

# ANESTHESIA, MSA

**Degree:** Master of Science in Anesthesia (MSA)

## Academic Requirements for Admission

The mission of the Master of Science in Anesthesia program is to graduate skilled and compassionate anesthesiologist assistants. The admission policy reflects this goal. Applicants are considered on a variety of parameters that measure academic ability, communication skills, clinical aptitude, and personality traits.

Admission to the MSA program requires that the following criteria are met:

### 1. Bachelor's degree from an accredited college or university

Applicants for admission must complete a course of study leading to a baccalaureate degree at an accredited United States, U.S. territory, or Canadian college or university, or its equivalent, prior to matriculation.

### 2. Prerequisite courses

Documentation of each of the prerequisites having been completed at an accredited United States, U.S. territory, or Canadian institution of higher learning is required. For those courses that have been repeated, the highest grade will be used in the calculation. Prerequisites include:

- one semester of biochemistry
- one year of biology with lab
- one semester of human anatomy with lab
- one semester of human physiology
- one year of chemistry with lab
- one semester of organic chemistry with lab (a second semester with lab is preferred)
- one year of physics with lab
- one semester of calculus
- one semester of advanced statistics (preferably for the life sciences)
- one semester of English with expository writing

All academic requirements must be completed satisfactorily before matriculation.

Our three key prerequisites – biochemistry, human anatomy with lab, and human physiology – must be taken within 5 years of the application deadline. All other prerequisites must be taken within 7 years of the deadline. These time limits will be waived with a current MCAT score of 500 or higher. A high MCAT score indicates your knowledge of the coursework is still current, and we do not ask that you retake your older coursework.

### 3. Admissions test

The MSA program requires either the MCAT or the GRE, which must be taken within three years of the application deadline. When an applicant has taken the MCAT or GRE more than once, component scores will not be combined. If an applicant has taken both admissions tests, they should submit both official scores for review.

### 4. Admissions assessment of non-cognitive skills

All applicants are required to complete the Acuity Insights admissions assessment, Casper, as part of their application. Casper is an online, open-response situational judgment test that evaluates aspects of your social intelligence and professionalism such as ethics, empathy, problem-solving and collaboration. The program recommends taking Casper before or concurrently with the submission of your application materials.

## International Admissions

Applicants with international undergraduate, graduate, or advanced degrees must meet the standard admission requirements listed above. In addition, an Education Credential Evaluation and Authentication Report for foreign transcripts is required. The MSA program does not require the IELTS, PTE, or TOEFL for admission; however, we require one year of coursework from a United States, U.S. territory, or Canadian institution of higher learning where English is the main language of instruction. Since all MSA program prerequisites must be taken in the United States, a U.S. territory, or Canada, international students should be able to meet this one-year English language requirement.

## The Application Process

All admissions materials must be received by the application deadline. Invited candidates participate in interviews with members of the Admissions Committee, which is comprised of faculty and staff members of the MSA program. Prospective candidates are permitted and encouraged to shadow an anesthesiologist in the operating room. Prior approval for this visitation is required, and dates are approved and determined by the individual location of study.

## Program Requirements

The 24-month program includes 70 credit hours (six consecutive semesters) of classroom and clinical instruction. The first three semesters integrate basic science and clinical instruction. During the remaining three semesters, students complete month-long rotations in all subspecialties of anesthesiology: ambulatory surgery, burns and trauma, cardiothoracic surgery, general surgery, neurosurgery, obstetrics, pediatrics, surgical intensive care unit. Clinical training focuses on all types of anesthesia including general, epidural, spinal and peripheral nerve blockade.

Instruction is also provided in advanced patient care monitoring techniques and pre-testing, and in calibration and operation of anesthesia delivery systems and monitors. At CWRU, our personal approach and rigorous educational standards produce compassionate and highly skilled anesthesiologist assistants.

The MSA program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and is based on the Standards for Anesthesiologist Assistant Programs. Graduates sit for the Certification Examination administered by the National Commission for Certification of Anesthesiologist Assistants (NCCAA) and co-sponsored by the National Board of Medical Examiners (NBME).

Additional information may be found on the Master of Science in Anesthesia program website.

## Sample Plan of Study

### First Year

		Credit Hours
<b>Summer</b>		
ANES 403	Cardiac Electrophysiology I	1
ANES 440	Patient Monitoring and Instrumentation I	2
ANES 460	Introduction to Anesthesia	2
ANES 461	Orientation to Clinical Experience	3
ANES 485	Introduction to Physiological Model-Based Simulation	1
<b>Credit Hours</b>		<b>9</b>

### Fall

ANES 404	Cardiac Electrophysiology II	1
ANES 456	Applied Physiology for Anesthesiologist Assistants I	3
ANES 462	Anesthesia Clinical Correlation I	1
ANES 463	Anesthesia Clinical Experience I	3
ANES 475	Pharmacology for Anesthesiologist Assistants I	3
ANES 477	Clinical Decision Making in Anesthesia	3
ANES 486	Physiological Model-Based Simulation I	1
ANES 488	Anesthesia Non-Technical Skills Lab	1
<b>Credit Hours</b>		<b>16</b>

### Spring

ANES 441	Patient Monitoring and Instrumentation II	2
ANES 458	Applied Physiology for Anesthesiologist Assistants II	3
ANES 464	Anesthesia Clinical Correlation II	1
ANES 465	Anesthesia Clinical Experience II	4
ANES 476	Pharmacology for Anesthesiologist Assistants II	3
ANES 478	Clinical Decision Making in Anesthesia II	3
ANES 487	Physiological Model-Based Simulation II	1
<b>Credit Hours</b>		<b>17</b>

### Second Year

#### Summer

ANES 467	Anesthesia Clinical Experience III	4
ANES 490	Ethics, Law and Diversity for Anesthesiologist Assistants	2
<b>Credit Hours</b>		<b>6</b>

#### Fall

ANES 468	Anesthesia Clinical Correlation III	1
ANES 469	Anesthesia Clinical Experience IV	8
ANES 580	Principles of Anesthesia Safety and Science Review I	1
ANES 584	Physiological Model-Based Simulation III	1
<b>Credit Hours</b>		<b>11</b>

#### Spring

ANES 470	Anesthesia Clinical Correlation IV	1
ANES 471	Anesthesia Clinical Experience V	8
ANES 581	Principles of Anesthesia Safety and Science Review II	1

ANES 585	Physiological Model-Based Simulation IV	1
<b>Credit Hours</b>		<b>11</b>
<b>Total Credit Hours</b>		<b>70</b>

**Total Credit Hours = 70**

Credit Hours for First Year: Basic Science and Clinical = 42

Credit Hours for Second Year: Clinical = 28

**Total Minimum Direct Patient Care Hours = 2000**

Direct Patient Care Hours for First Year: Basic Science and Clinical = 500

Direct Patient Care Hours for Second Year: Clinical = 1500

### Course Repeat Policy for MSA Students

MSA students may petition their program director to repeat a maximum of two courses during their degree program in order to improve their performance. Refer to the MSA student handbook for details and conditions of the course repeat policy.