For L&I Staff Use Only	
Rec'd 9-2-22 SH Rec'd 9-16-22 SH L&I Apprenticeship Consultant	Teri Gardner 9-2-22 Teri Gardner 9-16-22 L&I Admin

Department of Labor and Industries
Apprenticeship Section
PO Box 44530
Olympia WA 98504-4530

Request for Revision of Standards

TO: Washington State Apprenticeship & Training Council

FROM: **Aerospace Joint Apprenticeship Committee, #1828**

Please update our Standards of Apprenticeship to reflect the following changes:

- Additions shall be underlined (underlined).
- Deletions shall be struck through (~~struck through~~).
- See attached.

Form must be signed by Committee Chair *and* Secretary *or* Program's Authorized Signer

☐ Chair ☒ Authorized Signer	Date 09/02/2022	☐ Secretary	Date
Print Name: Demetria L. Strickland		Print Name:	
Signature: Demetria L. Strickland		Signature:	

Approved By: **Washington State Apprenticeship & Training Council**
Signature of Secretary of the WSATC:
Date:

Attach additional sheets if necessary

FROM: **Aerospace Joint Apprenticeship Committee, #1828**

Cover Page

~~AEROSPACE JOINT~~ AJAC – PRODUCTION APPRENTICESHIP COMMITTEE

(sponsor name)

Occupational Objective(s):	SOC#	Term [WAC 296-05-015]
~~AIRCRAFT MECHANIC AIRFRAME~~	**~~49-3011.00~~**	**~~6,000 HOURS~~**
~~INDUSTRIAL MAINTENANCE/AUTOMATION TECHNICIAN~~	**~~49-9041.00~~**	**~~8,000 HOURS~~**
~~INDUSTRIAL MANUFACTURING TECHNICIAN~~	**~~17-3029.09~~**	**~~3,000 HOURS~~**
~~MAINTENANCE/AUTOMATION TECHNICIAN~~	**~~49-9071.00~~**	**~~2,000 HOURS~~**

Sponsor Introductory Statement (Required):

The advanced manufacturing industry, comprised of over 6,000 companies representing several different industries, including the ~~The~~ aerospace industry, with approximately ~~1,425~~ 1,300+ aerospace- related companies, is a significant economic driver in Washington State. Apprenticeship training programs are necessary to maintain and improve skill levels of this workforce and are critical to the continued health and growth of this industry. The AJAC – Production Apprenticeship Committee (hereafter referred to as Apprenticeship Committee throughout these standards) will help guarantee high skill levels in this rapidly expanding area of aerospace and advanced manufacturing production. The Production Technician ~~and Maintenance/Automation Technician~~ occupations provides an entry point for youth as young as 16 into apprenticeship with an opportunity to receive career exploration, knowledge and application of skills in a real-world environment which may lead to family-wage careers and additional educational opportunities. Other apprenticeship programs will be developed as industry needs are identified.

I. Geographic Area Covered:

Applicants and apprentices please note that, while the State of Washington has no responsibility or authority in the States of Oregon and Idaho, the ~~Aerospace Joint~~ Apprenticeship Committee will apply the same standards and guidelines to apprentices registered in the program while working outside of the State of Washington.

II. Minimum Qualifications:

Age: **At least 16 years old for the ~~Maintenance/Automation Technician and~~ Production Technician occupations.**

Education:

d. Production Technician ~~and Maintenance/Automation Technician~~: must be enrolled in high school or equivalent credit recovery program at a minimum.

III. Conduct of Program Under Washington Equal Employment Opportunity Plan:

A. Selection Procedures:

The procedures for application to a registered ~~Aerospace Joint~~ Apprenticeship Committee ~~(AJAC)~~ apprenticeship that have been adopted by and are in compliance with the Washington State Apprenticeship and Training Council (WSATC) rules and regulations are as follows:

