EAST TENNESSEE STATE UNIVERSITY

Quillen College of Medicine

BIOMEDICAL SCIENCE GRADUATE PROGRAM

Graduate Student Handbook
2025/2026

Box 70407
East Tennessee State University

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Note: Please see the Biomedical Science Graduate Program and Graduate School websites for required forms.

1. Overview of the Biomedical Science Graduate Program

The Biomedical Science Graduate Program is intended for students of exceptional ability and interest who are preparing for careers in teaching and research in biomedical science. A unique feature of the program is its centralized admission policy in which students are admitted to the Biomedical Science Program rather than to a particular department. This approach allows students to explore a variety of fields through interdisciplinary course work and laboratory experiences and to make a more educated choice when selecting a specialized research program. For those students who have decided on a defined research interest, the program is flexible and allows them to move quickly into the laboratory and accelerate their study.

All students receive a broad-based training in modern biomedical research through an interdisciplinary core curriculum that covers the basic knowledge and skills necessary for research in all areas of the biomedical sciences. A program of flexible laboratory rotations allows students to become familiar with the individual laboratory environment of different faculty before choosing an advisor. There are currently over seventy faculty, from seven departments, participating in the graduate program. Once chosen, the faculty advisor assists the student in planning additional specialized course work. The faculty advisor and concentration are typically selected at the end of the first year of study. Some faculty work in more than one area or concentration, so the decision on a student's concentration should be made in consultation with the faculty advisor.

The emphasis of the training is on laboratory experimentation that is directed by the faculty advisor. Students learn how to design experiments, interpret data, draw conclusions from the experiments and fit the results into a larger framework of scientific knowledge. In addition to the laboratory research, there are many activities that promote scientific exchange, including journal clubs, seminars and an annual student research forum. Students are also given the opportunity to attend regional and national meetings to present their work and discuss their research with other investigators. Most of our students receive financial support through graduate assistantships, which include a stipend and a waiver of tuition and fees. The major requirement for the Ph.D. is the doctoral thesis, the student's original research, which significantly contributes to knowledge and is of sufficient quality to merit publication in a recognized journal. Attainment of the Ph.D. degree normally requires four to five years.

Concentrations in the Biomedical Science Graduate Program (see pages 8-14 for descriptions and requirements)

- Cardiovascular Sciences
- Cellular, Molecular and Chemical Biology
- Immunology, Inflammation and Infectious Diseases
- Neuroscience
- Pharmaceutical Sciences

Departments Participating in the Biomedical Science Graduate Program

- College of Medicine
  - Biomedical Sciences
  - Medical Education
  - Internal Medicine
  - Surgery
- College of Arts and Sciences
  - Biological Sciences
- College of Public Health
  - Biomedical Health Sciences
- College of Pharmacy
  - Pharmaceutical Sciences

2. Administration and personnel

a. Administrative personnel

The following is contact information for those involved in administrationof the program.

The James H. Quillen College of Medicine PO Box 70571 Phone: 423.439.6327 email: medcom@etsu.edu	William A. Block, Jr., MD, MBA Dean of the College of Medicine email: deanofmedicine@etsu.edu
Graduate School PO Box 70720 Sherrod Library 355 Phone: 423.439.4221 email: gradschool@etsu.edu	Sharon James McGee, Ph.D. Dean, Graduate School email: mcgees@etsu.edu
Graduate School Enrollment and Graduation Specialists	Students with Last Names A-J Fiona Goodyear Graduate Program Specialist Phone: 423.439.6148 email: goodyear@etsu.edu Students with Last Names K-Z: Rickie Carter Graduate Program Specialist Phone: 423.439.6165 email: carterrh@etsu.edu
Biomedical Science Graduate Program B040 Stanton-Gerber Hall PO Box 70407	Eric Beaumont, Ph.D. Associate Dean for Research and Graduate Education email: beaumont@etsu.edu Amy Gravitte, Ph.D. Program Coordinator Phone: 423.439.2031 email: berryag@etsu.edu

b. Graduate Program Committee

The committee includes representatives from each of the concentration areas. Members are approved by department chairs and the Associate Dean for Research and Graduate Education for two-year terms. The responsibilities of the committee are to:

- Develop and revise the Biomedical Science Graduate Program curriculum.
- Make recommendations on a consistent and streamlined academic program for all graduate students.
- Work with the Associate Dean for Research and Graduate Education on matters concerning recruitment, student advisement and financial assistance policies.
- Advise the Recruitment and Admissions Committee. The Recruitment and Admissions Committee is an ad hoc committee comprised of the faculty members (or their representatives) who have indicated they have resources to support the stipend

(including tuition and fees when applicable) of a graduate student's training. The Committee will be chaired by one member of the Biomedical Science Graduate Program Committee. Each member of the Committee (PI or representative) will be a voting member. The Committee is advised by the Biomedical Science Graduate Program Committee with a focus on both admissions and recruitment of graduate students.

Biomedical Graduate Program Committee

- Dr. Brooke Schmeichel – Chair, Neuroscience
- Dr. Chad Frasier – Cardiovascular Science
- Dr. Dhirendra Kumar – Cellular, Molecular and Chemical Biology
- Dr. Valentin Yakubenko - Immunology, Inflammation and Infectious Diseases
- Dr. Ashana Puri – Pharmaceutical Sciences
- Mrs. Tasha Phillips – Graduate Student Representative
- Dr. Eric Beaumont – (ex officio) Associate Dean for Research and Graduate Education
- Dr. Amy Gravitte – (ex officio) Biomedical Science Graduate Program

3. Making the best of graduate school

What you should expect of us:

The Biomedical Science Graduate Program has as its primary mission the provision of graduate study and research training opportunities for degree-seeking students wishing to study in an interdisciplinary environment and desiring to achieve intellectually stimulating careers as productive biomedical scientists.

We are committed to:

1. Providing quality graduate programs consistent with freedom of inquiry and student welfare.
2. Recruiting and retaining excellent graduate students, including minority students, from a large pool of candidates.
3. Financially supporting graduate students competitively with other institutions.
4. Providing access of students to highly skilled faculty in adequately staffed graduate programs.
5. Making supportive academic counseling and research mentoring available to students.
6. Furnishing course and laboratory work in the biomedical sciences that yields a productive graduate educational experience.
7. Ensuring engagement of students in a high quality research program under the supervision of a mentor and committee of graduate faculty.

What we expect of you:

The Biomedical Science Graduate Program is designed for full-time study. Students are responsible for working toward completion of their degree in a timely manner. A student's average time to complete the Ph.D. in Biomedical Sciences degree is between four and six years. Per the 2025-2026 GA Handbook, "graduate students holding full-time (20 hours/week, .5 FTE) assistantships may not work any additional time for ETSU without prior permission from the Dean of the Graduate School." Any outside ETSU

employment greater than 5 hours per week should be reported to the student's advisor and Associate Dean for Research and Graduate Education. International students should see special note regarding additional employment in the GA/TS handbook and the International Student Employment Policy (https://www.etsu.edu/policies/student/international-student-employment.php).
In addition to the graduate assistantship hours, students are expected to contribute additional hours each week toward completing degree requirements (e.g. coursework, research, qualifying exam, IDP, prospectus, dissertation, etc.). Please note that lab research work should not interfere with course attendance. Students should not schedule experiments during class times.

