# PhD in One Health Sciences

Texas Tech University School of Veterinary Medicine

Graduate Student Handbook

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I. INTRODUCTION

Graduate Student Handbook
This handbook provides background information and represents the official policies and procedures regarding graduate training at the Texas Tech University School of Veterinary Medicine (TTU SVM). In case of any conflict with the contents of this handbook, policies and procedures on TTU Graduate Studies website (https://catalog.ttu.edu/) take precedence. The requirements presented in this handbook are intended to supplement those stated by the Graduate School, particularly as they relate to SVM. The information will be of use to prospective as well as current graduate students, faculty, and staff.

Students are required to carefully read and review all guidelines described by:

Graduate School website
https://www.depts.ttu.edu/gradschool/academic/Doctoral_Students.php

Newly admitted students, to be found in the Graduate School website
https://www.depts.ttu.edu/gradschool/admissions/newstudents/checklist.php

Office of International Affairs/Admitted International students (only for international students)
https://www.depts.ttu.edu/international/ieem/studentlife/#

International students’ pre-arrival guide
https://www.depts.ttu.edu/international/isss/Pre_Arrival_Guide.php

International students’ post-arrival guide
https://www.depts.ttu.edu/international/isss/Post_Arrival_Guide.php

School of Veterinary Medicine
https://www.depts.ttu.edu/vetschool/

PhD in One Health Sciences
The PhD in One Health Sciences is a pioneering program at both state and national levels. The innovative, competency-based program will position TTU as a global leader in One Health scholarship and discovery. It provides unique opportunities to recruit talented scholars and graduate students to Texas. The program is built on the strength, diversity, and expertise of the TTU SVM faculty members and the school’s strategic location both within the heart of Texas’ animal agriculture and adjacent to TTU Health Sciences Center in Amarillo.
Goals of PhD in One Health Sciences

1. Train a new generation of scientists and leaders capable of addressing societal problems within the interprofessional framework of One Health.
2. Enhance animal, human, and ecosystem health by applying expertise, critical thinking, and systems thinking developed in a core curriculum and reinforced throughout discipline-focused electives.
3. Foster interdisciplinary and interprofessional research leading to discoveries benefiting animal and human populations at regional, national, and global levels.
4. Advance understanding of the determinants of disease in populations and provide solutions to enhance population-based medicine.
5. Provide entrepreneurial opportunities for students.

Key features of PhD in One Health Sciences

1. Choose a research path and design a degree program within five interdisciplinary research emphases: One Health; Disease Ecology, Prevention and Management; Andragogical Scholarship; Sustainability of Animal Agriculture, and Molecular Mechanisms of Disease.
2. Through the core curriculum, journal club, and seminars, students will gain experience in critical thinking at the intersection of disciplines.
3. Our research-intensive veterinary school allows for close linkages to the College of Agricultural and Natural Sciences, Department of Biological Sciences, Department of Nutritional Sciences, Schools of Medicine and Pharmacy at TTU Health Sciences Center, as well as collaboration with governmental and non-governmental agencies and partner practices.
4. Training in research methods, experimental design, qualitative and/or quantitative analyses allows students to be excellent communicators of One Health Sciences and their individual expertise.
5. Conduct cutting-edge research in our state-of-the-art laboratories.

II. ADMINISTRATION

SVM Office of Research and Graduate Studies

Associate Dean for Research
Reports to the Dean of the School of Veterinary Medicine.
Chairs the Research Committee and serves as a member of the Executive Leadership Council.
Responsible for developing policy and administering SVM research programs.

Office of Associate Dean for Research and Graduate Studies
School of Veterinary Medicine
7671 Evans Drive, Amarillo, TX 79106
Email: SVM.Research.GradStudies@ttu.edu
Phone: (806) 742-3595
https://www.depts.ttu.edu/vetschool/research/office-of-research-and-graduate-studies/index.php
**Graduate Program Director**
Reports to the Associate Dean for Research.
Serves as primary liaison with faculty of graduate studies administration, attends graduate faculty council meetings, and convenes Graduate Program Committee meetings.
Responsible for admissions/orientation, monitoring compliance, signing any graduate-student-related documents, serving as an advisor for the SVM Graduate Student Association, updating graduate student handbook/content on website, and conducting student satisfaction surveys.

**Graduate Program Coordinator**
Reports to the Graduate Program Director
Responsible for administrative duties related to graduate programs, including application processing, student/program report generation, assessment development, and Curriculum facilitation.
Assists with student inquiries, admissions, and events.

### III. DOCTOR OF PHILOSOPHY DEGREE PROGRAM

**Prerequisites and Transfer of Credit**
Refer to [https://catalog.ttu.edu/content.php?catoid=17&navoid=1654](https://catalog.ttu.edu/content.php?catoid=17&navoid=1654) for a comprehensive list of Graduate School requirements and credit transfer information.

**Timeline and Credit Hour Requirements**
All requirements for the doctoral degree must be completed within a period of eight consecutive calendar years or four years from admission to candidacy, whichever comes first. For more information, visit [https://catalog.ttu.edu/content.php?catoid=17&navoid=1654#enrollment](https://catalog.ttu.edu/content.php?catoid=17&navoid=1654#enrollment). If work is incomplete at the maximum time limit, the graduate student will be required to withdraw from the SVM Graduate Program. Only under highly unusual circumstances will the Associate Dean for Research recommend an extension beyond the maximum program time limits to the Dean of the Graduate School. Though every effort will be made by the major advisor and graduate office to remind the student of the various TTU Graduate School and SVM graduate program deadlines, it is the student’s responsibility to adhere to the regulations and deadlines.

