



## 2007-2008 Career Planning Guide

# AVIATION MAINTENANCE TECHNOLOGY

### Spokane Community College

**Spokane Community College**  
1810 North Greene Street  
Spokane, Washington 99217-5399  
[www.scc.spokane.edu](http://www.scc.spokane.edu)

**Completion Award:** A.A.S. Degree, Certificate

**Start:** Fall, Winter, Spring

**Tuition and Fees:** <http://www.ccs.spokane.edu/fees.html>

**Approximate Quarterly Cost:** (subject to change without notice)

Books (estimate, six quarters)	\$	300
Supplies and Equipment (estimate, six quarters)	\$	1,000

**PROGRAM WEBSITE:** <http://www.scc.spokane.edu/?av>

### Program Description

Approved courses in both airframe and powerplant mechanics are offered to meet the Federal Aviation Administration requirements. General aircraft courses offered the first two quarters are prerequisites to both the airframe and powerplant phase of the program. Students receive a well-rounded education in general aircraft mechanics the first two quarters of the program. Third- and fourth-quarter course offerings include both lecture and lab courses in airframe repair, and fifth- and sixth-quarter offerings include lecture and lab courses in powerplant repair. Courses to satisfy the requirements for an A.A.S. degree will be by arrangement.

Graduates of the program are eligible to take the FAA examination for both the airframe and powerplant licenses. A minimum of 1,900 attendance hours is required to take these exams.

General Aircraft Maintenance Certificate: This two-quarter certificate provides students with both theory and practical lab applications in aviation physics and aerodynamics, aircraft weight and balance, aircraft ground handling, basic aircraft electrical circuits, aircraft inspection techniques, aircraft materials and construction, and Federal Aviation Administration regulations and maintenance entries.

Completion of this certificate is required before airframe and/or powerplant certificate programs are taken.

Airframe Maintenance Certificate: This two-quarter certificate provides students with both theory and practical lab application on advanced aircraft construction, rigging and repair, aircraft operation systems, aircraft warning systems, and advanced aircraft electrical systems. This certificate in conjunction with the general aircraft maintenance certificate would allow a student to be eligible to apply for a Federal Aviation Administration maintenance airframe license.

Powerplant Maintenance Certificate: This two-quarter certificate provides students with both theory and practical lab application in powerplant theory and construction both for reciprocating and turbine engines, and theory and repair of powerplant accessories. This certificate in conjunction with the general aircraft maintenance certificate allows students to be eligible to apply for a Federal Aviation Administration maintenance powerplant license.

### PROGRAM GOALS--Students who successfully complete this program will be:

1. Qualified to take the FAA general, airframe, and powerplant tests.
2. Able to perform the duties of a beginning licensed mechanic with entry level skills in the repair, maintenance, inspection and overhaul of airframe and of aircraft powerplants, including electrical systems, sheet metal, welding, hydraulic systems, rigging and assembly, wood, fabric, and doping, propellers, ignition systems, lubrication systems, and general overhaul procedures.
3. Able to use tools, equipment, methods, and procedures in repair, maintenance, and inspection of aircraft and powerplants.
4. Able to meet the requirements for an A.A.S. degree from Spokane Community College.

### Career Opportunities

A licensed airframe or powerplant aviation maintenance technician may specialize in these areas: aircraft accessories, aircraft air conditioning and environmental control, aircraft engine overhaul, aircraft fabric repair, airframe overhaul, aircraft construction, aircraft and engine modification, helicopter maintenance, hydraulic specialist, and sheet metal repair.

**POTENTIAL POSITIONS INCLUDE:** airline aircraft maintenance technicians, A & P mechanics, military aircraft maintenance, self-employed aircraft operator, technicians, and sales.