We realize the importance of work-life balance in ensuring student productivity and success. We value the efforts of our students and endeavor to support each student in their professional growth. There are several resources students may utilize to maintain a healthy work-life balance throughout their time in the program. Many of these resources can be found on the Graduate School website at: https://www.etsu.edu/gradschool/current.php. Biomedical Science Graduate Program students can also utilize the Counseling and Academic Resource Essential Services (CARES). More information about this resource can be found on the CARES website at https://www.etsu.edu/quillen-cares .

Students in the program are expected to:
1. Attend - It is very important that students attend classes. In addition, regular attendance at research activities in the College of Medicine is expected of all graduate students. Make sure you are aware of seminars and attend whenever possible. It is very important to support your fellow students when they present their research at seminars and during their dissertation defenses.
2. Interact - Success in most undergraduate courses is entirely dependent on doing well on the exams and written assignments and class time is, for the most part, devoted to listening to the instructor and taking good notes. In graduate school, success also requires that students actively participate in class. Classes are small and interactive and most include a participation component as part of the final grade.
3. Be involved - The College of Medicine and the university offer many ways for students to be involved in organized activities such as the Biomedical Science Graduate Student organization, journal clubs, study groups, etc.
4. Get in the lab - Perhaps the most important single thing you have to do in the first year is to select a laboratory and research advisor and begin your research project. Make the most of your rotations and get involved in research as soon as possible. PhD students are responsible for working toward completion of their degree programs in a timely manner.
5. Get help - Let someone know if you have a problem. Several sources of support and advice are available for students.

4. Curriculum

a. Ph.D. degree requirements
The following are the curriculum requirements for the Ph.D. in Biomedical Science.

Core Requirements (22 credits)
BIOM 6010 - Biomedical Science I - Biochemical, Molecular, and Cellular Foundations of Life (3 credits)
BIOM 6020 - Biomedical Science II - Gene Expression and Regulation (3 credits)
BIOM 6030 - Biomedical Science III - Cellular Organization and Function (3 credits)
BIOM 6040 - Biomedical Science IV - Cell Growth, Cell Differentiation, and Immunology (3 credits)
BIOM 6110 - Introduction to Biomedical Research (2 credits)
BIOM 6210 - Scientific Communication I (2 credits)
BIOM 6220 - Scientific Communication II (3 credits)
MDED 6010 - Biometry and Biomedical Computing I (3 credits)

Cardiovascular Sciences Concentration
The Cardiovascular Sciences concentration covers a variety of research areas related to cardiac and vascular diseases. The concentration provides graduate students with focused development and training in the diverse fields of cardiovascular research. The research areas include but are not limited to molecular mechanisms of heart failure, neuroregulation of the heart, molecular basis of atherosclerosis, and renal disease and hypertension. Students graduating from the Biomedical Science Graduate program with a Cardiovascular Sciences concentration are provided the essential tools necessary to compete for academic, industrial or governmental positions. Research completed within ETSU's Cardiovascular Sciences concentration will expand the current literature and translate into improved clinical care, reducing the social and economic cost of cardiovascular disease and the rate of cardiovascular-related mortality.

Core Requirements	22 credits
Concentration	18 credits
Required Courses	*(12 credits)*
Focused Courses	*(6 credits)*
Seminar	4 credits
Dissertation Research	16-28 credits
TOTAL	**60-72 credits**

Cardiovascular Sciences Concentration Coursework: 18 credits
Required Courses: 12 credits
CVSC 6300 - Cardiovascular Physiology (3 credits)
CVSC 6700 - Laboratory Research in Cardiovascular Sciences
(1-9 credits) (Take for a total of 9 credits)

Focused Courses: 6 credits
Choose 6 credits from the following:
BIOM 6900 - Special Topics in Biomedical Sciences (1-3 credits)
CVSC 6500 - Advanced Topics in Cardiovascular Sciences (1-3 credits)

MICR 6300 - Immunology (2 credits)
MICR 6600 - Special Topics in Advanced Immunology (2 credits)
PHAR 6340 - Cardiovascular Pharmacology (4 credits)

Seminar: 4 credits
BIOM 6200 - Biomedical Sciences Seminar (1 credit) (Take three times for a total of three credits)
BIOM 6201 - Biomedical Sciences Seminar Presentation (1 credit)

Dissertation Research: 16-28 credits
BIOM 7960 - Biomedical Sciences Dissertation Research (1-9 credits)

Cellular, Molecular and Chemical Biology Concentration

The Cellular, Molecular, and Chemical Biology concentration focuses on the fields of cell biology, molecular biology, and biochemistry/chemical biology along with applications of these fields to the study of the natural environment and human disease. This research is fundamental to the understanding of basic science processes. Research in this area includes examining protein structure and function, cellular signaling/regulation and mechanisms of action, and gene expression/regulation in both plant and animal systems. Students completing their doctoral work through this concentration will have job opportunities in the biomedical sciences, theoretical and applied natural sciences, biochemistry, and related bioinformatic fields.

Core Requirements	22 credits
Concentration	18 credits
Required Courses	*(12 credits)*
Focused Courses	*(6 credits)*
Seminar	4 credits
Dissertation Research	16-28 credits
TOTAL	**60-72 credits**

Cellular, Molecular, and Chemical Biology Concentration Coursework: 18 credits
Required Courses: 12 credits
BIOL 6100 - Topics in Cell and Molecular Biology (3 credits)
CMCB 6700 - Laboratory Research in Cellular, Molecular and Chemical Biology (1-9 credits) (Take for 9 credits)

Focused Courses: 6 credits
Choose 6 credits from the following:
BIOC 6500 - Special Topics in Biochemistry (2 credits)
BIOL 6200 - Topics in Organismal Biology (3 credits)
BIOL 6300 - Topics in Ecology, Evolution, and Biodiversity (3 credits)
BIOL 6400 - Topics in Systematics and Bioinformatics (3 credits)
BIOL 5667 - Functional Genomics and Bioinformatics (3 credits)
BIOM 6800 - Proteins and Proteomics (3 credits)
CMCB 6500 - Advanced Topics in Cellular, Molecular and Chemical Biology (1-3 credits)
HSCI 5100 - Pathogenic Microbiology (2 credits)

HSCI 5101 - Pathogenic Microbiology Laboratory (2 credits)
HSCI 5110 - Immunology (2 credits)
HSCI 5111 - Immunology Laboratory (2 credits)
HSCI 6500 - Topics in Health Science (3 credits)
NTFD 5445 - Advanced Macronutrient Nutrition (3 credits)

Seminar: 4 credits
BIOM 6200 - Biomedical Sciences Seminar (1 credit) (Take three times for a total of three credits)
BIOM 6201 - Biomedical Sciences Seminar Presentation (1 credit)

Dissertation Research: 16-28 credits
BIOM 7960 - Biomedical Sciences Dissertation Research (1-9 credits)

Immunology, Inflammation and Infectious Diseases Concentration

The Immunology, Inflammation, and Infectious Diseases concentration focuses study on specific aspects of fungal, bacterial and/or viral infections as well as studies of infection-derived diseases and their outcomes. Research in this concentration examines microbial mechanisms of action, pathophysiology of infections, immunobiology, T-cell regulation, and the innate immune system. Students also learn translational aspects of applying research to human diseases. Students graduating with the Immunology, Inflammation, and Infectious Diseases concentration will be highly competitive for careers at academic institutions, in industries involved in biomedical research, and at government agencies conducting, regulating, or funding biomedical research.

