ME.130 (FUNCTIONAL ANATOMY AND EVOLUTION)

ME.130.300. Human Anatomy: A Summer Course for Undergraduates and Graduates. 4 Credits.
N/A

ME.130.600. Human Anatomy. 7 Credits.
Required course in the first year medical student curriculum.

ME.130.601. Human Anatomy. 0 Credits.

ME.130.700. Advanced Study and Teaching. 0 Credits.
FAE third year students only. TA in Human Anatomy labs.

ME.130.707. Mammals: Diversity, Structure and Evolution. 0 Credits.

ME.130.708. Biomechanics of the Skeleton. 0 Credits.
Contact Dr. Ruff with course specifics.

ME.130.716. Primate Evolution. 0 Credits.
Course in the evolution of primates.

ME.130.718. Evolutionary Biology. 0 Credits.

ME.130.724. Cladistics. 0 Credits.
The course will cover the foundations of cladistics, introduction to cladistic algorithms, and cladistic implications to functional morphology, biogeography, and other evolutionary disciplines.

ME.130.726. Advanced Studies of Dinosaurs. 0 Credits.

ME.130.727. Morphometrics. 0 Credits.

ME.130.728. Comparative Vertebrate Anatomy. 0 Credits.

ME.130.729. Current Topics in Evolutionary Morphology. 0 Credits.

ME.130.733. Ecomorphology. 0 Credits.

ME.130.734. Evolution and Ecology of Sensory Systems. 0 Credits.

ME.130.735. Evo-Devo. 0 Credits.

ME.130.736. Comparative Mammalian Anatomy - A Short Lab Course. 0 Credits.

ME.130.737. Human Embryology. 0 Credits.

ME.130.738. Advanced Training and Undergrad Teaching in Human Anatomy. 0 Credits.
TA in Summer Anatomy lab; actual course dates are June 5, 2017 thru June 30, 2017

ME.130.739. Advanced Prosection in Human Anatomy. 0 Credits.

ME.130.741. Comparative Approach to Functional Anatomy. 0 Credits.

ME.130.742. Geometric Morphometrics. 0 Credits.
This course provides the foundations for the statistical analysis of biological shape including both theoretical underpinnings as well as applied methodologies. Topics will include collection of landmark and continuous data, superimposition methods, statistical analyses and methods for visualization of shape variation.

ME.130.743. Anatomy Lectures. 0 Credits.
Lecture only portion of SFM Human Anatomy

ME.130.744. Mammalian Evolution. 0 Credits.
This course will explore the evolutionary history of the mammals. Topics covered will include mammalian origins, Mesozoic mammal diversity, early Cenozoic mammals, and the evolution and adaptations of extant Monotremata, Metatheria, and Eutheria. Evolutionary theory, phylogeny reconstruction techniques, biogeography, and continental drift and the geological history of the earth will also be discussed in the context of mammalian evolution.

ME.130.745. Anatomy Lectures. 0 Credits.
Lecture only portion of SFM Human Anatomy

ME.130.746. Evolutionary Theory and Phylogenetic Comparative Methods. 0 Credits.
This course examines the theory and techniques of evolutionary analysis with special emphasis on vertebrate anatomical and developmental systems. We will examine and critique classic and emerging viewpoints regarding core evolutionary concepts, review basic approaches to tree construction, and investigate methods for studying evolution in a comparative phylogenetic context.

ME.130.747. Introduction to Histology. 2 Credits.
Introduction to basics of histology, using online M-scope imagery and Inversus e-lectures developed for Scientific Foundations of Medicine, plus individual instruction by FAE faculty.

ME.130.748. Advanced Anatomy Dissection and Research. 5 Credits.
Supervised small group cadaveric dissection focusing on more detailed understanding of specific systems and regional anatomy, anatomical variation, clinical correlations, and comparative anatomy.

ME.130.749. Anatomy Teaching Practicum. 0 Credits.
Training in lecturing, small group leadership for presentation of anatomical material; including giving one lecture and assisting in labs in ME.130.300.

ME.130.750. Introduction to Histology. 2 Credits.
Introduction to basics of histology, using online M-scope imagery and Inversus e-lectures developed for Scientific Foundations of Medicine, plus individual instruction by FAE faculty.

ME.130.751. Advanced Anatomy Dissection and Research. 5 Credits.
A supervised small group cadaveric dissection course focusing on more detailed understanding of specific systems and regional anatomy, anatomical variation, clinical correlations, and comparative anatomy.

ME.130.752. Anatomy Teaching Practicum. 3 Credits.
Training in lecturing, small group leadership for presentation of anatomical material; includes giving one lecture and assisting in labs in SOM ME.130.300.

ME.130.753. Fundamentals of Human Anatomy. 4 Credits.
This course is designed to give graduate students the fundamentals to all aspects of human anatomy, and includes demonstrations using human cadavers.

ME.130.800. FAE Advanced Work and Research. 0 Credits.
Research and preparation of dissertation.

ME.130.809. FAE Research Rotation. 0 Credits.

ME.130.810. Dinosaurs. 0 Credits.
The course will cover dinosaur diversity, functional morphology, systematics, evolutionary biology (including the origin of birds), and their end-Mesozoic mass extinction.

ME.130.812. Predissertation Research. 0 Credits.
Predissertation research course for 2nd year FAE students only.
ME.130.813. Readings in Evolutionary Biology: J.B.S. Haldane. 0 Credits.

ME.130.814. Readings in Evolutionary Biology: Mayr (1942) and Simpson (1944). 0 Credits.

ME.130.815. Independent Study in Mammalogy. 0 Credits.

ME.130.816. Independent Study in Ornithology. 0 Credits.

ME.130.819. Morphological Integration and Modularity. 0 Credits.

ME.130.820. FAE Research Rotation, Part One. 0 Credits.
For 1st year FAE students only.

ME.130.821. FAE Research Rotation, Part Two. 0 Credits.

Functional Anatomy and Evolution research rotation

ME.130.822. Primate Dietary Adaptations. 0 Credits.
This course will explore the range of diets known for extant primates, and the degree to which the evolution of diet ecology has shaped the morphology and physiology of skeletal and soft tissues. Students will be introduced to different ways to characterize diet, test hypotheses concerning adaptation, and to recover ecological signal in a paleontological context.

ME.130.823. Geometric Morphometrics. 0 Credits.
This course provides the foundations for the statistical analysis of biological shape including both theoretical underpinnings as well as applied methodologies. Topics will include collection of landmark and continuous data, superimposition methods, statistical analyses and methods for visualization of shape variation.