

# GRADUATE STUDENT HANDBOOK

COMPARATIVE AND EXPERIMENTAL MEDICINE GRADUATE PROGRAM

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## TERMS AND ABBREVIATIONS

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**CEM:** Comparative and Experimental Medicine

**JGCC:** Joint Graduate Coordinating Committee

**UT:** University of Tennessee

**CEM Program:** Comparative and Experimental Medicine Graduate Program

**CEM Program Director:** Dr. Robert N. Moore, Associate Dean for Research and Graduate Studies

**CEM Program Office:** Administers the CEM Program. Located in A102 Veterinary Teaching Hospital

**Credit hours:** The number of contact hours per week in a given course in a given term

**Joint Graduate Coordinating Committee (JGCC):** Governing body of the CEM Program

**Major professor:** The main advising professor on the student's faculty committee

**Term:** The UT-established period for the duration of a course (normally fall, spring, and summer)

**UT Graduate School:** The University of Tennessee Graduate School. The CEM Program operates under the umbrella of the UT Graduate School, whose main office is located at 111 Student Services Building, Knoxville, TN 37996, USA.

**UT Office of Graduate Admissions:** The admissions department of the UT Graduate School. Located at 201 Student Services Building, Knoxville, TN 37996-0230, USA.

**UT Registrar's Office:** Oversees enrollment services, grades, graduation, transcripts, and student records. Located in 209 Student Services Building, Knoxville, TN 37996-0200, USA.

# WELCOME

On behalf of the faculty of the Comparative and Experimental Medicine (CEM) Graduate Program, I welcome you to the CEM Handbook. We are pleased that you are interested in this exciting and unique multi-disciplinary graduate program at the University of Tennessee (UT), Knoxville. The CEM Program prepares students at the MS or PhD levels for teaching and/or research careers in the health sciences. The program is jointly administered by the UT College of Veterinary Medicine and the UT Graduate School of Medicine and actively promotes the concept of "*One Health/One Medicine*" by emphasizing the comparative approach to the study of biomedical science.

The program is open to approved graduate students seeking training in these areas and is especially useful for individuals with professional degrees in the health sciences.

For the student with an undergraduate biological sciences background, the CEM Program provides an unusual opportunity to study disease processes common in animals and humans from a multi-disciplinary perspective. The scope of this intercollegiate program, which pools faculty resources from both veterinary and human medicine, is broadened by faculty members representing wide-ranging interests in biomedical disciplines and areas of the life sciences. The interdisciplinary training environment includes such diverse support as facilities and personnel at the Veterinary Teaching Hospital, UT Medical Center at Knoxville, life sciences departments, College of Agricultural Sciences and Natural Resources, College of Engineering, and the Department of Nutrition.

I hope you will find this handbook useful if you are planning to pursue or are pursuing a graduate degree in the CEM Program. It contains basic information about policies and procedures in the graduate program, including curricula and degree completion requirements. Additionally, most faculty members within the program are listed with Web pages that contain phone numbers and E-mail addresses. We update this document periodically in light of changes instituted by the program or other administrative units. For this reason, this handbook will supersede any previous one and will itself be amended by later action of which students will be duly notified. Graduate students are expected to be aware of and satisfy all regulations governing their work and study at the university; however, since not all aspects of graduate study can be included here, students are urged to consult the Graduate Catalog (<http://catalog.utk.edu/index.php?catoid=2>) and *Hilltopics* (<http://dos.utk.edu/hilltopics/>).

*Robert N Moore*

Robert N. Moore, PhD

Director, Comparative and Experimental  
Medicine Graduate Program



# CONTACT INFORMATION

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**CEM Program Office:** A102 Veterinary Teaching Hospital

**Contact:** Kim Rutherford

**Address:** 2407 River Drive  
Knoxville, TN 37996-4550

**Phone:** (865) 974-0227

**Fax:** (865) 974-4773

**E-Mail:** [kimruth1@utk.edu](mailto:kimruth1@utk.edu)

**Associate Dean for Research and Graduate Studies:** Dr. Robert N. Moore

**Phone:** (865) 974-0227

**Policies and Procedures:** Administered by the Joint Graduate Coordinating Committee

**The Joint Graduate Coordinating Committee:**

- Director: Robert N. Moore, PhD
- Joseph Bartges, DVM, PhD
- James E. Lawler, PhD
- Karla Matteson, PhD
- Michael B. Zemel, PhD

**The University of Tennessee:**

- [College of Veterinary Medicine:](#) Dr. James P. Thompson, Dean
- [Graduate School of Medicine:](#) Dr. James J. Neutens, Dean

# APPLICATION PROCEDURE

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Application materials must be submitted to two (2) different offices at the University of Tennessee. Please send the requested items to the correct places to ensure that your application is given full consideration.

## Materials That Need to be Submitted to the UT Office of Graduate Admissions

(<http://web.utk.edu/~gsinfo/>)

1. APPLICATION FORM: Submit this directly to the UT Graduate School:  
<http://admissions.utk.edu/graduate/forms/gradapp.pdf>  
You may also apply online:  
<http://admissions.utk.edu/graduate/apply.shtml>
2. OFFICIAL TRANSCRIPTS: One (1) set from ALL former schools
3. GRE SCORES: Please submit if you are not a veterinarian, physician, or dentist.
4. APPLICATION FEE: \$35 non-refundable

## International Students

- Review the UT Graduate School's Admission Guide for International Students:  
<http://admissions.utk.edu/graduate/>
- Pay particular attention to all deadlines; **there are no extensions**:  
<http://admissions.utk.edu/graduate/dates.shtml>
- **Official Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) results:** (TOEFL) Minimum 550 for the paper exam, 213 for the computer exam, or 80 for the Internet exam; (IELTS) Minimum 6.5
- International Applicant Financial Statement:  
[http://admissions.utk.edu/graduate/forms/financial\\_statement\\_2009.pdf](http://admissions.utk.edu/graduate/forms/financial_statement_2009.pdf)

### MAILING ADDRESS:

Graduate Student Services  
201 Student Services Building  
Knoxville, Tennessee 37996-0220

## Materials That Need to be Submitted to the CEM Program Office

1. The printed, filled-in, CEM Application form  
<http://www.vet.utk.edu/graduate/application.pdf>  
**(this is different from the UT Graduate Admissions form)**
2. Three (3) letters of recommendation from referees.  
The referees should mail these directly to the CEM Program Office.
3. A photocopy of your TRANSCRIPTS (does not have to be an official copy)
4. A photocopy of your GRE SCORE (does not have to be an official copy)

## International Students:

- Please send a photocopy of your TOEFL or IELTS score

### MAILING ADDRESS:

Kim Rutherford  
Office of Research and Graduate Program  
The University of Tennessee  
2407 River Drive, Room A102  
Knoxville, TN 37996-4550

## ADMISSION REQUIREMENTS

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- **General**

Admission requirements of The University of Tennessee, Knoxville Graduate School apply to prospective students of the CEM program. In addition, applicants must furnish admission materials to the CEM Program Office, as indicated on page 3.

- **Requirements for Admission to the Master of Science Degree Program**

Applicants to the MS degree program must have a baccalaureate degree with course work in chemistry through organic, mathematics through calculus, physics, and basic biology. More advanced study in biology, such as biochemistry, mammalian anatomy, histology, cell biology, or other appropriate biomedical courses from an accredited university is recommended.

Applicants whose backgrounds include no formal training in the biomedical field beyond the baccalaureate degree must score at least 1,000 on the quantitative and verbal portion of the Graduate Record Examination (GRE).

- **Requirements for Admission to the Doctor of Philosophy Degree Program**

Applicants generally will be expected to have

- a professional degree in one of the medical sciences (e.g., MD, DDS, DVM)

OR

- a master's degree in one of the biomedical sciences and a Graduate Record Examination (GRE) score of at least 1,000 on the quantitative and verbal sections.

An individual having a baccalaureate degree with a strong background in the physical and biological sciences may be admitted to the PhD program upon presenting evidence of exemplary performance on the GRE.

Exceptional veterinary students at The University of Tennessee, Knoxville may be admitted to the CEM program but will remain enrolled officially as veterinary students. Such students may register for graduate courses, which may be counted as elective courses in the veterinary program.

# REGISTRATION PROCEDURES

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Registration is required of all graduate students when using university facilities and/or faculty time. The minimum number of credit hours for registration is one (1). Registration allows use of services such as library checkout, laboratories, and recreation facilities not open to the public.

Information concerning registration is available at Circle Park Online (<http://cpo.utk.edu>) each term. Registration is accomplished via Web, and *confirmation of attendance must be set in addition to registration.*

## Payment of Registration Fees

During priority registration, a bill is mailed to the registrant. Payment is due by the deadline noted on the bill. A graduated late fee is assessed to any student who fails to register during priority registration. Additional information can be obtained from the Office of the University Registrar at (865) 974-2101 or <http://registrar.utk.edu/>.

Failure to pay tuition and fees before the deadline, as noted each term on the bill (VoIXPress statement), will result in cancellation of the schedule. Retroactive registration is not allowed.

## Change in Registration

The permanent record will show all courses for which the student has registered except those audited and those from which the student has withdrawn on or before the "Drop Course without W" deadline.

Students who fail to attend the first class meeting without prior arrangement with the department may be dropped from the course to make space available to other students. Students have the responsibility to assure that they have been dropped. Otherwise, they may receive a grade of F in the course.

