

# Western Michigan University

## Undergraduate Catalog 2026-2027

### Aviation Professional Studies Major (APSJ)

Some courses may have an online component or may be delivered entirely online.

The Aviation Professional Studies Program (APSJ) is designed specifically for students who possess prior experience and learning, with the necessary workforce development skills and knowledge to become professional leaders in the global aviation industry. This curriculum is designed to allow the completion of a Bachelor of Science Degree online or in person. This will be accomplished by students completing WMU WES requirements, the core selection of 30 credit hours from the College of Aviation (APSJ) major courses, the completion of 30 credit hours of AVS Cognate Courses (APSJ), the articulation of prior experience and learning (PLA), transfer credits from accredited Universities, and the completion of required elective credit hours for the required 122 undergraduate credit hours. This program is only available to students who can transfer in or receive PLA credits equal to or greater than 30 credit hours. Students must still comply with all WMU transfer credit policies.

This Program is not part of the WMU CoA's FAA Part 141 Flight Program-Aviation Flight Sciences (AFSJ) and students cannot transfer from this program into AFSJ.

No Minor required.

#### Required Courses (122 credit hours)

- WMU Essential Studies Level 1: Foundations-Writing Elective **Credits: 3 hours**
- WMU Essential Studies Level 1: Foundations-Quantitative Literacy Elective **Credits: 3 hours**
- WMU Essential Studies Level 1: Foundations – Oral and Digital Communication Category Elective **Credits: 3 hours**
- WMU Essential Studies Level 1: Foundations – Inquiry and Engagement: Critical Thinking in the Arts and Humanities Category Elective **Credits: 3 hours**
- WMU Essential Studies Level 2: Exploration and Discovery-Personal Wellness Elective **Credits: 3 hours**
- WMU Essential Studies Level 2: Exploration and Discovery-Scientific Literacy Elective **Credits: 3 hours**
- WMU Essential Studies Level 2: Exploration and Discovery-Science and Technology Elective **Credits: 3 hours**
- WMU Essential Studies Level 2: Exploration and Discovery – World Language and Culture Category Elective **Credits: 3 hours**
- WMU Essential Studies Level 2: Exploration and Discovery – Artistic Theory and Practice Category Elective **Credits: 3 hours**
- WMU Essential Studies Level 2: Exploration and Discovery – Societies and Cultures Category Elective **Credits: 3 hours**
- WMU Essential Studies Level 3: Connections – Global Perspectives Category Elective **Credits: 3 hours**
- WMU Essential Studies Level 3: Connections – Local and National Perspectives Category Elective **Credits: 3 hours**

Note: One of these courses must contain required content in Planetary Sustainability and one must contain required content in Diversity and Inclusion, which are met in Levels II and III only. No more than 3 courses from any one prefix may be used to satisfy WES requirements.

## **Major Courses (30 credit hours)**

AVS 1200 - Introduction to Aviation Credits: 3 hours  
AVS 2100 – Introduction to Airports Credits: 3 hours  
AVS 2050 – Aviation Safety Credits: 3 hours  
AVS 2400 – Principles of Aviation Supply Chain Management Credits: 3 hours  
AVS 3190 – Aviation Law Credits: 3 hours  
AVS 3201 – Project Management Credits: 3 hours  
AVS 3360 – Aircraft Accident Investigation Credits: 3 hours  
AVS 4270 – Airline Administration Credits: 3 hours  
AVS 4280 – International Aviation Credits: 3 hours  
AVS 4400 – Air Cargo and Logistics Management Credits: 3 hours

## **Cognates Course Electives (30 credit hours)**

Select from the following AVS courses:

AVS 1210 - Aerodynamics and Performance Credits: 3 hours  
AVS 1220 - Introduction to Airframes and Systems Credits: 2 hours  
AVS 1225 - Introduction to Aircraft Powerplants Credits: 2 hours  
AVS 1230 - Aircraft Systems Laboratory Credits: 1 hour  
AVS 1235 - Aircraft Powerplants Laboratory Credits: 1 hour  
AVS 1510 - Professional Flight I Theory Credits: 3 hours  
AVS 1520 - Professional Flight I Lab A Credits: 2 hours  
AVS 1525 - Professional Flight I Lab B Credits: 2 hours  
AVS 1801 - Unmanned Aerial Systems Credits: 3 hours  
AVS 1910 - Aviation Regulations and Human Factors Credits: 2 hours  
AVS 1915 - Aviation Regulations and Human Factors Lab Credits: 1 hour  
AVS 1920 - Aircraft Basic Science Credits: 2 hours  
AVS 1925- Aircraft Basic Science Lab Credits: 1 hour  
AVS 1930 - Aircraft Inspections Credits: 2 hours  
AVS 1935 - Aircraft Inspections Lab Credits: 1 hour  
AVS 1940 - Aircraft Hardware & Fluid Lines Credits: 2 hours  
AVS 1945 - Aircraft Hardware & Fluid Lines Lab Credits: 1 hour  
AVS 1950 - Aircraft Electrical Credits: 2 hours  
AVS 1955- Aircraft Electrical Lab Credits: 1 hour  
AVS 2070 - Crew Resource Management Credits: 3 hours  
AVS 2510 - Professional Flight II Theory Credits: 3 hours  
AVS 2520 - Professional Flight II Lab Credits: 2 hours  
AVS 2800 - Transportation Technology: Policy, Perils, and Promise Credits: 3 hours  
AVS 2801 - Professional sUAS Flight Lab I Credits: 3 hours  
AVS 2910 - Metallic Structures Lecture Credits: 2 hours

