AVIATION

Aviation Maintenance Technology training is offered locally at Southern California Logistics Airport (SCLA). This program includes all classroom and practical training required to prepare for the Federal Aviation Administration (FAA) licensing exams for Airframe and Power Plant Technicians. The program includes the following:

- General Aviation;
- Aviation – Power plant
- Aviation – Airframe

For more information about this program including registration for the next class session, visit the Aviation Maintenance Technology (http://www.vvc.edu/academic/aviation-tech/) website.

Career Opportunities

Aviation Maintenance Technology prepares students for entry level positions in aircraft maintenance. Successful graduates typically find employment opportunities with FAA Certified Repair Stations, Commercial Airlines, Corporate Aviation, Aerospace Defense Contractors, Aerospace Manufactures and Military / Government Agencies.

Faculty

Flores, Ricardo

Oshita, Christopher

Aviation Maintenance Technology, AS

State Control Number: 35439
Program Code: AVIMTNTC.AS
Approved for Federal Financial Aid: Yes

To earn an Associate in Science degree with a major in Aviation Maintenance Technology, complete the eight aviation courses focusing in general, powerplant, and airframe aviation Technology courses and meet all Victor Valley College graduation requirements.

To earn this degree, complete the major coursework with "C" grades or better and all of the following graduation requirements: 60 minimum degree-applicable units (including a maximum 4 units of activity); 2.0 minimum overall GPA; 12 degree-applicable units through VVC; Information Competency; Global Citizenship; Kinesiology, and the VVC General Education pattern (https://catalog.vvc.edu/degrees-certificates/vvcge/#vvcge). Courses may count in one area only, either in the major or in a general education category. Courses counted in one AA/AS major may not be used in another AA/AS major.

Code	Title	Units
Required Courses		
AVA 51	General Aviation I	9.5
AVA 52	General Aviation 2	9.5
AVA 61	Airframe 1	10.5
AVA 62	Airframe 2	10.5
AVA 63	Airframe 3	10.5
AVA 71	Powerplant 1	10.5
AVA 72	Powerplant 2	10.5
AVA 73	Powerplant 3	10.5
Total Units		**82**

Aviation Airframe Technician Certificate of Achievement

State Control Number: 17586
Program Code: AIRFRMAMT.CERT
Approved for Federal Financial Aid: Yes

To earn an Aviation Technician Certificate of Achievement complete the three courses focusing in airframe maintenance technology. The airframe certificate of achievement will allow students to find employment as apprentice level airframe technician.

Code	Title	Units
Required Courses		
Complete all of the following with a C or better		
AVA 61	Airframe 1	10.5
AVA 62	Airframe 2	10.5
AVA 63	Airframe 3	10.5
Total Units		**31.5**

Aviation Powerplant Technician Certificate of Achievement

State Control Number: 17587
Program Code: PWRPLNAMT.CERT
Approved for Federal Financial Aid: Yes

To earn an Aviation Powerplant Technician Certificate of Achievement complete the three courses focusing in powerplant maintenance technology. The powerplant certificate of achievement will allow students to find employment as apprentice level powerplant technician.

Code	Title	Units
Required Courses		
Complete all of the following with a C or better		
AVA 71	Powerplant 1	10.5
AVA 72	Powerplant 2	10.5
AVA 73	Powerplant 3	10.5
Total Units		**31.5**

Composite Aerospace Manufacturing Certificate of Achievement

State Control Number: 37051
Program Code: COMPAEROMAN.CERT
Approved for Federal Financial Aid: Yes

Prepares students for employment opportunities as an advanced composite technician or a career as an entry level aerospace composite technician.

Code	Title	Units
Required Courses		
AVA 50	Aviation Technology Survey	4.0
AVA 50B	Aircraft Metallic Fabrication	4.0

Code	Title	Units
AVA 75	Composites 1 Introduction to Composites	4.0
AVA 76	Composites 2 Advanced Composite Repair	3.5
AVA 77	Composites 3 Manufactutring Process for Advanced Composites	6.0
Total Units		**21.5**

General Aircraft Maintenance Technician Certificate of Achievement

State Control Number: 35957
Program Code: GENAVMT.CERT
Approved for Federal Financial Aid: Yes

To earn a General Aircraft Maintenance Technician Certificate of Achievement complete the three courses focusing in general aviation maintenance technology. The General Aviation Maintenance Certificate will allow students to find employment as apprentice level technician.

