

# AEROSPACE PHYSIOLOGY, GRADUATE CERTIFICATE

**Credential:** Graduate Certificate

**Field of Study:** Aerospace Physiology

Aerospace Physiology is the study of the physical and cognitive impact of an extreme and/or austere environment upon an individual. These studies provide the foundation to understand and develop strategies conferring mental and physical resilience against extreme environmental conditions, thereby optimizing performance of the aerospace traveler.

The commercial (civilian) space tourism industries, as well as the rapidly expanding federal and military aero- and space initiatives are hampered by an absence of scientists, physicians, educators, and physiologists with expertise in the human challenges of the aerospace environment.

Examples of related career opportunities include aerospace medicine physicians, research physiologists, operational physiologists, and aviation medical and mishap examiners.

## Key Program features

- Students must begin the 15 credit hour program in the Fall semester
- Both Full Time and Part-time study options are available. Full time students can complete the program in 12 months
- Classes are offered in a synchronous, lecture/small group format that is both broadcast live and asynchronously accessed from recordings over the Internet
- A 4-day residency for a hands-on laboratory course is required (scheduled over one long weekend)

For more information please visit the Certificate in Aerospace Physiology page on the website of the Department of Physiology and Biophysics, School of Medicine.

## Program Requirements

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

All courses are offered in a synchronous, lecture/small group format with both a live broadcast and asynchronously from recordings over the Internet. The one exception to this is the four day residency requirement for PHOL 423.

The Certificate in Aerospace Physiology program requires 15 credit hours of course work. To earn the Certificate, students must have a final GPA greater than 3.0 in at least 15 credit hours of graduate course work.

## Sample Plan of Study

Full time students will follow the following Plan of Study to complete the program in two semesters. Part-time students can complete the program by taking as few as one 3 credit hour course each semester over five semesters. All students must begin the program in a fall semester taking Introduction to Aerospace Physiology I followed by Introduction to Aerospace Physiology II spring semester.

First Year		Hours
<b>Fall</b>		
PHOL 421	Introduction to Aerospace Physiology I	3
PHOL 614	Sleep Physiology - Neurobiology of Sleep/Wake	3
With the approval of the Director of the Program, either Fall or Spring semester, choose one, 3 credit hour graduate course taught in the Department of Physiology and Biophysics.		3
<b>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
<b>Hours</b>		<b>6</b>
<b>Total Hours</b>		<b>15</b>

a Four day residency requirement