

**Division of Apprenticeship Standards (DAS)
Apprenticeship Program Summary Sheet**

To: Eric Rood, Chief
From: Program Planning and Review
Date: September 7, 2021

Program Name: Build the Future –CAES Assembler Apprenticeship
Industry: Advanced Manufacturing
DAS File No.: 100668
CAI Grant Awardee: No

Actions:

- Proposed new apprentice program
- Existing apprenticeship program adding new occupations
- Existing apprenticeship program expanding area of operations
- Existing apprenticeship program changing work processes on approved occupations.

Labor Organizations Representing Any of the Apprentices:

N/A

Disclaimer of Interest in the Building Trades and Dispatch Restriction:

Build the Future –CAES Assembler Apprenticeship is not intended to train in the building and construction trades and is not eligible to dispatch apprentices to projects with public works, prevailing wage or skilled and trained workforce requirements within the meaning of Labor Code sections 1720 and 3075 and will not train or dispatch apprentices in the building and construction trades or firefighters occupations.

Comments:

We are Cobham Advanced Electronic Solutions (CAES), a technology advanced electronics company employing more than 3,600 talented makers, thinkers, innovators, and doers nationwide. We build things that solve challenging problems from deep space to the depths of the ocean and take pride in solving problems that others can't. We serve customers in defense, aerospace, security, medical and industrial markets with critical solutions on land, at sea, and in the air and space, by moving data through off-the-shelf and customized products and subsystems including RF, microwave and high reliability microelectronics, antenna apertures and motion control solutions. Innovation, leadership and empowerment has driven us from our launch in 1934 by Sir Alan Cobham, an aviation innovator, to becoming the hugely

Build the Future – CAES Assembler Apprenticeship

Program Standards

DAS File No. 100668

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APPRENTICESHIP STANDARDS
(SINGLE EMPLOYER MULTI-OCCUPATION STANDARD)

NAME OF EMPLOYER (PROGRAM SPONSOR)

Build the Future – CAES Assembler Apprenticeship
9404 Chesapeake Dr.
San Diego, CA 92123

COUNTY

San Diego

AREA OF OPERATIONS

These standards shall apply to the Company signatory hereto, and to all apprentice agreements hereunder.

The administration and operation of this apprenticeship program shall be supervised by the party signatory to these standards or a designated authorized representative. The apprenticeship program shall be subject to the review and approval by the Chief, Division of Apprenticeship Standards.

1. Occupation(s)

The approved occupation(s) are set forth in Attachment(s) “B-1 & B-2” - List of Occupation(s) and corresponding DAS-35(s) Occupational Supplement(s), which set forth the terms of the occupation, ratios, work processes, and related supplemental instruction for each individual occupation. Additional occupations may be added, deleted or modified by submitting the proposed change(s) to the California Division of Apprenticeship Standards (DAS) for approval of the Administrator of Apprenticeship.

2. Responsibilities of Program Sponsor

The program sponsor is responsible for the administration and enforcement of all aspects of a Registered Apprenticeship program. Sponsor means any person, association, committee, employer or organization operating an apprenticeship program and in whose name the program is (or is to be) registered or approved. The Sponsor will establish an Apprenticeship Training Committee (ATC) to carry out the responsibilities and duties required of a Program Sponsor as set forth under California Code of Regulations (CCR) §212.

In addition, the Sponsor(s) agree to: (1) administer and enforce the standards as approved; (2) establish rules and regulations governing the program; (3) The recruitment, selection, employment, and training of apprentices during their apprenticeship, shall be without discrimination because of race, color, religion, national origin or sex. The sponsor will take

