



Master of Science Degree in Applied Anatomy

Case Western Reserve University



The Master of Science in Applied Anatomy program was established for students seeking an **advanced education** in the **Anatomical Sciences Core Curriculum (ASCC)**, particularly individuals pursuing careers as **medical health professionals and teachers** who desire an advanced degree to enhance their skills and credentials. The core curriculum integrates aspects of modern molecular biochemistry, cell and developmental biology, and physiology into the traditional aspects of anatomical structure and nomenclature of cells, tissues, and organs. The elective courses allow **curriculum flexibility** for students to emphasize their diverse individual interests in specific areas of research and health care. The Masters of Science in Applied Anatomy also serves as an excellent preparation for subsequent graduate studies for the doctor of philosophy, or professional schools of medicine, dentistry, and nursing, or technical schools for physician assistants, physical therapists, and dental technicians. The knowledge of the human body and its physiological processes gained in this program forms an excellent enhancement for K-12 life sciences teachers.

Admission

Acceptance into the Master of Science in Applied Anatomy program requires a baccalaureate degree from an accredited institution and is based on undergraduate and/or graduate GPAs, results of admission examinations (GRE, MCAT, DAT), plus letters of recommendation. This master's degree also can be earned as part of a joint degree program for qualified individuals participating in other programs at CWRU. The program typically requires 1½-2½ years full or part-time study. This program is coordinated by an advisory committee of faculty and each student has a faculty advisor from the Department of Anatomy's Graduate Executive Council. Contact the Department of Anatomy for additional program and application information.

Requirements

The Master of Science in Applied Anatomy degree requires a minimum of 30 credit hours. Required courses include 21 credits of the ASCC; the remaining credit hours are elective courses selected to fulfill individual student interests and goals. Comprehensive written and oral exams covering the basic scientific principles presented in the ASCC must be passed after successful completion of formal course work.

Research experience is not required for the non-thesis (Plan B) degree, but may be obtained as elective coursework in independent study with individual faculty members. A thesis-based (Plan A) master of science degree program of study is also available. Tuition or stipends will not be provided for the master of science program.

ANATOMICAL SCIENCES --- CORE CURRICULUM *

ANAT 412/3	Histology & Ultrastructure/Laboratory (Fall)	ANAT 411	Gross Anatomy (Spring)
ANAT 414/5	Neurological Anatomy/Laboratory (Fall)	ANAT 491	Embryology (Spring)
ANAT 497/498	Departmental Seminar (Fall/Spring)		

COMMONLY SELECTED ELECTIVES *

ANAT 420	Forensic Pathology (Fall)	ANAT 523	Histopathology of Organ Systems (Spring)
ANAT 424	Neural Integrative & Regulatory Mechanisms (Spring)	ANAT 530	Basic Facial Reconstruction (Summer)
ANAT 435	Morphometrics of Biological Shapes (Fall)	BIOC 407/8	General Biochemistry (Fall/Spring)
ANAT 475	Human Evolution: The Fossil Evidence (Fall)	BIOL 416	Fundamental Immunology (Fall)
ANAT 477	Human Osteology (Spring)	CBIO 453/5	Cell / Molecular Biology (Fall)
ANAT 484	Development & Evolution: Vertebrate Skull (Fall)	CBIO 460	Molecular Biology (Fall)
ANAT 499	Independent Study (Fall/Spring/Summer)	NEUR 402	Principles of Neural Science (Spring)
ANAT 503	Readings & Discussion (Fall/Spring/Summer)	PHOL 480	Physiology of Organ Systems (Spring)

*Requirements for degree include: ASCC; minimum of 30 credits of coursework; comprehensive examination: MS thesis for Plan A.



Master of Science Degree in Applied Anatomy
Case Western Reserve University



Recommended Program of Study Schedules

The following program of study schedules are undertaken by many students entering in either the fall or spring semester; summer semester entry is also possible. These specific sequences of classes, while common, are not exclusive and are meant only to exemplify the typical program of study leading to the Master of Science in Applied Anatomy degree. The required courses (21 credits) comprising the Anatomical Sciences Core Curriculum* are specifically delineated whereas the elective courses (9 credits minimum) are not identified since they vary significantly between individual students. Students become eligible to take the MS Comprehensive Examination upon successful completion of the ASCC courses. All degree requirements must be completed within five years; most students complete the program in 1½-2½ years.

Entry into the MS program:

Fall semester entry

Spring semester entry

<u>Year I</u>			
<u>Fall</u>			
ANAT 412*	4	N/A	
ANAT 413*	2		
ANAT 497*	1		
<u>Spring</u>			
ANAT 411*	6	ANAT 411*	6
Elective		ANAT 497*	1
<u>Year II</u>			
<u>Fall</u>			
ANAT 414*	3	ANAT 412*	4
ANAT 415*	1	ANAT 413*	2
Elective		Elective	
<u>Spring</u>			
ANAT 491*	3	ANAT 491*	3
ANAT 498*	1	Elective	
Elective			
<u>Year III</u>			
<u>Fall</u>			
N/A		ANAT 414*	3
		ANAT 415*	1
		ANAT 498*	1
		Elective	

Comprehensive written and oral exams (taken after successfully completing ASCC)