Students will be required to complete a minimum of 72 semester credit hours (SCH) of coursework. This includes 14 SCH of core courses, 2 SCH of seminars, 2 SCH of journal clubs, 42 SCH of electives, and 12 SCH of dissertation.

**Course Requirements**
Students should consult with their major advisor to determine the course enrollment for each semester. As some courses are not offered every semester or every year, it is important for students to discuss their plan with a major advisor. The proposed plan of course work should be approved by the student’s Advisory Committee. The list of courses is provided in Appendix VII and summarized below:
1. Core courses (14 credits): The core courses emphasize skills required for scientific inquiry, investigation of One Health concepts, and professional development.

2. Required courses (4 credits): Students are required to enroll in two semesters each of Research Seminar (1 credit) and Journal Club (1 credit), in years 1-4. These courses will reinforce the skills of inquiry and investigation, inclusion, and the importance of communicating science. Students will also be required to take Responsible Conduct of Research training.

3. Elective courses (42 credits): Students will complete at least an additional 42 credits of committee-approved electives, which may include special topics courses and research hours. These courses are intended to allow students to acquire necessary disciplinary expertise in support of the individual program of research.

4. Dissertation (12 credits): Students are all required to enroll in a total of 12 dissertation credits in support of successful progress on their dissertation research.

**Degree Plan**

Doctoral students are required to complete and submit one copy of the Doctoral Degree Plan Form to the Graduate School for approval within the first year of enrollment in the program. The form is available at [https://www.depts.ttu.edu/gradschool/academic/forms/2021-2022/doctoraldegreeplanform.pdf](https://www.depts.ttu.edu/gradschool/academic/forms/2021-2022/doctoraldegreeplanform.pdf). This form lists a tentative outline of the courses to be taken, any transfer courses, Advisory Committee members, and dissertation title if known. The form must be initialed by the Major Advisor and Graduate Program Director. Subsequent changes in the degree plan must also be approved by the Advisory Committee and filed with the Graduate School. Further details for current doctoral students can be found at [https://www.depts.ttu.edu/gradschool/academic/Doctoral_Students.php](https://www.depts.ttu.edu/gradschool/academic/Doctoral_Students.php).

**Registration**

Graduate students are required to register for appropriate courses in every semester or summer session in which they expect to receive assistantship, fellowship, or scholarship; use the facilities of the University and faculty time; or take comprehensive examinations and defend dissertation. The Graduate School requires all doctoral students to satisfy a residence requirement that consists of full-time enrollment for at least two consecutive semesters, and both summer sessions are considered equivalent to one regular semester. For students on fellowships, assistantships, or other appointments that require duties other than course work and research, full-time enrollment is a minimum of 9 SCH in each of fall and spring semesters and 6 SCH for the summer semester. Students can look up available courses and register at: [http://portal.texastech.edu](http://portal.texastech.edu).

**Advisory Committee**

**Chair**

A student’s graduate program is under the direction of a major advisor or co-major professors and a graduate Advisory Committee. The major advisor chairs the graduate committee. The major advisor and student work closely together on all aspects of the student’s graduate degree program.
**Members**
The Advisory Committee must consist of at least four graduate faculty, including the major advisor. One member of the Advisory Committee must be from a department other than SVM. If needed, more external committee members can be added but no more than three professors are permitted from other departments.

Committee members are selected after joint consultation between the student and major advisor. Potential committee members should be contacted informally to gain their consent to participate on the committee before the student submits the paperwork, as a part of the Doctoral Degree Plan Form: [https://www.depts.ttu.edu/gradschool/academic/forms/2021-2022/ddpf1121.pdf](https://www.depts.ttu.edu/gradschool/academic/forms/2021-2022/ddpf1121.pdf). The committee selection is subject to the approval of the Graduate Program Director and the Dean of the Graduate School. The composition of the committee may be revised by mutual consent of the faculty involved and the approval of the major advisor. The Graduate Program Director and the Dean of the Graduate School will be notified.

**Responsibilities of the Advisory Committee:**
1. Make recommendations, including coursework, research direction, assessment of qualifying exam, and scholarship to the doctoral student.
2. Attend regular Advisory Committee meetings.
3. Decide whether the student passes or fails qualifying exam and final examination. This decision must be by a majority.
4. The chair of the committee makes final decisions pertaining to the research project and the degree plan for the doctoral student.

**Deadlines**
The student must set at least three meetings with the Advisory Committee. The three meetings will be scheduled appropriately through the duration of the PhD program. These meeting agendas include:
1. Approval of degree plan, research project/topic, and research plan. Note: the degree plan must be filed during the first academic year.
2. Review of research progress, course progress, and proposed schedule for the qualifying examination and final examination, including preparing the dissertation draft and submission to the Advisory Committee for review (see section G. Final examination).
3. Review of research progress after passing qualifying examination.