AVS 2915 - Aircraft Metallic Structures Lab Credits: 1 hour  
AVS 2920 - Aircraft Non-Metallic Structures Credits: 2 hours  
AVS 2925 - Aircraft Non-Metallic Structures Lab Credits: 1 hour  
AVS 2930 - Light Aircraft Systems Credits: 2 hours  
AVS 2935 - Light Aircraft Systems Laboratory Credits: 1 hour  
AVS 2940 - Transport Aircraft Systems Credits: 2 hours  
AVS 2945 - Transport Aircraft Systems Laboratory Credits: 1 hour  
AVS 2950 - Airframe Rigging Credits: 2 hours  
AVS 2955 - Airframe Rigging Laboratory Credits: 1 hour  
AVS 2960 - Airframe Electrical Systems Credits: 2 hours  
AVS 2965 - Airframe Electrical Systems Lab Credits: 1 hour  
AVS 2990 - Aircraft Repair Credits: 2 hours  
AVS 2995 - Aircraft Repair Lab Credits: 1 hour  
AVS 3040 - Airport Safety and Security Credits: 3 hours  
AVS 3060 - Advanced Aerodynamics and Performance Credits: 3 hours  
AVS 3070 - Advanced Aircraft Systems Credits: 3 hours  
AVS 3080 - Advanced Aircraft Systems Laboratory Credits: 3 hours  
AVS 3140 - Airport Operations Credits: 3 hours  
AVS 3141 - Advanced Aircraft Electronics Credits: 3 hours  
AVS 3220 - Global Navigation and International Flight Planning Credits: 3 hours  
AVS 3290 - Aviation Meteorology for Pilots Credits: 3 hours  
AVS 3303 - Introduction to Aircraft Dispatching & Scheduling Credits: 3 hours  
AVS 3530 - Professional Flight III Theory Credits: 2 hours  
AVS 3540 - Professional Flight III Lab Credits: 2 hours  
AVS 3550 - Professional Flight IV Theory Credits: 2 hours  
AVS 3560 - Professional Flight IV Lab Credits: 2 hours  
AVS 3605 - Engine Overhaul Lab Credits: 3 hours  
AVS 3650 - Non-Destructive Testing Credits: 2 hours  
AVS 3655 - Non-Destructive Testing Lab Credits: 1 hour  
AVS 3801 - Professional sUAS Flight II Lab Credits: 3 hours  
AVS 3910 - Aircraft Reciprocating Engines Credits: 2 hours  
AVS 3915 - Reciprocating Engines Lab Credits: 1 hour  
AVS 3920 - Reciprocating Engine Systems Credits: 2 hours  
AVS 3925 - Reciprocating Engine Systems Lab Credits: 1 hour  
AVS 3930 - Reciprocating Inspection and Repair Credits: 2 hours  
AVS 3935 - Reciprocating Inspection and Repair Lab Credits: 1 hour  
AVS 3940 - Engine Electrical and Instruments Credits: 2 hours  
AVS 3945 - Engine Electrical and Instruments Lab Credits: 1 hour  
AVS 3950 - Turbine Engine Theory, Design, and Inspection Credits: 2 hours  
AVS 3955 - Turbine Engine Theory, Design, and Inspection Lab Credits: 1 hour  
AVS 3960 - Turbine Engine Systems, Operation, and Testing Credits: 2 hours  
AVS 3965 - Turbine Engine Systems, Operation, and Testing Lab Credits: 1 hour  
AVS 3970 - Engine Operation Credits: 2 hours  
AVS 3975 - Engine Operation Lab Credits: 1 hour  
AVS 3980 - Basic Welding and Fabrication for Aviation Credits: 2 hours  
AVS 3985 - Basic Welding and Fabrication for Aviation Lab Credits: 1 hour  
AVS 3990 - Field Experience Credits: 3 hours

AVS 4110 - Airline Flight Operations Credits: 3 hours  
AVS 4120 - Line Oriented Flight Crew Simulation Credits: 4 hours  
AVS 4130 - Airport Planning Credits: 3 hours  
AVS 4140 - Airport Management Credits: 3 hours  
AVS 4240 - Corporate Aviation Management Credits: 3 hours  
AVS 4303 - Applied Aircraft Dispatching & Scheduling Credits: 3 hours  
AVS 4630 - Professional Maintenance Operations Credits: 3 hours  
AVS 4650 - Advanced Troubleshooting Credits: 2 hours  
AVS 4655 - Advanced Troubleshooting Lab Credits: 1 hour  
AVS 4720 - Advanced Structures and Materials Credits: 2 hours  
AVS 4725 - Advanced Structures and Materials Lab Credits: 1 hour  
AVS 4740 - Aviation Maintenance Management Credits: 3 hours  
AVS 4980 - Administration Senior Project Credits: 3 hours  
AVS 4990 - Independent Study Credits: 1-5 hours  
AVS 5100 - Safety Management Systems in Aviation Credits: 3 hours  
AVS 5270 - Airline Business Management Credits: 3 hours