Core Requirements	22 credits
Concentration	18 credits
Seminar	4 credits
Dissertation Research	16-28 credits
TOTAL	60-72 credits

Immunology, Inflammation and Infectious Diseases Concentration Coursework: 18 credits
Required Courses: 18 credits
IIID 6000 - Biomedical Microbiology (4 credits)
IIID 6700 - Laboratory Research in Immunology, Inflammation and Infectious Diseases (1-9 credits) (Take for a total of 9 credits)
IIID 6800 - Microbial Pathogenesis (3 credits)
MICR 6300 - Immunology (2 credits)

Seminar: 4 credits
BIOM 6200 - Biomedical Sciences Seminar (1 credit) (Take three times for a total of three credits)
BIOM 6201 - Biomedical Sciences Seminar Presentation (1 credit)

Dissertation Research: 16-28 credits
BIOM 7960 - Biomedical Sciences Dissertation Research (1-9 credits)

Neuroscience Concentration

Neuroscience research seeks to expand knowledge of the nervous system in all of its normal complexity and in the numerous disorders that occur when the nervous system is dysfunctional. The field of neuroscience research stretches from basic research on the fundamental processes involved in neural transmission to the complex interplay of the activity of brain centers that create consciousness itself. Neuroscience research also seeks to understand the genetic, epigenetic, environmental, developmental, cellular and biochemical bases of disorders of the nervous system. Students that complete the Neuroscience concentration of the Biomedical Science Graduate Program will have a broad knowledge base in neuroscience and strong understanding of effective approaches to investigate the normal and disordered nervous system. Graduates from the Neuroscience concentration will obtain competitive positions in academic, industrial, or governmental environments and agencies involved in neuroscience related research.

Core Requirements	22 credits
Concentration	18 credits
Required Courses	*(12 credits)*
Focused Courses	*(6 credits)*
Seminar	4 credits
Dissertation Research	16-28 credits
TOTAL	60-72 credits

Neuroscience Concentration Coursework: 18 credits

Required Courses: 12 credits

NSCI 6300 - Introduction to Neuroscience (3 credits)
NSCI 6700 - Laboratory Research in Neuroscience (1-9 credits) (Take for 9 credits)

Focused Courses: 6 credits

Choose 6 credits from the following:
BIOL 5277 - Neurobiology (4 credits)
HSCI 5067 - Neurology (4 credits)
NSCI 6500 - Advanced Topics in Neuroscience (1-3 credits)
PHAR 6360 - Neuropharmacology (3 credits)
PSYC 5707 - Advanced Behavioral Neuroscience (3 credits) PSYC 5717 Lab must also be taken.
PSYC 5717 - Advanced Behavioral Neuroscience Lab (1 credit)

Seminar: 4 credits

BIOM 6200 - Biomedical Sciences Seminar (1 credit) (Take three times for a total of three credits)
BIOM 6201 - Biomedical Sciences Seminar Presentation (1 credit)

Dissertation Research: 16-28 credits

BIOM 7960 - Biomedical Sciences Dissertation Research (1-9 credits)

Pharmaceutical Sciences Concentration

Research in the Pharmaceutical Sciences focuses on a variety of areas including drug discovery, drug delivery, formulations, and drug mechanisms with the goal of improving therapeutics. The Pharmaceutical Sciences concentration will facilitate translational aspects of biomedical research as a result of the discipline's focus on solving practical problems associated with the physical properties of drugs, drug development and applications of drugs as usable products. Pharmaceutical Sciences is of benefit to all biomedical researchers who employ drugs as exploratory tools. Graduates from ETSU's program concentration in Pharmaceutical Sciences will fill needed positions in academia, industry and government nationwide as the demand for graduates with training in Pharmaceutical Sciences is comparatively high.

Core Requirements	22 credits
Concentration	18 credits
Required Courses	(*12 credits)*
Focused Courses	(*6 credits)*
Seminar	4 credits
Dissertation Research	16-28 credits
TOTAL	60-72 credits

Pharmaceutical Sciences Concentration Coursework: 18 credits

Required Courses: 12 credits

PMSY 6210 - Advanced Pharmacokinetics (3 credits)

PMSY 6700 - Laboratory Research in Pharmaceutical Sciences (1-9 credits) (Take for a total of 9 credits)

Focused Courses: 6 credits

PMSY 6100 - Pharmaceutical Analysis (3 credits)

PMSY 6205 - Advanced Drug Metabolism (3 credits)

PMSY 6500 - Advanced Topics in Pharmaceutical Sciences (1-3 credits)

MDED 6020 - Biometry and Biomedical Computing II (3 credits)

CHEM 5210 - Advanced Analytical Chemistry I (3 credits)

Seminar: 4 credits

BIOM 6200 - Biomedical Sciences Seminar (1 credit) (Take three times for a total of three credits)

BIOM 6201 - Biomedical Sciences Seminar Presentation (1 credit)

Dissertation Research: 16-28 credits

BIOM 7960 - Biomedical Sciences Dissertation Research (1-9 credits)

Example Ph.D. curriculum

Year 1	Course work (credits)	Laboratory	Advisory/academic
Fall semester	BMS-1 (3) BMS-2 (3) Biometry (3) Intro to Biomed Research (2)	Facility tours and meetings with faculty Optional lab rotation #1	
Spring semester	BMS-3 (3) BMS-4 (3) Biomedical Sciences Seminar (1) (attendance) Lab Research in Concentration or Lab Rotation Elective (option)	Optional lab rotation #2 Optional lab rotation #3	
Summer		independent research	Selection of research advisor
Year 2 **Fall semester**	concentration requirements and advanced course work Sci. Comm I (2)	independent research	advisory committee
Spring semester	concentration requirements and advanced course work Scientific Comm II (3) Biomedical Sciences Seminar (1) (attendance)	independent research	
Summer		independent research	qualifying exam
Year 3	advanced courses, if necessary Biomedical Sciences Seminar (1) (attendance) Biomedical Sciences Seminar presentation (1)	independent research	dissertation prospectus
Year 4 and beyond	research / dissertation	independent research	dissertation prep/ defense

b. Core curriculum

core curriculum courses	credits
BIOM 6010 Biomedical Science I - Biochem, Mol, & Cell Foundations of Life	3
BIOM 6020 Biomedical Science II - Gene Expression and Regulation	3
BIOM 6030 Biomedical Science III - Cellular Organization and Function	3
BIOM 6040 Biomedical Science IV - Cell Growth, Cell Diff, and Immunology	3
MDED 6010 Biometry and Biomedical Computing I	3
BIOM 6210 Scientific Communication I	2
BIOM 6220 Scientific Communication II	3
BIOM 6110 Introduction to Biomedical Research	2
Total	22

c. Registration

Students register for courses each term (Fall, Spring and Summer) through Goldlink. All Graduate Assistants must maintain nine credits for the Fall and Spring semesters and six credits for the Summer semester. All course registration should be arranged and approved by the program office. Students should plan ahead and talk with their advisor well before the start of the semester about the courses they plan to take. Before registering for any courses, contact Dr. Amy Gravitte, who will help arrange a course schedule and provide course registration numbers.