1. **Persons desiring to become a registered apprentice under ~~AJAC~~ the Apprenticeship Committee must first be employed by an employer that is ~~a~~ an ~~Registered~~ Approved Training Agent for ~~AJAC~~ the Apprenticeship Committee. The applicants are to be selected by the individual employers in accordance with customary and established policies. ~~AJAC~~ The Apprenticeship Committee does not serve as a referral agency, or training agent, for apprenticeship applicants, but may assist employers in finding potential apprentices for their pool of candidates. ~~AJAC~~ The Apprenticeship Committee strives to increase the numbers of women and minorities in the aerospace and advanced manufacturing trades and encourages employers and Approved Training Agents to hire women and minorities with the goal of developing their skills through apprenticeship.**
2. **Persons selected ~~as apprentices~~ by an Approved Training Agent, and who provide verification of the minimum qualifications, can apply to the Apprenticeship Committee ~~and/or Subcommittee~~ to participate in the apprenticeship program. Applicants will be informed of their rights and responsibilities, under the standards of apprenticeship established for the occupation, and then required to sign an apprenticeship agreement and associated documents.**
3. **Prior to becoming ~~registered training agents~~ an Approved Training Agent for ~~AJAC~~ the Apprenticeship Committee, employers shall sign an agreement that they will comply with the State of Washington Equal Employment Opportunity Plan. When the agreement, which is furnished by the WSATC, has been executed by the individual employers, ~~AJAC~~ the Apprenticeship Committee will forward a copy to the Department of Labor and Industries, Apprenticeship Section.**

B. Equal Employment Opportunity Plan:

It is the mission of ~~AJAC~~ the Apprenticeship Committee that the training of apprentices shall be without discrimination. ~~AJAC~~ The Apprenticeship Committee is committed to Equal Employment Opportunity (EEO) to all people regardless of race, color, national origin, sex, religion, sexual orientation, disability, veteran status, or as otherwise specified by law.

~~AJAC~~ The Apprenticeship Committee will take the following affirmative actions:

4. **Promote the ~~Aerospace Joint Apprenticeship Committee (AJAC)~~ Apprenticeship Committee through distribution of program literature and on**

apprenticeship websites.

IV. Term of Apprenticeship:

A. The term of the ~~Industrial Manufacturing Technician and~~ Industrial Machine Operator will be 3,000 hours of reasonably continuous employment.

B. The term of the Machinist (~~aircraft oriented~~ Aircraft Oriented), Machinist, ~~Industrial Maintenance/Automation Technician,~~ and Plastic Process Technician apprenticeship programs will be 8,000 hours of reasonably continuous employment.

D. The term of apprenticeship of ~~the Aircraft Mechanic Airframe and~~ the CNC Programmer apprenticeship program will be 6,000 hours of reasonably continuous employment.

F. The term of the Production Technician ~~and the Maintenance/Automation Technician~~ will be 2,000 hours of reasonably continuous employment.

The Apprenticeship Committee realizes Production Technician ~~and Maintenance/Automation Technician~~ apprentices may not be able to complete the 2,000 hours of ~~OJT~~ on-the-job (OJT) specified in every work process as set forth in this Standard during their high school term and will need to continue employment with an Approved Training Agent after high school to complete the OJT portion of training.

V. Initial Probationary Period:

C.

1. The Initial Probationary Period for the ~~Industrial Manufacturing Technician and~~ Industrial Machine Operator is the first 600 hours of employment as an apprentice.

3. The Initial Probationary Period for ~~Aircraft Mechanic Airframe, Industrial Maintenance/Automation Technician,~~ Machinist, Machinist (Aircraft Oriented), Plastic Process Technician, CNC Programmer and Tool and Die Maker is the first 1000 hours of employment as an apprentice.

4. The Initial Probationary Period for Production Technician ~~and the Maintenance/Automation Technician~~ is the first 400 hours of employment as an apprentice.

VI. Ratio of Apprentices to Journey Level Workers:

The ratio of journey-level worker(s) to apprentice(s) for all occupations covered under these standards will be at least one (1) journey-level worker for every one (1) apprentice ~~per employer workforce~~ at each employer location/plant where an apprentice is working in on-the-job training.

VII. Apprentice Wages and Wage Progression:

C. Wage Progression Schedules

~~**Airframe Mechanic Airframe**~~

~~**Step**~~	~~**Hour Range or competency step**~~	~~**Percentage of journey-level wage rate***~~
~~**1**~~	~~**0000 – 1000 hours**~~	~~**60%**~~
~~**2**~~	~~**1001 – 2000 hours**~~	~~**65%**~~
~~**3**~~	~~**2001 – 3000 hours**~~	~~**70%**~~
~~**4**~~	~~**3001 – 4000 hours**~~	~~**75%**~~
~~**5**~~	~~**4001 – 5000 hours**~~	~~**80%**~~
~~**6**~~	~~**5001 – 6000 hours**~~	~~**90%**~~

~~**Plus application fringe benefits.**~~

~~**Industrial Manufacturing Technician**~~

~~**Step**~~	~~**Hour Range or competency step**~~	~~**Percentage of journey-level wage rate***~~
~~**1**~~	~~**0000 – 1000 hours**~~	~~**85%**~~
~~**2**~~	~~**1001 – 2000 hours**~~	~~**90%**~~
~~**3**~~	~~**2001 - 3000 hours**~~	~~**95%**~~

~~**Plus applicable fringe benefits.**~~

Machinist (~~aircraft oriented~~ Aircraft Oriented), Machinist, ~~Industrial Maintenance/Automation Technician,~~ and Plastic Process Technician.