Type of Change for Full Term Classes Fall/Spring	Deadline (after class begins)
Add or drop a course without a W or change credit/grading	10 days
Between 11 and 42 days with instructor's and advisor's signature	42 days
Drop course with W	84 days

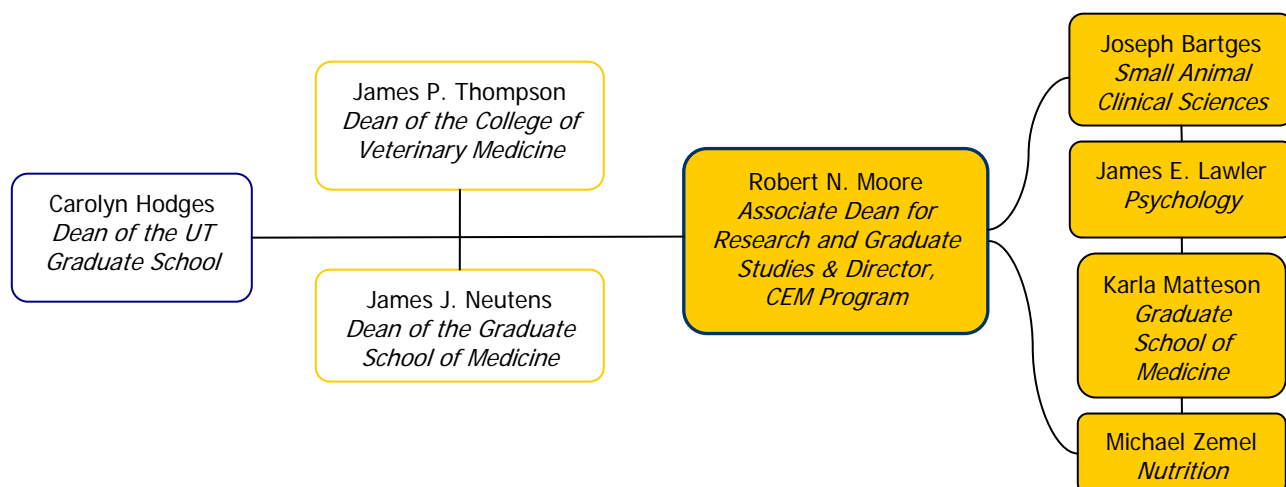
The periods for add, drop, change of credit/grading for sessions within the full term, summer, and mini term are determined based on a percentage of the equivalent deadline within the full term. See Circle Park Online (<http://cpo.utk.edu>) each term for exact dates. Deadline dates will be moved to the next business day if the deadline falls on a holiday, weekend day, or fall/spring recess. Within the change of registration period, a student may change registration at Circle Park Online. If additional permission is necessary, a student must execute a [change of registration](#) at the Office of the University Registrar, with approval of the instructor and the major professor. Total withdrawal from registration for a term must be processed through the Office of the University Registrar.

# ADMINISTRATIONS OF THE PROGRAM

The CEM Program is an intercollegiate program administered by the UT Graduate School through the College of Veterinary Medicine. Admission and graduation requirements of the UT Graduate School will pertain. The program will be under the administration of a Joint Graduate Coordinating Committee (JGCC). The JGCC and its director are appointed by the Dean of the College of Veterinary Medicine, in consultation with the Dean of Graduate Studies, and by the Dean of the UT Graduate School of Medicine. A minimum of four representatives and a maximum of six representatives will comprise the JGCC. Equal representation from the College of Veterinary Medicine and the UT Graduate School of Medicine is required; however, other university faculty members who have been admitted to the program may also serve.

The JGCC has the following charges:

1. Advise the program director on the composition of all doctoral and masters committees. The director of the Joint Graduate Coordinating Committee nominates doctoral committees for approval by the Dean of Graduate Studies.
2. Develop and coordinate the curriculum for the graduate program in consultation with the designated faculty of the program.
3. Recommend admission of applicants on advice of an Admissions Committee appointed by the Joint Graduate Coordinating Committee.
4. Appoint the Comprehensive Examination Committee monitor.
5. Ensure that appropriate guidelines are in place, approved, and implemented.
6. Be responsible for ensuring that the policies and regulations of the UT Graduate School are fulfilled by all participants in the program.
7. Be responsible for coordination of activities relevant to academic honesty and/or grievances.
8. Review and recommend approval of the program for each student on the admission to candidacy application.
9. Recommend the appointment of faculty members to the program.



KEY:  Joint Graduate Coordinating Committee

# DEGREE REQUIREMENTS

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## Master of Science

- Minimum Coursework: Core 14 hours
- Required (Major): 8 hours
- Thesis: 6 hours
- Electives: 2 hours
- **Total: 30 hours**

**Core Courses:** Cellular and Molecular Basis of Disease 541 (4 hours)  
Descriptive and Applied Epidemiology 504 (3 hours)  
Journal Clubs 600-level (4 hours)  
Statistics 500- or 600-level (3 hours)

- In addition to core courses, students must complete a minimum of 8 credit hours of coursework in a specified discipline, 2 or more hours of electives, and 6 hours of Thesis 500.
- Exceptions to accommodate students with specific interests must be approved by the JGCC after application, in writing, to the director.

The **majority** of coursework required for a master's degree must be taken at the University of Tennessee, Knoxville.

A **maximum** of 10 hours may be transferred from institutions outside the University of Tennessee system with approval by the student's master's committee and the UT Graduate School. Graduate courses (500- or 600-level) taken by veterinary, medical, and dental students may, if appropriate, be transferred or credited (maximum of 6 hours) to a student's graduate program in Comparative and Experimental Medicine upon recommendation by the student's master's committee and approval by a majority of the JGCC ([see transfer credits](#)).

## Master's Committee

Students must consult with the CEM Program Director on selection of a major professor (or temporary advisor) upon entry into the graduate program. **After one term** of graduate-level courses, the student should select and consult with the major professor concerning the formation of a master's committee (at least three members at the rank of assistant professor or above). By the **end of the second term**, the master's committee must be chosen. **The committee must be** composed of at least one faculty member from the College of Veterinary Medicine and at least one faculty member from the UT Graduate School of Medicine. The director, after consulting with the JGCC, must approve the master's committee to ensure that balance exists and that the CEM Program is appropriately represented. If the student opts for a significant amount of coursework in a minor field of study, one member of the committee must be from an appropriate department in the minor discipline. The committee will assist the student in planning a course of study prior to the end of the second term of graduate-level work. The committee may require and/or recommend specific courses (in addition to those required by the program). The committee should aid the student in formulating and completing an appropriate research project and in ensuring the achievement of degree requirements. The student is responsible for coordinating meetings of the master's committee at least twice per year and obtaining and/or preparing required materials such as appropriate UT Graduate School forms, transcripts, progress reports and research proposals for the meetings. Student progress will be monitored by the CEM Program Director. It is incumbent upon students to promptly honor requests for progress reports.

## Admission to Candidacy

Admission to candidacy indicates agreement that the student has demonstrated ability to do acceptable graduate work and that satisfactory progress has been made toward a degree. This action usually connotes that all prerequisites to admission have been completed and a program of study has been approved. Application for admission to candidacy for the master's degree may be made after the student has completed required core courses and 9 hours of graduate coursework and has a minimum GPA of 3.0. Students must submit the [Admission to Candidacy form](#), with appropriate signatures, to the UT Registrar's Office no later than commencement day of the term preceding the term in which they plan to graduate.

## Thesis Registration

Students must be registered for thesis hours each term work is done on the thesis (continuous registration is not required), including a minimum of 3 credit hours the term in which the thesis is accepted by the Graduate School. Six hours of course number 500 are required. After receiving the master's degree, a student is no longer permitted to register for 500-level thesis hours.

## Thesis

The thesis is the culmination of an original research project completed by the student.

- The final draft of the thesis must be distributed to all committee members **at least two weeks prior** to the date of the final examination.
- A draft of the thesis (preferably on CD) should be placed in the CEM Program Office **at least two weeks prior** to the final examination and available to all interested persons at the University of Tennessee. It must be prepared according to the current edition of the [UTK Guide for the Preparation of Theses and Dissertations](#).
- *Thesis preparation is the responsibility of the student* (this includes typing and photocopying).
- Two copies of the thesis must be approved and accepted by the UT Graduate School on or before the deadline specified each term by the UT Graduate School.
- Each copy must include an [approval sheet](#), signed by the members of the master's committee, certifying that they have examined the final copy of the thesis and judged it to be satisfactory.

## Final Examination (Defense of Thesis)

Candidates must present a thesis and pass a final oral examination, as determined by the candidate's committee. The examination, which is concerned with both coursework and the thesis, measures the candidate's ability to integrate material in the major and related fields. This examination must be scheduled by the student through the CEM Program Office, **at least two weeks prior to the examination**. Unless prior approval from the Graduate School is granted, the examination must be given in university facilities. Final examinations not properly scheduled **MUST** be repeated. This examination must be held at least two weeks before the final date for acceptance and approval of thesis set by the UT Graduate School. Results of the final examination must be submitted by the thesis deadline. In case of failure, the candidate may not apply for re-examination until the following term. The result of the second examination is final.

The final examination should also fulfill the following CEM Program guidelines:

- A seminar should be scheduled and presented by the student. This seminar should be announced through the CEM Program Office and be open to all interested persons at the university. Appropriate seminar announcements should identify this as a thesis defense.

- At the end of the presentation, questions shall be open to the audience and be appropriate to that presentation.
- An oral defense of the thesis, by the student, will be conducted by the Thesis Committee immediately following the seminar.

## Transfer Credits

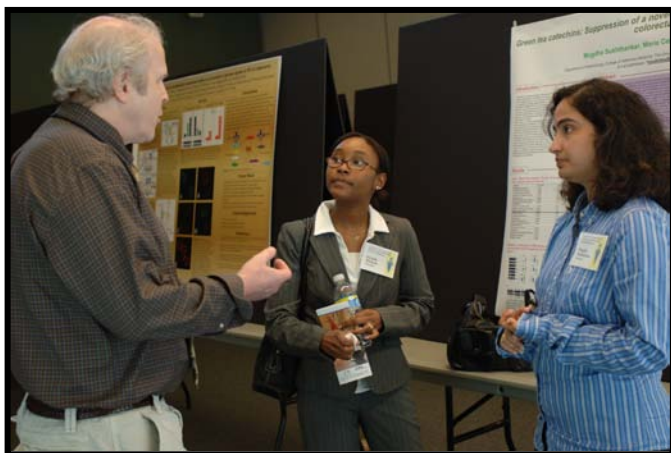
Courses taken at another institution may be considered for transfer into the MS degree program, as determined by the master's committee and approved by the UT Graduate School. Official transcripts from all institutions previously attended must be sent directly to the Office of the University Registrar before any credit will be considered. Courses transferred will not affect the minimum residence requirements for the program, nor will they be counted in determining the student's grade-point average. Credits transferred from universities outside the University of Tennessee system cannot be used to meet thesis or dissertation requirements nor 600-level coursework requirements. Credit for extension courses taken from other institutions is not transferable, nor is credit for any course taken at an unaccredited or foreign institution.