Code	Title	Units
Required Courses		
AVA 51	General Aviation I	9.5
AVA 52	General Aviation 2	9.5
Total Units		**19**

Aviation Courses

AVA 01 Studies in Aircraft Maintenance Technology (0.0 Units)
Studies in Aircraft Maintenance ce Technology course serves as the remedial course designed to allow aviation students an opportunity to reconcile missed lecture and lab assignments and hours required by the current VVC SCLA Operations Manual and CFR 14 FAR 147 App. A,B,C,D.
Lecture Hours: 30.0; Lab Hours: 32.0
Transfer: Not transferable

AVA 50 Aviation Technology Survey (4.0 Units)
This course is designed to allow interested students the ability to explore aviation maintenance career pathways. This course will focus on principles and practices of modern aircraft maintenance technology.
Lecture Hours: 54.0; Lab Hours: 54.0
Transfer: Not transferable

AVA 50B Aircraft Metallic Fabrication (4.0 Units)
This course will provide students with the techniques and procedures necessary for fabricating metallic aircraft structures. Upon completion of this course students will will have practical knowledge and skill sets in the following areas: Types of aircraft structures and applications. Setting up - using sheet metal shop equipment (Box Brakes - Shears - Slip Formers etc). Reading and applying Metal - Composite Blueprints. Sheet Metal Fabrication practices - Drilling operations. Aircraft Fastener installation - removal practices.
Prerequisite(s): AVA 50, Minimum grade C
Lecture Hours: 54.0; Lab Hours: 54.0
Transfer: Not transferable

AVA 51 General Aviation I (9.5 Units)
This course is designed to prepare students for a career in aviation maintenance technology. Topics include math, basic electricity, basic physics, fluid lines and fittings and materials and processes.
Lecture Hours: 135.0; Lab Hours: 108.0
Transfer: Not transferable

AVA 52 General Aviation 2 (9.5 Units)
This course is designed to prepare students for a career in aviation maintenance technology. Topics include maintenance and ground operations.
Prerequisite(s): AVA 51, Minimum grade C
Lecture Hours: 135.0; Lab Hours: 108.0
Transfer: Not transferable

AVA 61 Airframe 1 (10.5 Units)
This course is designed to prepare students for a career in aviation maintenance technology. Topics include aircraft materials, coverings and finishes, inspection, assembly and rigging and welding.
Prerequisite(s): (AVA 51) and (and AVA 52, Minimum Grade C)
Lecture Hours: 144.0; Lab Hours: 135.0
Transfer: Not transferable

AVA 62 Airframe 2 (10.5 Units)
This course is designed to prepare students for a career in aviation maintenance technology. Topics include aircraft electrical, positioning,warning, ice, rain control, and fire protection systems.
Prerequisite(s): (AVA 51) and (AVA 52, Minimum grade C)
Lecture Hours: 144.0; Lab Hours: 135.0
Transfer: Not transferable

AVA 63 Airframe 3 (10.5 Units)
This course is designed to prepare students for a career in aviation maintenance technology. Topic includes safety systems, aircraft electrical systems, positioning and warning systems, ice and rain control systems, and fire protection systems.
Prerequisite(s): (AVA 51) and (AVA 52, Minimum grade C)
Lecture Hours: 144.0; Lab Hours: 135.0
Transfer: Not transferable

AVA 71 Powerplant 1 (10.5 Units)
This course is designed to prepare students for a career in aviation maintenance technology. Topics include reciprocating engines, turbine engines, and engine inspection.
Prerequisite(s): (AVA 51) and (AVA 52, Minimum grade C)
Lecture Hours: 144.0; Lab Hours: 135.0
Transfer: Not transferable

