AVIATION SYSTEMS
(UT Space Institute)

http://www.utsi.edu/Academic/AvSys/index.html

Stephen Corda, Chair and Liaison

Associate Professors
Corda, S. (Liaison), PhD .............................. Maryland
Solles, U.P., PhD ........................................ Tennessee

Research Assistant Professor
Allison, R., MS ........................................ Tennessee
Ranaudo, R.J., MS ...................................... Ohio

Emeriti Faculty
Collins, F.G., PhD ................................. California
Paludan, C.T., PhD ................................. Denver

Adjunct Faculty
Cavagnaro, Catherine .............................. Illinois
Palumbo, Nathan ................................. Purdue

MAJOR DEGREE
Aviation Systems MS

The University of Tennessee Space Institute offers a program leading to the Master of Science degree with a major in aviation systems. Aviation systems is a unique blend of aerospace engineering, aviation technology, flight science, and flight test engineering and research. The aviation systems program is designed for those who possess a bachelor’s degree in engineering or science and wish to study under a system philosophy toward careers in research and development or administration in areas pertinent to aviation and aerospace. Current emphases include flight testing, aircraft performance and flying qualities, aircraft design, atmospheric and earth/ocean science, airborne sensing, and human factors.

Admission

To qualify for admission to this program, the applicant must possess a bachelor’s degree in engineering or science from an accredited institution, show evidence of ability to pursue and benefit from the program, and fulfill the University of Tennessee, Knoxville, graduate admission procedures and grade point standards. It is expected that the student will have completed coursework in calculus and physics, and preferably aerodynamics, aircraft performance, or other aerospace-related subjects.

MASTER OF SCIENCE
AVIATION SYSTEMS MAJOR

Both thesis and non-thesis programs are available. The thesis program involves a minimum of 30 hours credit while the non-thesis program involves a minimum of 33 hours. Both options are fully supported off-campus utilizing electronic media for videotaping and interactive distance teaching methods.

Requirements

Thesis Option

The thesis program involves satisfactory completion of the following requirements.

Research and Development Specialization
• 12 hours of 500-level courses in the major field of aviation systems.
• 6 hours in industrial engineering (engineering management).
• 6 hours of electives from the major field, mathematics or engineering.
• 6 hours of Aviation Systems 500 demonstrating the ability to conduct and report on an independent investigation.
• Defense of thesis and completion of final exam.

Administration Specialization
• 12 hours of 500-level courses in the major field of aviation systems.
• 3 hours in industrial engineering (engineering management).
• 3 hours in economics or finance.
• 6 hours of electives selected from the major field, mathematics or engineering.
• 6 hours of Aviation Systems 500 demonstrating the ability to conduct and report on an independent investigation.
• Defense of thesis and completion of final exam.
Non-Thesis Option

The non-thesis program will be permitted in special circumstances and involves satisfactory completion of the following requirements.

Research and Development Specialization

• 12 hours of 500-level courses in the major field of aviation systems.
• 6 hours in industrial engineering (engineering management).
• 12 hours of electives in the major field, mathematics, or engineering.
• 3 hours of an assigned project under Aviation Systems 550.
• A comprehensive final written examination on all coursework submitted for the degree and defense of the project course paper.

Administration Specialization

• 12 hours of 500-level courses in the major field of aviation systems.
• 3 hours in industrial engineering (engineering management).
• 3 hours in economics or finance.
• 12 hours of electives in the major field, mathematics, or engineering.
• 3 hours of an assigned project under Aviation Systems 550.
• A comprehensive final written examination on all coursework submitted for the degree and defense of the project course paper.

COMPARATIVE AND EXPERIMENTAL MEDICINE

http://www.vet.utk.edu/graduate

Robert N. Moore, Director and Graduate Liaison

Joint Graduate Coordinating Committee

Bartges, J.W., DVM, PhD, Veterinary Teaching Hospital
Lawler, J.E., PhD, Psychology
Matteson, K.J., PhD, Medical Genetics
Moore, R.N., PhD, Veterinary Teaching Hospital