## Research Symposium Experience

Students are required to present at least once in the CEM Summer Research Symposium, prior to defense of the thesis. In exceptional circumstances, where a student's program needs require faculty expertise that is not adequately met within the CVM or GSM, the director may waive this requirement.

## Time Limit

Candidates have six (6) calendar years from the time of enrollment in the UT Graduate School to complete the master's degree. Students who change degree programs during this 6-year period may be granted an extension after review and approval by the UT Graduate School. In any event, courses used toward a master's degree must have been taken within six calendar years of graduation.



# Doctor of Philosophy

**Core Courses:** Cellular and Molecular Basis of Disease 541 (4 hours)  
Descriptive and Applied Epidemiology 504 (3 hours)  
Journal Clubs 600-level (6 hours)  
Statistics 500- or 600-level (3 hours)

In addition to core courses, students must complete a minimum of 8 credit hours of coursework in a specified discipline. Areas of emphasis may include epidemiology, imaging, immunology, infectious diseases and parasitology, medicine, molecular and cellular biology, nutrition and metabolism, pathology, pharmacology and toxicology, surgery, or other (must be approved by the CEM Program Director). Exceptions to accommodate students with specific interests must be approved by the JGCC after application, in writing, to the CEM Program Director.

**Minimum Coursework:** for students with a professional (i.e., MD, DVM, DDS) or master's degree

Twenty-four (**24**) credit hours of graduate coursework. At least six hours of 600-level courses must be included. In addition, at least twenty-four (**24**) hours of dissertation work in course number 600 are required (forty-eight [**48**] hours total). At least 12 hours of coursework must be graded A-F.

Students without a professional or master's degree must complete a minimum of 48 credit hours of coursework and 24 hours of Dissertation 600.

## Doctoral Committee

Students must consult with the CEM Program Director on selection of a major professor (or temporary advisor) upon entry into the graduate program. During the **first year** of graduate study, the student shall select a major professor and, together with the latter, identify a doctoral committee composed of four faculty members holding the rank of assistant professor or above, three of whom, including the major professor, must be approved by the Graduate Council to direct doctoral research. At least one member must be from a department other than that of the student's major field, one member from the College of Veterinary Medicine, and one member from the UT Graduate School of Medicine. The director, after consulting with the JGCC, must approve the [doctoral committee](#) to ensure that balance exists and that the CEM program is appropriately represented. Exceptions to these requirements, to accommodate students with specific interests, must be approved by the JGCC after application, in writing, to the CEM Program Director. The doctoral committee has primary responsibility, subject to Graduate Council policies, for the degree work of the student. The doctoral committee should plan (and must approve) all coursework, certify the student's mastery of the subject matter of the field of study by a comprehensive examination, direct the research, and recommend the dissertation for approval and acceptance by the Graduate School. The doctoral committee should meet at least twice a year. Students must **prepare and defend a prospectus** outlining their proposed research projects before the end of their **third year** in the program. Medical residents pursuing a doctoral degree have until the end of their fourth year.

The *student's responsibility is to coordinate the scheduling of the meetings* of the doctoral committee and to obtain and/or prepare the materials required, such as appropriate Graduate School forms, transcripts, progress reports, and research proposals for committee meetings. The student's progress will be monitored by the CEM Program Director. It is incumbent upon students to promptly honor requests for progress reports. *Changes in membership of the doctoral committee MUST be done by submitting to the Graduate School a completed [Doctoral Committee Appointment Form](#), with signatures of the members removed and added to the committee.* The signature of the director of the JGCC is also required. The Admission to Candidacy form submitted by the student after completion of the comprehensive examination MUST have the signatures of members of the CURRENT doctoral committee.

## Admission to Candidacy

A student may be admitted to candidacy for the doctoral degree after passing the comprehensive examination and maintaining at least a B average (minimum grade-point average of 3.0) in all graduate coursework. *Admission to candidacy must be applied for, and approved, at least one full term prior to the date the degree is to be conferred.* Each student is responsible for filing the [Admission to Candidacy form](#), which must be signed by the doctoral committee and the CEM Program Director and approved by the Graduate School.

## Continuous Dissertation Registration

The student must register *continuously* for course number 600 (minimum of 3 credit hours per term) from the time the doctoral research proposal is approved, admission to candidacy is accepted, or registration of course number 600 is begun, whichever comes first. This includes summer terms and the term in which the dissertation is approved and accepted by the Graduate School. *A minimum of 24 credit hours of course number 600 is required before the dissertation will be accepted.*

## Doctoral Comprehensive Examination

This examination should be taken when the student has completed, or nearly completed, all prescribed courses and must be completed before the end of the **third year** of the program. Medical residents pursuing a doctoral degree have until the end of their fourth year. Its successful completion indicates that, in the judgment of the faculty, the doctoral student can think analytically and creatively, has a comprehensive knowledge of the field and the specialty, knows how to use academic resources, and is deemed capable of completing the dissertation. The comprehensive examination must be passed prior to admission to candidacy. The candidate must adhere to the following guidelines:

1. The student shall declare, with approval of his/her doctoral committee and at the time of the student's first meeting with the committee, a **major study area** from the following list and one to three **minor areas** supported by the expertise of the CEM faculty and agreed upon by the faculty committee. These shall be:
  - epidemiology
  - imaging
  - immunology
  - infectious disease and parasitology
  - medicine
  - molecular and cellular biology
  - nutrition & metabolism
  - pathology
  - pharmacology/toxicology
  - surgery
  - other (must be approved by CEM Program Director)
2. The examination shall be in two parts: a written examination followed by an oral examination. The written examination shall be a closed book examination conducted over one to three days. Questions given to the student on one day shall be completed on that day. The oral examination shall be held within three weeks after completion of the written examination. The oral examination at minimum shall cover the primary and secondary areas appropriately.
3. The program director shall appoint the **comprehensive examination coordinator** for the examination process. The program director shall solicit nominations of at least three faculty members from the student's advisor for consideration.
4. The comprehensive examination coordinator and the doctoral committee shall be responsible for preparing and administering the examination. The coordinator shall work with the advisor and the rest of the doctoral committee to set the written examination. He/she shall ensure that questions reflect a concentration in the declared major and that the minor areas are covered adequately. The written examination shall be administered and proctored by the coordinator. The oral examination shall be administered by the doctoral committee under the direction of the coordinator. The coordinator may participate in the examination and may vote on the outcome of the examination, if he or she chooses to do so.

5. All CEM faculty members, including those not serving on the student's committee, are entitled to submit questions appropriate to the student's educational background. Questions from the student's previous instructors may also be given consideration.
6. The student shall pass the examination provided the coordinator has established that:
  - a. A consensus exists among the examining committee members (at least a 2/3 majority on the committee, including the coordinator).
  - b. An appropriate number of questions dealing with the declared major and minor areas were administered.
  - c. The examination was fair and rigorous.
7. All members of the JGCC should be invited to attend the oral examination. The **student should notify** the CEM Program Office of the time and place of the exam **at least one month in advance**.
8. Following the examination, a copy of the written examination, including corrections, will be maintained in the student's file in the CEM Program Office in the College of Veterinary Medicine.
9. The official results of the comprehensive examination must be reported to the Graduate School on the Admission to Candidacy form, and a short report should be submitted to the CEM Program Director by the coordinator.

### Dissertation (UT GUIDE TO DISSERTATION: <http://web.utk.edu/~thesis/guide10.pdf> )

The dissertation represents the culmination of an original research project completed by the student. The organization, method of presentation, and subject matter of the dissertation are important in conveying to others the results of such research. Funding for dissertation research will be identified by the student after consultation with the major professor. The student shall prepare, prior to initiation of the project, a prospectus to include title, hypothesis, rationale, objectives, literature review, and materials and methods. The student's doctoral committee and the JGCC must approve the proposed research project in writing.

A student should be registered for the number of dissertation hours representing the fraction of effort devoted to this phase of the candidate's program. Thus, a student working full-time on the dissertation should register for 9 hours of course number 600 per term. *Note: maximum of 99 hours of dissertation.*

The dissertation (prepared according to the regulations in the current edition of the *UTK Guide to the Preparation of Theses and Dissertations*) must be submitted to and accepted by the Graduate School. It must include an [approval sheet](#), signed by all members of the doctoral committee, which certifies to the Graduate School that they have examined the final copy and found that its form and content demonstrate scholarly excellence. All other doctoral forms are also submitted at this time (see [dissertation consultant](#) for details).

### Final Examination (Defense of Dissertation)

A doctoral candidate must pass an oral defense of the dissertation. The dissertation, in the form approved by the major professor, *MUST be distributed to the committee at least two weeks before the examination*. The examination must be scheduled through the [UT Registrar's Office](#) at least one week prior to the examination and must be conducted in university facilities. Final examinations not properly scheduled must be repeated. The examination is announced publicly and is open to all faculty members. The defense of the dissertation will be administered by ALL members of the doctoral committee after completion of the dissertation and all course requirements. *This examination must be passed at least two weeks before the date of submission and acceptance of the dissertation by the Graduate School.* Results of the defense must be submitted by the dissertation deadline.

The final examination should also fulfill the following CEM guidelines:

- A draft of the dissertation (preferably on CD) should be placed in the CEM Program Office one week prior to the final examination and be available to all interested persons at The University of Tennessee.
- A seminar should be **scheduled** and presented **by the student**. This seminar should be announced through the CEM Program Office and be open to all interested persons at The University of Tennessee.
- Appropriate seminar announcements should identify this as a dissertation defense.
- At the end of the presentation, questions shall be open to the audience and be appropriate to that presentation.
- An oral defense of the dissertation, by the student, will be conducted by the doctoral committee immediately following the seminar. It is open to all faculty members.