Please refer to the following website for a list of required steps by timeframe. [https://www.depts.ttu.edu/gradschool/academic/forms/List_of_Required_Major_Steps-Doctoral_Degree.pdf](https://www.depts.ttu.edu/gradschool/academic/forms/List_of_Required_Major_Steps-Doctoral_Degree.pdf)

**Grade Maintenance Requirements**
The Graduate School policy requires that all graduate students maintain an average of "B" (GPA 3.0) or better to be in good academic standing. If the GPA drops below 3.0 after the first semester, a student will be on probation. If a student's cumulative GPA is still below a 3.0 for a second semester, the student will be suspended from the graduate degree program and any financial assistance will be terminated. Research, Thesis, and Dissertation are generally assigned a grade of “CR” (credit) if progress is satisfactory or “NC” (no credit) if progress is not satisfactory.
Annual Review of Progress

Each year (usually in the fall), continuing graduate students are required to submit a report summarizing their academic (course work), research, and professional activities over the past year and their plans for the coming year. The form, entitled “Review of Progress”, will be available from the Graduate Program Coordinator. The major advisor will review this report, provide an assessment of the student progress, and submit to the Graduate Program Director. Students who are not making adequate research progress, or who fall from good academic standing, will be referred to the Graduate Program Director for review. The students may be placed on probation and given conditions to meet to be retained in the program, may lose assistantships/scholarships, and/or may be dismissed from the graduate program. The Review of Progress Form may be found here: https://www.depts.ttu.edu/gradschool/academic/forms/DoctoralProgressReportForm.pdf

Qualifying examination

Definition
The PhD qualifying examination is required for doctoral students as a comprehensive evaluation to test the knowledge in their field and evaluate their preparedness as a Doctor of Philosophy candidate for successful completion of dissertation and research. The qualifying exam tests skills in their area of expertise, such as: ability to synthesize, analyze, and interpret information and data, ability to propose alternatives to solve problems, ability to communicate research results and data in written and/or oral format.

Scheduling the exams
The exam date should be set with the major advisor and the Advisory Committee. For a student completing their PhD in One Health Sciences within five years (no credits transferred from a master’s degree), it is required that the student take the exam at least upon completion of year two and no later than year three. For students who have transferred core credits of One Health Sciences from a previously completed master’s degree, it is expected to take the exam upon completion of year one and before completing year two. It is expected that the students have at least 1.5 to 2 years after passing their qualifying exam to proceed with the completion of their research and dissertation.

Preparing for the qualifying exams
It is recommended that students meet with each committee member and consult about the topics that they recommend to study and prepare for their exams. Each person may have different styles; thus, students should consult with their committee how to better prepare, style of the exam, possible duration, and any other question. Students should begin studying for their qualifying exam at least six months in advance.

Format
The qualifying exam will assess general knowledge in One Health Sciences, focusing on the student’s research program. The qualifying exam will be divided into two parts. The first part consists of a written, knowledge-based portion, in which the committee will choose between two alternatives: i) written exam or ii) grant proposal. It is up to the major advisor and the Advisory
Committee to decide which route to take for the written portion. If an exam will be administered, each member of the committee has the liberty to administer a closed or open book exam; likewise, the length of the exam is up to the discretion of the examiner.

The second part consists of an oral exam. For this portion, all members of the Advisory Committee will prepare questions to ask in a closed meeting with the doctoral student. Regardless of which written option is given to the student, the oral exam should test the PhD student’s knowledge in their field, so open questions about science issues and topics should be expected. The qualifying exam will assess general knowledge in One Health Sciences, focusing on the student’s research program.

Upon completion of this portion, the Advisory Committee follows with a closed-door discussion to decide if they pass or fail. Passing means the student is admitted as a PhD candidate. Please note that the two exam parts composing the qualifying exam do not include the dissertation proposal or defense. Admission to candidacy is not granted until the student successfully completes qualifying exams which are administered by the student's Advisory Committee. The Advisory Committee Chair (also serving as major advisor) will submit a report to the graduate school enrollment management. https://www.depts.ttu.edu/gradschool/academic/forms/QualifyingExamReport.pdf

**PhD Research Proposal**
Students are expected to write (in consultation with their supervisors) and present a proposal of their research. The proposal should include project objectives, background and significance, testable hypotheses, detailed methods, and an anticipated timeline for completing the research. Students should send a copy of the proposal to their committee at least two weeks before a research proposal meeting date. In coordination with their examining committee, students will schedule a proposal meeting, prepare a presentation, and finalize their proposal with their committee.

**Passing of Qualifying Exams**
Students with successfully completing the written and oral exams enter the final stage as PhD candidates. Students fail to meet the passing of the qualifying exams have to re-take the exams within 6 months of the oral exam.

**Dissertation**

*Research topic*
Identifying a research topic and planning your research is required as a doctoral student in One Health Science and is the central element of this PhD program. It is strongly recommended that the student and major advisor decide on the research topic as early as possible, and during the first semester. The student can use that semester to conduct a literature review and become familiar with the topic. In some cases, students may conduct more than one research project.
Dissertation proposal
Upon decision of the research topic, the student and main advisor may decide to conduct preliminary experiments to gain a better understanding of the lab protocol and expected outcomes. This phase is decided by the main advisor. Before beginning the research project, the student should schedule a meeting with the Advisory Committee to present the research proposal and receive approval. During this presentation, the doctoral student should demonstrate the ability to envision and design a research project; ability to analyze literature; propose objectives, hypothesis, and work plan; and conduct independent, original, and creative research.