MAJOR DEGREES

Comparative and Experimental Medicine

MS, PhD

Comparative and Experimental Medicine (MS and PhD) is a jointly-administered graduate program intended to prepare students for teaching and/or research careers in the health sciences. This program emphasizes the comparative approach to the study of biomedical science. The PhD program is open to approved graduate students seeking training in this area and is especially useful for individuals with professional degrees. For the student with undergraduate biological science background, the comparative and experimental medicine program provides an unusual opportunity to study disease processes common in humans and animals from a multidisciplinary perspective. The scope of this intercollegiate program, which pools faculty resources from both veterinary and human medicine, is broadened by faculty members representing animal science and numerous areas of the life sciences. The interdisciplinary training environment includes such diverse support as facilities and personnel at the Veterinary Teaching Hospital, the University of Tennessee Medical Center at Knoxville, life sciences departments, College of Agricultural Sciences and Natural Resources, College of Engineering, and The Department of Nutrition.

For additional information, write to the Office of Research and Graduate Programs, or access the Web site.

MASTER OF SCIENCE

COMPARATIVE AND EXPERIMENTAL MEDICINE MAJOR

Admission

Admission requirements of the Graduate Council of the University of Tennessee, Knoxville, apply. In addition, all applicants must furnish three letters of recommendation from individuals who are familiar with their scholastic or professional records.

Applicants must have a baccalaureate degree with coursework 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 for admission to the Master of Science degree program whose backgrounds include no formal training in the biomedical field beyond the baccalaureate degree will be required to score at least 1,000 on the quantitative and verbal portions of the Graduate Record Examination.

Requirements

Students must complete a minimum of 24 hours of coursework and 6 hours of Thesis 500. Comparative and Experimental Medicine 504 and 541 are required, as are 4 hours of 600-level graduate journal clubs. In addition, students must take at least 3 hours of 500- or 600-level statistics and a minimum of 8 hours of coursework in a specified discipline. Areas of emphasis may include hematology, oncology, pathology, pharmacology, toxicology, immunology, genetics, infectious disease, epidemiology, metabolism, or other areas of medicine. Exceptions to accommodate students with specific interests must be approved by the Joint Graduate Coordinating Committee after application, in writing, to the director.

The graduate committee (at least three members) is chosen before the end of the second term and must include at least one member from the College of Veterinary Medicine and at least one member from the Graduate School of Medicine. If a minor is declared, one member must be from the minor discipline. A final oral examination must be passed at the completion of the program.

DOCTOR OF PHILOSOPHY

COMPARATIVE AND EXPERIMENTAL MEDICINE MAJOR

Admission

Admission requirements of the Graduate Council of the University of Tennessee, Knoxville, apply. In addition, all applicants must furnish three letters of recommendation from individuals who are familiar with their scholastic or professional records.

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 score of at least 1000 for the quantitative and verbal sections.

An individual having a baccalaureate degree with a strong background in the physical and biological sciences may be admitted upon presenting evidence of exemplary performance on the Graduate Record Examination.

Exceptional veterinary students at the University of Tennessee, Knoxville, may be admitted to the comparative and experimental medicine graduate program but will be enrolled officially as veterinary students. During summers such students may take advantage of registering for graduate courses to be counted as elective courses in the veterinary program.
Requirements

Students with professional degrees (e.g., MD, DDS, DVM) or master’s degrees in a program-related biomedical science must complete at least 24 hours of coursework and 24 hours of Dissertation 600. Others must complete a minimum of 48 hours of coursework and 24 hours of Dissertation 600.

Comparative and Experimental Medicine 504 and 541 are required, as are 6 hours of 600-level graduate journal clubs. In addition, students must take at least 3 hours of 500- or 600-level statistics and a minimum of 8 hours of coursework in a specified discipline. Areas of emphasis may include hematology, oncology, pathology, pharmacology, toxicology, immunology, genetics, infectious disease, epidemiology, metabolism, or other areas of medicine. Exceptions to accommodate students with specific interests must be approved by the Joint Graduate Coordinating Committee after application, in writing, to the director. The doctoral committee is chosen during the first year. At least one member must be from the College of Veterinary Medicine and at least one member from the Graduate School of Medicine.

A comprehensive examination must be passed before the end of the third year of the program. In addition, students must prepare and defend a prospectus outlining their proposed research projects before the end of their third year in the program. Exceptions to these requirements are provided for medical residents pursuing doctoral degrees who must successfully complete the comprehensive examination and research prospectus before the end of their fourth year in the program.