

# AVIATION, DOCTOR OF

The Doctor of Aviation (Av.D.) program is a professional doctorate degree program, fully online, designed for the working professional to develop advanced aviation knowledge and research skills. The knowledge and research developed will be put to use in a practical sense through a real-world application to solve aviation and aerospace industry issues and problems.

As the aviation industry advances, it has become increasingly beneficial, and in some cases required, for industry professionals to have advanced degrees. The School of Science and Engineering has been on the forefront of educating aviation professionals by being the first school to award a Ph.D. in Aviation (<https://catalog.slu.edu/colleges-schools/science-engineering/aviation/aviation-phd/>) and by offering a Master of Science in Aviation (<https://catalog.slu.edu/colleges-schools/science-engineering/aviation/aviation-ms/>). See the Department of Aviation Science (<https://catalog.slu.edu/colleges-schools/science-engineering/aviation/>) for more information.

## Curriculum Overview

SLU's Doctor of Aviation consists of 36 credits beyond a master's degree, which includes 9 credits of project guidance and graduate reading, 18 credits of foundational coursework, and 9 credits of research methodology coursework. All courses are taught in a completely online format. Each student prepares a program of study that must be approved by their faculty advisor, the department chair and the associate dean for graduate education and research for School of Science and Engineering.

This program of study is developed within the context of the student's background and career goals, allowing students to customize their graduate program to suit their professional goals. Students in the online Av.D. degree program will generally be full-time professionals in the aviation/aerospace industry, including the military, whose goals do not require the completion of independent, original research necessary for a Ph.D. Applicants must already have a master's degree in a closely related field to apply for this program.

## Fieldwork and Research Opportunities

Research enables the industry experts in many areas of aviation make the industry less complex while increasing safety. It aids consultants and experts to predict and prevent scenarios that cause airline accidents, interruptions in service, technical challenges, and even such things as pilot shortages and fuel prices.

The Av.D. degree program is designed to allow the graduate to apply research to real-world applications in a variety of areas such as:

- Airworthiness
- Aviation security
- Aviation safety management systems (SMS)
- Education and training
- Human factors in aeronautics
- Operations research
- Organizational development

## Careers

Graduates with the Av.D. are uniquely qualified to conduct aviation-related research in academic, government and industry. Possible career fields include flight training and education, aviation-related

management, and aviation safety. After graduating, alumni are qualified for management positions within the aviation industry.

## Admission Requirements

- Online application form
- Previous master's degree
- Official transcript(s) of all previous degrees
- Three letters of recommendation (preferably from recent instructors)
- A writing sample solely authored by the applicant that has been preferably composed within the last two to three years. The sample should relate to a contemporary issue in aviation or describe the student's proposed research agenda and how that contemporary issue or proposed research agenda matches to the research currently being conducted by faculty in the Oliver L. Parks Department of Aviation Science (<https://catalog.slu.edu/colleges-schools/engineering-aviation-technology/aviation/>). Submissions should be formatted to be APA document style compliant, be between 3,500-4,500 words in length, and include an abstract of less than 300 words.
- Curriculum vitae/résumé
- Professional goal statement

## Requirements for International Students

All admission policies and requirements for domestic students apply to international students along with the following:

- Demonstrate English Language Proficiency (<https://catalog.slu.edu/academic-policies/office-admission/undergraduate/english-language-proficiency/>)
- Proof of financial support must include:
  - A letter of financial support from the person(s) or sponsoring agency funding the time at Saint Louis University
  - A letter from the sponsor's bank verifying that the funds are available and will be so for the duration of study at the University
- Academic records, in English translation, of students who have undertaken postsecondary studies outside the United States must include the courses taken and/or lectures attended, practical laboratory work, the maximum and minimum grades attainable, the grades earned or the results of all end-of-term examinations, and any honors or degrees received. WES and ECE transcripts are accepted.