Dissertation defense
For the completion of the doctoral degree, it is required to successfully compose and defend a dissertation. The document must be prepared following TTU Graduate School guidelines for formatting https://www.depts.ttu.edu/gradschool/academic/thesis_diss/forms/TDforms.php.

The defense should be scheduled upon approval by the Advisory Committee. Students must follow Texas Tech deadlines for dissertation submissions and forms. The “Masters and Doctoral Dissertation Form” must be submitted to the Graduate School at least three weeks before the defense https://www.depts.ttu.edu/gradschool/academic/thesis_diss/forms/TDforms.php.

The student must submit the first completed draft to the Advisory Committee Chair (student’s major advisor) for an initial review and approval. This submission to the advisor should be between 6-8 weeks prior the defense deadline. Upon the advisor’s approval, the student makes corrections and submit the second final draft to the entire committee between 3-4 weeks before the defense date. It is important to consider that the committee needs time to read the dissertation, make corrections and comments, and be prepared for the defense.

After completion of the dissertation defense, if approved and passed, the Advisory Committee must sign the “Oral Defense and Thesis-Dissertation Approval Form. https://www.depts.ttu.edu/gradschool/academic/thesis_diss/forms/Oral-Exam-and-Thesis-Dissertation-Approval-Form.pdf. It is the student’s obligation to bring this form to the defense and submit it to the Graduate School after it is signed by the committee.

SVM Graduate Program is required to invite a “Graduate Dean’s Representative” to the defense. This person will be external to your committee and is charged with attending and observing the defense process to ensure it has been conducted fairly following TTU rules. The Dean’s Representative is required to sign and submit the “Final Examination For The Doctoral Degree Report of the Graduate Dean’s Representative” form found at https://www.depts.ttu.edu/gradschool/academic/thesis_diss/forms/Deans-Representative-Report.pdf.

Final Examination

Expectations for the final examination
A PhD candidate who has fulfilled all core course work requirements, passed qualifying examinations, and gained the committee’s approval of a draft of the thesis or dissertation must
pass a final examination to complete the degree program. In planning for defense dates, students should allow the major advisor sufficient time to review the draft document. After the major advisor is satisfied with the condition of the document, the committee members should be provided two weeks to review the dissertation.

**Schedule the final examination**

It is required that the Advisory Committee meet and set a schedule for completion of the written dissertation, revision of drafts, approval of final draft, and schedule a date for the oral defense/final examination. It is mandatory that the chair for the Advisory Committee ensures that such a plan with specific dates is set. All parties, including the student, chair, and Advisory Committee need time to prepare, review, and approve, respectively. This schedule should be presented in a written form and approved by the committee. The Defense Notification Forms may be found here: https://www.depts.ttu.edu/gradschool/academic/thesis_diss/forms/2021-2022/DefenseNotification_UpdateSU2021.pdf

**IV. FINANCIAL ASSISTANCE**

Full-time doctoral students will be offered a stipend. Funding comes from a variety of sources, including the major advisor’s grants, research assistantships, external salary awards, and SVM graduate assistantship. Though the stipend is guaranteed for the first year, support for subsequent years is dependent on the availability of funds with the major advisor, and the student’s academic and research progress, among other factors. It is strongly recommended that the student work closely with the major advisor to ensure stable stipend support for the duration of their graduate studies. Students should refer to the offer letter for specific expectations regarding tuition and fee responsibility. Beyond the four-year time limit for completion of the program, the graduate student is no longer guaranteed funding and will work out arrangements with their major advisor and Advisory Committee for the timely completion of their dissertation. Potential sources of funding are further identified below.

**SVM Graduate Assistantship**

SVM Graduate Program offers a competitive annual stipend via SVM Graduate Assistantship, a generous benefits package to defray the cost of living, tuition, and fees. Students have 3 research rotations during the first year of their PhD program to explore different research programs in One Health Sciences.

**Year 1:** Students will take the core coursework and synthesize the broad understanding of One Health Sciences. Students must complete three 6-week laboratory/scholarship rotations before selecting a research/scholarship group to host the pre-candidacy term.

**Fall:** Student will take 3 courses - SVM 6301: One Health Concepts & Practice, SVM 6311: Qualitative and Quantitative statistics 1, SVM 6104: Journal Club, and an elective, giving a total of minimal 9 credit hours, with an addition of three 6-week laboratory rotations. Procedures and recommendations for selecting the laboratory/scholarship rotations will be discussed during Orientation Week. Students will regularly meet with the Advisory Committee.
Spring: Students will take SVM 6211: Inquiry, Investigation, and Innovation, SVM 6302: Applied One Health & Public Policy, SVM 6201: Population Health & Management, SVM 6101: Leadership, Communication, & Crisis, and SVM 6103: Research Seminar for a total of minimal 9 credit hours. In addition, students should start the third rotation and select a research/scholarship group to host the pre-candidacy term.

Summer: Students will continue research/scholarship work throughout the Summer with 6 credit hours of research.

