

# B.S. in Aviation Maintenance Science

At the beginning and end of every flight carried out by every commercial, private, or military aircraft and spacecraft is the work of the professional aviation maintenance expert. Without the devotion of these highly skilled people, the air and space travel system would cease to function. The demand for degreed aircraft maintenance technicians in the aviation/aerospace world has never been greater than it is today. The Aviation Maintenance Science (AMS) program at Embry-Riddle Aeronautical University produces these aviation professionals, which are regarded by the industry as the best in the world.

The Aviation Maintenance Science Bachelor's degree consists of general education courses, technical courses, and laboratories, which prepare the student to obtain the FAA Airframe and Powerplant (A&P) mechanic's certification. Additionally, the Bachelor's degrees have four areas of concentration (AOC) classes which further trains students to excel in one of the below four disciplines. Each degree is composed of 126 or 127 total credit hours, which breakdown as follows: 36 hours of general education coursework, 48 hours of airframe and powerplant technical courses, 6 hours of upper-level open elective coursework, and 36 or 37 hours of AOC coursework. There are four AOC choices:

- Maintenance Management
- Flight
- Safety Science
- Avionics Cybertechnology and Security

The Maintenance Management AOC is optimized for those students who wish to use their maintenance skills as a platform for advancing into a management position in one of the many available aviation maintenance environments. The Flight AOC is for those students who wish to combine a maintenance background with the qualifications of a commercial pilot. The Safety Science AOC combines both occupational and aviation-specific safety courses, which cater to students who want to pursue a career in aviation safety. Finally, the Avionics Cybertechnology and Security AOC prepare students to obtain additional Federal and industry recognized licenses and certifications related to avionics and data transfer systems troubleshooting and repair and empowers them to meet the challenges of securing these systems from outside interferences.

The BSAMS program is a STEM degree accredited by the Southern Association of Colleges and Schools and the Aviation Accreditation Board International (AABI, formerly Council on Aviation Accreditation). Credit will be granted to any student who enters the university already in possession of their airframe, powerplant, airframe and powerplant certifications, or a certificate of completion for the general, airframe, or powerplant curriculum from an approved Part 147 school. International certifications, which may be equivalent to the Airframe and Powerplant certification, will be evaluated on a case-by-case basis and, if approved, may be used for academic credit only.

	Flight	Maintenance Management	Safety Science	Avionics Cybertechnology and Security
General Education Core	36	36	36	36
Area of Concentration	36*	36	36	37
A&P Technical Courses <sup>1</sup>	48	48	48	48
Upper Level Open Electives	6	6	6	6
<b>Total</b>	<b>126</b>	<b>126</b>	<b>126</b>	<b>127</b>

<sup>1</sup> If a student transfers to Embry-Riddle with the A&P mechanic's certification, 48 credit hours will be awarded and entered on the student's transcript, 36 as lower-level credits and 12 as upper-level credits.

\* The Flight Area of Concentration in the AMS degree requires a student, once they have matriculated, to take their flight training with Embry-Riddle.