## Tuition

| Tuition          | Cost Per Credit |
|------------------|-----------------|
| Graduate Tuition | \$1,370         |

Additional charges may apply. Other resources are listed below:

Net Price Calculator (<https://www.slu.edu/financial-aid/tuition-and-costs/calculator.php>)

Information on Tuition and Fees (<https://catalog.slu.edu/academic-policies/student-financial-services/tuition/>)

Miscellaneous Fees (<https://catalog.slu.edu/academic-policies/student-financial-services/fees/>)

Information on Summer Tuition (<https://catalog.slu.edu/academic-policies/student-financial-services/tuition-summer/>)

## Financial Support

The School of Science and Engineering offers graduate fellowship awards and assistantships each year. Assistantships provide tuition, stipend and health insurance. There are also many opportunities for students to receive funding through external research grants that are managed by individual faculty.

For more information, visit the student financial services office online at [www.slu.edu/financial-aid](https://slu.edu/financial-aid/) (<https://slu.edu/financial-aid/>).

## Learning Outcomes

Upon completion of the program, all Doctor of Aviation graduates should/will be able to:

1. Have a comprehensive knowledge of research methods and be able to apply them to their area of inquiry.
2. Critique and synthesize literature or scholarly contributions in their area of inquiry.
3. Implement ethical principles, regulations, and policies related to aviation/aerospace industrial practices.
4. Serve as leaders in the aviation/aerospace industry by applying theories, concepts, and knowledge or developing strategies to resolve issues in the aviation/aerospace industry.
5. Contribute to the existing body of knowledge in aviation/aerospace disciplines through research involving evidence-based industrial practices.

## Requirements

The Doctor of Aviation requires a total of 36 credits beyond a master's degree. Students will work with an adviser and Av.D. committee to determine the specific coursework to complete the Av.D. in aviation.

| Code  | Title                   | Credits   |
|---|-------------------------|-----------|
| ASCI 6960   | Project Guidance        | 6         |
| ASCI 5980   | Graduate Reading Course | 3         |
| <i>Aviation Foundation Requirement</i>  |                         | <i>18</i> |
| Students choose 18 credits with the Aviation Foundation (Graduate) attribute (p. 2) |                         |           |
| <i>Research Methodology Requirement</i>   |                         | <i>9</i>  |
| Students choose 9 credits with the Aviation Research (Graduate) attribute (p. 2)    |                         |           |
| <b>Total Credits</b>  |                         | <b>36</b> |

## Non-Course Requirements

- Students must pass a comprehensive written examination.
- Students must pass an oral examination/proposal defense.
- Students must pass a public presentation and defense of their project.

## Continuation Standards

Students must maintain a cumulative grade point average (GPA) of 3.00 in all graduate/professional courses.

## Aviation Foundation Attributed Courses

| Code      | Title                                       | Credits |
|-----------|---|---------|
| ASCI 5030 | Aviation Security Management                | 3       |
| ASCI 5040 | Human Factors in Aviation Safety            | 3       |
| ASCI 5150 | Aviation Incident and Accident Analysis     | 3       |
| ASCI 5210 | Aviation Organization Theory and Management | 3       |
| ASCI 5220 | Aviation Safety Programs                    | 3       |
| ASCI 5230 | Prof Ethics and Standards                   | 3       |
| ASCI 6010 | Federal & International Regs                | 3       |
| ASCI 6020 | Flight Op's Business & Admin                | 3       |
| ASCI 6030 | Aviation and Public Policy                  | 3       |
| ASCI 6070 | Aviation Training Methods                   | 3       |

## Aviation Research Attributed Courses

| Code      | Title   | Credits |
|-----------|---|---------|
| ASCI 5010 | Introduction to Aviation Research Methods                               | 3       |
| ASCI 5020 | Aviation Safety Data Analysis   | 3       |
| ASCI 5460 | Qualitative Data Analysis   | 3       |
| ASCI 5470 | Quantitative Data Analysis  | 3       |
| AA 5221   | Applied Analytics & Methods I   | 3       |
| EDR 5100  | Intro to Inferential Stats: Ed  | 3       |
| EDR 6100  | Intermediate Applied Statistics for Education                           | 3       |
| ORES 5100 | Research Methods in Health & Medicine                                   | 3       |
| PSY 6500  | Applied Multivariable and Multivariate Statistics in Behavioral Science | 3       |
| SOC 5750  | Qualitative Analysis, Grounded Theory Method                            | 3       |
| SOC 5800  | Survey Design & Sampling  | 3       |

