COURSE OUTLINE

Course: 16666 AVIATION MAINTENANCE TECHNOLOGY **Total Course Hours:** 270.00

CBEDS Title: AVIATION MAINTENANCE TECHNOLOGY **CBEDS #:** 1666

Job Title(s):
Aviation Maintenance Technician, Aircraft Mechanic, Theme Park Technician, Plant Maintenance Technician

Prerequisites:
None

Course Description:
Students will obtain information necessary to pass the written and oral FAA general examination portion of the airframe or power plant technician's license in the areas of aircraft mathematics, aircraft physics, aerodynamics and flight controls, weight and balance computations and aircraft AD and DC electricity.
Integrated throughout the course are Academic and CTE standards, which include safety, communication, technology, ethics, career planning and other employability skills.

Hours	
Class	OJT

Occupational Competencies

1-7 on the Course Outline are generic to all BVROP courses and include the BVROP Student Outcomes

3.00		**1 ORIENTATION**

- **A** Identifies and discusses course objectives and competencies.
- **B** Discusses ROP Student Outcomes.
- **C** Explains class attendance and behavior objectives.

3.00		**2 HEALTH, SAFETY AND ENVIRONMENTAL MANAGEMENT**

- **A** Describes accident procedure.
- **B** Demonstrates appropriate safety practices (e.g. bending, lifting, etc.).
- **C** Demonstrates knowledge of classroom procedures and drills (e.g. earthquake, fire and emergency).

3.00		**3 ETHICS AND LEGAL RESPONSIBILITIES**

- **A** Defines sexual harassment and discusses tactics for handling harassment situations.
- **B** Applies appropriate workplace behavior and standards.

3.00		**4 LEADERSHIP AND TEAMWORK**

- **A** Describes the characteristics and benefits of teamwork and leadership.
- **B** Demonstrates ability to make appropriate decisions.
- **C** Works well with others and gives/takes constructive criticism.

15.00		**5 CAREER PLANNING**

- **A** Prepares a finished, professional portfolio showing the best work that has been completed during the class.
- **B** Locates job opportunities through the use of want-ads and placement agencies.
- **C** Visits at least one facility related to area of training and observes jobs performed.
- **D** Completes a job application correctly.
- **E** Prepares for and critiques a simulated employment interview.
- **F** Discusses employee benefits and rights as related to the specific occupational job area including gender equity and equal opportunity.
- **G** Identifies acceptable procedures to leave a job.
- **H** Applies for a scholarship.
- **I** Completes a professional resume.
- **J** Demonstrates appropriate personal grooming and dress.

3.00	

6 COMMUNICATION

- **A** Uses effective workplace conversation.
- **B** Reads and interprets written information and directions.
- **C** Practices various forms of written communication appropriate to the occupation.

5.00	

7 STUDENT OUTCOMES

- **A** Demonstrates Occupational Specific, Communication and Critical Thinking Skills
- **B** Demonstrates Responsible Work Ethics
- **C** Demonstrates Career/Employment Literacy
- **D** Demonstrates Effective Use of Technology

150.00	

8 BASIC ELECTRICITY

- **A** Calculates total capacitance for capacitors connected in series and in parallel
- **B** Calculates total inductance for inductors connected in series and in parallel
- **C** Tests capacitors using a capacitor tester
- **D** Tests transformer windings for continuity and measure voltage from step-up and step-down transformers
- **E** Calculates power (wattage) used in an electrical circuit
- **F** Determines power by measuring voltage and amperage and calculating power
- **G** Uses a multimeter to measure continuity, voltage, voltage drop, resistance and current
- **H** Tests for continuity
- **I** Analyzes electrical circuits for shorts, grounds and opens
- **J** Uses Ohm's law to calculate voltage, current and resistance in electrical circuits
- **K** Uses Ohm's law to analyze circuit problems
- **L** Identifies electrical and electronic components by symbol
- **M** Locates electrical and electronic components using a wiring diagram or schematic
- **N** Differentiates between series, parallel, and series-parallel circuits
- **O** Analyzes electrical circuit problems using wiring diagrams and schematics
- **P** Visually inspects batteries and identifies any abnormal conditions
- **Q** Removes and replaces batteries in aircraft
- **R** Cleans battery cases and terminal connections
- **S** Checks and corrects electrolyte level
- **T** Evaluates battery state of charge and condition by measuring specific gravity and voltage
- **U** Charges lead-acid and Nicad batteries using adjustable and constant current battery chargers

45.00	

9 BASIC PHYSICS

- **A** Uses and understands the principles of simple machines and aircraft structures

40.00	

10 WEIGHT AND BALANCE

- **A** Identifies the weight and balance information available from the Aircraft Specification or Type Certification Data Sheet
- **B** Describes the procedures for leveling and weighing large and small aircraft
- **C** Levels and weighs an aircraft
- **D** Performs a complete weight and balance check for a specific aircraft. Records weight-and-balance data

Additional Course Information

This course articulates with Chaffey College.

TOTAL HOURS

Class	OJT	Course
270.00	**0.00**	**270.00**