## Transfer Credits

At the doctoral level, courses are not officially transferred although they may be used to meet degree requirements. If a requirement has been met through coursework in another program, the student may petition the JGCC for a waiver of this requirement.

## Research Symposium Experience

Students are required to participate at least twice in the CEM Summer Research Symposium, prior to defense of the dissertation. In exceptional circumstances, where a student's program needs require faculty expertise that is not adequately met within the CVM or GSM, the director may waive this requirement.

## Time Limit

Comprehensive examinations must be successfully completed within 3 years, and all requirements must be completed within 8 years from the time of a student's initial enrollment in the doctoral degree program.



# ACADEMIC STATUS

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## Full-Time Status

To be considered full-time, students should enroll in at least 9 credit hours, but no more than 15 hours, per term. For the summer term, students may register for a maximum of 12 hours in an entire summer term or 6 hours in a 5-week summer session. Students may enroll in only one course during mini-term.

Students holding a half-time assistantship should enroll for 6 to 11 credit hours. A one-fourth time graduate assistant should take 9 to 13 hours.

If students hold at least a one-fourth time assistantship appointment, they are automatically enrolled in the student health insurance plan. However, students must be enrolled in at least 3 graduate credit hours each term to maintain coverage. If they wish to use the on-campus Student Health Service clinic, students must be enrolled for at least 9 hours per term **or** pay the \$70.00 health service fee if enrolled for less than 9 hours.

## Grade-Point Average

Graduate students must maintain a cumulative grade-point average (GPA) of at least 3.0 in all graduate courses taken for a letter grade of A to F. Grades of S/NC, P/NP, and I, which have no numerical equivalent, are excluded from this computation. No student may repeat a course for the purpose of raising a grade already received, with the exception of NC. A graduate student may not do additional work or repeat an examination to raise a final grade.

## Terms of Probation

If, upon completion of 9 hours of graduate coursework, a student's GPA falls below 3.0, the student will be placed on academic probation. A student will be allowed to continue graduate study in subsequent terms if each term's GPA is 3.0 or greater. Upon achieving a cumulative GPA of 3.0, the student will be removed from probationary status.

## Dismissal

If a student is on academic probation, the degree status will be terminated by the Graduate School if the student's term GPA falls below 3.0 in a subsequent term. When the particular circumstances may be deemed to justify continuation, and upon recommendation by the CEM Program Director and approval of the Graduate School, a student on probation whose term GPA is below 3.0 may be allowed to continue on a term-by-term basis.

Other terms of dismissal are failure to pass the [comprehensive](#) or final examination (requests for second attempts must be sent to the CEM Program Director for JGCC review and approval/disapproval), failure to meet CEM Program [time limit requirements](#), violations of [academic honesty](#), research [misconduct](#), or [unsatisfactory progress](#). Two consecutive terms of "No Progress" (NP) in Thesis 500/Dissertation 600 will result in dismissal from the Graduate School. For the CEM Program, NP grades in Thesis 500/Dissertation 600 in 2 of 3 consecutive terms will result in dismissal from the program.

Termination of a student from the program must be accompanied by written notice to the student with a copy to the Graduate School. The CEM Program Director may evaluate the student's record to determine whether the student is eligible to apply for a change of status and register in another area of study.

Registration for courses in the CEM Program by students dismissed from the program will not be permitted, except by written authorization from the program director.

## Incomplete Grades

"I" is a temporary grade indicating that the student has done satisfactorily in the course but, due to unforeseen circumstances, has been unable to complete all the requirements.

All incompletes MUST be removed within one term, excluding the summer term. If a supplementary grade report has not been received in the UT Registrar's Office at the end of the appropriate term, the "I" will be changed to an "F." The course will not be counted in the cumulative grade-point average until a final grade is assigned. No student may graduate with an "I" on his/her record.

## Method/Time Frame for Notification of "Change of Program"

To change a major program of study or to change from one degree to another within the same program, a student must complete a [Request for Change of Graduate Program](#) form. The form requires the signature of the director/head of the program in which admission was previously granted. Acceptance into a new program is contingent upon a review and recommendation by that program. Students not accepted into the program requested remain in the program to which he/she has been formerly admitted. Results of each request for program change are communicated to the student by mail by the Graduate School. Program changes must be accomplished within one term of the request for change.

## Expectations for Good Standing

Students in the CEM Program are expected to maintain a 3.0 cumulative grade-point average on all graduate courses graded A to F. For all other courses, a grade of either P or S must be received. In addition, students are expected to make reasonable progress in their thesis or dissertation research after projects have been approved. It is expected that they will complete research projects within three years. The CEM Program has a formal process for annual evaluation of student progress and performance (<http://online.utk.edu>). The process is designed to optimize the value of individual student programs and to ensure timely progression through degree requirements.

Following each spring term, the student's major professor meets with the student to discuss progress and performance and provides a written evaluation describing accomplishments, strengths, and deficiencies, and if necessary, suggested corrective actions. In the event of an anticipated unsatisfactory evaluation, the major professor consults with the student's faculty committee before preparing the evaluation. The advising professor provides copies of the evaluation to the members of the student's committee and to the CEM Program Director.

Following the advising professor's evaluation and prior to the start of the fall term, the student must file an information packet with the CEM Program Director's office. The packet includes a detailed reporting form, a current curriculum vitae (CV), and a copy of the advising professor's evaluation. The reporting form includes a cumulative listing of courses taken, with grades, and explanations and corrective actions to be taken in response to deficiencies or unsatisfactory progress reported in the major professor's evaluation. The packet will be available to the major professor and to members of the student's faculty committee.

If warranted, the director will notify the student, the major professor, and the student's faculty committee that a report of unsatisfactory performance is being made to the JGCC. The JGCC will review the report and any additional materials provided by committee members and decide if there are grounds for probation or [dismissal](#) from the program.

## Conflict Resolution

If a conflict develops between a student and the student's major professor, both parties should work to correct the interfering issues. Conflicts may include issues of disruptive conduct and insubordination. If the conflict cannot be resolved, the professor or student should request mediation through the CEM Program Director or the

Director of the GSM portion of the program. If all efforts fail and the professor decides to stop serving as the student's major professor, that professor documents in writing all problems and attempts to make corrections to the student, the student's committee members, and the director. Conversely, students may similarly request changes. Under either scenario, to remain in the program, the student must provide to the director a written explanation and request to formally visit with other program faculty (as in laboratory rotations) or to associate formally with another faculty member (who must provide written agreement). The director will notify the student, the major professor, and the student's faculty committee that the student's request and accompanying materials are being directed to the JGCC for decision. The CEM Program is not responsible for replacing any stipend and tuition support provided by the first faculty mentor, and it is possible that stipend and tuition support for the student may be lost.

## ACADEMIC HONESTY

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### Expectations

Plagiarism or academic cheating of any description (during closed-book examinations, thesis preparation, manuscript preparation, and research) is considered a serious breach in academic honesty, as is falsification of data.

### Violations

Violations of academic honesty by a student should be reported in writing to the JGCC. The student will be notified, in writing, of the charge(s) by the JGCC within 7 days of the latter receiving the charge. The JGCC will investigate the circumstances of the alleged offense by meeting with both the accuser and the accused and either impose a penalty or dismiss the charges within 30 working days of student notification of the charge (unless an extension requested by the student is approved).

### Penalties

Appropriate penalties for violation of academic honesty are probation, suspension, or dismissal. The exact penalty will depend on the circumstances under which the violation was committed.

### Appeal

After a hearing by the JGCC, a student dissatisfied with the decision rendered may [appeal](#) the decision to the Appeals Committee of the [Graduate Council](#) in the manner detailed in *Hilltopics*.

## LEGAL REQUIREMENTS FOR RESEARCH

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Institutions of higher education have maintained a centuries-old tradition of integrity and objectivity. The University of Tennessee is pleased with the overall support given by its faculty, staff, volunteers, and students in upholding this tradition and wants to ensure that the highest level of integrity in all academic activities is continued. Therefore, any individual who has reason to believe that he or she has knowledge of an act of [research misconduct](#), including fabrication of results, plagiarism, and/or misrepresentation of findings, should communicate this information to a supervisor or appropriate administrator. If an allegation of misconduct is substantiated, the chief administrative officer of the campus shall initiate the applicable disciplinary procedures, and sanctions, if appropriate, will be imposed under those procedures.

### Research Compliance

All researchers at the University of Tennessee are expected to comply with the university's research policies, regulations, and guidelines. [Compliance information](#) and compliance forms are available at the Office of Research. Regulations must be followed for all research, especially that involving animal care, biosafety, human subjects, and radiation.

## CONFLICTS OF INTEREST

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1. Students are discouraged from providing food and refreshments for participating faculty during comprehensive examinations and thesis/dissertation defenses. The student being examined is not expected or required to do this, and the action may place examining faculty in an uncomfortable situation. Following a successful examination or thesis/dissertation defense, it is then acceptable for participating faculty to be invited to a celebration.
2. Students are not required to provide food and refreshments at regular committee meetings, and providing anything beyond inexpensive snacks and coffee or soft drinks is strongly discouraged.
3. Students should not give gifts to faculty in the CEM program, including their own major professor, before they have completed all requirements for their degree. Although gift giving is common in other cultures, this practice can be misinterpreted as creating or contributing to a conflict of interest, and is therefore strongly discouraged.