Step	Hour Range or competency step	Percentage of journey-level wage rate*
1	**0000 – 1000 hours**	**60%**
2	**1001 – 2000 hours**	**65%**
3	**2001 – 3000 hours**	**70%**
4	**3001 – 4000 hours**	**75%**
5	**4001 – 5000 hours**	**80%**
6	**5001 – 6000 hours**	**85%**
7	**6001 – 7000 hours**	**90%**
8	**7001 – 8000 hours**	**95%**

Production Technician ~~and Maintenance/Automation Technician~~

Step	Hour Range or competency step	Percentage of journey-level wage rate*
1	**0000 - 1000 hours**	**90%**
2	**1001 - 2000 hours**	**95%**

VIII. Work Processes:

1. **All minors are prohibited from performing any and all work in active construction zones and construction sites as defined in WAC 296-155-012.**
2. **Minors apprentices can qualify for an exemption to work in occupations prohibited by WAC 296-125-030. However, employers need to apply for the exemption as laid out in the Student Learner Exemption for Worksite Learning and Apprenticeships in Certain Hazardous Work (ES.C.11) Limited variances may be allowed for hazardous activities including but not limited to:**

    - **Power-driven woodworking machines/tools**
    - **Power-driven metal-forming, punching and shearing machines**
    - **Slaughtering, meat packing, processing, or rendering**
    - **Power-driven paper-product machines**
    - **Power-driven circular saws, band saws, and guillotine shears**
    - **All roofing work**
    - **Excavations**
    - **Occupations involving firefighting and fire suppression duties**

    ***See* WAC 296-125-030 for complete rules.**

    There are additional work activities restricted under separate Washington State law that also need to be included on the variance form, if applicable:

    - **Work that may require use of hearing protection under the DOSH Hearing Conservation Standard (i.e. at or above 85 dBA), WAC 296-125-030(22)**
    - **Work that may involve exposure to bloodborne pathogens under the DOSH Bloodborne Pathogens standard, WAC 296-125-030(24)**
    - **Work that may involve exposure to hazardous chemicals or substances under the DOSH Hazard Communication Standard, WAC 296-125-030(25)**

    When minors are employed as apprentices, the following rules will apply:

1. **The requirement of direct and close supervision for hazardous and otherwise prohibited work is met when there is one journey-level worker working with the first apprentice/student learner on-site and at least three journeymen or experienced adults working alongside each additional apprentice/student learner.**
2. **The sponsor and training agent will obtain and maintain all necessary documents, permits, variances and licenses required when employing minors.**
3. **The sponsor and training agent will coordinate with L&I's Teen Safety Department to develop an Employer Facility Safety Checklist prior to apprentice placement.**
4. **Safety Training applicable to the industry/occupation will be provided to minors prior to employment placement. It shall include industry/employer approved or required safety training, and shall meet or exceed WISHA standards.**
5. **Personal Protective Equipment (PPE) required within the industry/occupation for tasks being performed shall be provided by the employer.**

[Please delete A., B., E., and J., in their entirety as shown, and re-letter the remaining.]

~~**A. Aircraft Mechanic Airframe Approximate Hours**~~

~~**1. Fluid Lines and Fittings ..... 300**~~
~~**2. Ground Operations and Servicing ..... 350**~~
~~**3. Cleaning and Corrosion Control ..... 250**~~
~~**4. Maintenance Forms and Records ..... 150**~~
~~**5. Aircraft Finishes ..... 300**~~
~~**6. Sheet Metal and Non-Metallic Structures ..... 1500**~~
~~**7. Assembly and Rigging ..... 450**~~
~~**8. Airframe Inspection ..... 200**~~
~~**9. Aircraft Landing Gear Systems ..... 350**~~
~~**10. Hydraulic and Pneumatic Systems ..... 450**~~
~~**11. Cabin Atmosphere Control Systems ..... 100**~~
~~**12. Aircraft Instrument Systems ..... 200**~~
~~**13. Communication and Navigation Systems ..... 250**~~
~~**14. Aircraft Fuel Systems ..... 200**~~
~~**15. Aircraft Electrical Systems ..... 150**~~
~~**16. Position and Warning Systems ..... 200**~~
~~**17. Ice and Rain Control Systems ..... 200**~~
~~**18. Fire Protection Systems ..... 200**~~
~~**19. Aviation Safety/Human Factors ..... 200**~~

