BASIC INFORMATION

Requester(s): Lauren Hadley
College: South Seattle Community College
Division/Dept: Apprenticeship-GT Campus
Dean: Holly Moore
Peer Reviewer(s): Karen L Whitney

COURSE INFORMATION

Proposed Course Number:
Prefix: AMTA Number: 103
☐ Request a new Prefix
☐ This will be a common course

Full Title: General Topics II - AMTA 103
Abbreviated Title: General Topics II

Catalog Course Description:
The first part of the course, Ground Operation and Servicing, introduces the student to this important function of an aviation maintenance technician. This section addresses the choice and identification of fuels and the necessary precautions to observe when refueling an aircraft. Awareness of ground operations hazards is also emphasized here.

Course Length: NA ☑ Request an Exception
This apprenticeship course runs for 12 weeks.

Course Prerequisite(s):
None

Course Corequisite(s):
Acceptance into the AJAC apprenticeship program.

Topical Outline:
TOPICAL OUTLINE:

I. Week One
   a. Fire Protection, Safety in the shop and on the Flight Line, Aviation Fuels

II. Week Two
a. Aircraft Fueling, Aircraft Movement, Aircraft Tiedown
b. Aircraft Jacking and Hoisting, Aircraft Icing Protection, Engine Operation

III. Week Three
a. Cleaning, Corrosion Control, Types of Corrosion

IV. Week Four
a. Causes of Corrosion, Locations Susceptible to Corrosion, Detecting Corrosion

V. Week Five
a. Removing and Treating Corrosion
b. Review, Study Questions, and Optional Activities, Quiz

VI. Week Six
a. Review and midterm

VII. Week Seven
a. Why Study Mathematics, Numerals, Number Systems, Arithmetic, Fractions

VIII. Week Eight
a. Ratio and Proportion, Percentage, Signed Numbers, Powers and Roots, Scientific Notation

IX. Week Nine
a. Trigonometry, Mathematical Sequence, Practical Measurements

X. Week Ten
a. Maintenance and Inspection Records, Maintenance Forms

XI. Week Eleven
a. Review, Study Questions

XII. Week Twelve
a. Final Exam

COURSE CODING
Funding Source: 1....................State
Institutional Intent: 21....................Vocational Preparatory

This Course is a requirement for the following program(s):
(No Programs Selected)

☐ My Course Proposal is a requirement for a program not on this list
Program Title/Description/Notes:
This course is a part of the Aircraft Mechanic Airframe Apprenticeship Program (AJAC)

Will this course transfer to a 4-year university? No

Is this course designed for Limited English Proficiency? No
Is this course designed for Academic Disadvantaged? No
Does this course have a Workplace Training component?
CIP Code: 47.0607
EPC Code: 722

Credits:
Will this course be offered as Variable Credit? No

List Course Contact Hours
- Lecture (11 Contact Hours : 1 Credit) 50
- Lab (22 Contact Hours : 1 Credit) 0
- Clinical Work (33 Contact Hours : 1 Credit) 0
- Other (55 Contact Hours : 1 Credit) 0

Total Contact Hours 50
Total Credits 4.5

COLLEGE SUPPLEMENTAL

Proposed Quarter of Implementation: NA
Course is being offered Fall 2013

Class Capacity: 20

Modes of Delivery: (Check all that apply)
- [x] Fully On Campus
- [ ] Fully Online
- [ ] Hybrid
- [ ] Other Explanation:

Class Schedule Description:
Class meets one day per week from 5 - 9 p.m.

Student Learning Outcomes:

Communication
Speak and write effectively for academic, and career purposes
Describe work and repair on a aircraft structure.

Computation
Use arithmetic and other basic mathematical operations as required by program of study
Use a variety of mathematical problems in the maintenance of aircraft.

Human Relations
Use social interactive skills to work in groups effectively
Work safely and effectively in small groups on various projects.
Critical Thinking and Problem-Solving

Think critically in evaluating information, solving problems, and making decisions. Use critical thinking to demonstrate application of physics.

Technology

Select and use appropriate technological tools for academic, and career tasks. Select and use appropriate tools to perform required tasks.

Personal Responsibility

Attend class regularly, complete assignments on time and effectively participate in classroom and online discussions, group work and other class-related projects and activities. Demonstrate good work ethics, study habits, completion of tasks in a timely manner.

Information Literacy

Use information effectively and ethically for a specific purpose. Develop the ability to access technical information and manuals.

