

M.S. in Aviation and Aerospace Sustainability

The Master of Science in Aviation and Aerospace Sustainability includes study of sustainability strategies and industry perspectives in aviation and aerospace, with instruction from faculty and opportunities for professional engagement.

At the **Worldwide & Online Campus**, the Master of Science in Aviation and Aerospace Sustainability is delivered in a fully online format for students in the U.S. and internationally. The program is housed in the Department of Applied Aerospace Science in the College of Aviation and uses a systems approach and case study methods to develop interdisciplinary skills. Coursework includes application of sustainability concepts in aviation, including technologies, policies and management systems, as well as topics such as sustainable organizations, environmental and energy management systems, Sustainable Aviation Fuels (SAF) and fuel-efficient aerodynamic design.

At the **Asia Campus**, the Master of Science in Aviation and Aerospace Sustainability is delivered for students in the Asia-Pacific region with curriculum informed by regional industry context. The program includes study of sustainable organizations, environmental and energy management systems, Sustainable Aviation Fuels (SAF) and fuel-efficient aerodynamic designs. The curriculum is delivered through a combination of in-class and online instruction and includes technologies, policies and management system approaches relevant to aviation and aerospace contexts in the region.

Program-Level Student Learning Outcomes

Students will:

- Evaluate the application of environmental tools and policy schemes in the aviation and aerospace industry.
- Create sustainable operations for the aviation and aerospace industry.
- Apply leading-edge sustainable aviation and aerospace technologies and solutions.
- Create sustainable best management practices for economic sustainability.

Worldwide Program Requirements

Core Requirements	30
Total Credits	30

Program Details

The Master of Science in Aviation and Aerospace Sustainability requires successful completion of a minimum of 30 credit hours. Students enrolled in the Worldwide Graduate Online program may complete the degree in six terms, or approximately two years, assuming full-time enrollment and continuous progress. Students pursuing this graduate degree must earn a minimum cumulative grade point average (CGPA) of 3.00 for all work completed at the University. The courses required to earn this degree are listed below.

Students should be aware that many courses have prerequisites and/or corequisites. Students are responsible for ensuring that all prerequisite and degree requirements are satisfied prior to enrollment in advanced coursework. The suggested plan of study is provided as a guide. A student's actual plan of study may vary based on term of admission, course availability, transfer credit, and other academic considerations. Students should consult with their academic advisor to develop an individualized plan of study.

Core Requirements

AASI 600	Sustainable Aviation and Aerospace Perspectives	3
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AASI 605	Aviation and Aerospace Sustainable Organizations	3
AASI 607	Airport Sustainability Operations	3
AASI 611	Sustainable Aviation Fuels and Carbon Offsetting	3
AASI 613	Sustainable Air Traffic Management	3
AASI 625	Sustainability Policy in Aviation and Aerospace	3
AASI 629	Sustainable Air Vehicles; Design and Propulsion	3
AASI 635	Sustainable Aviation Techniques and Tools	3
AASI 637	Aircraft Decommissioning and Circular Economy	3
AASI 639	Aviation Corporate Sustainability Management	3
Total Credits		30

Suggested Plans of Study

Two Year Plan

Year One

Requirements	Credits
AASI 600 - Sustainable Aviation and Aerospace Perspectives	3
Semester Hours	3

Requirements	Credits
AASI 605 - Aviation and Aerospace Sustainable Organizations	3
Semester Hours	3

Requirements	Credits
AASI 607 - Airport Sustainability Operations	3
Semester Hours	3

Requirements	Credits
AASI 611 - Sustainable Aviation Fuels and Carbon Offsetting	3
Semester Hours	3

Requirements	Credits
AASI 613 - Sustainable Air Traffic Management	3
Semester Hours	3

Total Credits

Total Hours for All Requirements: 15

Year Two

Requirements	Credits
AASI 625 - Sustainability Policy in Aviation and Aerospace	3
Semester Hours	3

Requirements	Credits
AASI 629 - Sustainable Air Vehicles; Design and Propulsion	3
Semester Hours	3

Requirements	Credits
AASI 635 - Sustainable Aviation Techniques and Tools	3
Semester Hours	3