Lab/Scholarship Rotations and Major Advisor: Prior to joining a research/scholarship group by the end of Year 1, students will participate in three rotations for the PhD program of One Health Sciences. These rotations are designed to be mutually beneficial to both the student and the faculty member. For students, this is an opportunity to learn about a broad array of scholarships in One Health Sciences and determine preferred subdiscipline with One Health and its complexity of Animal, Human, and its Environment. Students should also use this time to evaluate the lab environment and faculty mentorship style. At the same time, faculty members will be assessing student’s motivation, technical skills, and intellectual abilities. Finally, students should consider each rotation an opportunity to contribute substantively to a research project of the rotation – a goal may be authorship on publications – as well as cultivate relationships with faculty who may serve on student’s advisory committee and subsequently providing letters of recommendation.

Graduate School
The Graduate School offers several scholarships and fellowships to new and continuing students. For new students, awards are often made in conjunction with admission. Visit the links for more details: https://www.depts.ttu.edu/gradschool/financial/FellowshipsScholarships.php.

Other

Financial Aid
Eligibility for aid is based on citizenship, financial, and household information that is reported on the Free Application for Federal Student Aid (FAFSA). Further details can be found at https://www.depts.ttu.edu/gradschool/financial/aid.php.

National and International Scholarships and Fellowships
A database of scholarships and fellowships for graduate students is also available at https://www.depts.ttu.edu/pesa/Scholarships/scholarshipsearch.php.

Texas Tech Alumni Association Scholarships
The Texas Tech Alumni Association awards hundreds of scholarships funded by alumni contributions. These scholarships are awarded to deserving undergraduate and graduate students as well as incoming freshmen and incoming graduate and transfer students. Once the general scholarship application is completed by the required deadline, the recipients are selected by the Texas Tech Alumni Association scholarship committee. The scholarship committee considers various factors when making award decisions, such as scholastic achievement, community

**Scholarships and Financial Assistance for Domestic and International Students**

Scholarships and financial assistance are available to international students attending Texas Tech and domestic students with interest in international relations. Additional details can be found at https://www.depts.ttu.edu/international/financeaid.php.

**Travel Funding – Graduate School**

To partially defray travel expenses associated with presenting research at conferences or for data collection, travel funding is available through the Graduate School. It is important to plan well in advance to complete the required paperwork and attain the necessary approvals prior to attending the event. Students are encouraged to go to the Graduate School Travel Funding website for information related to policies or forms at https://www.depts.ttu.edu/gradschool/financial/travel.php.

**Travel Funding – Student Government Association**

The student government association is another mechanism for funding student travel. Individual students can submit a Student Travel Request Form found at https://www.depts.ttu.edu/sga/StudentOrganizationsFunding/index.php.

**V. SCHOOL OF VETERINARY MEDICINE POLICIES**

**Academic Integrity**

Academic integrity serves as the foundation of the scientist’s professional reputation. A successful research career is predicated on academic honesty and having strong moral principles. A single retracted article resulting from academic dishonesty undermines any prior legitimate scientific contribution and all subsequent work. As such, all forms of academic dishonesty – plagiarism, cheating, fabrication or falsification of data, misrepresentation, etc. – will not be tolerated. It is expected that students will adhere to the highest standards of academic honesty both while part of the graduate program and as a professional thereafter. A student who has questions regarding what constitutes academic integrity is encouraged to refer to the information below, consult the Graduate School and University Guidelines, or speak with the faculty advisor. **Failure to adhere to the standards of academic honesty will result in dismissal from the academic program and, depending on the findings of the Graduate School, dismissal from the University.**

**Texas Tech University Code of Student Conduct**

All students at Texas Tech University are expected to abide by the behavioral standards set forth by the **Code of Student Conduct.** Section B, Part 1 of the code outlines those behaviors which the University community formally considers academic misconduct. Students should familiarize themselves with these behaviors and the policies and procedures related to adjudicating reported allegations of misconduct. The **Code of Student Conduct** can be found in the **Student Handbook,**
updated and made available to all students each academic year. The current handbook is available at https://www.depts.ttu.edu/dos/handbook/.

Plagiarism

*Plagiarism* is the act of passing off as one’s own work, or inadequately attributing, the work or ideas belonging to someone else. The scientific and academic communities depend on the assignment of appropriate credit for intellectual contributions for two primary reasons. First, science and related academic pursuits are incremental in nature. As such, ensuring that the correct individuals are given credit for their contributions aids in tracing the development of current understanding and allows for continuing challenges to what is held as fact. Second, the incentives for investing energy in intellectual property development are eroded when plagiarism is allowed to occur.

Most instances of plagiarism are unintentional and result from a lack of knowledge or skills. Therefore, it is incumbent upon the individual student and the Major Advisor to be familiar with the types of plagiarism, how to avoid plagiarizing, and the tools available to properly attribute work and ideas to their owners. When in doubt, students are encouraged to refer to the resources below and seek advisement from their major advisor.

*Plagiarism will not be tolerated in this program, and violators will be recommended for removal from the program and the University.*

For more information, some learning resources are provided by:

2. The Purdue Online Writing Lab (Purdue OWL): https://owl.purdue.edu/owl/avoiding_plagiarism/index.html

When trying to determine how best to attribute different types of work and ideas to their owner, a good place to start is the Purdue OWL Research and Citation resources: https://owl.purdue.edu/owl/purdue_owl.html

Professional Ethics, Publications, and Other Research Outputs

An important aspect of academic integrity is how the intellectual contributions of individuals to a research output are credited to those individuals. Appropriate behaviors in this regard are a matter of professional courtesy and, more importantly, professional ethics. Establishing a pattern of correctly involving colleagues in producing research outputs, seeking their permission prior to submission for review, and properly crediting their intellectual contributions are all important for a successful career as a research scientist.