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affirmative action to provide equal opportunity in apprenticeship for both minorities and women. The sponsor select apprentices on the basis of qualifications alone, through fair and impartial procedures applied uniformly to all applicants will operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, Part 30, and by the California Plan for Equal Opportunity in Apprenticeship and by the California Code of Regulations, Title 8, Chapter 2; (4) provide reasonably continuous employment to all apprentices in its employ; (5) provide the diversified work training scheduled herein under competent trainers, including safety training through the program and first aid training, either in conjunction with the apprentices, related instruction classes or otherwise as appropriate; (6) arrange for Related and Supplemental Instruction pursuant to California Labor Code (LC) §3074; (7) have a Local Education Agency (L.E.A.) provide a letter approving the Related and Supplemental Instruction pursuant to LC 3074, 210, 212 (a, 7) [see attachment A]; (8) maintain a record of each apprentice's work training, related instruction and progress therein; (9) file a copy of each apprentice agreement with the California Division of Apprenticeship Standards (10) grant apprentices credit for previous experience; (11) develop disciplinary procedures for apprentices including fair hearings; (12) provide training in the recognition of illegal discrimination and sexual harassment; (13) ensure there is meaningful representation of the apprentice in the management of the program; (14) participate in the development or comply with training criteria where such have been adopted; (15) create an adequate mechanism to be used for the rotation of apprentices through all work processes; (16) submit an annual Self-Assessment Review and Program Improvement Plan annually to the Chief of DAS.

3. Apprentice Agreements

Apprentices shall be at least 16 years of age. If the apprentice is under 18 years of age, the apprentice's parent or guardian must sign the agreement. When the period of training extends beyond 18, the apprentice agreement shall likewise be binding to such a period as may be covered. An apprentice is one who has been qualified and approved by the apprenticeship committee, signed an individual apprentice agreement with the program sponsor under these standards, which agreement has been approved by the Administrator or his duly authorized representative and filed with the California Apprenticeship Council. The standards shall be a part of the apprenticeship agreement. Apprentices shall be furnished a copy of the standards or given an opportunity to read them before indenture. The Administrator shall cancel apprentice agreements during the probationary period at the request in writing of either party; after the probationary period, agreements may be terminated by the Administrator by mutual consent of all the parties or cancelled for good and sufficient reason. An apprentice agreement shall remain in effect during a lay-off unless cancelled.

4. Responsibilities of Apprentices

Each apprentice shall satisfactorily perform all work and learning assignments, and complete a course of related instruction, as determined in accordance with California Labor Code Section 3078(d). There shall be no liability on the part of the employer for an injury sustained by an apprentice engaged in schoolwork at a time when the employment of the apprentice has been temporarily or permanently terminated.

5. Hours and Working Conditions

The regular workday, workweek and other working conditions for apprentices shall conform to all applicable California laws and regulations. [See Attachment(s) "B-1 & B-2"] Establish a mechanism to rotate apprentices from work processes to work processes to assure complete training.

6. Wages and Wage Progression

The wages shall be a progressively increasing wage, employee benefits and other compensation as set by Section CCR §208. [See Attachment(s) “B-1 & B-2”] Overtime shall not interfere with or impair training or schooling nor be detrimental to the health and safety of the apprentice. The hours of related instruction and required school time shall be compensated.

7. Disciplining of Apprentice

Disciplinary proceeding for apprentices shall be duly noticed in writing to such individuals. The Division of Apprenticeship Standards shall attend all such proceedings. All controversies or differences concerning the apprentice agreement, which cannot be adjusted locally, shall be submitted to the Administrator of Apprenticeship for determination.

8. Certificate of Completion

The California Apprenticeship Council will issue a Certificate of Completion to apprentices upon receipt of competent evidence of their satisfactory completion of apprenticeship hereunder.

9. Modification of Standards

These Standards shall be modified to conform to any changes in prevailing practices, conditions and wages in the area and the industry when such changes occur. Requests of the program sponsor for modification are subject to the approval of the Administrator of Apprenticeship.

Where the program sponsors establish rules and regulations for governing the program, a copy of such shall be provided to each apprentice.

The Build the Future – CAES Assembler Apprenticeship agrees to accept electronic signatures for these Division of Apprenticeship Standards and all related Division of Apprenticeship Standards documents.

The foregoing standards are hereby agreed to and adopted on 9/2/2021
(Committee approval date)

Employer Organization

CAES

Organization Name

9404 Chesapeake Dr.

Address

San Diego, CA 92123

City, State, Zip

Layne Macapagal-Ringor

Type Name of Authorized Representative

Title: Sr. HR Business Partner

/S/ Layne Macapagal-Ringor 09/02/2021
Signature Date

The foregoing apprenticeship standards, being in conformity with the rules and regulations of the California Apprenticeship Council, the California Code of Regulations, and applicable Federal Regulations are hereby approved

_____.

(DAS approval date)

Eric Rood, Chief
Division of Apprenticeship Standards

Date

Attachment B-1

Training Schedule and Working Conditions

Build the Future – CAES Assembler Apprenticeship

OCCUPATION(S)

Occupation	O*Net Code
Assembler, MIC I	51-2023.00

ARTICLE I Term of Apprenticeship and Probation

The standard term of apprenticeship shall be competency-based with 306 related and supplemental instruction (RSI) hours.