## GRIEVANCES

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A graduate student may appeal two types of academic decisions (in addition to [academic dishonesty](#)):

1. Academic performance evaluations
2. Decisions based on race, gender, religion, national origin, age, or handicap

Graduate students and faculty should first try to resolve the matter through informal discussions. If a satisfactory resolution is not met, the individual should file a grievance in writing to the JGCC. If applicable, the subject of the charge must be notified of the grievance, in writing, by the CEM Program director within 7 days of receiving the written allegation. The student must present details of the grievance in person and provide documentation of the issue. The JGCC shall attempt to render a decision to solve the problem within 30 working days of receiving the grievance, unless an extension requested by any of the parties involved is approved. If any party is not satisfied by the decision of the JGCC, further [appeals](#) may be made to the university's Graduate Council Appeals Committee.



## FINANCIAL SUPPORT

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The Graduate School administers the Hilton A. Smith Graduate Fellowships, the Herman E. Spivey Graduate Fellowships, and the University of Tennessee Graduate Student Fellowships. Other funding administered by the Graduate School includes J. Wallace and Katie Dean Graduate Fellowships, Yates Dissertation Fellowships, Black Graduate Fellowships, and Lori Mayer Re-Entry Women's Fellowships. These awards are for full-time study at UT Knoxville, and awardees are selected on the basis of high achievement, broad intellectual ability, and potential for significant career contributions.

Whereas the CEM Program does not offer specific graduate fellowships or assistantships, these awards often may be arranged with individual investigators. Admission to the program is generally contingent upon the availability of funding. In addition to individual assistantships/fellowships, the CEM Program also offers:

### **Graduate Research Assistantships and Postgraduate Fellowships**

Awarded (as funds are available) for a 3-year period. Applications are reviewed several times per year. Persons with a professional degree in the health sciences (DVM, MD, DDS) who wish to pursue a PhD program are given priority.

#### **Notification of Award:**

Awardees are notified by a letter from the CEM Program Director.

#### **Address Requests To:**

Office of Research and Graduate Program  
College of Veterinary Medicine  
The University of Tennessee  
2407 River Drive, Room A102  
Knoxville, TN 37996-4550

### **Five (5) Graduate School of Medicine Graduate Research Assistantships**

Awarded (as funds are available) for a 2- to 4-year period. Applications are reviewed several times per year. Persons with a professional degree in the health sciences (MD, DVM, DDS, DMD) who wish to pursue a PhD program are given priority. Fee waivers only are available.

#### **Notification of Award:**

Awardees are notified by a letter from the Dean of the Graduate School of Medicine.

#### **Address Requests To:**

Office of the Dean  
Attn: Graduate Research Assistantship Program  
Graduate School of Medicine, Box 94  
The University of Tennessee Medical Center  
1924 Alcoa Highway  
Knoxville, TN 37920

## Requirements for Maintaining an Assistantship/Fellowship

- Students must be enrolled in at least 6 graduate credit hours per fall and spring term for a one-half time graduate assistantship, and at least 9 graduate hours for a one-fourth time assistantship.
- Students must make timely and satisfactory progress as described in the “Degree Requirements” and “Academic Status” sections of this handbook.
- Assistantships/fellowships are not automatically renewed. Students must submit a progress report each academic year to the CEM Program Director. Funding assistance is dependent on the availability of funds and satisfactory performance of the student’s assigned duties.
- Instances in which a graduate assistant/fellow wishes to take a leave of absence will be handled on a case-by-case basis between the student, the student’s major professor, and the CEM Program Office. No guarantee can be made that a student’s position will be available upon his or her return.

## Workload

As student employees, graduate assistants are balancing professional development through work experience with progress toward their degree in academic experiences, such as courses, theses, or dissertations. To encourage that balance, graduate assistants may not exceed 20 hours of work per week without specific approval of the CEM Program Director. Appointments are normally on a one-fourth (10 hours weekly) or one-half (20 hours weekly) time basis. However, the normal number of hours for conducting an assignment should be mutually understood by the student and the immediate supervisor.

The CEM Program strongly discourages outside employment, as it will be very difficult to make adequate and timely progress toward a degree while holding several jobs.

## Health Insurance

All graduate assistants on at least a one-fourth time appointment and enrolled in at least 3 graduate credit hours per term are automatically enrolled in a health insurance program. To avoid paying the health service fee to use the on-campus clinic, students should enroll in at least 9 hours each term.

## Travel Support

The UT Graduate School administers travel support for professional activities based on merit. Awards help defray expenses for transportation, lodging, and registration fees. To request a travel award, students must submit an application to the Graduate School. Applications can be downloaded at <http://web.utk.edu/~gss/travelfund/index.html> or obtained from 413 Student Services Bldg. Applications must be submitted to the Graduate School by the following deadlines:

- Summer term – April 14
- Fall term – September 1
- Spring term – January 15

## DEPARTMENTS OF INSTRUCTION

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Several departments participating in the Comparative and Experimental Medicine Graduate Program offer courses approved by the program and by The Graduate School. Faculty participating in the CEM program are also approved by the program. (Codes for course offerings: E, offered every term; F, offered in the fall; Sp, offered in the spring; and A, offered alternate years)

Students not enrolled in a graduate program must obtain approval from the Joint Graduate Coordinating Committee prior to registration in Special and Advanced Topic courses of the CEM program.

### College of Veterinary Medicine

Participating departments: Comparative Medicine, Microbiology, Nutrition, Pathobiology, Large Animal Clinical Sciences, and Small Animal Clinical Sciences. Please check the current Graduate Catalog and term timetable for a listing of microbiology and nutrition courses and times.

**500 Thesis (1-15).** P/NP only. *E*

**501 Special Topics in Comparative and Experimental Medicine (1-6).** Specialized experience in comparative and experimental medicine. *Prerequisite: Consent of instructor. May be repeated. Maximum 6 hrs. E*

**502 Registration for Use of Facilities (3-15).** Required for the graduate student who is not otherwise registered during any term when such a student uses university facilities and/or faculty time before degree is completed. *May not be used toward degree requirements. May be repeated. S/NC only. E.*

**504 Descriptive and Applied Epidemiology (3).** Principles of epidemiology and their historic and modern application to diseases of humans and animals. Host-agent relationships, measurement of disease frequency, disease monitoring and control in human and animal populations, field investigations, and animal health economics and production. *Prerequisite: Consent of instructor. F*

**505 Laboratory Animal Care and Use (2).** Review of basic laboratory animal care and use as prerequisite to conducting research using animal subjects. Compliance issues and techniques. *F*

**506 Experimental Animal Surgery (3).** Competence in performing humane surgical modification to experimental animals. Techniques of anesthesia, drug administration, and postoperative care. *Prerequisite: Embryology, parasitology, physiology, and/or consent of instructor. 1 hr. and 2 labs. F*

**507 Zoonoses for the Public Health Practitioner (3).** Course deals with zoonotic agents which have been selected because of their importance to public health practitioners and to illustrate how such agents can be prevented and controlled. *Recommended Background: Public health, veterinary medicine, nursing courses or students in these programs. Graduate or professional veterinary students at UTK and personnel employed by the Tennessee Department of Health and enrolled in the Applied Epidemiology Certificate Program.*

**530 Wildlife Diseases (2).** Necropsy of birds and mammals. Recognition of various diseases and methods of preparing pathological materials in field and lab. Investigative procedures concerning wildlife diseases. *(Same as Wildlife and Fisheries Science 530) F*

**561 Pharmacology (4).** Principles of pharmacokinetic and pharmacodynamic theory and data modeling. The students will learn the physiologic processes that dictate the absorption, distribution, and elimination of drugs. The course includes a hands-on module where the student will learn how to analyze pharmacokinetic data including noncompartmental and compartmental data analysis, population and physiology-based models, as well as principles of pharmacokinetic-pharmacodynamic integration. *Prerequisite: Consent of instructor. F*

- 600 Dissertation (3-15).** P/NP only. *E*
- 602 Surgical Pathology (1-2).** Examination of biopsy specimens and interpretation of observations. Preparation of specimens for sectioning. *Prerequisite: Consent of instructor. May be repeated. Maximum 3 hrs. E*
- 603 Correlative Post-Mortem Pathology (1-3).** Gross and microscopic postmortem examination of animals. Correlative interpretation of clinical diseases and lesions. *Prerequisite: Consent of instructor. May be repeated. Maximum 6 hrs. E*
- 606 Clinical Epidemiology (3).** Theory and principles of design implementation and analysis of clinical research. Laboratories include appraisal of biomedical literature and design of a proposal for a clinical research project. *Prerequisite: Consent of instructor. Sp*
- 607 Diagnosis and Pathogenesis of Virus Diseases of Domestic Animals (3).** Advanced study of virus diseases important to domestic animals: virus biology, pathogenesis, pathology and diagnosis, technical training in virus diseases diagnosis. *2 hrs. and 1 lab. Prerequisite: Consent of instructor. Sp*
- 609 Mechanisms of Disease (3).** Advanced topics in pathobiology and mechanisms of disease: pathophysiology, cellular degeneration, inflammation, immunopathology, hemostasis. Principal biochemical and morphologic responses of various cells, tissues, and organs to injury and other metabolic derangements. Selected contemporary topics from current literature and textbooks. *Prerequisite: Consent of instructor. May be repeated. Maximum 6 hrs. Sp, A*
- 610 Advanced Topics in Comparative and Experimental Medicine (1-3).** Specialized in-depth experience in the various disciplines, current and future research methodology, recent advances in instrumentation in analytical techniques for comparative medicine. *Prerequisite: Consent of instructor. May be repeated. Maximum 12 hrs. E*
- 611 Journal Club in Emerging Infectious Diseases (1).** Readings and discussions based on current literature. *May be repeated. Maximum 12 hrs. S/NC only. F, Sp*
- 612 Journal Club in Pathobiology (1).** Readings and discussions based on current literature. *May be repeated. Maximum 12 hrs. S/NC only. F, Sp*
- 613 Journal Club in Large Animal Clinical Sciences (1).** Readings and discussions based on current literature. *Prerequisite: DVM or equivalent degree. May be repeated. Maximum 12 hrs. S/NC only. F, Sp*
- 614 Journal Club in Small Animal Clinical Sciences (1).** Readings and discussions based on current literature. *Prerequisite: DVM or equivalent degree. May be repeated. Maximum 12 hrs. S/NC only. F, Sp*
- 615 GIS and Geographical Epidemiology (3).** Principles and applications of Geographical Information Systems (GIS) and geographical epidemiology in human and animal health research and practice. Exposure to a wide range of spatial analysis techniques useful in the investigation of human and animal disease problems as well as vector dynamics. The knowledge gained is useful in guiding disease prevention and control strategies. *Recommended Background: Biological sciences including (but not limited to) veterinary medicine, public health, epidemiology, parasitology, ecology, entomology, and environmental health. Prior introductory statistics and/or epidemiology training.*
- 652 Disorders of the Endocrine System (2).** Pathological and physiological aspects of diseases involving endocrine glands of various animal species. *Prerequisite: Animal Science 521 (Animal Physiology) or consent of instructor. (Same as An Sci 652) Sp*

# UT Graduate School of Medicine

Participating departments include: Anesthesia, Medicine, Medical Genetics, Obstetrics and Gynecology, Pathology, Pediatrics, Radiology, and Surgery.