Student Intellectual Property

All research conducted at Texas Tech University by a student is a joint product of the student, the faculty advisor, and the University. Students are expected to maintain accurate records of research that are available to the faculty advisor, and the advisor is to be kept apprised of student research activities. Similarly, student intellectual contributions may not be taken by the faculty advisor without giving the student proper credit. All output resulting from student research conducted at Texas Tech University should include the student, the faculty advisor as co-author, and a statement
indicating that the work was completed at Texas Tech University. If additional students and faculty colleagues were involved, they too shall be given appropriate credit.

**Publications and Other Research Outputs**

All intellectual works submitted for publication or other professional critique should include the names of all faculty members or colleagues as co-authors that contributed to the product. All co-authors must have knowledge of, and have granted permission for, the planned submission. Each individual involved with the project should be given an opportunity to review the product and provide comments prior to any submission. Prior to submitting a paper or poster to a conference, it is also expected that the student will first obtain permission from the faculty advisor and a commitment to fund travel, unless the student plans to pay for travel themselves.

**VI. REQUIREMENTS FOR GRADUATION**

**Publications**

By the end of their PhD program, students are expected to publish at least 2 scientific papers in peer-reviewed journals from student’s research dissertation. The major advisor and Advisory Committee are responsible for implementing the requirement. Failing to meet this standard may delay the completion for graduation.

**Student Responsibility**

It is the responsibility of the student to ensure they are completing their degree by the proper deadlines. The student is responsible for the following to be filed with the Graduate School: Program for the Doctoral Degree form, Application to Graduate, Defense Notification form, their ETD dissertation along with submitting any corrections. The student should also complete the Doctoral Survey prior to graduation. The student should also be responsible for ensuring they have met all the required coursework in order to graduate from their program.

**Advisor Responsibility**

The advisor is responsible for the mentorship of the student, which includes submitting forms in a timely manner. The student’s Chair is responsible for filing the Qualifying Exam and Admission to Candidacy Recommendation form, submitting the student’s Defense Notification form to the Graduate School, and the Oral Exam and Thesis/Dissertation Approval form.

**Required Documentation**

**Coursework**

Students should file the *Program for the Doctoral Degree form* before the end of their first year of doctoral coursework. Throughout their coursework, they should file any changes as necessary. To graduate, students should have completed 60 hours of coursework approved by their committee in addition to 12 dissertation hours.
Qualifying Exams and Candidacy

Students should take qualifying exams after approval of their doctoral program and completion of major coursework. After passing their qualifying exam and no later than four months before graduation, the student’s Committee Chair should recommend the student for admission to candidacy by filing the Qualifying Exam and Admission to Candidacy Recommendation form.

Apply to Graduate

Students should be enrolled in at least 3 credit hours during the semester of graduation. Students must apply to graduate during the semester of graduation by the Graduate School’s deadline. The application to graduate initiates the audit process at the TTU Graduate School, and the deadline is strict. Failure to apply by the given semester’s deadline will result in extending your graduation to the next term. They should also pay the Dissertation fee through Student Business Services during this semester.

Doctoral Defense

The doctoral defense should be scheduled at least 2 years after the student has been admitted to candidacy. Students should complete the Defense Notification Form at least 3 weeks prior to defending. This document should be submitted by their student to the Graduate School.

A Graduate Dean’s Representative assigned by the Graduate School will be added to the student’s Advisory Committee for the doctoral defense. This representative is a member of the Graduate Faculty whose responsibility is to observe the conduct of the final examination. The representative shall have access to the dissertation and may participate in questioning the candidate. Representatives must be chosen from departments outside the student’s program and department.

Post-Doctoral Defense

Graduate advisors should then submit the approval form indicating successful defense and acceptance of dissertation by committee via the Oral Exam and Thesis/Dissertation Approval Form. The dissertation must be formatted according to the Graduate School guidelines and must be submitted for formatting review via the ETD Electronic Thesis and Dissertation webpage. All Dissertation corrections should be resubmitted to the Graduate School by the allotted deadline. Students should also complete the Doctoral Survey prior to graduation.

Workspaces and Computing Resources

Workspaces

Graduate students will be assigned a cubicle desk within the east wing of the School of Veterinary Medicine student carrels. Desks are property of the SVM and should be maintained in a clean and professional manner. Students will be responsible for any keys associated with their desk, including turning in their keys at the end of their employment. In addition, their desk should be fully cleaned at the end of their employment.
Computing Resources
Students should discuss work computing resources with their advisor. Students also have access to the TTU High Performance Computing Center (HPCC) located in Lubbock. The following are various resources provided by the HPCC:
   1. Create an HPCC Account
   2. HPCC Facilities and Equipment
   3. User Training
   4. User Guides

Laboratory, Animal, and/or Field Research

All graduate students working in a research lab or conducting fieldwork MUST complete the necessary training associated with their work. Below is a list of some trainings that you may need to take. Please check with your major advisor on any required training(s) that may be associated with your work.