Requirements	Credits
AASI 637 - Aircraft Decommissioning and Circular Economy	3
Semester Hours	3

Requirements	Credits
AASI 639 - Aviation Corporate Sustainability Management	3
Semester Hours	3

Total Credits

Total Hours for All Requirements: 15

One Year Plan

Year One

Requirements	Credits
AASI 600 - Sustainable Aviation and Aerospace Perspectives	3
AASI 605 - Aviation and Aerospace Sustainable Organizations	3
Semester Hours	6

Requirements	Credits
AASI 607 - Airport Sustainability Operations	3
AASI 611 - Sustainable Aviation Fuels and Carbon Offsetting	3
Semester Hours	6

Requirements	Credits
AASI 613 - Sustainable Air Traffic Management	3
AASI 625 - Sustainability Policy in Aviation and Aerospace	3
Semester Hours	6

Requirements	Credits
AASI 629 - Sustainable Air Vehicles; Design and Propulsion	3
AASI 635 - Sustainable Aviation Techniques and Tools	3
Semester Hours	6

Requirements	Credits
AASI 637 - Aircraft Decommissioning and Circular Economy	3
AASI 639 - Aviation Corporate Sustainability Management	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 30

Estimated Cost of Attendance

Estimated Cost of Attendance: California Student Information (<https://catalog.erau.edu/student-life/student-affairs/california-student/>)

Asia Program Requirements

Core Requirements	30
Total Credits	30

Program Details

Note: Asia campus students follow Worldwide prerequisite requirements unless otherwise specified.

Core Requirements

AASI 600	Sustainable Aviation and Aerospace Perspectives	3
AASI 605	Aviation and Aerospace Sustainable Organizations	3
AASI 607	Airport Sustainability Operations	3
AASI 611	Sustainable Aviation Fuels and Carbon Offsetting	3
AASI 613	Sustainable Air Traffic Management	3
AASI 625	Sustainability Policy in Aviation and Aerospace	3
AASI 629	Sustainable Air Vehicles; Design and Propulsion	3
AASI 635	Sustainable Aviation Techniques and Tools	3
AASI 637	Aircraft Decommissioning and Circular Economy	3
AASI 639	Aviation Corporate Sustainability Management	3
Total Credits		30

Suggested Plans of Study

Part Time

Year One

Requirements	Credits
AASI 600 - Sustainable Aviation and Aerospace Perspectives	3
AASI 605 - Aviation and Aerospace Sustainable Organizations	3
Semester Hours	6

Requirements	Credits
AASI 607 - Airport Sustainability Operations	3
AASI 611 - Sustainable Aviation Fuels and Carbon Offsetting	3
Semester Hours	6

Requirements	Credits
AASI 613 - Sustainable Air Traffic Management	3
AASI 625 - Sustainability Policy in Aviation and Aerospace	3
Semester Hours	6

Requirements	Credits
AASI 629 - Sustainable Air Vehicles; Design and Propulsion	3
AASI 635 - Sustainable Aviation Techniques and Tools	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 24

Year Two

Requirements	Credits
AASI 637 - Aircraft Decommissioning and Circular Economy	3

AASI 639 - Aviation Corporate Sustainability Management	3
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Semester Hours	6
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Total Credits

Total Hours for All Requirements: 6

Full Time

Year One

Requirements	Credits
AASI 600 - Sustainable Aviation and Aerospace Perspectives	3
AASI 605 - Aviation and Aerospace Sustainable Organizations	3
Semester Hours	6

Requirements	Credits
AASI 607 - Airport Sustainability Operations	3
AASI 611 - Sustainable Aviation Fuels and Carbon Offsetting	3
AASI 613 - Sustainable Air Traffic Management	3
Semester Hours	9

Requirements	Credits
AASI 625 - Sustainability Policy in Aviation and Aerospace	3
AASI 629 - Sustainable Air Vehicles; Design and Propulsion	3
AASI 635 - Sustainable Aviation Techniques and Tools	3
Semester Hours	9

Requirements	Credits
AASI 637 - Aircraft Decommissioning and Circular Economy	3
AASI 639 - Aviation Corporate Sustainability Management	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 30