

B.S. in Aviation and Aerospace Safety

The Bachelor of Science in Aviation and Aerospace Safety is housed in the Department of Applied Aviation Sciences on the **Daytona Beach Campus**. The program includes coursework in aviation safety, federal regulations and standards, and applied safety analysis. Students may complete laboratory-based coursework, including work in the Aerospace Forensics Lab (Crash Lab).

The program prepares students to provide safety and health support in a range of settings, including work related to regulatory compliance, industrial hygiene, human factors and workplace standards.

The program meets Board of Certified Safety Professionals Qualified Academic Program standards. Graduates are eligible for the Graduate Safety Practitioner designation, which provides a pathway toward the Certified Safety Professional certification by waiving the requirement to take the Associate Safety Professional examination.

Program-Level Student Learning Outcomes

Students will:

- Develop and conduct safety risk assessments, analyze and interpret results, and use scientific judgment to make informed conclusions about safety improvements and hazard mitigation.
- Explain and communicate safety-related information and recommendations to diverse audiences, including industry professionals, regulatory bodies, and the general public.
- Formulate or design safety management systems, procedures, and programs that meet industry standards and regulatory requirements.
- Identify, analyze, and address complex safety challenges in aviation and aerospace by applying knowledge of safety principles, risk management, and relevant technical disciplines.
- Operate effectively within teams to set safety goals, plan and execute tasks, meet deadlines, and manage risks and uncertainties in safety related projects.
- Recognize and understand the ethical and professional responsibilities associated with safety, considering the global, economic, environmental, and societal impacts of safety solutions.

Daytona Beach Program Requirements

General Education Requirements	37
Core Requirements	67
Electives	18
Total Credits	122

General Education Requirements

Communication	9
Humanities - Lower Level	3
Social Sciences - Lower Level	3
ECON 200 An Economic Survey	
Humanities/Social Sciences - Lower or Upper Level	3
PSYC 101 Introduction to Psychology	
Humanities/Social Sciences - Upper Level	3
Computer Science/Information Technology	3
Mathematics	6
MATH 111 Pre-calculus for Aviation	
MATH 112 Applied Calculus for Aviation	
Physical/Life Sciences	7
PHYS 113 Introductory Physics I	
BIOL 120 Foundations of Biology I	

or CHEM 101 Basic Chemistry
or EVSC 142 Introduction to Environmental Science
or PHYS 117 Introductory Physics II

BIOL 120L Foundations of Biology I Laboratory
or CHEM 101 Basic Chemistry Laboratory
or PHYS 117 Introductory Physics I Laboratory
or PHYS 117 Introductory Physics II Laboratory

Total Credits **37**

Core Requirements

ASCI 254	Aviation Legislation	3
AVSF 202	Introduction to Safety Management Systems (SMS)	3
AVSF 204	Aircraft Systems and Components for Air Safety	3
AVSF 210	Introduction to Aerospace Safety	3
AVSF 309	Aerodynamics and Performance for Air Safety	3
AVSF 312	Safety Audit Techniques in Aviation	3
AVSF 314	Sustainability and Environmental Safety Compliance	3
AVSF 320	Human Factors in Aviation Safety	3
AVSF 330	Aircraft Accident Investigation	3
AVSF 341	Safety and Security of Airport Ground Operations	3
AVSF 345	Aviation Safety Program Management	3
AVSF 350	Aircraft Crash and Emergency Management	3
AVSF 445	System Safety and Risk Management	3
AVSF 455	Aviation Safety Analytics	3
AVSF 475	Senior Project	3
or COIN 396	Co-Operative Education	
or COIN 397	Co-Operative Education	
MATH 210	Introduction to Data Science	3
MGMT 201	Principles of Management	3
SFTY 311	Occupational Safety and Health	3
SFTY 355	Industrial Hygiene and Toxicology	3
SFTY 365	Fire Protection	3
SFTY 422	Safety Data Analysis	3
STAT 222	Business Statistics	3
UNIV 101	College Success	1
Total Credits		67

Electives

Open Electives *	18
Total Credits	18

* Students are strongly encouraged to take advantage of the 18 credit hours of open electives by pursuing a minor program.

Suggested Plan of Study

Year One

Requirements	Credits
Humanities - Lower Level	3
MATH 111 - Pre-calculus for Aviation	3
COMM 122 - English Composition	3
PSYC 101 - Introduction to Psychology	3
AVSF 202 - Introduction to Safety Management Systems (SMS)	3

UNIV 101 - College Success	1
Semester Hours	16
Requirements	Credits
MATH 112 - Applied Calculus for Aviation	3
AVSF 204 - Aircraft Systems and Components for Air Safety	3
AVSF 210 - Introduction to Aerospace Safety	3
MGMT 201 - Principles of Management	3
PHYS 113 - Introductory Physics I	3
PHYS 113L - Introductory Physics I Laboratory	1
Semester Hours	16

Total Credits

Total Hours for All Requirements: 32

Year Two

Requirements	Credits
MATH 210 - Introduction to Data Science	3
COMM 219 - Speech	3
COMM 221 - Technical Communication	3
ECON 200 - An Economic Survey	3
CHEM 101 - Basic Chemistry, BIOL 120 - Foundations of Biology I, or PHYS 117 - Introductory Physics II	3
Semester Hours	15
Requirements	Credits
ASCI 254 - Aviation Legislation	3
STAT 222 - Business Statistics	3
AVSF 320 - Human Factors in Aviation Safety	3
AVSF 345 - Aviation Safety Program Management	3
AVSF 330 - Aircraft Accident Investigation	3
Semester Hours	15

Total Credits

Total Hours for All Requirements: 30

Year Three

Requirements	Credits
CPSC 120 - Introduction to Computing in Aviation	3
AVSF 341 - Safety and Security of Airport Ground Operations	3
Humanities - Upper Level	3
SFTY 355 - Industrial Hygiene and Toxicology	3
SFTY 365 - Fire Protection	3
Semester Hours	15
Requirements	Credits
AVSF 350 - Aircraft Crash and Emergency Management	3

AVSF 314 - Sustainability and Environmental Safety Compliance	3
SFTY 311 - Occupational Safety and Health	3
Open Elective	3
Open Elective	3
Semester Hours	15

Total Credits

Total Hours for All Requirements: 30

Year Four

Requirements	Credits
AVSF 312 - Safety Audit Techniques in Aviation	3
AVSF 445 - System Safety and Risk Management	3
SFTY 422 - Safety Data Analysis	3
Open Elective	3
Open Elective	3
Semester Hours	15
Requirements	Credits
AVSF 455 - Aviation Safety Analytics	3
AVSF 475 - Senior Project	3
AVSF 309 - Aerodynamics and Performance for Air Safety	3
Open Elective	3
Open Elective	3
Semester Hours	15

Total Credits

Total Hours for All Requirements: 30