemson.bridgeapp.com/learner/programs/5669568c/enroll (requires login)

Driver Training – All graduate students who will be operating a state vehicle to perform their job duties (as either RA or TA) are required to complete Defensive Driving Courses within 90 days of employment.

https://www.clemson.edu/administration/risk/automobiles-fleets/fleet.html

Suggested Timetable of Student Progress

| Time | Action |
|---|--|
| Before applying (except MWFR program) | Secure application support from prospective advisor. |
| First semester | Introduce yourself to departmental faculty and staff. Complete necessary trainings (see above under "Additional Requirements"). |
| | Become acquainted with policies for use of vehicles, laboratories, and Clemson Experimental Forest. In consultation with your major advisor, begin project literature review. |
| | Select advisory committee (recommended) |
| Middle of second semester (MS students) | File GS2, submit research proposal to committee |
| Beginning of fourth semester (PhD students) | File GS2, submit research proposal to committee and deliver public presentation of research proposal to the department |
| Each year | Meet with Advisory Committee to provide update on progress. |
| No later than 6 months prior to graduation (PhD only) | Complete comprehensive examination. Typically done 1 – 2 years prior to graduation. GS5D should be submitted following comprehensive exam (file concurrently with GS-Research Approval). Apply for graduation (through iRoar) |
| Final semester | Provide advisory committee a final draft of your thesis/dissertation at least two weeks before defense date (does not apply to MWFR). |
| | The final seminar and defense should be set at least one month in advance of the date, and the date should provide time for you to revise the thesis/dissertation following feedback from the advisory committee. A two-week minimum between the defense and the graduate school's final due date is recommended (does not apply to MWFR). |
| | Order cap and gown (if attending graduation) |
| | Submission of GS7 form (does not apply to MWFR) |
| | AC submits departmental assessment report to Student Services Coordinator |

Standards of Performance

Annual Review of Progress

It is strongly recommended that graduate students meet at least once a year with their advisory committee to present progress on research, coursework, and professional development. The Advisory Committee should help identify opportunities that will improve the research products and further the student's development as a professional in the field.

An annual review of progress is mandatory for all students on any type of assistantship, and is strongly recommended for all other students, except those in the MWFR program. The form is completed by the student's direct supervisor for the assistantship (which may not be the major advisor for GTAs). This form should be used to highlight areas where the student is excelling as well as offer opportunities for further development.

The Graduate School provides two forms for conducting annual reviews, and supervisors can choose whichever is preferred. Links to the forms can be found at www.clemson.edu/graduate/faculty-staff/ (login required).

Academic Performance

The Graduate Programs in FEC follow Graduate School policy and expectations for academic performance.

Professional Expectations

Publications: Peer-reviewed publications represent the manner in which scientific results are disseminated throughout the scientific community. Students are encouraged to work with their advisor and other collaborators to prepare research results for publication in a timely manner.

FEC Speaker Series Attendance: Each spring and fall semester, the Natural Resources Graduate Student Association hosts a speaker series. All faculty, staff, and students are encouraged to attend and engage in these activities.

Teaching: Many graduate students will have Teaching Assistantships during pursuit of your degree. Graduate students are encouraged to work with the instructor of record to grow as an educator. Undergraduate and graduate students are expected to treat one another with respect and dignity in all interactions.

Professional meetings: Graduate students are encouraged to attend University, local, regional, national, and international meetings. Students should work with their advisors to attend and present research at a conference at least once per year.

Natural Resources Graduate Student Association: NRGSA provides a valuable professional development resource by creating networking and teambuilding opportunities. All graduate students are encouraged to participate in the association.

Performance Expectations for Graduate Assistants

The Graduate Programs in FEC follow Graduate School guidelines on performance expectations for Graduate Assistants.

Attendance Policies

The Graduate Programs in FEC follow Graduate School guidelines on performance expectations on attendance.