d. Academic Calendar for 2025-2026

Fall Semester

Biomedical Program classes begin	8/25/2025
Labor Day-no classes	9/01/2025
Fall Break-no classes	10/13/2025 – 10/14/2025
Veterans Day-no classes	11/11/2025
Thanksgiving Holiday	11/26/2025 – 11/28/2025
Last Day of classes	12/04/2025
Final Exams	12/06/2025 – 12/11/2025

Spring Semester

Martin Luther King Jr Day-University closed	1/19/2026
First Day of classes	1/20/2026
Spring Break- no classes	3/16/2026 – 3/22/2026
University closed	4/03/2026
Last Day of classes	4/30/2026
Final Exams	5/02/2026 – 5/07/2026

5. Academic requirements

a. Laboratory rotation program

The core curriculum course "Introduction to Biomedical Research" is designed to introduce students to the current research in the biomedical sciences. Students will meet with faculty to discuss potential research lab rotations and learn different biomedical research techniques. Students will also tour facilities. The course is to be completed in the first half of the first semester, coinciding with the duration of BMS1. It should provide students with sufficient knowledge of the research programs of the faculty to enable them to choose faculty for laboratory rotations. Students who have not selected a research advisor should participate in rotations in faculty laboratories. The rotations should last approximately six to eight weeks and be completed, with the selection of a research advisor, before the end of the Spring semester. The first rotation will coincide with the BMS II in the Fall semester and rotations 2 and 3 with BMS III and IV in the Spring semester.

Students should meet with faculty with whom they wish to do a rotation and plan a schedule. Once the rotation has been arranged, the student should complete the rotation assignment form (see website) and return it to the biomedical program office. Students receive credit and a grade for the rotations, through "Introduction to Biomedical Research" or "Laboratory Rotation" courses.

b. Qualifying Examination

The qualifying examination will be administered by the advisory committee and should be completed no later than three months after completion of the core curriculum. Additionally, students must have completed at least one advanced concentration course before starting the qualifying exam. If the qualifying exam is not attempted or passed by this deadline, a period of remediation will be extended until the end of the third year. However, students must petition the Associate Dean for Research and Graduate Education for exemptions or extensions of the three months after the completion of the core curriculum deadline. Successful completion of the examination should demonstrate that the student has obtained a breadth and depth of knowledge in biomedical science, utilizing the information obtained in the core curriculum. Successful completion of the qualifying exam is required before a student can be enrolled for the required credits in Dissertation Research. The student should also demonstrate competence in searching the literature, and organizing and presenting information on a topic of current importance. The qualifying exam should also be a learning experience in which specific skills are tested including: writing ability, grant writing expertise, techniques for effective literature searching and oral presentation skills.

It is important that the advisory committee place constraints on the length and time allowed for writing the proposal. An oral examination should follow soon after successful completion of the written requirement and should involve a defense of the written portion of the examination. The oral examination will also be used for assessing the general knowledge of the student. The advisory committee is responsible for administering both the written and oral exam. The following are suggested guidelines for the written and oral qualifying examinations.

Selection and approval of research topic/s

The topic should be original and may not be identical to the intended dissertation research (with exception as noted below). The topic can be selected either by the student and approved in advance by the advisory committee or selected by the advisory committee. The student can also choose to use the proposal written in Scientific Communication II and use the comments to write an improved version. However, the topic should be approved in advance by the committee. In case a student is working to submit a fellowship application to external funding agencies, then the topic of qualifying exam may be same as intended research topic as the student will obtain additional knowledge needed for an actual grant submission.

Format and submission of the written exam

Once the topic is selected, the written portion of the exam including: 1) specific aims, 2) background and significance and 3) experimental approach should be submitted to the committee chair within 28 days. The committee chair will submit the qualifying exam to the committee, along with the evaluation form. Each committee member, including the chair, will evaluate the written exam and will give feedback to the student within 14 days. Then, the student will have an additional 14 days to respond to the critiques and complete the written portion of the exam.

Research proposal format: (page limit 9-11 pages not including references and should be organized into the following sections:

1. Specific Aims: Briefly state the objectives of the research, list the specific goals and hypotheses that are to be tested. (1 page, single-space, margins 1/2").

2. Background and Significance: Sketch the background of the proposal and evaluate the existing literature. Identify gaps in the literature that the research is intended to fill. State the significance of the research as it relates to the present proposal. (5-6 pages single-space, margins 1/2").

3. Experimental Plan. Clearly define the research design including potential experimental procedures and techniques to be used. In addition, the possible or expected results and potential problems should be addressed. The experimental plan should clearly demonstrate how the specific aims are to be achieved. An understanding of potential techniques and outcomes is important with far less emphasis on the specific details of techniques (for example, mention that you will perform a Western blot to answer aim 1, but do not include all the methodological details of the Western blot). (3-4 pages single space, margins 1/2").

4. Literature Cited. List the references cited in the text using a scientific journal format. All references should include full titles.

Grading of written proposal

Each member of the advisory committee will evaluate the proposal within two weeks and return the evaluation form to the chair of the committee with a grade of pass, remediate or fail. A critique of the proposal should be attached to the evaluation, regardless of the grade. A grade of "pass" should be given when a student has demonstrated *very good* knowledge and writing skills. The grade of "remediate" is recommended when there is a deficiency in the knowledge and writing skills that need to be addressed. For example, there is an insufficient survey of the literature or a major flaw in the experimental design. Grades of "remediate" should include specific recommendations for rewriting or reexamination. The grade of "fail" should be given only when the written exam is clearly inadequate and indicates that the student needs further training to develop competence in scientific writing. After the grading of the exam has been completed by all committee members, the chair will compile the grades and may call for a consensus.

1- If the majority of committee members assign a "pass" grade, then the student passes the written portion of the qualifying exam. (Committee members may have comments and ask for revisions, but these are typically minor. The student will still need to make these revisions to the final written proposal.)
2- If the majority of committee members assign a "remediate" grade in the first attempt, then the student will have two weeks to respond and fix the written examination. After revisions, the majority of committee members must assign a "pass" grade for the student to successfully pass the exam.
3- If the majority of committee members assign a "fail" grade, then the student fails the written portion

of the exam. In this case, the student will be required to make substantial changes in the written exam based on the critiques. Alternatively, the committee in consultation with the student may choose an entirely different topic. The student will be given two to four weeks to complete the exam. However, if the student again receives a grade of 'fail', then the Associate Dean for Research and Graduate Education may step in and decide if the student can be eligible for a third attempt or leave the program entirely.

Once a grade of "pass" is given (either by consensus after the first submission, or after revisions), the committee and the student should decide on a time for the oral examination within four weeks. The advisory committee chair should ensure that a copy of the written proposal is filed in the graduate office, along with copies of the evaluation forms.

Oral examination

This examination is intended to establish the student's ability to orally present and defend the research proposal. Students are expected to be able to apply the information learned in their graduate education to specific scientific problems. Therefore, students should expect questions that probe their general scientific knowledge as it relates to the subject matter of the research proposal. The committee will convene immediately after the oral examination to determine if the student has successfully passed the examination. If the committee decides against a grade of pass, a time for reexamination should be scheduled.