**500 Thesis (1-5).** P/NP only. *E*

**502 Registration for Use of Facilities (3-15).** Required for the student not otherwise registered during any term when student uses University facilities and/or faculty time before degree is completed. *May not be used toward degree requirements. May be repeated. S/NC only. E*

**508 Graduate Research Participation (3).** Advanced research techniques studied while conducting individual biomedical research projects under supervision of faculty. *Prerequisite: Consent of instructor. Open to all graduate students. May be repeated with consent. Maximum 9 hrs. S/NC only. E*

**521 Principles of Oncology (3).** Lectures, classroom discussion, and case reports surveying the major topics of oncology. *Prerequisite: Biology 220-230 or consent of instructor.*

**541 Cellular and Molecular Basis of Disease (4).** Metabolic disorders of humans and animals. Emphasis on molecular mechanisms in inborn errors of metabolism, toxic reactions, and deficiency states. Clinical and pathologic correlations. *Prerequisite: BCMB 410-419 or equivalent. Sp, A*

**600 Doctoral Research and Dissertation (3-15).** P/NP only. *E*

**601 Journal Club in Comparative and Experimental Medicine (1).** Readings and discussions based on current literature. *May be repeated. Maximum 12 hrs. S/NC only.*

**610 Medical Biology Seminar (1).** Invited speakers. Topics posted in advance. *May be repeated. Maximum 3 hrs. S/NC only. F, Sp*

**611 Advanced Topics in Medical Science (1-3).** New developments in biological research applicable to clinical medicine. Primarily for doctoral candidates in Comparative and Experimental Medicine. *Prerequisite: Consent of instructor. May be repeated. Maximum 6 hrs. F, Sp*

**652 Special topics in Pathology (1-3).** Pathologic anatomy, biochemical pathology and related areas. Primarily for doctoral candidates in Comparative and Experimental Medicine. *Prerequisite: Consent of instructor. May be repeated. Maximum 6 hrs. F, Sp*

# GRADUATE FACULTY

## College Of Veterinary Medicine

### Comparative Medicine

**Bemis, David – PhD** (Prof)

<http://www.vet.utk.edu/faculty/bemis.shtml>

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Diagnostic bacteriology/mycology; bacterial pathogenesis, Bordetella

**Cox, Sherry – MS, PhD** (Assoc Prof)

<http://www.vet.utk.edu/faculty/cox.shtml>

Approved to Direct Doctoral Research: N

**Research Emphasis:** Pharmacology

**Eiler, Hugo – DVM, MS, PhD** (Prof)

<http://www.vet.utk.edu/faculty/eiler.shtml>

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Endocrine testing procedures; mechanism and treatment for retained placenta

**Fecteau, Kellie – MS, PhD** (Asst Prof)

<http://www.vet.utk.edu/faculty/fecteau.shtml>

Approved to Direct Doctoral Research: N

**Research Emphasis:** Clinical endocrinology

**Henry, Robert – MS, DVM, PhD** (Prof)

<http://www.vet.utk.edu/faculty/henry.shtml>

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Tissue preservation via plastination and macro and microscope anatomy of the respiratory and lymphatic systems

**Kania, Stephen – MS, PhD** (Assoc Prof)

[www.vet.utk.edu/faculty/kania.shtml](http://www.vet.utk.edu/faculty/kania.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Immunology and diagnosis of infectious diseases, microbial molecular diversity, and mechanisms of bacterial virulence

**Kennedy, Melissa – DVM, PhD** (Assoc Prof)

[www.vet.utk.edu/faculty/kennedy.shtml](http://www.vet.utk.edu/faculty/kennedy.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Corona virus, infections in felidae, viral diseases of non-domestic species

**Martin-Jimenez, Tomas – DVM, PhD** (Assoc Prof)

[www.vet.utk.edu/faculty/martinjimenez.shtml](http://www.vet.utk.edu/faculty/martinjimenez.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Pharmacology

**Mendis-Handagama, Charmi – DVM, PhD** (Prof)

[www.vet.utk.edu/faculty/mendis.shtml](http://www.vet.utk.edu/faculty/mendis.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Reproductive biology; cell biology; morphology and morphometrics

**New, John – DVM, MPH** (Prof; Dept Chair)

[www.vet.utk.edu/faculty/new.shtml](http://www.vet.utk.edu/faculty/new.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Epidemiology of infectious diseases (especially zoonoses); diseases of wildlife; the human-animal bond; pet overpopulation

**Odoi, Agricola – MS, PhD** (Asst Prof)

<http://www.vet.utk.edu/faculty/odoi.shtml>

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Applications of GIS & spatial epidemiology in health research & practice; zoonotic infections of public health significance; determinants of population health

**Oliver, Jack – MS, DVM, PhD** (Prof)

[www.vet.utk.edu/faculty/oliver.shtml](http://www.vet.utk.edu/faculty/oliver.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Mechanisms/alleviation of mycotoxins, endocrine diagnostic methodology

**Patton, Sharon – MS, PhD** (Prof)

[www.vet.utk.edu/faculty/patton.shtml](http://www.vet.utk.edu/faculty/patton.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Veterinary parasitology; zoonotic parasites; diagnostic procedures; Toxoplasma gondii

**Potgieter, Leon – BVSc, MS, PhD** (Prof)

[www.vet.utk.edu/faculty/potgieter.shtml](http://www.vet.utk.edu/faculty/potgieter.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Viral diseases of the bovine respiratory tract; comparative diagnostic virology

**Reed, Robert – DVM, PhD** (Assoc Prof)

[www.vet.utk.edu/faculty/reed.shtml](http://www.vet.utk.edu/faculty/reed.shtml)

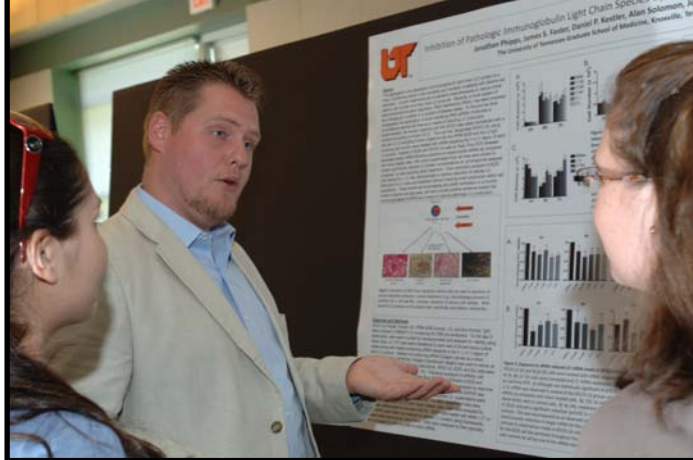
Approved to Direct Doctoral Research: Y

**Research Emphasis:** Nutritional regulation of LHRH and LH secretion and effects on the reproductive axis; Macroscopic and applied anatomy of domestic and exotic species

**Rohrbach, Barton – DVM, MPH** (Assoc Prof)  
[www.vet.utk.edu/faculty/rohrbach.shtml](http://www.vet.utk.edu/faculty/rohrbach.shtml)  
Approved to Direct Doctoral Research: Y  
**Research Emphasis:** Epidemiology of infectious disease

**Schultz, Terry – MS, PhD** (Emeritus)  
[www.vet.utk.edu/faculty/schultz.shtml](http://www.vet.utk.edu/faculty/schultz.shtml)  
Approved to Direct Doctoral Research: Y  
**Research Emphasis:** Environmental toxicology and potency modeling of industrial organic chemicals

**Sims, Michael – MS, PhD** (Prof)  
[www.vet.utk.edu/faculty/sims.shtml](http://www.vet.utk.edu/faculty/sims.shtml)  
Approved to Direct Doctoral Research: Y  
**Research Emphasis:** Otoacoustic emissions in cats



## Pathobiology

**Baek, Seung – MS, PhD** (Assoc Prof)

[www.vet.utk.edu/faculty/baek.shtml](http://www.vet.utk.edu/faculty/baek.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Anti-cancer compounds found in diet, NSAIDs, and anti-oxidants

**Brian, David – DVM, PhD** (Prof)

[www.vet.utk.edu/faculty/brian.shtml](http://www.vet.utk.edu/faculty/brian.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Mechanisms of RNA replication and regulation of gene expression from RNA virus genomes

**Cui, Mei-Zhen – PhD** (Assoc Prof)

[www.vet.utk.edu/faculty/cui.shtml](http://www.vet.utk.edu/faculty/cui.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Molecular mechanisms of Cardiovascular disease

**Craig, Linden – DVM, PhD** (Assoc Prof)

<http://www.vet.utk.edu/faculty/craig.php>

Approved to Direct Doctoral Research: N

**Research Emphasis:** Bone and joint pathology; canine synovial tumors; feline physeal dysplasia

**Donnell, Robert – DVM, PhD** (Assoc Prof)

[www.vet.utk.edu/faculty/donnell.shtml](http://www.vet.utk.edu/faculty/donnell.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Pathogenesis of amyloid formation, deposition and clearance via use of transgenic models, development of antibodies and clinical evaluation of novel approaches

