

# AEROSPACE PHYSIOLOGY, MS

**Degree:** Master of Science (MS)

**Field of Study:** Aerospace Physiology

## Program Overview

The Master of Science Program in Aerospace Physiology non-thesis graduate degree program seeks to prepare students for a career in aviation and space, one of the fastest-growing new career fields. The program is designed for students with at least a bachelor's degree in a biological science, exercise science, or a health care field (such as medicine or allied health practitioner), who are seeking specialized training for a career in aerospace. The program may also appeal to students with an engineering background who have an interest in the human side of aviation. The 30- credit hour program of study supports competencies in the physiological basis of human responses to extreme environments, including exposures to acceleration, spatial disorientation, decompression, thermoregulation, and hypobaric. Graduates of the program will be qualified for aerospace physiologist roles with titles such as: Aviation Medical Examiner for the Federal Aviation Administration; Human Performance Scientist for a government contractor; Aerospace Health Care Provider/Flight Surgeon for NASA, the Air Force or the Navy; Aerospace Experimental Psychologist for the Navy; or Space Medical Research Engineer for a commercial space company.

## Graduate Policies

For graduate policies and procedures, please review the School of Graduate Studies section of the General Bulletin.

## Program Requirements

The MS in Aerospace Physiology is available to students who have already earned a bachelor's degree in a physical or biological science.

All courses (including the Aerospace Physiology Journal Club) are offered in a synchronous, traditional, lecture/small group format. The one exception to this is the 4-day, intense laboratory experience PHOL 423.

The MS in Aerospace Physiology program requires 30 credit hours of course work (10, 3 credit hour courses) and active participation in the Aerospace Physiology Journal Club each Fall and Spring semester students are registered for courses. To earn the MS degree, students must have a final GPA greater than 3.0 in at least 30 hours of graduate course work and pass the Comprehensive Exam.

Full time students will complete the program in 4 semesters. Part-time students can complete the program by taking as few as 1-3 credit hour(s) each semester over 10 semesters. All students must begin the program in a fall semester taking PHOL 421 followed by PHOL 422.

Code	Title	Credit Hours
<b>Required Courses:</b>		
PHOL 421	Introduction to Aerospace Physiology I	3
PHOL 422	Introduction to Aerospace Physiology II	3
PHOL 423	Lab Research Rotation: Aerospace Physiology	3
PHOL 426	Human Factors in the Aerospace Environment	3
PHOL 427	Physiological Contributions to Aviation Mishaps	3

PHOL 486	Physiology of Movement: An Introduction to Exercise Physiology	3
PHOL 614	Sleep Physiology - Neurobiology of Sleep/Wake	3
NTRN 460	Sports Nutrition	3

## Sample Plan of Study

First Year		Credit Hours
<b>Fall</b>		
PHOL 421	Introduction to Aerospace Physiology I	3
PHOL 486	Physiology of Movement: An Introduction to Exercise Physiology	3
PHOL 614	Sleep Physiology - Neurobiology of Sleep/Wake	3
<b>Credit Hours</b>		<b>9</b>
<b>Spring</b>		
PHOL 422	Introduction to Aerospace Physiology II	3
PHOL 423	Lab Research Rotation: Aerospace Physiology <sup>a</sup>	3
PHOL 410 or PHOL 485 or PHOL 492 or PHOL 451 or PHOL 601	Basic Oxygen & Physiological Function or Comparative and Evolutionary Physiology or Clinical Reasoning II or Independent Study or Research	3
<b>Credit Hours</b>		<b>9</b>
<b>Second Year</b>		
<b>Fall</b>		
PHOL 426	Human Factors in the Aerospace Environment	3
NTRN 460	Sports Nutrition	3
<b>Credit Hours</b>		<b>6</b>
<b>Spring</b>		
PHOL 427	Physiological Contributions to Aviation Mishaps	3
PHOL 410 or PHOL 485 or PHOL 492 or PHOL 451 or PHOL 601	Basic Oxygen & Physiological Function or Comparative and Evolutionary Physiology or Clinical Reasoning II or Independent Study or Research	3
<b>Credit Hours</b>		<b>6</b>
<b>Total Credit Hours</b>		<b>30</b>

<sup>a</sup> Four day residency requirement.