Certificate in Aerospace Medicine

Z3. New Certificate Proposal 2018-2019 v.2

General Catalog Information

INSTRUCTIONS

Select "Program" from the radio box below, then complete the information requested for level, curriculum approval committee, title and department or program for approval.

Program Type (Select "Program)* (•) Program ( ) Shared Core

Level** ( ) Undergraduate (•) Graduate

Curriculum Approval Committee** ( ) Undergraduate Curriculum Committee (•) Graduate Committee A (COSM, CECS, CONH, BSOM) ( ) Graduate Committee B (RSCOB, CEHS, COLA, SOPP)

Title* Certificate in Aerospace Medicine

Approval Route

For the following programs, please select "University Programs" from the list of departments and programs below: Honors, Air Force Studies, and Army Studies.

Department or Program (for approval process)* Population and Public Health Sciences

Launch the proposal.

Approve the proposal using the decision button.

TIPS FOR NEW USERS

Turn the help text on by clicking on the following icon .
All fields with an asterisk (*) are required fields. If left blank, the request will not be launched and cannot be acted upon.
Supporting documents and additional information may be attached using the button located at the top of this form.

College* Medicine, Boonshoft School of

Catalog Display

Select the primary College or Department. **Do not select a program.** This information will determine where a program displays in the catalog. A program may display in only one location, under either a College or Deparment.

College or Department (for catalog display)* Population and Public Health Sciences

Requested Effective Term* ○ Fall ○ Spring ◉ Summer

Year* 2018

Note: If 50% or more of the program is offered off-campus, mostly on-line, or fully online, ODHE approval and HLC notification is required.

Where is the program offered? (check all that apply)*

- ☑ Dayton Campus
- ☐ Lake Campus
- ☐ Off-Campus in Ohio
- ☐ Off-Campus outside Ohio
- ☐ Off-Campus outside U.S.
- ☐ Fully Online
- ☐ Mostly Online (50% or more of the required courses may be taken as distance-delivered courses)

Please list each off-campus location courses in this program may be offered (or N/A if not applicable).* N/A

If program will be offered off-campus, how will services be available to students (advising, tutoring, counseling, financial aid, etc.)? N/A

Program Description

The information entered will appear in the catalog as submitted.

Please include information using the following four headings (Heading 2 format, in the order provided below) for consistent presentation in the catalog.

Program Description

Admission Requirements

Program Learning Outcomes (see examples below)

For more information visit: (include the department website)

Program Learning Outcomes

Examples:

History graduates will be able to:

write proficiently,
understand the methodology that historians use, and
analyze primary sources and secondary works in order to arrive at a coherent and well-organized conclusion.

Program Description, Admission Requriements, Learning Outcomes and Program/Departm Links*

Program Description:

The Certificate in Aerospace Medicine program is a four-course, 12 semester credit hour, academic track designed to provide students with intense immersion into the scientific foundation of aerospace medicine. Program topics represent essential knowledge for initial understanding of the field of aerospace medicine as well as the care of aviation and space flight crewmembers, passengers, and patients. Students will learn critical concepts of human physiologic responses to the aerospace environment in the context of previous, current, and planned aviation and space technology.

Subject areas included in the certificate program include: Respiratory physiology, Protection from hypoxia, Oxygen systems, Physiology of decompression, Response to both sustained and impact acceleration, Vibration and acoustics in the aerospace environment, Spatial disorientation, Thermal loading and physiologic responses, Considerations of the space environment, Physics and environmental aspects of space flight, Medical evaluation and standards for space flight candidates, Medical systems for space flight, Approach to acute care in the space environment, Aspects of telemedicine, Atmospheric contamination and control, Radiation exposure in the aerospace environment, Fundamentals of aerodynamic principles, Aeronautical decision making, Airplane systems, Aircraft power plant and

related systems, Aircraft flight instrumentation. Students will also have the opportunity to engage in journal club activities where research papers of contemporary aerospace medicine topics will be critically reviewed and discussed. Exposure to this fund of knowledge will assist students in establishing a didactic foundation on the basic concepts required for sustaining human operations within the aerospace environment.

Admission Requirements:

An undergraduate, graduate or professional degree in the health sciences. Approval by the Division of Aerospace Medicine is required. If the applicant's native language is not English, a minimum score of 213 (CBT) or 79/120 (IBT) on the Test of English as a Foreign Language (TOEFL) is required or a band 6 through the International English Language Testing System (IELTS).

Learning Outcomes:

Understand the historical and scientific foundations of Aerospace Medicine and its unique environment.

Discuss the essentials of medical care for Aerospace crewmembers to include, screening, routine care, and longitudinal monitoring as well as emergent evaluation.

Discuss the essentials of care for Aerospace ground crew.

Gain an appreciation of the location, depth, and breadth of aerospace medicine resources and research materials.

Produce high-quality written materials such as background papers or presentations that reflect the current

or future state of Aerospace Medicine topics

Deepen individual foundations in Aerospace Medicine to facilitate high-quality communications with crewmembers, aerospace specialists, and consultants lacking a background in the field

For more information
visit: https://medicine.wright.edu/education

Program Requirements:

Use the following template when creating program requirements. Each of the following headings is called a "core" in the template. The information entered will appear in the catalog as submitted.