1- If the majority of committee members assign a "pass" grade, then the student passes the oral portion of the qualifying exam.
2- If the majority of committee members assign a "remediate" grade in the first attempt, then the student will have two weeks to repeat the oral examination successfully. After the second attempt, the majority of committee members must assign a "pass" grade for the student to successfully pass the exam.
3- If the majority of committee members assign a "fail" grade, then the student fails the oral portion of the exam. When this occurs, the Associate Dean for Research and Graduate Education may step in and decide if the student can be eligible for another attempt or leave the program entirely.

c. Dissertation prospectus

Ph.D. students should present a prospectus of their dissertation research to their committee before the end of the third year in the program. The prospectus is intended to inform the committee on the course of research that will eventually lead to a dissertation. The prospectus should include an overview of the research area, unanswered questions, a clearly stated hypothesis, and the intended problems to be addressed and expected results. The techniques used should be described in some detail and expected difficulties and alternative experiments should be stated. Preliminary results may be described. The committee will either approve the prospectus or make recommendations for rewriting. The student should use the prospectus presentation as an opportunity to gain advice from the committee on his/her research plans. By establishing specific research objectives, the prospectus will serve as a contract to protect the student. Upon completion of the prospectus and committee approval, the student should submit the Dissertation Prospectus Committee Approval Form .

It is important for the student to keep the committee informed on the progress of the research before and after the prospectus has been approved. This may involve additional meetings of the entire committee, but, more often, will consist of informal contacts. Major changes in the direction of the research should be brought to the attention of the entire committee.

d. Normal progress toward the degree

Students are expected to maintain "normal progress towardthe degree" to ensure that they are moving through the series of steps necessary to obtain a Ph.D. degree at a reasonable pace, and at the level of performance required of all doctoral students. These steps are outlined below and described in detail in the preceding sections. Although the academic advisor and the graduate program office will monitor a student's progress in the program, it is the responsibility of the student to complete the appropriate steps within the required time frame. Failure to maintain normal progress toward the degree will render students ineligible for financial support and may lead to dismissal from the program.

Milestone	**expected date of completion or frequency**
Completion of laboratory rotation program (optional)	end of first year
Selection of research advisor	end of first year
Selection and approval of graduate advisory committee	first semester of second year
Completion of oral and written qualifying examination	no later than three months after completion of the core curriculum
Completion of dissertation prospectus	End of third year
Meetings with committee	At least once per year after committee is formed
Completion of seminar presentation requirement	End of third year

e. Preparation and defense of the dissertation

All doctoral candidates must complete a dissertation as a major requirement for the Ph.D. degree. The dissertation topic will be selected by the candidate with the advice and approval of the graduate advisory committee. The student must present a prospectus describing the research project for review and approval by the graduate advisory committee. After the dissertation topic has been researched, written, and accepted by the committee, it must be prepared in the proper form and submitted to the Graduate School for approval prior to graduation. Please see the Academic Calendar for deadlines. ETSU has approved a requirement for electronic submission. Students must submit dissertations in the format prescribed at the time of submission. The Graduate School publishes a Guide to the Preparation of Theses and Dissertations, which is available on their website along with specific guidelines for submission and review of the manuscript. The Graduate School strongly recommends that students use the approved template when they begin writing their dissertation to avoid frustration at the end of the process.

Students should seek the approval of their advisory committee before beginning thesis preparation. The committee should determine, in advance of thesis preparation that the student has made sufficient progress in their research and has completed a body of experimental data that is a proper foundation for the written thesis. Students should keep in mind that the objective of laboratory research is publication in quality scientific journals. Publications are the best demonstration of research accomplishments and provide an excellent foundation for facile thesis preparation. It is

expected that the committee will receive a manuscript that has been thoroughly edited by the student and advisor, rather than an initial "draft" version. This manuscript should be delivered to the committee well in advance (2-3 weeks) of the scheduled thesis defense.

Students will present their research in a seminar, announced at least 2 weeks in advance. Following the seminar, the student will defend the dissertation to the advisory committee. The defense must be scheduled with the ETSU graduate office. A member of the graduate faculty from outside the candidate's committee and department must be present at the defense to monitor the process. The procedure to be followed in scheduling an oral defense and the format for the graduate faculty representative's narrative report are available on the Graduate School website. The defense must be scheduled according to dates specified in the Academic Calendar.

f. Intent to Graduate

Students must "Apply to Graduate" with the Graduate School by the deadline specified in the Academic Calendar. If a student plans to graduate in Spring (May), they must apply to graduate no later than September 1; students who plan to graduate in Summer or Fall, must apply to graduate no later than March 1. Students must apply to graduate even if they do not plan to attend the ceremony; without applying to graduate, a degree cannot be conferred. If the student does not graduate in that term, he or she must submit a Change in Graduation Term form before the published deadline.

g. Matriculation Limits

The time limit for the use of credit toward a certificate is four to six years. The time limit for the master's degree is six years. The time limit for completion of the doctoral program by students who began their programs after a bachelor's or master's degree is seven years from the date of enrollment in the earliest course applied toward the degree. Consult the Graduate School Matriculation (Time) Limits Policy for the process to revalidate.

h. Grades

Grades given in the Biomedical Science Graduate Program carry the following meaning and quality points:

Grade	Meaning	Standard scale / meaning	Quality points per hour	
A	Clear excellence	95 - 100	4.0	
A-		90 - 94	3.7	
B+		87 - 89	3.3	
B	Satisfactory performance	84 - 86	3.0	
B-		80 - 83	2.7	
C+		77 - 79	2.3	
C	Minimum passing grade	70 - 76	2.0	
F	Failed	< 70	0	

To remain in good standing a graduate student must maintain an overall grade point average of 3.0 (B) or better. Graduate credit will be given for grades of "A", "A-", "B+", "B", "B-", "C+", and "C" in graduate level courses. Graduate credit is not awarded for Pass/Fail grades. Grades of P or F do not count toward

degree requirements. All graduate course grades earned at East Tennessee State University by a student will be used in computing the grade point average. An overall average of 3.0 is required for admission to candidacy and for graduation. Of important note: per the Graduate School's Determination of Graduate Grade Point Average Policy, if a student repeats a graduate course, all course grades earned in that course are calculated in the graduate GPA. Any additional grades earned when a course is repeated will not replace the original grade.

Progression standard for students in the Biomedical Science Graduate Program

All students must successfully complete the core sequence Biomedical Science 1, 2, 3 and 4 with a grade of B- or better. Students who earn a failing grade (F) in any of the four courses will not be allowed to continue in the program. If students earn a grade below a B- (C or C+) in one or more of the BMS 1-4 courses, the student must retake the course(s) and earn a B- or better the following year. Students who earn a grade below a B- on the second attempt will not be allowed to continue in the program. Graduate School GPA requirements must also be met. Please see the Graduate School Retention Standards policy for more information.

"S," "SP," and "U" Grades - The letter grades of "S" (satisfactory completion), "SP" (satisfactory progress) and "U" (unsatisfactory) are given for Readings and Research, Thesis, and Dissertation. A grade of "S" carries graduate credit and indicates satisfactory completion of the course. "Dissertation research" (16 - 28 credits) is required for Ph.D. students. Degree completion requires an "S" on the most recent hours associated with Thesis/Dissertation. "SP" indicates progress toward project or research completion, but carries no credit. This grade does not affect the student's GPA. Students who receive an "SP" must, in subsequent semesters (including summer), enroll in additional hours of Thesis/Dissertation or Readings and Research until the requirements are completed. The "U" grade carries no credit and indicates unsatisfactory progress toward research or project completion. Students who receive a "U" must enroll for the course the next semester, including summer. The first "U" does not affect the GPA. The second "U" is equivalent to an "F."