Research (wet) Lab - Biosafety training
https://www.depts.ttu.edu/ehs/forms/training-request.php
To check if a training is required or optional, click on the link. While on the site, click on each of the tabs under “Training Matrix”.

Animal work - IACUC training
To complete the training, you will need to create an account with CITI (Collaborative Institutional Training Initiative) Program. Please click on the link for details.
https://www.depts.ttu.edu/iacuc/training/CITI_Training_Access_Instructions.pdf

Ethics - responsible conduct of research (RCR) training.
https://www.depts.ttu.edu/research/integrity/RCR/training.php

If your research involves fieldwork, the following points should be taken into consideration, while planning your fieldwork.

In addition to the trainings above, all graduate students are expected to familiarize themselves with TTU laboratory safety manual.

VII. PROFESSIONAL POLICIES

Attendance at Seminars, Thesis/Dissertation Defense, and other SVM Events
All students are encouraged to regularly attend the SVM seminar sessions when they are offered, even if they are not enrolled. Students should plan to attend other students’ thesis/dissertation
defenses, any special guest speaker presentations, and events hosted by SVM graduate and DVM programs. These events provide excellent opportunities for learning and networking.

**Placing Orders**
Students involved in wet lab research and in need of research supplies and related infrastructure will need to follow the individual advisor/lab procedures and SVM policies for ordering supplies. To avoid research delays, students should plan ahead of time when ordering supplies.

**Room Reservations**
Students can reserve a room in the SVM for research collaboration, lab meetings, proposal defenses, committee meetings, thesis/dissertation defenses, and other events. Requests should be sent to the SVM Graduate Program Coordinator.

**Alcohol**
Texas law prohibits consumption of alcoholic beverages in vehicles and on all state property. Drinking of such beverages in public is illegal and any person in charge of a field trip or property is responsible for such conduct. Any student's refusal to comply with these laws could leave no option but to request the assistance of law enforcement officials.

**Smoking**
Texas Tech prohibits smoking in all structures on campus. In the SVM building, any type of tobacco is prohibited. This includes chewing, vaping, and smokeless tobacco. Additionally, use of any type of tobacco product is prohibited in all areas of campus (laboratories, greenhouses, and food service facilities). Smoking is also prohibited in all University vehicles.

**Drugs**
To continue receiving federal monies for teaching and research, TTU maintains a drug-free workplace. Accordingly, discovery of illegal (non-prescription) drugs or their use while on university property or while conducting university business elsewhere requires notification of appropriate authorities. Conviction will be followed by dismissal.

**Vacations**
Part-time appointments do not carry provision for vacation or sick leave. Arrangements for absences from campus or field sites should be made between the student and Major Advisor. The student should indicate the duration of absence. If intended leave conflicts with needs for data collection, analysis, or preparation of reports to administrators or funding agencies, the student may expect to have requests for extended leave denied. **Student holidays are provided for undergraduates and do not necessarily apply to graduate students.** All leave time must be approved by the Major Advisor.

**Keys/ID Card Access Requests**
Requests for keys and ID card access request should be addressed to the Graduate Program Coordinator. The student will be required to sign for keys. It is illegal to duplicate university keys
or have unauthorized keys in the student’s possession. After completion of program, the keys and ID cards must be returned to the Graduate Program Coordinator.

VIII. APPENDICES

Graduate Course Offerings

**Required/Core Courses**

<table>
<thead>
<tr>
<th>Prefix and Number</th>
<th>Required/Core Course Title</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVM 6301*</td>
<td>One Health Concepts and Practice</td>
<td>3</td>
</tr>
<tr>
<td>SVM 6311*</td>
<td>Qualitative and Quantitative Statistics 1</td>
<td>3</td>
</tr>
<tr>
<td>SVM 6211*</td>
<td>Inquiry, Investigation, and Innovation</td>
<td>2</td>
</tr>
<tr>
<td>SVM 6101*</td>
<td>Leadership, Communication, and Crisis Management I</td>
<td>1</td>
</tr>
<tr>
<td>SVM 6201*</td>
<td>Population Health and Management</td>
<td>2</td>
</tr>
<tr>
<td>SVM 6302*</td>
<td>Applied One Health and Public Policy</td>
<td>3</td>
</tr>
<tr>
<td>SVM 6104</td>
<td>Journal Club</td>
<td>1</td>
</tr>
<tr>
<td>SVM 6103</td>
<td>Research Seminar</td>
<td>1</td>
</tr>
<tr>
<td>SVM 8000</td>
<td>Doctoral Dissertation</td>
<td>Variable</td>
</tr>
</tbody>
</table>

*Core courses (14 credits)

**Examples of Prescribed Elective Courses**

<table>
<thead>
<tr>
<th>Prefix and Number</th>
<th>Prescribed Elective Course Title</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVM 63XX</td>
<td>Molecular Mechanisms of Disease</td>
<td>3</td>
</tr>
<tr>
<td>SVM 63XX</td>
<td>Molecular Genetics</td>
<td>3</td>
</tr>
<tr>
<td>SVM 63XX</td>
<td>Food Safety</td>
<td>3</td>
</tr>
<tr>
<td>SVM 63XX</td>
<td>Bacteriology</td>
<td>3</td>
</tr>
<tr>
<td>SVM 63XX</td>
<td>One Health Economic Foundations</td>
<td>3</td>
</tr>
<tr>
<td>SVM 63XX</td>
<td>Environmental Health</td>
<td>3</td>
</tr>
<tr>
<td>SVM 63XX</td>
<td>Virology</td>
<td>3</td>
</tr>
<tr>
<td>SVM 63XX</td>
<td>Parasitology and Vector Biology</td>
<td>3</td>
</tr>
<tr>
<td>SVM 63XX</td>
<td>Introduction to Andragogy</td>
<td>3</td>
</tr>
<tr>
<td>SVM 63XX</td>
<td>Andragogy and Veterinary Education</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Courses**

