

Neuroscience

College of Medicine

The Department of Neuroscience offers a graduate program leading to the Doctor of Philosophy degree in Anatomy and Neurobiology. Graduate study in anatomy and neurobiology is designed to prepare candidates for research careers in academics, industry, and government laboratories. Admission to the graduate program is competitive and is based upon academic background, professional recommendations, performance on the Graduate Record Examination (GRE), experience, and when possible, personal interviews. Students should have completed an undergraduate degree in biology, biochemistry, chemistry, engineering, mathematics, neurosciences, physics, pharmacy or psychology. Some students who have already completed an M.D. or D.M.D. degree may be interested in obtaining specific training in anatomy and neurobiology in order to complete their professional education. For traditional students with only an undergraduate degree, undergraduate courses in organic chemistry, physical chemistry, calculus, physics, and the biological sciences are highly recommended.

Students will have the opportunity to join faculty research programs across a spectrum of topics including: cellular and molecular neurobiology, neurodegenerative diseases and aging, brain and spinal cord injury, neuroendocrinology, and behavioral, cognitive and integrated neuroscience. The program of study is tailored to the individual background and career goals of the student and stresses an interdepartmental approach both in the selection of courses and in the pursuit of research. Students are expected to participate in graduate seminars, journal clubs, research seminars; to interact with visiting scholars; and to present the results of their research at local and national meetings. Teaching opportunities leading to a graduate certificate in Anatomical Sciences Instruction are also available. Financial aid is available to students accepted into the program.

Admission Requirements

Admission to the Ph.D. program in Neuroscience is through the Integrated Biomedical Sciences (IBS) Curriculum. Inquiries regarding admission should be directed to the Director, Integrated Biomedical Sciences Curriculum, University of Kentucky College of Medicine at <http://www.mc.uky.edu/ibs/>. For information about the Ph.D. program in Anatomy and Neurobiology, contact the Director of Graduate Studies, Department of Neuroscience. Information may also be obtained from the department website.

Graduate Courses

ANA 503	Independent Work In Anatomy	(3)
ANA 511	Introduction To Human Anatomy	(5)
ANA 512	Microscopy And Ultrastructure	(4)
ANA 516	Selected Topics In Advanced Neuroscience	(3)
ANA 530	Combined Histology And Special Oral Microanatomy	(5)
ANA 534	Dental Gross Anatomy And Embryology	(5)
ANA 538	Dental Neuroanatomy	(2)
ANA 600	Seminar In Anatomy	(1)
ANA 605	Neurobiology Of Cns Injury And Repair (Same As PGY 605)	(3)
ANA 609	Educational Strategies In The Anatomical Sciences	(3)
ANA 611	Regional Human Anatomy	(5)
ANA 612	Biology Of Aging (Same As BIO/GRN/PGY 612)	(3)

ANA 625	Introduction To Functional MRI	(1)
ANA 629	Techniques Of Anatomical Research	(2)
ANA 631	Advanced Human Anatomy	(3-5)
ANA 636	Advanced Neuroscience	(3-5)
ANA 638	Developmental Neurobiology (Same As BIO/PGY/PSY 638)	(3)
ANA 660	Biology Of Reproduction (Same As ASC 660 And PGY 660)	(3)
ANA 662	Ultrastructural Anatomy	(2-5)
ANA 710	Aging Of The Nervous System (Same As GRN/PGY/PHA 710)	(3)
ANA 748	Master's Thesis Research	(0)
ANA 749	Dissertation Research	(0)
ANA 767	Dissertation Residency Credit	(2)
ANA 768	Residence Credit For The Master's Degree	(1-6)
ANA 769	Residence Credit For The Doctor's Degree	(0-12)
ANA 780	Special Topics In Neurobiology	(1-3)
ANA 790	Research In Anatomy	(1-12)