Incomplete Grades - A grade of "I" (incomplete) indicates that a student was passing the course at the end of the semester, but due to circumstances beyond the student's control, was unable to complete the course requirement. It also indicates that the student has received consent from the instructor to complete the work for which an "I" is assigned. The "I" grade cannot be used to allow a student to do additional work to raise a deficient grade or to repeat a course. An "I" grade must be removed no later than one calendar year from the time the grade is awarded. Time extension requests for removal of "I"grades must be submitted to and approved by the Dean of the Graduate School before the allotted time expires. An "I" grade not removed under the guidelines noted above will be converted to an "F." When an "I" grade converts to an "F" after one calendar year, the GPA is adjusted retroactively consequently, a student may be subject to dismissal without a probationary term. A student cannot withdraw from or drop a course after a grade of "I" has been assigned or after one year has elapsed. To remove an "I" grade, the student must complete the work independently and must not register for the course a second time or attend the same course at a later time in order to complete the course requirements. See the Graduate School Incomplete Grade Policy for more information.

Academic Probation - To remain in good standing, a graduate student (degree or non-degree), must maintain an overall grade point average of 3.0 (B) or better on all graduate work attempted. In order to graduate, students must have a minimum 3.0 grade point average overall and on the program of study. When the cumulative grade point average falls below 3.0, the graduate student will be placed on academic probation. If the student does not achieve a 3.0 cumulative grade point average at the conclusion of one probationary semester, the Dean of the Graduate School and the Biomedical

Graduate Program will determine whether the student should be dismissed from graduate study at East Tennessee State University or continued on probation. Students may remain on probation for two semesters before dismissal. A student will be removed from probationary status upon attaining a cumulative 3.0 grade point average. When an "I" grade converts to an "F" after one calendar year, the GPA is adjusted retroactively. Consequently, a student may be subject to dismissal without a probationary term. For more information, see the Graduate School Retention Standards Policy.

Required GPA - In order to graduate, students must have a minimum 3.0 grade point average overall and on the program of study for all degrees. Review the Graduate School Degree and Certificate Graduation and Transcript Policy for more information on all graduation requirements.

i. Generative Artificial Intelligence Guidance

The ETSU Biomedical Science Graduate Program recognizes that Generative Artificial Intelligence (GenAI) is a powerful tool that may be used to enhance biomedical research.

Examples of Appropriate GenAI use include, but are not limited to, brainstorming ideas, editing original writing.

Examples of Prohibited GenAI use include, but are not limited to, submitting work that is completely or predominately generated by AI, inputting sensitive data into a GenAI model, or using GenAI as a substitute for your own knowledge.

Students must be aware that GenAI may generate inaccurate or incomplete content, and are responsible for the oversight AI generated content. Additionally, students must not allow GenAI to be a substitute for their own independent and creative thinking.

ETSU's generative artificial intelligence task force has developed guidance on the responsible use of GenAI in teaching, learning, and research. ETSU's four core principles for the ethical, respectful, and responsible use of GenAI are:

1. **Transparency and Disclosure:** University community members who use generative artificial intelligence in academic, administrative, or research contexts shall transparently disclose such usage in a manner that is both appropriate and clear. This includes attributing AI-generated content or substantial Gen AI contributions when it is used to support the completion of course assignments and submissions, scholarly publications, creative activities, and related decision-making processes.
2. **Privacy and Data Protection:** All uses of generative artificial intelligence must comply with applicable laws and institutional policies governing data privacy, confidentiality, and security. Users are prohibited from inputting or otherwise exposing confidential or regulated data (including confidential institutional data, Human Subjects Data that requires informed consent for disclosure, FERPA, or HIPAA-protected information) to unauthorized Gen AI platforms or in any manner inconsistent with university policies.
3. **Human Oversight and Accountability:** Generative artificial intelligence technologies shall be utilized with appropriate human oversight. Individuals must carefully review and validate Gen AI outputs against their own knowledge and skills before incorporation into educational, administrative, or research outcomes. The ultimate responsibility for verifying the accuracy, fairness, and integrity of AI-generated content or decisions remains with the human user, who is accountable for compliance with all university policies and applicable laws.
4. **Staying Current and Informed:** University Affiliates who employ generative artificial intelligence technologies shall maintain ongoing awareness of developments, best practices, and emerging

guidelines in Gen AI. Users regularly update their knowledge and skills to ensure continued compliance with evolving ethical standards, university policies, and relevant laws

For more information on the use of GenAI at ETSU, see the Written Guidance for Ethical Use of Generative AI at ETSU.

Misconduct involving the use of GenAI will be addressed through the university's academic misconduct policy.

6. Advisory System

a. Research (dissertation) advisor

Students select a research advisor within the first year of study following completion of the laboratory rotation program. The research advisor will provide a laboratory environment for the student and assume responsibility for their research program and arrange financial support. The research advisor should provide guidance in the selection of a dissertation research project with emphasis on the development of the student's capability for independent research. In addition to guiding the student in the development of specific research skills,the research advisor should: be responsible for the student's overall professional development; provide adequate opportunity for grant and manuscript writing and presentations at scientific meetings; assist in career development by introducing students to researchers in their field and assist the development of the student as a scholar through guidance in areas such as creative thinking, leadership and ethics.

b. Graduate Advisory Committee

Prior to the end of the first semester of the second year of study, students will form a graduate advisory committee. The advisory committee will be comprised of three faculty members from the student's primary research concentration, one faculty member from outside the student's/advisor's primary concentration and one faculty member outside the student's/advisor's department. This faculty member may or may not be in the same primary research concentration. There would be a minimum of five faculty members on the committee (with the faculty advisor as chair of the committee). The committee members will be selected by the student and research advisor and approved by the departmental chair and Associate Dean for Research and Graduate Education. The committee will be responsible for overseeing the student's overall academic program, including the program of study, preliminary examination, advancement to candidacy and preparation and defense of the dissertation. The committee should meet formally with the student at least once each year to review their research and academic progress.

c. Annual student progress report

The Biomedical Graduate Program Committee has approved an annual progress report for all students who have completed one year in the program. The report is intended to monitor students' progress toward their degrees and to record their activities and accomplishments. A link to the progress report form will be emailed to students. After the student has completed the first section of the form, it will be forwarded to the advisor. The advisor will complete his/her section and the form will return to the student. The student should add his/her name as a signature and submit. The form will be forwarded to Dr. Amy Gravitte (berryag@etsu.edu). Students are also required to complete an Individual Development Plan to assist with career planning.

7. Financial Support

a. Graduate Research Assistantships

The College of Medicine and the Graduate School make available a limited number of graduate research assistantships, which are administered through the Biomedical Science Graduate Program. Specific guidelines for graduate assistantships are found in the Graduate School's GA Handbook. Students who receive assistantships must register for a minimum of nine (9) hours during the fall and spring semester and six (6) hours in the summer semester. Most Biomedical Science graduate students on assistantships are on a 12-month appointment. All students who receive graduate assistantships should expect the support to continue throughout their period of study. The expected time for completion of the Ph.D. in the Biomedical Science Graduate Program is four to five years. Graduate assistants must maintain a cumulative 3.0 grade point average. Graduate Assistantships include support in the form of a stipend and tuition waiver. The current stipend for Ph.D. students is $27,000 per 12 months.