AVA 72 Powerplant 2 (10.5 Units)
This course is designed to prepare students for a career in aviation maintenance technology. Topics include induction and engine airflow systems, engine exhaust and reverser systems, and propellers.
Prerequisite(s): (AVA 51) and (AVA 52, Minimum grade C)
Lecture Hours: 144.0; Lab Hours: 135.0
Transfer: Not transferable

AVA 73 Powerplant 3 (10.5 Units)
This course is designed to prepare students for a career in aviation maintenance technology. Topics include instrument, electrical, ignition, starting, and fuel systems.
Prerequisite(s): (AVA 51) and (AVA 52, Minimum grade C)
Lecture Hours: 144.0; Lab Hours: 135.0
Transfer: Not transferable

AVA 74 Aviation Technology Capstone Course (4.0 Units)
This course is designed to prepare students for FAA licensure testing. Topics include a review of general, airframe, and power plant curricula.
Lecture Hours: 54.0; Lab Hours: 54.0
Transfer: Not transferable

AVA 75 Composites 1 Introduction to Composites (4.0 Units)
Introduction into Advanced Aerospace Composite Manufacturing and Repair Processes. This introductory course instructs students how to understand the practical applications of composite materials.
Prerequisite(s): AVA 50B, Minimum grade C
Lecture Hours: 54.0; Lab Hours: 54.0
Transfer: Not transferable

AVA 76 Composites 2 Advanced Composite Repair (3.5 Units)
This course will explore practices and techniques employed in advanced composite repair practices. This course covers how to make repairs to composite structures and adhesive bonding. Upon completion of Composite 2 students will have knowledge and skills in advanced composite repair practices and techniques.
Prerequisite(s): AVA 75, Minimum grade C
Lecture Hours: 27.0; Lab Hours: 108.0
Transfer: Not transferable

AVA 77 Composites 3 Manufactutring Process for Advanced Composites (6.0 Units)
Composites 3 Manufacturing Processes for Advanced Composites will explore techniques and applications applicable to manufacturing advanced composites including composite design criteria and in use applications, bonding techniques, composite tool making and machining and processing advanced composites.
Prerequisite(s): AVA 76, Minimum grade C
Lecture Hours: 54.0; Lab Hours: 162.0
Transfer: Not transferable

AVA 138 Work Experience Education Aviation (1-8 Units)
Work Experience Education is a key element of Victor Valley College's comprehensive approach to career development. Work Experience Education is a 16-, 12-, or 8-week course that enables students to receive college credit for paid or unpaid work opportunities. This course helps students gain valuable on-the-job work experience while providing practical education, best practices in professional development, and academic guidance through the course of their work opportunity.
The combination of practical experience and curricular development empowers students to be more competi tive, efficient and valuable employees upon completion of this program and/or their academic program trajectory. The course is ideal for students who are cross-training at their current worksite for upward mobility or seeking career changes, as well as those looking for entry-level occupati onaltraining through work-based learning experiences such as through an internship. Work Experience Education transforms community businesses, industries, and public agencies into expanded educational training laboratories.Credit is awarded on the basis of learning objectives completed and the number of hours the student trains.Students must create/complete new learning objectives each semester they enroll. Students may utilize their present work sites. More details are available in the Work Experience Education Office, (760) 245-4271, ext. 2281.The office, located in the Academic Commons, is open Monday-Thursday, 8:00 a.m.-1:00 p.m., 2:00-6:00 p.m., and by appointment. Please refer to the Work Experience Education section in this catalog for more information.
CSU
Transfer: Transfers to CSU only

Program Learning Outcomes

Program Learning Outcomes (PLOs) are statements of the kind of learning a program hopes a student will achieve. The PLOs describe the knowledge, skills, problem-solving, communication and values that apply to all certificates and/or degrees within that program.

Upon completion of this program, students should be able to:

1. Determine necessary repairs to bring the aircraft into industry compliance for general maintenance.
2. Aviation Maintenance Technology students will demonstrate the skills necessary to perform all tasks required in accordance with FAA Regulations Part 147 Appendix B General Curriculum, Appendix C Airframe Curriculum, and Appendix D Powerplant Curriculum standards.
3. Manufacture, inspect and repair advanced composite parts and components used in the aerospace industry.