**Fry, Michael – MS, DVM** (Assoc Prof)

[www.vet.utk.edu/faculty/fry.shtml](http://www.vet.utk.edu/faculty/fry.shtml)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Canine hepcidin, reticulocyte indices as markers of iron deficiency

**LeBlanc, Casey – DVM, PhD** (Asst Prof)

[www.vet.utk.edu/faculty/leblancc.shtml](http://www.vet.utk.edu/faculty/leblancc.shtml)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Immunosuppression and oxidative status of veterinary cancer patients; flow cytometry

**McEntee, Michael – DVM** (Prof & Interim Dept Head)

[www.vet.utk.edu/faculty/mcentee.shtml](http://www.vet.utk.edu/faculty/mcentee.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Gross, histologic, and ultrastructure and ultrastructural pathology

**Newkirk, Kim – DVM, PhD** (Asst Prof)

<http://www.vet.utk.edu/faculty/newkirk.php>

Approved to Direct Doctoral Research: N

**Research Emphasis:** Mouse models of human disease; mouse phenotyping

**Newman, Shelley – DVM, PhD** (Asst Prof)

[www.vet.utk.edu/faculty/newman.shtml](http://www.vet.utk.edu/faculty/newman.shtml)

Approved to Direct Doctoral Research: N

**Research Emphasis:** oncologic pathology; mast cell tumors

**Rouse, Barry – DVM, MSc, PhD** (Prof)

[www.vet.utk.edu/faculty/rouse.shtml](http://www.vet.utk.edu/faculty/rouse.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Comparative cellular and molecular immunology; viral infection diseases

**Schuller, Hildegard – DVM, PhD** (Prof)

[www.vet.utk.edu/faculty/schuller.shtml](http://www.vet.utk.edu/faculty/schuller.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Experimental oncology, chemical carcinogenesis; comparative pathology of lung tumors

**Tithof, Patricia – DVM, PhD** (Assoc Prof)

[www.vet.utk.edu/faculty/tithof.shtml](http://www.vet.utk.edu/faculty/tithof.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Animal physiology

**Wang, Hwa-Chain Robert – BVM, PhD** (Assoc Prof)

[www.vet.utk.edu/faculty/wang.shtml](http://www.vet.utk.edu/faculty/wang.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Anti-cancer molecular oncology

**Xu, Xuemin – PhD** (Prof)

[www.vet.utk.edu/faculty/xuemin.shtml](http://www.vet.utk.edu/faculty/xuemin.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Molecular mechanisms of Alzheimer's disease

## Large Animal Clinical Sciences

**Adair, Henry S – DVM, MS** (Assoc Prof)

[www.vet.utk.edu/faculty/adair.shtml](http://www.vet.utk.edu/faculty/adair.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Equine laminitis; laser doppler flowmetry; microvascular blood flow and laser surgery

**Blackford, James – DVM** (Prof)

[www.vet.utk.edu/faculty/blackford.shtml](http://www.vet.utk.edu/faculty/blackford.shtml)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Wound management; gastrointestinal disease

**Dhar, Madhu – PhD** (Assoc Prof)

<http://www.vet.utk.edu/faculty/dhar.shtml>

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Mouse models of human disease: obesity and diabetes

**Doherty, Thomas – MVB, MS** (Assoc Prof)

[www.vet.utk.edu/faculty/doherty.shtml](http://www.vet.utk.edu/faculty/doherty.shtml)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Large animal anesthesia; gastric emptying in horses

**Duggins McClamroch, Robin – DVM** (Asst Prof)

[www.vet.utk.edu/faculty/duggins.shtml](http://www.vet.utk.edu/faculty/duggins.shtml)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Colic, pain management

**Frank, Nicholas – DVM, PhD** (Assoc Prof)

[www.vet.utk.edu/faculty/frank\\_n.shtml](http://www.vet.utk.edu/faculty/frank_n.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Endocrine & metabolic diseases of large animals; lipoprotein and glucose metabolism in large animals, equine hypothyroidism & Cushing's disease, and obesity-associated laminitis in horses

**Geiser, Dennis – DVM** (Assoc Prof/Asst Dean)

[www.vet.utk.edu/faculty/geiser.shtml](http://www.vet.utk.edu/faculty/geiser.shtml)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Pain management, balance of anesthesia in animals, local & regional anesthesia

**Holland, Robert – DVM** (Prof/Head)

[www.vet.utk.edu/faculty/holland.shtml](http://www.vet.utk.edu/faculty/holland.shtml)

Approved to Direct Doctoral Research: N

**Hopkins, Fred – DVM, MS** (Prof)

[www.vet.utk.edu/faculty/hopkins.shtml](http://www.vet.utk.edu/faculty/hopkins.shtml)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Reproduction in the cow and bull

**Prado, Tulio – DVM** (Asst Prof)

<http://www.vet.utk.edu/faculty/prado.php>

Approved to Direct Doctoral Research: N

**Research Emphasis:** Theriogenology

**Roberson, Jerry – DVM** (Assoc Prof)

<http://www.vet.utk.edu/faculty/roberson.php>

Approved to Direct Doctoral Research: N

**Research Emphasis:** Mastitis diagnosis, treatment and prevention

**Schumacher, James – MS, DVM** (Assoc Prof)

[http://www.vet.utk.edu/faculty/schumacher\\_james.shtml](http://www.vet.utk.edu/faculty/schumacher_james.shtml)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Skin grafting and reproductive & respiratory surgery

**Seddighi, M. Reza – DVM, PhD** (Asst Prof)

<http://www.vet.utk.edu/faculty/seddighi.php>

Approved to Direct Doctoral Research: N

**Research Emphasis:** Pharmacokinetics and dynamics of analgesics and anesthetics

**Sommardahl, Carla – DVM, PhD** (Asst Prof)

[www.vet.utk.edu/faculty/sommardahl.shtml](http://www.vet.utk.edu/faculty/sommardahl.shtml)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Equine medicine, genetic and renal diseases

**van Amstel, Sarel – BVSc, MMedVet** (Prof)

[www.vet.utk.edu/faculty/vanamstel.shtml](http://www.vet.utk.edu/faculty/vanamstel.shtml)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Bovine respiratory disease and bovine lameness

**Welborn, Matthew – DVM** (Asst Prof)

[www.vet.utk.edu/faculty/welborn.shtml](http://www.vet.utk.edu/faculty/welborn.shtml)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Food animal production medicine

**Whitlock, Brian – DVM** (Asst Prof)

<http://www.vet.utk.edu/faculty/whitlock.php>

Approved to Direct Doctoral Research: N

**Research Emphasis:** Reproductive physiology and endocrinology; interaction of metabolic and reproductive systems

## Small Animal Clinical Sciences

**Adams, William – DVM** (Assoc Prof)  
[www.vet.utk.edu/faculty/adams.shtml](http://www.vet.utk.edu/faculty/adams.shtml)  
Approved to Direct Doctoral Research: Y  
**Research Emphasis:** Radiation Oncology; brachytherapy

**Bartges, Joseph – DVM, PhD** (Prof)  
[www.vet.utk.edu/faculty/bartges.shtml](http://www.vet.utk.edu/faculty/bartges.shtml)  
Approved to Direct Doctoral Research: Y  
**Research Emphasis:** Nutrition and renal diseases

**Bohling, Mark – DVM (Asst Prof)**  
<http://www.vet.utk.edu/faculty/bohling.php>  
Approved to Direct Doctoral Research: N  
**Research Emphasis:** Wound healing

**Brace, James – DVM** (Prof; Assoc Dean)  
[www.vet.utk.edu/faculty/brace.shtml](http://www.vet.utk.edu/faculty/brace.shtml)  
Approved to Direct Doctoral Research: N  
**Research Emphasis:** Nephrology, urology, and pathophysiology of disorders in the urinary system

**DeNovo, Robert – DVM, MS** (Prof; Assoc Dean)  
[www.vet.utk.edu/faculty/denovo.shtml](http://www.vet.utk.edu/faculty/denovo.shtml)  
Approved to Direct Doctoral Research: N  
**Research Emphasis:** Esophageal disease; helicobacter infection

**Egger, Christine – DVM** (Prof)  
<http://www.vet.utk.edu/faculty/egger.php>  
Approved to Direct Doctoral Research: N  
**Research Emphasis:** Acute and chronic pain; acupuncture in treatment of pain

**Frank, Linda – DVM, MS** (Prof)  
[www.vet.utk.edu/faculty/frank.shtml](http://www.vet.utk.edu/faculty/frank.shtml)  
Approved to Direct Doctoral Research: N  
**Research Emphasis:** Hypothyroidism in dogs, pathophysiology of atopic dermatitis

**Gompf, Rebecca – DVM** (Assoc Prof)  
[www.vet.utk.edu/faculty/gompf.shtml](http://www.vet.utk.edu/faculty/gompf.shtml)  
Approved to Direct Doctoral Research: N  
**Research Emphasis:** Cardiology

**Greenacre, Cheryl – DVM** (Prof)  
<http://www.vet.utk.edu/faculty/greenacre.php>  
Approved to Direct Doctoral Research: N  
**Research Emphasis:** Avian thyroid diseases and testing; rabbit *Encephalitozoon cuniculi* infections and treatment

**Harvey, Ralph – DVM, MS** (Assoc Prof)  
[www.vet.utk.edu/faculty/harvey.shtml](http://www.vet.utk.edu/faculty/harvey.shtml)  
Approved to Direct Doctoral Research: N  
**Research Emphasis:** Comparative aspects of anesthesia and analgesia; anesthetic pharmacology and related physiology

**Hecht, Silke – DMV** (Asst Prof)  
<http://www.vet.utk.edu/faculty/hecht.php>  
Approved to Direct Doctoral Research: N  
**Research Emphasis:** Small animal ultrasonography; neuroimaging; CT and MRI; excretory renal scintigraphy