The period of probation shall be reasonable in relation to the full apprenticeship term, which is approximately 12 months, with full credit given for such period toward completion of the apprenticeship and in no event shall exceed the shorter of 25 percent of the length of the program or one year. The period of probation shall be three (3) months.

ARTICLE II Wage Schedule

Journey Wage: \$ 17.00 per hour effective 9/2/21.

Apprentice Wage and Advancement Schedule:

In no case shall an Apprentice receive a starting wage that is less than the applicable minimum wage or living wage, whichever is higher, for the County and City where the apprentice is working. Law establishes the effective date of the minimum wage and/or the living wage.

To advance from one period to the next, the apprentice shall have met the following requirements:

1st Period / Within 1-6 months

First period apprentices shall receive a starting wage no less than the applicable minimum wage or living wage (whichever is higher) for the County and City where the apprentice is working. Law establishes the effective date of the minimum wage and/or the living wage.

2nd Period / Within 7-12 months

Second period apprentice shall receive a minimum increase of \$01.00 per hour above the currently effective first period wage rate, after verification that the first period wage rate is verified to be no less than the applicable minimum wage or living wage (whichever is higher) for the County and City where the apprentice is working.

Advancement Schedule:

Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The committee will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. The committee will document pay increases of apprentices progressing through the learning competencies.

Overtime Provision:

All overtime shall be paid at the rate of one and one-half times the wage rate for hours worked over 8 hours per day or 40 hours per week. Time and one-half shall be paid for the first eight (8) hours worked Saturdays. All other time shall be paid at double the straight-time rate.

Hours of Work and Working Conditions:

Straight time hours per day: site works a 9/80 schedule. Over a 2 week period, totals 80 hours.

The workday and workweek and all other conditions of employment for apprentices shall conform to all applicable laws and regulations and shall not be greater than for those of journeyman(s).

Overtime shall not be allowed if it will interfere with or impair the training or be detrimental to the health and safety of the apprentice.

ARTICLE III Work Training

- 1) The employer shall see that all apprentices are under the supervision of a qualified journeyman or instructor and shall provide the necessary diversified experience and training in order to train and develop the apprentice into a skilled worker, proficient in all the work processes of the trade as outlined herein.
- 2) Each apprentice shall be trained in the use of new equipment, materials and process as they come into use in the occupation.
- 3) The major work processes in which apprentices will be trained (although not necessarily in the order listed) and the approximate hours (not necessarily continuous) to be spent on each are as follows:

Work Competencies

JOB TITLE: Assembler, MIC I

SUMMARY: Prepare and assemble electronic components and hybrid assemblies of basic complexity in a clean room setting by using blueprint drawing, diagrams, manufacturing processes and procedures; work is performed under a microscope and by means of using small hand tools, bonding machines, welders and process equipment

Competency Check List

Demonstrates Fundamentals: Apprentice can perform the task with some coaching.

Proficient in Task: Apprentice performs task properly and consistently.

Completion Date: Date apprentice completes final demonstration of competency.

Basics

*	FOD	1
*	ESD	1
*	Cleanroom	1
*	P&H	1
*	Workstation Housekeeping	4
*	Agile, Blueprint Reading	5
*	Traceability and Defect Database	4
	Introduction to CAES work	2
	HS&E Guidelines	<u>2</u>
	Subtotal	26

Basic Computers

*	Time Charging 903010	2
*	Time Entry SAP	3
*	SAP Confirmations	2
	Email	1
	POU Locations	1
	Equipment Inventory	<u>1</u>
	Subtotal	10

Basic Hands On

*	Manual Dispense (000795)	3
*	Shorts, Resistance, Polarity (000714)	3
*	Screw Fastener Installation (000118)	3
*	Self-locking Screw installation (000520)	3
	Subtotal	12

MIC Hands On

*	Die Attach (000084)	16
*	Oven Cure (000082)	2
*	Epoxy Handling (000412)	2
*	Cleaning (000041)	2
*	Pre-Seal Clean (000192)	4
*	Workmanship (000397)	4 + 8
*	Workmanship (000399)	<u>2 + 4</u>
	Subtotal	32 + 12

New Hire Subtotal** **80 + 12**

Advanced Job Role Hands On

(MIC: DA, GW, WB, ..) (Solder: FA, Filter, Covers,..)