## Suggested Course of Study 2007-2008

Consult Adviser/Counselor for Program  
Planning and Selection of Electives

### AVIATION MAINTENANCE TECHNOLOGY

A.A.S. Degree, Certificate: SCC

A.A.S. Degree	Certificate																																																																																																												
<p><b>FIRST YEAR</b></p> <p><b>First Quarter</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="text-align: right;">Credits</th> </tr> </thead> <tbody> <tr> <td>ARCFT 115 Introduction to General Aircraft Maintenance</td> <td style="text-align: right;">5</td> </tr> <tr> <td>ARCFT 116 Introduction to General Aircraft Maintenance Shop</td> <td style="text-align: right;">4</td> </tr> <tr> <td>ARCFT 117 General Aircraft Maintenance</td> <td style="text-align: right;">5</td> </tr> <tr> <td>ARCFT 118 General Aircraft Maintenance Shop</td> <td style="text-align: right;">4</td> </tr> <tr> <td>MATH 100 Vocational Technical Mathematics<sup>1</sup></td> <td style="text-align: right;">3-4</td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">21-22</td> </tr> </tbody> </table> <p><b>Second Quarter</b></p> <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>ARCFT 119 Advanced General Aircraft Maintenance</td> <td style="text-align: right;">5</td> </tr> <tr> <td>ARCFT 120 Advanced General Aircraft Maintenance Shop</td> <td style="text-align: right;">4</td> </tr> <tr> <td>ARCFT 135 Basic Airframe Maintenance</td> <td style="text-align: right;">5</td> </tr> <tr> <td>ARCFT 136 Basic Airframe Maintenance Shop Related Education Requirement<sup>2</sup></td> <td style="text-align: right;">5</td> </tr> <tr> <td></td> <td style="text-align: right;">3-4</td> </tr> <tr> <td></td> <td style="text-align: right; 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Clock hours are 627 (lecture/lab). FAA requires 400 hours of attendance.</p> <p><b>AIRFRAME MAINTENANCE CERTIFICATE</b></p> <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>ARCFT 137 Airframe Structures</td> <td style="text-align: right;">5</td> </tr> <tr> <td>ARCFT 138 Airframe Structures Shop</td> <td style="text-align: right;">5</td> </tr> <tr> <td>ARCFT 139 Airframe Systems</td> <td style="text-align: right;">5</td> </tr> <tr> <td>ARCFT 140 Airframe Systems Shop</td> <td style="text-align: right;">5</td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">20</td> </tr> </tbody> </table> <p>ARCFT 235 Advanced Airframe Systems 5</p> <p>ARCFT 236 Advanced Airframe Systems Shop 5</p> <p>ARCFT 237 Integrated Airframe Powerplant Maintenance 5</p> <p>ARCFT 238 Integrated Airframe Powerplant Maintenance Shop 5</p> <p style="text-align: right; border-top: 1px solid black;">20</p> <p>40 credits are required for a certificate. 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Clock hours are 660 (lecture/lab). FAA requires 750 hours of attendance.</p> <p><i><b>Disclaimer:</b> The college cannot guarantee courses will be offered in the quarters indicated. During the period this guide is in circulation, there may be curriculum revisions and program changes. Students are responsible for consulting the appropriate academic unit or adviser for more current and specific information. The information in this guide is subject to change and does not constitute an agreement between the college and the student.</i></p>		Credits	ARCFT 115 Introduction to General Aircraft Maintenance	5	ARCFT 116 Introduction to General Aircraft Maintenance Shop	4	ARCFT 117 General Aircraft Maintenance	5	ARCFT 118 General Aircraft Maintenance Shop	4		18	ARCFT 137 Airframe Structures	5	ARCFT 138 Airframe Structures Shop	5	ARCFT 139 Airframe Systems	5	ARCFT 140 Airframe Systems Shop	5		20	ARCFT 245 Aircraft Engines I	5	ARCFT 246 Aircraft Engines Shop I	5	ARCFT 247 Aircraft Engines II	5	ARCFT 248 Aircraft Engines Shop II	5		20
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<sup>1</sup> This course may be substituted with any course from the department pre-approved substitution list or any related course or combination of courses approved by the instructional dean.

<sup>2</sup> This course may be chosen from a pre-approved departmental elective list or any related course or combination of courses approved by the instructional dean.

<sup>3</sup> Available for students who have not accumulated 1900 hours or satisfied other FAA requirements.

<sup>4</sup> A subtotal of 12 credits (a minimum of 3 in each category) in the related education areas of computation, written communication, and human relations/leadership is required for the A.A.S. degree.