

# FUNCTIONAL ANATOMY AND EVOLUTION, PHD

## Ph.D. in Functional Anatomy and Evolution

The FAE graduate program offers a Ph.D. in Functional Anatomy and Evolution and provides individualized support by world-leading professors for each student in a close-knit department with an excellent faculty to student ratio. Our primary focuses are independent research and teaching human gross anatomy, with research areas covered by faculty and students that range from vertebrate fossils, to primates to recent human remains.

As a result of the interdisciplinary training of the FAE graduate program, our graduates are well equipped to face the challenge of today's academic job market. For more information on requirements for entry to the program, see our requirements for admission.

## Research

All students are required to engage in independent research, and a laboratory research rotation under faculty guidance begins soon after their arrival. Research may utilize our large collection of fossil and extant vertebrates as well as departmental research equipment. Research is further facilitated by our proximity to the collections of recent and fossil vertebrates held at the Smithsonian Institution's National Museum of Natural History in Washington, D.C., which can be accessed by a one hour journey on public transport. Baltimore's excellent location offers ease of access to other major museums on the East Coast, as well as several international airports to travel to museums and collections around the world.

## Teaching Opportunities

Teaching opportunities are primarily centered around training students to teach human anatomy in a medical school or allied health setting. Students act as laboratory instructors for both the Summer Institute in Anatomy and the School of Medicine Human Anatomy course. These are cadaver-based courses, allowing for the highest level of dissection-based experience. The School of Medicine course is taught at the beginning of the third year of the Ph.D. program, while the Summer Institute is taught at the end of both the first and second years. Further teaching opportunities are available through undergraduate courses offered by the departmental faculty.

## Prerequisites

The Functional Anatomy and Evolution (FAE) Program will admit well-qualified students to the program for work leading to the degree of Doctor of Philosophy. Applicants should have thorough training in organismic biology, chemistry, physics, and mathematics.

Admissions and program contact information can be accessed here: PhD Program – Functional Anatomy & Evolution ([johnshopkins.edu](https://fae.johnshopkins.edu)) (<https://fae.johnshopkins.edu/education/phd-program/>)

## Program Requirements

Requirements established by the FAE Program, which must be met by all candidates, are as follows:

1. Complete a minimum of four years of registration as a full-time, resident graduate student. Most candidates require five years.
2. Demonstrate evidence of achievement and promise in a comprehensive oral examination administered by the Doctoral Board, usually at the end of the second year of residence.
3. Demonstrate preparedness to carry out independent research by completing a research rotation project within the first two years.
4. Write a dissertation embodying findings worthy of publication, and certified to be a significant contribution to knowledge by at least two referees from within the department and two referees from outside.
5. Present a final departmental seminar in the field of the dissertation research.

## Core Courses

Students must achieve a B- or better in Human Anatomy, Organ Histology, Evolutionary Biology, Biomechanics of the Skeleton, Mammals: Diversity, Structure and Evolution, Primate Evolution, Geometric Morphometrics, and Statistics.

## Elective Courses

Students must also take at least four elective courses, to be determined through consultation with FAE faculty, chosen from among those offered by the FAE faculty (including Dinosaurs, Cladistics, and Allometry), as well as elsewhere in the University (e.g., Sedimentary Environments, Climates of the Past, Paleoecology, Behavioral Ecology, Animal Behavior, Geobiology, Isotope Geochemistry).

## Rotations

Students must complete a formal research rotation with the faculty during their first two years. The rotation consists of a written formal prospectus/proposal of the research work, a write-up of the research by the student, and an oral presentation to the FAE group.

## Fellowships

Predocctoral fellowships covering normal living costs and tuition are available.