**Hendrix, Diane – DVM** (Prof)  
[www.vet.utk.edu/faculty/hendrix.shtml](http://www.vet.utk.edu/faculty/hendrix.shtml)  
Approved to Direct Doctoral Research: N  
**Research Emphasis:** Infectious disease of the equine cornea; raptor ophthalmology

**Jones, Michael – DVM** (Assoc Prof)  
[www.vet.utk.edu/faculty/jonesm.shtml](http://www.vet.utk.edu/faculty/jonesm.shtml)  
Approved to Direct Doctoral Research: Y  
**Research Emphasis:** Avian medicine

**Kirk, Claudia – DVM, PhD** (Prof; Dept Chair)  
<http://www.vet.utk.edu/faculty/kirk.shtml>  
Approved to Direct Doctoral Research: Y  
**Research Emphasis:** Pet nutrition; feline urinary tract disease; feline diabetes mellitus

**Lane, India – DVM, PhD** (Assoc Prof)  
[www.vet.utk.edu/faculty/lane.shtml](http://www.vet.utk.edu/faculty/lane.shtml)  
Approved to Direct Doctoral Research: N  
**Research Emphasis:** Application and interpretation of urodynamic procedures in animals

**LeBlanc, Amy – DVM** (Asst Prof)  
<http://www.vet.utk.edu/faculty/leblanc.shtml>  
Approved to Direct Doctoral Research: N  
**Research Emphasis:** Diagnostic and therapeutic techniques for cancer diagnosis and management

**Legendre, Alfred – DVM, MS** (Prof)  
[www.vet.utk.edu/faculty/legendre.shtml](http://www.vet.utk.edu/faculty/legendre.shtml)  
Approved to Direct Doctoral Research: N  
**Research Emphasis:** Feline viral disease and fungal diseases (blastomycosis)

**Mawby, Dianne – DVM** (Assoc Prof)  
[www.vet.utk.edu/faculty/mawby.shtml](http://www.vet.utk.edu/faculty/mawby.shtml)  
Approved to Direct Doctoral Research: N  
**Research Emphasis:** Internal medicine

**Millis, Darryl – DVM, MS** (Prof)  
[www.vet.utk.edu/faculty/millis.shtml](http://www.vet.utk.edu/faculty/millis.shtml)  
Approved to Direct Doctoral Research: Y  
**Research Emphasis:** Effects of growth factors on bone healing; canine gait analysis

**Morandi, Federica – DVM, MS (Assoc Prof)**  
<http://www.vet.utk.edu/faculty/morandi.php>  
Approved to Direct Doctoral Research: N  
**Research Emphasis:** CT; nuclear Medicine; PET

**Phillips, Jeffrey – DVM, PhD (Asst Prof)**

<http://www.vet.utk.edu/faculty/phillips.php>

Approved to Direct Doctoral Research: N

**Research Emphasis:** Oncology

**Ramsay, Edward – DVM (Prof)**

[www.vet.utk.edu/faculty/ramsay.shtml](http://www.vet.utk.edu/faculty/ramsay.shtml)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Novel anesthetic agent delivery; immobilization of wildlife; reptile clinical pathology

**Schumacher, Juergen – DVM, DMV (Prof)**

<http://www.vet.utk.edu/faculty/schumacher.shtml>

Approved to Director Doctoral Research: Y

**Research Emphasis:** Anesthesia & analgesia and emergency & critical care medicine of non-domestic animals

**Thomas, William – DVM, MS (Prof)**

[www.vet.utk.edu/faculty/thomas.shtml](http://www.vet.utk.edu/faculty/thomas.shtml)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Doppler ultrasonography

**Tobias, Karen – DVM (Prof)**

<http://www.vet.utk.edu/faculty/tobias.php>

Approved to Direct Doctoral Research: N

**Research Emphasis:** Portosystemic shunts

**Ward, Daniel – DVM, PhD (Prof)**

[www.vet.utk.edu/faculty/ward.shtml](http://www.vet.utk.edu/faculty/ward.shtml)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Blood ocular barriers; ocular pharmacology

**Weigel, Joseph – DVM, MS (Assoc Prof)**

[www.vet.utk.edu/faculty/weigel.shtml](http://www.vet.utk.edu/faculty/weigel.shtml)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Orthopedics

**Whittemore, Jacqui – DVM, PhD (Asst Prof)**

<http://www.vet.utk.edu/faculty/whittemore.php>

Approved to Direct Doctoral Research: N

**Research Emphasis:** Vaccine-associated immune disorders; pancreatic and liver disorders; non-invasive interventional techniques

## Interdisciplinary

**Moore, Robert N. – PhD (Prof)**

Microbiology

<http://web.bio.utk.edu/micro/faculty/moore.html>

Approved to Direct Doctoral Research: N

**Research Emphasis:** Host-microbial interactions (no longer active in research)

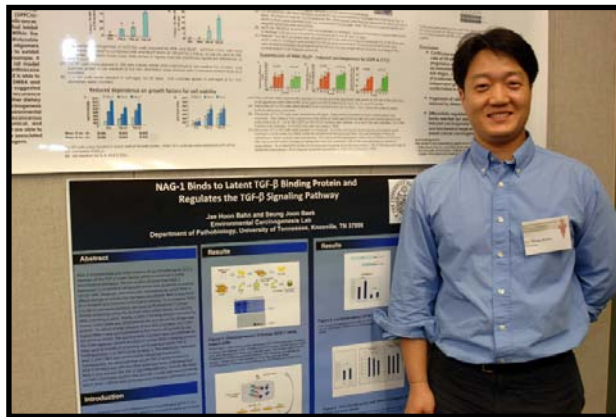
**Zemel, Michael – PhD (Prof)**

Nutrition

<http://nutrition.utk.edu/faculty/Zemel.html>

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Cell calcium regulation, obesity genetics, adipocyte metabolism



## UT Graduate School of Medicine

**Carroll, Roger – PhD** (Prof – Dept of Anesthesiology)  
<http://gsm.utmck.edu/research/anesthesia/faculty.cfm>

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Platelet signal transduction mechanisms as related to preventing thrombotic diseases

**Gerard, David – PhD** (Assoc Prof – Dept of Oral/Max Surgery)

[http://gsm.utmck.edu/oral\\_surg/faculty/gerard.cfm](http://gsm.utmck.edu/oral_surg/faculty/gerard.cfm)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Study of bone activity in response to implanted materials and bone response to growth factors

**Grandas, Oscar -- MD** (Asst Prof – Dept of Surgery)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Pancreas transplantation

**Karlstad, Michael D. – PhD** (Prof – Dept of Anesthesia)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** The regulation of pulmonary inflammation and protein metabolism by protein and lipid mediators in critical illness and trauma

**Kennel, Stephen – PhD** (Assoc Prof – Dept of Radiology)

<http://gsm.utmck.edu/radiology/faculty/kennel.cfm>

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Human immunology & cancer

**Kestler, Daniel – PhD** (Asst Prof – Dept of Medicine)

Approved to Direct Doctoral Research: N

**Research Emphasis:** Detection of novel amyloid protein mutants; gene expression and regulation of novel members of the secretory calcium phosphoprotein gene cluster

**Matteson, Karla J. – PhD** (Prof – Dept of Medical Genetics)

<http://gsm.utmck.edu/genetics/matteson.cfm>

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Molecular analysis for clinical applications

**Wall, Jonathan S. – PhD** (Prof – Dept of Medicine)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Amyloid and other abnormal protein assemblies

**Wallace, Lorraine – PhD** (Asst Prof – Dept of Family Medicine)

[http://gsm.utmck.edu/family\\_medicine/faculty.cfm](http://gsm.utmck.edu/family_medicine/faculty.cfm)

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Clinical epidemiology, chronic disease management, health promotion, & health communication

**Wimalasena, Jay H. – PhD** (Prof – Dept of Obstetrics & Gynecology)

<http://gsm.utmck.edu/obgyn/faculty/wimalasena.cfm>

Approved to Direct Doctoral Research: Y

**Research Emphasis:** Breast & ovarian cancer; signal transduction; cell cycle regulation, and placental development

**College of Veterinary Medicine**  
The University of Tennessee  
2407 River Drive, Room A102 ♦ Knoxville, TN 37996-4550

**APPLICATION FOR ADMISSION TO COMPARATIVE AND  
EXPERIMENTAL MEDICINE GRADUATE PROGRAM**

Mail this completed form directly to:

The Office of Research and Graduate Programs  
2407 River Drive, Room A102  
Knoxville, TN 37996-4550

Three letters of reference from former professors should be mailed to this address as well.

**IMPORTANT:** Applicants to the Comparative and Experimental Medicine Graduate Program must also apply to the University of Tennessee at Knoxville Graduate School. They require the following:

1. The Graduate Application for Admission form;
2. A \$35.00 non-refundable application fee;
3. One official transcript of all college work;
4. Official results of the Graduate Record Examination (GRE) is required for all students who do not have a professional degree (i.e., MD, DVM, DDS)

Degree applied for (MS or PhD): \_\_\_\_\_

Preferred date of admission: \_\_\_\_\_

Name of suggested advisor (optional): \_\_\_\_\_

**PERSONAL DATA**

Name: \_\_\_\_\_  
*(Last, First Middle)*

Mailing Address: \_\_\_\_\_  
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\_\_\_\_\_

Email: \_\_\_\_\_

Telephone No.: \_\_\_\_\_  
(Home and/or work)

**EDUCATION**

List all colleges, universities, professional, and graduate schools attended. Please include:

- any official transcripts
- the name and address of school(s)
- dates attended
- major(s)/minor(s)
- degree(s) earned
- date conferred
- class rank
- GPA (cumulative grade point average, if computed on any basis other than A=4.0, so state)
- memberships in scientific societies

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Have you ever resigned or been dismissed from any school or college? \_\_\_\_\_

If yes, explain: \_\_\_\_\_  
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List academic honors, scholarships, etc.; give locations and dates  
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List publications including title of articles, authors, journals, and include pages.  
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