Ph.D. in Aviation

The demand for aviation professionals with the skills to conduct research and solve problems continues to grow in response to the increasing complexity and evolution of the aviation field. The Ph.D. in Aviation program -- the first in the U.S. -- is designed to address that need by allowing students to pursue doctoral studies in aviation in a diverse, intellectually versatile and multi-disciplinary environment.

The program may be pursued in-residence or online. Courses are offered online for greater accessibility to the working professional. Participation in three five-day on-campus residency seminars is required during the program. This program format provides doctoral degree students an innovative way to achieve their personal, educational, and professional goals.

The Ph.D. in Aviation program is designed to enable students to achieve the following learning objectives:

- develop mastery of the central theories and concepts in the field of aviation, including foundations, safety management, economics, and regulatory procedures
- pose and solve theory-based and research-based problems designed to advance applications in the field of aviation;
- extend the aviation body of knowledge by conceiving, planning, producing, and communicating original research;
- develop and demonstrate expertise in instructional processes;
- demonstrate leadership, collaboration, and communication necessary for scholarly work in aviation.

Courses are offered during three 12-week terms per year. The program requires completion of four aviation core courses, a four-course sequence in statistics and research methodology, and four specialization courses. A qualifying exam tests students' mastery of core and specialization subject matter and is conducted at the end of the course work. Completion and defense of a dissertation is the final phase of the program. The dissertation is a formal academic paper that constitutes the culmination of the doctoral program. The purpose of the dissertation is to prepare students to be professionals in a discipline, to develop the skills necessary to engage in independent research, and to advance the body of knowledge in aviation. The program requires completion of 60 credit hours beyond the master's degree, including course work, residency seminars, and dissertation courses.

Policies for the Doctor of Philosophy in Aviation program may differ from those in the catalog referencing. Students should consult the appropriate academic department for degree program specific information.

Learn more information about the Ph.D. in Aviation program at the website: http://aviationphd.erau.edu.

Program of Study
The Ph.D. in Aviation will allow students to pursue interests in aviation in a diverse, intellectually versatile and multidisciplinary environment and to effect a global impact on the aviation discipline and industry. The program has been designed with the intent of preparing students with the cognitive and research skills necessary to solve acute problems facing the field of aviation and to advance the discipline.

Broad-based / Flexible Degree
Embry-Riddle's Ph.D. in Aviation is a flexible degree program, in that it is offered primarily online but includes three, six-day residencies at designated campuses. The degree is open to aviation professionals, including flight crew members, air traffic controllers, industry technical representatives, aviation educators, government employees and others wishing to advance their knowledge and enhance their careers with a Ph.D. in Aviation.

Program Educational Goals
The Ph.D. in Aviation program is designed to enable students to achieve the following objectives:

1. Develop mastery of the central theories and concepts in the field of aviation, including foundations, safety management, economics, and regulatory procedures
2. Pose and solve theory-based and research-based problems designed to advance applications in the field of aviation
3. Extend aviation body of knowledge by conceiving, planning, producing, and communicating original research
4. Acquire expertise in instructional processes
5. Demonstrate leadership, collaboration, and communication necessary for scholarly work in aviation.

Curriculum
The program consists of 60 credit hours above a Master's degree. Of those 60 hours, a minimum of 48 hours must be completed at Embry-Riddle. The program also requires, as a prerequisite to all courses in the program, a graduate-level, minimum 3-hour course in Descriptive and Inferential Statistics.

Coursework
Students are required to take four courses from Group A:

- DAV 721 Quantitative Research Methods in Aviation 3
- DAV 725 Research Methods 3
- DAV 726 Quantitative and Qualitative Data Analysis 3
- DAV 724 Advanced Quantitative Data Analysis - Data Mining and Modeling 3

Students will complete eight courses from Group B and Group C:

Group B courses:

- DAV 711 Foundations of Aviation 3
- DAV 712 Aviation Safety Management Systems 3
- DAV 713 The Economic Environment of Aviation 3
- DAV 714 The Legal Environment of Aviation 3
- DAV 715 Human Factors in Aviation 3
- DAV 716 Management of Systems Engineering 3

Group C courses:

- DAV 732 Aviation Organizational Dynamics 3
- DAV 733 Globalization and the Aviation Environment 3
- DAV 734 Operations Research & Decision-Making 3
- DAV 735 Current Practices and Future Trends in Aviation 3

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Gre graduate record examination (GRE) scores:

Admissions requirements:

Students will complete all four Group A courses, and eight courses from Group B and Group C.

Group B and Group C.

Students will complete all four Group A courses, and eight courses from outside of the traditional academic boundaries, combining coursework for Intradisciplinary Specialization.

The Intradisciplinary Specialization is for students who wish to work outside of the traditional academic boundaries, combining coursework from any specialization, while meeting basic course requirements. Students will complete all four Group A courses, and eight courses from Group B and Group C.

Admissions requirements:

Graduate Record Examination (GRE) Scores:

GRE scores must be taken in the past five years.

GRE scores will not be waived regardless of a student's academic or professional background.

Scores are to be sent directly to Embry-Riddle Aeronautical University.

Information about the GRE can be found at ETS (http://www.ets.org/gre), as well as the GRE Guide website. (http://www.greguide.com)

Transcripts:

Bachelor and master's degree official transcripts are required and are to be sent directly from all colleges and universities attended. A GPA of 3.5/4.0 in graduate programs and 3.0/4.0 in undergraduate programs is required. If you are an international applicant, be sure to click on the “International Applicants” link for information regarding evaluation of foreign credentials.

Official transcripts can be sent to:

Worldwide Imaging Department
Embry-Riddle Aeronautical University
600 S. Clyde Morris Blvd.
Daytona Beach, FL 32114-3900

Statement of Goals:

Completing the Ph.D. in Aviation is a transformative experience that is designed to prepare graduates to make significant contributions to the industry as research scholars and leaders. In 500 words or fewer, please describe your personal and professional goals and how earning the Ph.D. in Aviation from Embry-Riddle aids you in achieving those outcomes with consideration to the Ph.D. experience as it affects your life in the short and long term.

Sample of Writing:

In 750 words or fewer, describe an aviation or aerospace problem of significance that you believe would be worthy of research exploration as part of your doctoral program (the dissertation). Briefly, identify the problem the research addresses, summarize the available literature, and propose a method that you could utilize to support the research.

Fiscal and Time Responsibility:

Because education at this level is expensive, students are requested to carefully review their options.

Costs for 2017 will be $1,130 per credit hour, books $300 per course, software a one time cost of $200, and a residency fee of $1,200.

Additional details can be found under the Finance (http://erau.edu/degrees/phd/aviation/#finance) section.

Applicants are asked, in 500 words or fewer, to provide a brief fiscal plan as well as to show how they will accommodate an anticipated workload of approximately 14 hours per class per week as part of their normal work/family schedule. Students are required to enroll in a minimum of 5 courses per year in addition to the annual residency seminar. Most students will enroll in two course per term, three terms per year in addition to the annual residency.

Letters of Recommendation:

Three letters of recommendation are required. Both professional and academic references are suggested.

The letter of recommendation form can be downloaded and are also provided in the application package.

Resume:

Applicants must provide a current resume outlining past educational and work experiences.

Estimated Cost of Attendance (http://catalog.erau.edu/worldwide/student-affairs/california-student/cost)