Program Outcomes:

<table>
<thead>
<tr>
<th>SLO #</th>
<th>SSCC Student Learning Outcome</th>
<th>Included in Course Objective Number</th>
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</thead>
<tbody>
<tr>
<td>SLO 1.1</td>
<td>Communication – Read and listen actively</td>
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<tr>
<td>SLO 1.2</td>
<td>Communication – Speak and write effectively</td>
<td>4,5,6,8-17</td>
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<tr>
<td>SLO 2.1</td>
<td>Computation – Use mathematical operations</td>
<td>18-25</td>
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<tr>
<td>SLO 2.2</td>
<td>Computation – Apply quantitative skills</td>
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<tr>
<td>SLO 2.3</td>
<td>Computation – Identify, interpret and utilize higher level mathematical and cognitive skills</td>
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<tr>
<td>SLO 3.1</td>
<td>Human Relations – Use social skills to work in groups</td>
<td>4,5,6,8-17</td>
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<tr>
<td>SLO 4.1</td>
<td>Critical thinking and problem solving</td>
<td>1,4,5,6,8-17,28-30</td>
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<tr>
<td>SLO 5.1</td>
<td>Technology – Select and use appropriate technological tools</td>
<td>4,5,6,8-17</td>
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<tr>
<td>SLO 6.1</td>
<td>Personal responsibility – Be motivated and able to continue learning and adapt to change</td>
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<tr>
<td>SLO 6.2</td>
<td>Personal responsibility – Value one’s own skills, abilities, ideas and art</td>
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<td>SLO 6.3</td>
<td>Personal responsibility – Take pride in one’s work</td>
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<td>SLO 6.4</td>
<td>Personal responsibility – Manage personal health and safety</td>
<td>1-17,28-30</td>
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<td>SLO 6.5</td>
<td>Personal responsibility – Be aware of civic and environmental issues</td>
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<tr>
<td>SLO 7.1</td>
<td>Information literacy – Access and evaluate information from a variety of sources and</td>
<td>1,26,28-30</td>
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### Course Outcomes / Objectives:

1. Choice and identification of fuels
2. The necessary precautions to observe when refueling an aircraft
3. Awareness of ground operations hazards
4. Proper procedures for starting reciprocating and turbine engines
5. Procedures for proper engine runup, aircraft movement, and tiedown
6. To start aircraft engines
7. To understand the precautions involved with the operation of these engines
8. To understand the precautions involved with the moving of aircraft
9. How to secure aircraft in inclement weather
10. The importance of recognizing and properly treating an aircraft structure that has evidence of corrosion
11. The selection of cleaning materials, and their relationship to the type of material being cleaned
12. The identification of various types of corrosion
13. The evaluation of corrosion damage
14. The proper way of removing corrosion deposits
15. The treatment of the corroded area
16. To properly clean an aircraft using the correct materials
17. To evaluate the cleaned area and protect it from further corrosion
18. To raise numbers to a given power
19. To extract roots
20. To solve practical problems involving ratios
21. To solve practical problems involving proportions
22. Practical applications of plane geometry
23. To be able to find the area and volume of various geometric shapes
24. Practical applications of algebra
25. To perform the basic mathematical functions involving positive and negative numbers
26. The importance of the legal aspects of aviation maintenance
27. To properly describe the work done to an aircraft
28. To be able to make the proper maintenance record entries
29. To make the correct maintenance record for a 100-hour inspection
30. To compile a discrepancy list for an aircraft that has failed an inspection
31. To describe a repair to an aircraft structure and properly complete an FAA Form 337

### Explain the student demand for the course and potential enrollment:

This is an apprenticeship course. Students are working with employers and enrolled in apprenticeship classes.

### Explain why this course is being created:

AJAC is now offering the Aircraft Mechanic Airframe (AMTA) apprenticeship program at SSCC.

### What challenges, if any, do you foresee in offering this course:

None.
This is to certify that the above criteria have all been met and all statements are accurate to the best of my knowledge.

Faculty involved in originating this program:

<table>
<thead>
<tr>
<th>Faculty Name</th>
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<th>Date</th>
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<tbody>
<tr>
<td>Lauren Hadley</td>
<td>Lauren Hadley</td>
<td>11/21/2013</td>
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Dean:

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<tr>
<th>Faculty Name</th>
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<tr>
<td>Holly Moore</td>
<td>Holly Moore</td>
<td>1/8/2014</td>
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Results of SSCC Curriculum Coordinating Council Findings

Participating Faculty Response and Remarks

- [ ] Recommended for approval
- [ ] Not recommended for approval
- [x] This course did not go through Committee Review

Chairman, Curriculum Coordinating Council:

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Vice President for Instruction:

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<tr>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>Donna Miller-Parker</td>
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