<table>
<thead>
<tr>
<th>Prefix and Number</th>
<th>Elective Course Title</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVM 6001*</td>
<td>Advanced Special Problems</td>
<td>variable</td>
</tr>
<tr>
<td>SVM 62XX</td>
<td>One Health Modeling &amp; Simulation</td>
<td>2</td>
</tr>
<tr>
<td>SVM 63XX</td>
<td>Count Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>SVM 63XX</td>
<td>One Health Economics</td>
<td>3</td>
</tr>
</tbody>
</table>
Student Checklist for Earning the Doctor of Philosophy in One Health Science

**Doctoral Program Requirements:**
[https://www.depts.ttu.edu/gradschool/academic/DoctoralPrograms.php](https://www.depts.ttu.edu/gradschool/academic/DoctoralPrograms.php)

<table>
<thead>
<tr>
<th>Item</th>
<th>Action</th>
<th>Initiated Through</th>
<th>Submitted to</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Plan courses for degree</td>
<td>Graduate Advisor</td>
<td>Graduate Advisor</td>
<td>Prior to registration</td>
</tr>
<tr>
<td>2</td>
<td>Take preliminary exam (option)</td>
<td>Graduate Advisor</td>
<td>Graduate School Enrollment Services</td>
<td>Early in doctoral study, usually first semester of coursework</td>
</tr>
<tr>
<td>3</td>
<td>Set up doctoral Advisory Committee and title</td>
<td>Graduate Advisor</td>
<td>Graduate School Enrollment Services</td>
<td>Prior to filing doctoral degree plan</td>
</tr>
<tr>
<td>4</td>
<td>File “Program for the Doctoral Degree” form</td>
<td>Graduate Advisor or Chair, Advisory Committee</td>
<td>Graduate School Enrollment Services</td>
<td>Before the end of first year of doctoral coursework</td>
</tr>
<tr>
<td>5</td>
<td>File changes in degree program, if necessary</td>
<td>Graduate Advisor or Chair, Advisory Committee</td>
<td>Graduate School Enrollment Services</td>
<td>As needed</td>
</tr>
<tr>
<td>6</td>
<td>Take Qualifying Examination for major and minor subjects</td>
<td>Graduate Advisor or Chair, Advisory Committee</td>
<td>See step #7</td>
<td>After approval of doctoral program and completion of coursework</td>
</tr>
<tr>
<td>7</td>
<td>Recommendation for admission to candidacy (Qualifying Exam and)</td>
<td>Chair of Committee</td>
<td>Graduate School Enrollment Services</td>
<td>After passing qualifying exam and no later than 4 months before graduation</td>
</tr>
<tr>
<td>Step</td>
<td>Description</td>
<td>Responsible Parties</td>
<td>Deadline</td>
<td></td>
</tr>
<tr>
<td>------</td>
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<td>---------------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Enroll in semester of graduation if all requirements are met (at least 3 hours)</td>
<td>Graduate Advisor or Chair, Advisory Committee, Registrar</td>
<td>Semester of graduation</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Apply to Graduate: Go to raiderlink.ttu.edu --&gt; &quot;TTU MyTech&quot; --&gt; &quot;Current Term&quot; - &gt; &quot;Apply to Graduate&quot;</td>
<td>Student, Graduate School Enrollment Services</td>
<td>Semester of graduation (One must be filed for each intended graduation semester.)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Pay the Thesis-Dissertation fee through Student Business Services</td>
<td>Graduate School Dissertation Supervisor, Student Business Services</td>
<td>Semester of graduation (This is paid only once.)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Schedule final oral defense of dissertation and submit “Doctoral Final Oral Examination Notification Form” at least 3 weeks before defense</td>
<td>Student, Committee Chair, and Advisory Committee, Graduate School Dissertation Supervisor</td>
<td>At least 3 weeks before defense</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Stand for final oral defense of dissertation and send result by memo to the Graduate School (Doctoral Defense Report)</td>
<td>Advisory Committee, Graduate School Doctoral Coordinator</td>
<td>Semester of graduation</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Submit signed Thesis-Dissertation Approval Form and after incorporating committee changes, submit .pdf file of dissertation to ETD site for review.</td>
<td>Student, Advisory Committee, Graduate School Dissertation Supervisor</td>
<td>Semester of graduation (usually 5 weeks before graduation date)</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Final grade for dissertation hours (A or B)</td>
<td>Committee Chair or Advisory Committee, Registrar-Final Grade Roll</td>
<td>End of semester</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Submit official .pdf of dissertation to ETD web site (DMA students submit PDF programs to ETD site and turn CDs in to the Graduate School)</td>
<td>Student, Graduate School Dissertation Supervisor</td>
<td>Prior to deadline</td>
<td></td>
</tr>
</tbody>
</table>