## Aviation Elective Attributed Courses

| Code      | Title   | Credits |
|-----------|---|---------|
| ASCI 5010 | Introduction to Aviation Research Methods     | 3       |
| ASCI 5020 | Aviation Safety Data Analysis                 | 3       |
| ASCI 5030 | Aviation Security Management                  | 3       |
| ASCI 5040 | Human Factors in Aviation Safety              | 3       |
| ASCI 5150 | Aviation Incident and Accident Analysis       | 3       |
| ASCI 5210 | Aviation Organization Theory and Management   | 3       |
| ASCI 5220 | Aviation Safety Programs                      | 3       |
| ASCI 5230 | Prof Ethics and Standards                     | 3       |
| ASCI 5460 | Qualitative Data Analysis                     | 3       |
| ASCI 5470 | Quantitative Data Analysis                    | 3       |
| ASCI 5980 | Graduate Reading Course                       | 1-3     |
| ASCI 6010 | Federal & International Regs                  | 3       |
| ASCI 6020 | Flight Op's Business & Admin                  | 3       |
| ASCI 6030 | Aviation and Public Policy                    | 3       |
| ASCI 6070 | Aviation Training Methods                     | 3       |
| AA 5221   | Applied Analytics & Methods I                 | 3       |
| BME 6000  | Preparing Future Faculty                      | 3       |
| EDR 5100  | Intro to Inferential Stats: Ed                | 3       |
| EDR 6100  | Intermediate Applied Statistics for Education | 3       |
| GIS 5040  | Introduction to Remote Sensing                | 3       |
| IB 6000   | Global Business Environment                   | 3       |
| IB 6220   | International E-Business                      | 3       |

|           |   |   |
|-----------|---|---|
| ORES 5100 | Research Methods in Health & Medicine                                   | 3 |
| PSY 6500  | Applied Multivariable and Multivariate Statistics in Behavioral Science | 3 |
| SOC 5750  | Qualitative Analysis, Grounded Theory Method                            | 3 |
| SOC 5800  | Survey Design & Sampling  | 3 |

## Roadmap

Roadmaps are recommended semester-by-semester plans of study for programs and assume full-time enrollment unless otherwise noted.

Courses and milestones designated as critical (marked with !) must be completed in the semester listed to ensure a timely graduation. Transfer credit may change the roadmap.

This roadmap should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor/mentor each semester. Requirements, course availability and sequencing are subject to change.

| Course                      | Title                   | Credits   |
|-----------------------------|-------------------------|-----------|
| <b>Year One</b>             |                         |           |
| <b>Fall</b>                 |                         |           |
| Aviation Foundation courses |                         | 6         |
| <b>Credits</b>              |                         | <b>6</b>  |
| <b>Spring</b>               |                         |           |
| Aviation Foundation courses |                         | 6         |
| <b>Credits</b>              |                         | <b>6</b>  |
| <b>Year Two</b>             |                         |           |
| <b>Fall</b>                 |                         |           |
| Aviation Foundation course  |                         | 3         |
| Aviation Research course    |                         | 3         |
| <b>Credits</b>              |                         | <b>6</b>  |
| <b>Spring</b>               |                         |           |
| Aviation Foundation course  |                         | 3         |
| Aviation Research course    |                         | 3         |
| <b>Credits</b>              |                         | <b>6</b>  |
| <b>Year Three</b>           |                         |           |
| <b>Fall</b>                 |                         |           |
| Aviation Research course    |                         | 3         |
| ASCI 5980                   | Graduate Reading Course | 3         |
| <b>Credits</b>              |                         | <b>6</b>  |
| <b>Spring</b>               |                         |           |
| ASCI 6960                   | Project Guidance        | 6         |
| <b>Credits</b>              |                         | <b>6</b>  |
| <b>Total Credits</b>        |                         | <b>36</b> |

## Contact Us

For more information about any School of Science and Engineering graduate program, email [ssegrad-admissions@slu.edu](mailto:ssegrad-admissions@slu.edu).