	Assessments DA, GW, WB	40
	Advanced Training at Core Role	88
	Trainer Check-ins	14

Knowledge and Behavioral topics

* Metrology and Math Calibration, Use of Tool and Gauges, Math Basics with test	16
Lean Manufacturing 8 Wastes, TOC, Single Piece Flow, Setup Reduction, Pull System	20
Problem Solving RCCA, DMAIC, A3, 5 Whys	12
Professionalism Attendance, Punctuality, Time Management, CAES Values, Performance Goals/Reviews, Safety and Security Basics	8
Communication Listening, Speaking, Writing, Non-verbal Communication	8
Computer skills Windows, SAP, MS Word, MS Excel	8

Total: 306 hours

ARTICLE V Ratio

A qualified employer may employ one (1) apprentice(s) when at least one (1) journeyperson(s) is/are regularly employed, and one (1) additional apprentice(s) for each one (1) journeyperson(s) is/are employed.

Attachment B-2

Training Schedule and Working Conditions

Build the Future – CAES Assembler Apprenticeship

OCCUPATION(S)

Occupation	O*Net Code
Assembler, Electronic I	51-2023.00

ARTICLE I Term of Apprenticeship and Probation

The standard term of apprenticeship shall be competency-based with 306 related and supplemental instruction (RSI) hours.

The period of probation shall be reasonable in relation to the full apprenticeship term, which is approximately 12 months, with full credit given for such period toward completion of the apprenticeship and in no event shall exceed the shorter of 25 percent of the length of the program or one year. The period of probation shall be three (3) months.

ARTICLE II Wage Schedule

Journey Wage: \$ 17.00 per hour effective date. 9/2/2021

Apprentice Wage and Advancement Schedule:

In no case shall an Apprentice receive a starting wage that is less than the applicable minimum wage or living wage, whichever is higher, for the County and City where the apprentice is working. Law establishes the effective date of the minimum wage and/or the living wage.

To advance from one period to the next, the apprentice shall have met the following requirements:

1st Period / Within 1-6 months

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2nd Period / Within 7-12 months

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Advancement Schedule:

Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The committee will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. The committee will document pay increases of apprentices progressing through the learning competencies

Overtime Provision:

All overtime shall be paid at the rate of one and one-half times the wage rate for hours worked over 8 hours per day or 40 hours per week. Time and one-half shall be paid for the first eight (8) hours worked Saturdays. All other time shall be paid at double the straight-time rate.

Hours of Work and Working Conditions:

Straight time hours per day: site works a 9/80 schedule. Over a 2 week period, totals 80 hours
The workday and workweek and all other conditions of employment for apprentices shall conform to all applicable laws and regulations and shall not be greater than for those of journeyperson(s).

Overtime shall not be allowed if it will interfere with or impair the training or be detrimental to the health and safety of the apprentice.

ARTICLE III Work Training

- 4) The employer shall see that all apprentices are under the supervision of a qualified journeyperson or instructor and shall provide the necessary diversified experience and training in order to train and develop the apprentice into a skilled worker, proficient in all the work processes of the trade as outlined herein.
- 5) Each apprentice shall be trained in the use of new equipment, materials and process as they come into use in the occupation.
- 6) The major work processes in which apprentices will be trained (although not necessarily in the order listed) and the approximate hours (not necessarily continuous) to be spent on each are as follows:

SUMMARY: Prepare and assemble electronic components and subassemblies of routine complexity by using blueprints, drawings, diagrams and written processes; work is performed under a microscope while using small hand tools, such as tweezers, soldering iron, hotplate and reflow solder; monitors work-in-process or completed work, may need to disassemble, modify, rework, reassemble according to specifications and under simulated conditions.

Competency Check List

Demonstrates Fundamentals: Apprentice can perform the task with some coaching.