Required courses
Elective courses
Other requirements (if applicable)
Total: # Hours (REQUIRED)

Undergraduate certificates must be between 12 and 21 credit hours with at least 12 credit hours above the 2000-level. For additional information, please refer to the policies for Academic Standards and Curriculum at http://policy.wright.edu.

Graduate certificate programs must be 9-20 credit hours. For additional information, please refer to the policies in the Graduate Council Manual
https://www.wright.edu/graduate-school/graduate-council-manual-graduate-curriculum-procedures.

Program Requirements*	
List all certificate courses not currently in any existing degree programs (required or elective).	Note: ASM 7370, 7571, 7771, 7871 are existing courses in the Master of Science in Aerospace Medicine Degree program. Course hour upgrade requests have been submitted via Curriculog from 2 credit hours per course to 3 credit hours per course to reflect the increased material covered in each of these courses and will fully support the credit requirements of this Aerospace Medicine Certificate curriculum

Does the certificate program consist of 50% or more new courses developed specifically for the requested program (i.e., the certificate is NOT a subset of courses from an existing degree program?).

50% or more new courses?*	○ Yes ◉ No

Certificate Type*	○ Undergraduate Certificate - Less than one year in length ○ Undergraduate Certificate - 1-1.99 years in length ○ Undergraduate Certificate - 2-4 years in length ○ Post-Baccalaureate Certificate ○ Post-Master's Certificate ◉ Graduate/Professional Certificate ○ Non-Credential Program (Preparatory Coursework/Teacher Certification)

Published Program Length (in Years)*	1

Below, briefly describe the processes for the assessment of student learning such as: development and measurement of learning objectives and continuous quality improvement.

Program Quality

Address how the proposed program of study and evaluation mechanisms meet and ensure successful completion of program objectives. The faculty body responsible for overseeing the quality of the program must be explicitly identified. Proposals must indicate any requirements for maintaining the quality of student performance and continuation in the program for successful completion of the certificate. This should include the following:

Student GPA and/or performance in a specific course or set of course required to continue/progress in program
Time limits for completion, including need for continuous registration
Criteria for reapplying if necessary
Acceptance of previous experience, including Prior Learning Assessment (PLA) or credit by examination (e.g., CLEP)

Program Quality*	Student GPA must remain a 3.0 (B) average for continued progress Certificate must be completed within 2 years Reapplication process is identical to initial application through the Division of Aerospace medicine and requires coordination and approval through the Division. No credit for prior experience or courses may be applied to this progam.

Processes for the assessment of student learning*	Certificate students will be assessed by a combination of any/all of the following: Participation in classroom discussion Presentation of materials to colleagues in the classroom Weekly quizzes on materials Comprehensive mid-term or final exams Discussions of cases and journal articles Passage of standardized and/or internally generated exams where available

Participation in table-top or other exercises

Below, briefly describe the nature of the certificate and any contractual or cooperative agreements with this certificate program. If you have partnered or contracted with a non-accredited entity either an institution or corporation to offer courses (content or platform), identify the information or services by the entity and the percentage or portion of the educational program the entity is providing.

Describe Certificate*

The Certificate in Aerospace Medicine program is a four course, 12 semester credit hour, academic track designed to provide students with intense immersion into the scientific foundation of aerospace medicine. Program topics represent essential knowledge for initial understanding of the field of aerospace medicine as well as the care of aviation and space flight crewmembers, passengers, and patients. Students will learn critical concepts of human physiologic responses to the aerospace environment in the context of previous, current, and planned aviation and space technology.

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Below, briefly describe the necessary qualifications of the faculty teaching in this certificate program and how these qualifications are being met with new or additional faculty.

Faculty Qualifications and Resources*

Necessary qualifications for faculty teaching the Certificate in Aerospace Medicine Program will include completion of an M.D. or D.O. degree, prior residency training and board certification in Aerospace Medicine or other medical specialty recognized by the American Board of Medical Specialties, extensive experience in operational flight medicine in military and/or civilian environments, experience as a military or Federal Aviation Administration certified Private Pilot or higher, and a background teaching Aerospace Medicine courses or similar field at the graduate level.

All of these qualifications will be met by current faculty within the Division of Aerospace Medicine.

Below, briefly describe the process of academic control of the programs such as admission, program content, and quality.

Academic control process*	The process of academic control for the Certificate in Aerospace Medicine Program will consist of Wright State University Graduate School admission requirements, stringent internal Division of Aerospace Medicine application review, annual review of all courses offered including faculty and student feedback, and assessment of program effectiveness utilizing comprehensive intake and exit examinations to gauge student learning and retention.
Additional information, if needed	N/A

Administrative Data

To be completed by Budget

CIP Code	
CIP Code Name	

To be completed by Financial Aid

Eligible for Title IV funding:	○ Yes ○ No

To be completed by Registrar

Approved Effective Term	○ Fall ○ Spring ○ Summer	**Year**	
Banner Program Name		**Banner Program Code**	
Banner Major Name		**Banner Major Code**	
Concentration Name(s) and Code(s), if applicable:			

Degree Type	
Program Type for Acalog	