Powerplant Maintenance Technology A.A.S.

Career Community: Transportation
Curriculum Code: 0745
Effective: Fall 2024 – Summer 2029

Description

Powerplant Maintenance Technicians maintain aircraft in accordance with the Federal Aviation Regulations. Technicians perform inspections, repairs and alterations to aircraft powerplants, propellers and their related systems. In addition, they troubleshoot the operation of induction, cooling, exhaust, fuel metering, ignition, electrical, starting, lubrication propeller and other associated systems. Powerplant maintenance technicians are employed throughout the world maintaining aircraft for major air carriers, commuter airlines, air freight operators, corporate flight departments, fixed base operators and a variety of other specialized aviation businesses. Not all courses in this program transfer to all colleges. Students planning to transfer should see an academic advisor before enrolling in any course.

Milestone

In addition to the required General Education courses in Math and English, completion of AVGM 111, AVGM 112, AVGM 113, and AVGM 114, with a 2.0 or higher is a key component for success in this program. Knowledge obtained in these courses is the foundation for learning in other required courses. Students are encouraged to contact their faculty if they need additional assistance with learning the concepts presented in these courses.

Additional information

Students are required to successfully complete the entire 6 semester program with a 2.0 or higher in each class that includes Basic Aviation Technology and Airframe Maintenance Technology in order to be eligible to test for Federal Aviation Administration (FAA) licensure as an Airframe and Powerplant (A&P) Mechanic. All program courses are offered one time per year and this is a full-time program. Program courses are offered in a required sequence. General Education courses may be taken any time throughout the program.

Contact Information

For further information, including career options, course substitutions and waivers, etc., contact the Aviation Technology Program at the Mason-Jewett Field, 661 Aviation Drive, Mason, telephone number 517-483-1406.

General Education - Applied Degrees, Recommended Courses

(For the full list of options, see General Education)

- English Composition or Applied English – *Select one*
  ENGL 121, Composition I, 4 credits / 4 billing hours
  ENGL 124, Technical Writing, 3 credits / 3 billing hours
  ENGL 127, Business Writing, 3 credits / 3 billing hours

- English Composition (second course)/Communication or Applied Communication – *Select one*
  COMM 110, Communication in the Workplace, 3 credits / 3 billing hours
  COMM 120, Dynamics of Communication, 3 credits / 3 billing hours
  COMM 130, Fundamentals Public Speaking, 3 credits / 3 billing hours

- Humanities and Fine Arts or Social Sciences or Applied Social Sciences – *Select one*
  HUMS 223, The Western World to 1500, 4 credits / 4 billing hours
  HUMS 224, The Western World since 1500, 4 credits / 4 billing hours
  MGMT 234, Diversity in the Workplace, 3 credits / 3 billing hours
  SOCL 120, Introduction to Sociology, 4 credits / 4 billing hours

- Mathematics/Applied Mathematics – *Select one*
  MATH 119, Math - Applications for Living, 4 credits / 4 billing hours

- Natural Sciences Lab or Applied Science and Technology Lab – *Select one*
  ASTR 201, Introductory Astronomy, 4 credits / 5 billing hours
  BIOL 120, Environmental Science, 4 credits / 6 billing hours

Program of Study Required Courses

Course Code	Course Title	Credit / Billing Hours
AVAF 212	Aircraft Electrical II	4 / 5.75
AVGM 111	Aviation General I	4 / 5
AVGM 112	Aviation General II	6 / 8
AVGM 113	Aviation General III	4 / 5
AVGM 114	Materials and Processes	5 / 7
AVPP 241	Reciprocating Engine	8 / 11.25
AVPP 251	Reciprocating Engine Systems	2 / 2.5
AVPP 253	Reciprocating Ignition Systems	5 / 6.75
AVPP 255	Reciprocating Induction Sys	4 / 5.5
AVPP 257	Aircraft Propeller Systems	4 / 5.5
AVPP 259	Turbine Engine I	4 / 5.5
AVPP 261	Turbine Engine II	4 / 5.5
AVPP 263	Turbine Engine Systems	2 / 2.75
AVPP 265	Powerplant Instruments	2 / 2.5
AVPP 267	Powerplant Certification	1 / 1.5

Minimum Total Credit Hours

76 credits / 98 billing hours

Additional Credits

After completing the course and credit requirements as noted on this pathway, students who fall short of the 60-credit minimum required for an Associate Degree may select any course(s)

needed to reach 60 credits, except those courses noted in number 7 in the Institutional Requirements for Associate Degrees. Students are encouraged to use Degree Works and meet with an Advisor to ensure all requirements are met and for course recommendations.

Required Course Sequence

Semester I (Fall)
AVGM 111 – Milestone course
AVGM 112 – Milestone course
AVGM 113 – Milestone course
AVGM 114 – Milestone course

Semester II (Spring)
Gen Ed – English Composition (second course)/Communication or Applied Communication
Gen Ed – Humanities and Fine Arts or Social Sciences or Applied Social Sciences
Gen Ed – Natural Sciences Lab or Applied Science and Technology Lab

Semester III (Summer)
AVAF 212

Semester IV (Fall)
AVPP 241
Gen Ed – English Composition or Applied English
Gen Ed – Mathematics or Applied Mathematics

Semester V (Spring)
AVPP 251
AVPP 253
AVPP 255
AVPP 257
AVPP 259

Semester VI (Summer)
AVPP 261
AVPP 263
AVPP 265
AVPP 267

LCC makes every effort to limit revisions to the pathways during their effective timeframe. However, the College reserves the right to update certificate and degree title changes, and make course changes as needed, without prior notice.