Proficient in Task: Apprentice performs task properly and consistently.

Completion Date: Date apprentice completes final demonstration of competency.

Detailed Work Activities: Initial and date each task when Competency Check List has been completed.

- Research the most current drawing in an Enterprise-wide system such as Anzio or SAP; verify accuracy of drawing revisions to the traveler; update traveler instructions, if applicable.
- Review assembly drawings, traveler, and process procedures for instruction per specific component; verify received parts are accurate according to drawing parts list.
- Prepare parts by pre-tinning, cutting to proper length, separating & forming as applicable to part/component.
- View parts through microscope; assemble components and assemblies using small hand tools such as hand solder, reflow solder, hot plates and solder irons.
- Visually inspect work completed for accuracy and quality prior to release; barcode kits by using a program such as Anzio; forward to Lead/Supervisor for inspection
- Communicate assembly related issues to lead and supervisor verbally or in writing as an option.
- Participate in safety training and actively comply with safety policies and practices; maintain a clean and safe workstation.
- Improve and maintain 5S in your area; make suggestions for improvements.
- Participate in Lean/Six Sigma activities in own work area as well as events for other areas to enhance cross-functional problem solving.
- Collaborate in team meetings and activities, including SET team support as appropriate
- Perform miscellaneous related duties as assigned. And agreed upon

ARTICLE IV Related Instruction

Apprentices shall satisfactorily complete prescribed courses of related and supplemental instruction, which will not be less than 144 hours per year. Related and supplemental instruction The curriculum content is develop and implemented by Build the Future – CAES Assembler Apprenticeship and approved by Grossmont Adult School.

Time spent in related and supplemental instruction may be compensated.

<u>Course</u>	<u>Hours</u>
* Demonstration Approval Required	
New Apprentice Orientation	5
HR Overview	
Payroll - Timekeeping Policy	
Security Overview	
IT Basics	
Import/Export Adherence	
EHS Overview	
Quality Overview and Policy	

Basics

*	FOD	1
*	ESD	1
*	Cleanroom	1
*	P&H	1
*	Workstation Housekeeping	4
*	Agile, Blueprint Reading	5
*	Traceability and Defect Database	4
	Introduction to CAES work	2
	HS&E Guidelines	<u>2</u>
	Subtotal	26

Basic Computers

*	Time Charging 903010	2
*	Time Entry SAP	3
*	SAP Confirmations	2
	Email	1
	POU Locations	1
	Equipment Inventory	<u>1</u>
	Subtotal	10

Basic Hands On

*	Manual Dispense (000795)	3
*	Shorts, Resistance, Polarity (000714)	3
*	Screw Fastener Installation (000118)	3
*	Self-locking Screw installation (000520)	<u>3</u>
	Subtotal	12

Electronic (Solder) Hands On

*	Workmanship (000399)	14
*	Workmanship (000397)	2
*	Hakko Solder Station (000719)	2
*	Soldered mw Components (000339)	2
*	Solder Pretin (000340)	4
*	Flux Cleaning (000743)	4 + 8
*	Solder Paste Handling and Storage (000640)	2 + 4
*	Hotplate Soldering (00058)	2
	Subtotal	32 + 12
	New Hire Subtotal**	80 + 12

Advanced Job Role Hands On**(MIC: DA, GW, WB, ..) (Solder: FA, Filter, Covers,..)**

	Assessments DA, GW, WB	40
	Advanced Training at Core Role	88
	Trainer Check-ins	14

Knowledge and Behavioral topics

* Metrology and Math Calibration, Use of Tool and Gauges, Math Basics with test	16
Lean Manufacturing 8 Wastes, TOC, Single Piece Flow, Setup Reduction, Pull System	20
Problem Solving RCCA, DMAIC, A3, 5 Whys	12
Professionalism Attendance, Punctuality, Time Management, CAES Values, Performance Goals/Reviews, Safety and Security Basics	8
Communication Listening, Speaking, Writing, Non-verbal Communication	8
Computer skills Windows, SAP, MS Word, MS Excel	8

Total: 306 hours

ARTICLE V Ratio

A qualified employer may employ one (1) apprentice(s) when at least one (1) journeyperson(s) is/are regularly employed, and one (1) additional apprentice(s) for each one (1) journeyperson(s) is/are employed.