The cost of tuition (maintenance fee) for fall and spring semesters is covered as part of the student's graduate assistantship. Although there is no provision for payment of summer tuition, this cost is usually covered by the individual faculty advisor or through the departments. In addition, departments may cover the costs of other fees such as the technology fee, access fee and debt service fee. Out of state tuition is also waived for all graduate students who are on assistantships. Although additional fees, such as the campus access fee, debt service fee and activity fee, are not covered by assistantships, these costs may be covered by individual department or grant funds.

Students are eligible for need-based student loans even if they are receiving support through research assistantships. Information is available from the Office of Financial Aid and Scholarships, P.O. Box 70722, ETSU, Johnson City, TN, 37614-1710, or by calling 423-439-4300, or via email at finaid@mail.etsu.edu. All financial aid is awarded without regard to race, sex, age, or disability. The majority of aid is based on financial need, which is the reasonable cost of education less reasonable support from the family as determined by the federal processor and appearing on the SAR.

b. Program support for student academic travel

Scientific conferences and meetings provide an important educational experience and graduate students are urged to attend and present the results of their research. To encourage student participation in scientific meetings, the program allocates a portion of its annual budget to support the expenses of academic travel. The regular University policy for allowable travel expenses applies. A written request by the student or their major advisor should be made to Dr. Eric Beaumont, Associate Dean for Research and Graduate Education. Priority will be given to students who have been admitted to candidacy in the Ph.D. program and who are presenting a paper at a scientific meeting. The maximum amount is $500 per student, per fiscal year. Any request for funds by students who do not meet these criteria will be reviewed by the Biomedical Graduate Program Committee. There are also three travel awards for which students may apply: 1) the Daigneault Pharmacology Graduate Student Travel Award, 2) the Bill and Jane Mayberry Microbiology Scholarship, and 3) the Dr. Jane E. Raulston Memorial Microbiology Scholarship. Awards amounts are determined by these selection committees. Travel authorizations will be submitted and approved by departments. Funds for student travel are also available through the Graduate School. The maximum amount for members is $700.

8. Student Health, Wellness, and Safety

a. Medical services provided by College of Medicine physicians

Full time graduate students in the Biomedical Science Graduate Program are eligible for the services of College of Medicine physicians. This allows the students, as well as their spouses and dependent children, to see physicians who are faculty of the COM at no cost. This does not include laboratory tests, immunizations, medication or hospital charges. Students who visit COM physician offices should identify themselves as students in the graduate program of the College of Medicine.

b. Counseling services for graduate students

Students in the Biomedical Science Graduate Program are eligible for counseling services provided by the College of Medicine. The service that has been used successfully by residents and medical students and is also available to graduate students and their families. This office is available to help students suffering from anxiety, depression or simply having difficulty dealing with the stresses of medical or graduate school. Marriage and relationship counseling is also available. The service is strictly confidential and none of the information is disclosed to administrators. Please feel free to make use of this valuable service. Appointments or additional information can be arranged by calling 423-232-0275 or visiting their website at www.etsu.edu/quillen-cares.

c. Clinics

The Student Health Clinic, located in Suite 160 in Roy S. Nicks Hall, is open Monday-Friday, 8 a.m. - 4:30 p.m. The contact number for appointments is 423-439-4225. Service provided by the Student Health Clinic is at no cost. The professional staff of the clinic includes a physician, nurse practitioner and registered nurses. Cooperation with the family physician on treatment of a chronic problem is a part of regular clinic practice. When problems require specialty treatment, students are referred to a physician of their choice or to a specialist in Johnson City. A valid student I.D. card should be presented when visiting the clinic.

The Dental Hygiene Program offers clinical services, including dental inspection, a dental prophylaxis (scaling and polishing of teeth), preventive treatments (applications of fluorides, pit and fissure sealants and nutritional counseling), preventive periodontal treatment (treatment of minor gum disorders), diagnostic dental X-ray films and nutritional counseling. All clinical services are rendered by qualified dental hygiene students under the supervision of a licensed dentist and are available for a nominal fee. All persons are eligible for treatment, and appointments may be obtained by contacting the clinic receptionist. The Dental Hygiene Clinic is located in room 134 of Lamb Hall, phone: 439-4514.

The Speech and Hearing Clinic, through the Department of Audiology & Speech-Language Pathology, offers professional services to faculty, students and the general public in the areas of speech and hearing. The areas of service include evaluation, hearing rechecks, hearing aid evaluations, hearing aid analysis, speech evaluations, and speech therapy. Other services offered through the clinic are: evaluation of hearing acuity, determining the need for hearing aids, recommending appropriate amplification, analyzing hearing aids to determine whether they are functioning properly, teaching speech-reading and working with problems of articulation, language, aphasia, cleft palate, voice, stuttering, and regional and foreign dialect. The clinic can be contacted at 423-439-4355.

d. Health Insurance

All full time Graduate Research Assistants in the Biomedical Science Graduate Program are required to have adequate health and accident insurance. Health insurance information for both domestic and international students is available on the University Health Center website at

https://www.etsu.edu/nursing/shserv/.

e. Childcare services

A childcare program, Little Buccaneers Early Childhood Laboratory Program, is specifically designed to meet the needs of ETSU students. ETSU students can enroll their children for blocks of time each semester that would accommodate their child care needs while attending classes and during study times. Information regarding this program can be obtained by calling 423-439-5773 or visiting their website.

9. Student Services and Campus information

a. Student IDs

Each student registered for classes on the East Tennessee State University campus must have a picture ID made. These are used for various services offered on the ETSU campus. They are used by the library to check out books, by the Comptroller's Office to clear and validate fees, they provide free admission to ETSU athletic events, selected University Center programs and discounted prices on selected others. For more information on obtaining your ID card, please see their website.

b. Bookstore

The ETSU Bookstore is located in the Culp Center.

c. Services for International Students

International Enrollment and Services serves the international community of visiting international students and scholars from more than 60 countries who attend or visit ETSU. Programming, advising, immigration paperwork, community outreach, field trips, and international festivals are among the many services offered by the Office. The contact number is 423-439-8321.

d. Computers

Graduate students have access to computers and internet access in several locations.Computers are available in the computer-testing lab in Stanton-Gerber Hall. Students will also be provided computer access in individual faculty laboratories. Computer labs are located in Sherrod Library and the Medical Library. Please see their websites for details and hours.

It is highly recommended that students have their own personal computers at home with internet access, where possible. The computer and internet are an integral part of most courses in the graduate program and email is now the standard form of communication. The internet provides access to all course material and many assignments will require the use of the internet to access literature and scientific databases. Classrooms in Stanton-Gerber Hall have internet connections and electrical outlets for use of laptop computers in the classroom.

e. Buildings and Access

Most graduate classes and research activities are now located on the VA campus in Building #119, Building #1 and Stanton-Gerber Hall (Building #178). Students will be issued key cards that activate door locks at selected locations on these buildings for after hours access. Laboratory keys will be provided for access to labs during student rotations.

f. Sherrod Library

Sherrod Library is the central library of the university, containing major learning resources that support the university's program of teaching and research. More information about the Sherrod Library and its resources can be found at: https://libraries.etsu.edu. Photocopying machines are located throughout the

library.

g. Department of Learning Resources

Medical Library - The Quillen College of Medicine Library supports students' health information literacy, evidence-based practice, and lifelong learning through an emphasis on mentoring students for improved information and research skills; providing access to selected resources for learning, research, and patient care; and facilitating interdisciplinary collaboration and outreach to improve health education and the health of the community.

The library provides access to numerous subscription information resources via the library website http://www.etsu.edu/medlib/ and university library catalog. Most resources can be accessed remotely using a valid ETSU username and password. Additional print resources are available in the library facility. If a needed resource is not available, it can be obtained via Document Delivery/Interlibrary Loan for a minimal fee.

Library staff members are available for all levels of assistance including support for resource and remote access; help finding high-quality information; training for making literature searches more complete, targeted, and efficient; suggestions and assistance with medically-related mobile apps; recommended consumer health resources to share with patients; guidance on finding images for use while navigating copyright concerns; citation management and other software; locating specific known books, journals/articles, and other resources; and identifying helpful resources for a particular topic of study.

The library can also provide support for student volunteer/community outreach work, including guidance on high-quality consumer health resources, assistance with health literacy programs, and other general support and mentoring.

The library facility includes a computer lab, group study rooms, white boards, study carrels and tables, vending machines, copy/scanning equipment, conference/meeting room, print books/journals, and exercise room. The library provides free coffee during regular hours on the first floor. From spring to fall, the library's second floor porch is open for outdoor study.

Students with active campus ID cards have after hours card access to the library basement, which includes study rooms, study carrels and tables, vending machines, a kitchenette with refrigerator and microwaves, and an exercise (spin bike) room.

The library is located in VA Building 4. Check the library website and news feed at for current hours. For more information, contact the information desk at 423-439-6253. For problems with card swipe access, contact waldenrr@etsu.edu.

The Department of Biomedical Communications is located on the second floor of the Quillen College of Medicine Library. This department assists students, residents, faculty, staff, and others within the health care community by providing graphic design and production in support of teaching, research, patient care, public service and promotional programs. Services include print, display and digital media; scientific posters; class notes; special project design; and high quality color copying.

h. Graduate Student Success Specialists

The Graduate Student Success Specialists provide free, confidential service to students. The Graduate Student Success specialists help graduate students set personal and academic goals, address obstacles in daily living, resolve problems and provide support, and connect students to campus and community

resources they may need.

i. Parking

ETSU Parking - All students who park any type of motor vehicle on the East Tennessee State University campus are required to properly affix an official ETSU parking permit. Permits are provided yearly. Each student is also provided a copy of current parking regulations. The campus Public Safety Department is responsible for enforcing parking regulations. Parking regulations are available to each student, and students are urged to observe them. The process for appeal of traffic or parking violations is outlined in these regulations and must be followed if the student regards the citation as unjust.

j. Campus Recreation

The Department of Campus Recreation provides the East Tennessee State University community with a growing array of physical activities. The department offers fitness programs, intramural sports, and outdoor adventure activities.

The Center for Physical Activity is open to all students at ETSU. Membership to the CPA is free to ETSU students as long as they have paid their Student Activities fee for the semester. Eligible studentsmust simply present their student ID's at the reception area and at any intramural sport. Information regarding additional memberships, facilities, and programs offered can be found on the Campus Recreation website.

k. Post Office and Post Office Boxes

Mailboxes for first year Ph.D. students will be located in the mail/copy room, B023, in Stanton-Gerber Hall. Other graduate students will receive mail through their departments. The campus post office is located on the lower level of the Culp University Center and offers complete window service during regular working hours. They are open Monday-Friday from 9:00 a.m. -3:30 p.m.

l. Inclement Weather Policy

The policy on closing the university due to inclement weather states that ETSU and its branch campuses will normally remain open during bad weather. The president of the university, under extreme conditions, may choose to officially close or suspend selected activities of the university or branch campuses. The decision to close the university or to cancel some or all classes will be made and announced as soon as possible to accommodate students who must commute. An official statement of closing will be broadcast over several area radio and television stations. The College of Medicine falls under the same inclement weather policy as the university.

Students are to attend classes unless otherwise notified by local media. If a student cannot attend class, the student is to contact the appropriate instructor(s) if possible. If not, the student must contact the instructor(s) immediately upon returning to the campus to negotiate an excused class absence and make up any missed work. If a student is stranded on campus due to inclement weather, facilities are available in university residence halls for an overnight stay. Students should report to the campus security building on the east side of campus.

10. Student Organizations and Activities

a. Biomedical Science Graduate Student Association

The BSGSA is an official organization East Tennessee State University representing the biomedical science graduate students.

b. Seminars and Journal Clubs

Research seminars are presented regularly in the College of Medicine as well as in other Colleges. These talks are sponsored by various research groups and departments and feature invited outside speakers as well as our own faculty, graduate students and post-docs. The seminars are an important part of graduate education in the program and should be attended whenever possible. All Ph.D. students are required to present an announced seminar as part of their graduate training. It is particularly important for students to attend seminar presentations by other students and their thesis and dissertation defenses as these are important milestones in their graduate program. Your presence provides support and encouragement for your fellow students as well as recognition for their hard work and accomplishments. It is also a good opportunity to learn about the thesis/dissertation defense process and how to make an effective oral presentation.

c. Annual Student Research Forum

This event offers students, residents and fellows at ETSU an opportunity to present their research results in a formal setting. Research presented must have been conducted under the direction of an ETSU faculty member.

Research forum website: http://www.etsu.edu/studentresearch/

d. Graduate and Professional Student Association

The Graduate and Professional Student Association (GPSA) provides students a chance to socialize and interact with graduate students from different programs. The GPSA is the student government unit for graduate student needs.

11. Important sources of information

The Graduate Catalog - The Graduate Catalog is the primary source of information on graduate curriculum, academic requirements and regulations and other academic matters. The catalog that is published during the year of a student's admission is the basis for that student's academic requirements. Thus, it is important for students to consult the catalog regularly and to use it as the authoritative source of information on academic matters. The catalogs for the current academic year and for several previous years are available on the graduate program web page (Student Resources) as well as the Graduate School website.

Schedule of classes - The ETSU Schedule of Classes is published each semester and lists all available courses. Students should consult the schedule when planning their courses for registration.

a. Websites

ETSU	http://www.etsu.edu/
Graduate School	http://www.etsu.edu/gradschool
James H. Quillen College of Medicine	https://www.etsu.edu/com/
Biomedical Science Graduate Program	https://www.etsu.edu/com/grad/

b. Email

Email is the preferred mechanism of communication for students and faculty. It is important that all students maintain an email address and monitor their email on a daily basis. All students receive an email account through ETSU when they become registered for classes through the ETSU email system. If you have problems with email, please contact the student help desk at 439-4648.
After beginning the program, all correspondence with students will be through email using the ETSU student account *****@etsu.edu and not through personal or other email accounts. Please check your ETSU email account on a daily basis. You may wish to have email forwarded to another personal account. Please keep in mind that we will not return correspondence through personal accounts.

c. D2L (Desire to Learn) Course management system

D2L is the course information system for ETSU. Most graduate courses will rely on D2L for course information including assignments, syllabus, course and staff information and email communication.

D2L log-in site - https://elearn.etsu.edu/
D2L information - http://www.etsu.edu/d2l/