~~**Total Hours: 6000**~~

~~**The above schedule of practical work experience is designed as a guide. The Apprentice shall be instructed and trained in all operations and methods customarily used in their trade. Each shop will adhere to as closely as facilities will permit and as approved by the Apprenticeship Committee. Retention of the apprentice on a particular operation beyond the established time should not occur unless there is a definite need for further training in the process. Refer to the apprentice work progress record for additional information related to specific work processes.**~~

~~**B. Industrial Manufacturing Technician Approximate Hours**~~

~~**1. Set up production equipment ..... 800**~~
~~**2. Operate production equipment ..... 1,000**~~
~~**3. Quality Assurance, inspection and measurement ..... 600**~~
~~**4. Interpret technical information ..... 200**~~
~~**5. Routine machine maintenance ..... 300**~~
~~**6. Inventory materials ..... 100**~~

~~**Total Hours: 3,000**~~

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~~permit and as approved by the Apprenticeship Committee. Retention of the apprentice on a particular operation beyond the established time should not occur~~

~~unless there is a definite need for further training in the process. Refer to the apprentice work progress record for additional information related to specific work processes.~~

~~C.~~A. Machinists~~:~~ **Approximate Hours**

1.	Drill presses	480
2.	Turning (Lathes)	2000
3.	Milling Machine	1000
4.	Boring mill's	1000
5.	Bench, assemble and outside job work	720
6.	Welding and cutting	320
7.	Surface and cylindrical grinding	320
8.	Tool and cutter grinding	240
9.	Miscellaneous tool crib, broaching and key seating layout, gear cutting, heat treating, shop maintenance, and C-N-C programming and operation	1920

Total Hours: 8000

The above schedule of practical work experience is designed as a guide. The Apprentice shall be instructed and trained in all operations and methods customarily used in their trade. Each shop will adhere to as closely as facilities will permit and as approved by the Apprenticeship Committee. Retention of the apprentice on a particular operation beyond the established time should not occur unless there is a definite need for further training in the process. Refer to the apprentice work progress record for additional information related to specific work processes.

~~D.~~B. Machinist (Aircraft Oriented) **Approximate Hours**

1. **Basic Conventional & CNC Machining..... 2600**
   Includes but not limited to:
   - **Manual Mill & Lathe Machining: Dialing in Machines, Feeds & Speeds, Squaring, Milling, Turning, Threading, hydraulic and manual presses.**
   - **CNC Mill & Lathe Machining: Basic CNC Mill & Lathe Machining set up, work holdings, basic machine maintenance (i.e. fluid levels), basic operations.**

2. **Advanced Conventional & CNC Machining Operations..... 2100**
   Includes but not limited to:
   - **Manual lathe turning, manual milling vertical/horizontal/jig, broaching, keyseat cutting, gear**

cutting.

- **Advanced machining techniques, specialty tool selection/install/repair, advance set-up and operation, complex tolerance machining, and system operations.**

3. CNC Set-Up & Advanced Operation Procedures 800
Includes but not limited to:

- **Advanced work holdings, jigs, tool and die theory, M+G programming system, crash avoidance, advanced preventative maintenance (including alignment), cutting tool selection/maintenance, tool and cutter grinding. Water-Jet, Laser, EDM operation.**

4. Material Process, Quality Assurance & Cutting Technology.....500
Includes but not limited to:

- **Material process handling and metallurgy (i.e. Aluminum, Stainless steels, steels, heat treat/electroplate, ceramics, castings, forgings, billets, plastics, composites.)**
- **Use of various tools such as but not limited to: (Boring bar, broach, end mill, drill, spot drill, center drill, reamer, engraving cutters, face mills, radius mills, custom ground tools), Turning tools, milling tools, insert Tools, boring tools.**

5. Advanced Machining Techniques & NC Programming.....500
Includes but not limited to:

- **Programming tools, parts, and workholding using CAD and CAM software, advanced troubleshooting of programming issues, and reprogramming. Ensuring the software is posted correctly for the machine and its capabilities.**

6. Inspection, Parts Finishing, Deburr, Assembly & Bench Work 1500
Includes but not limited to:

- **Blueprint reading, mylar, GD&T, Inspection techniques & proper tool use, temperature control & FOD control, inspection systems, coordinate measuring machine (CMM), workholding.**
- **Parts assembly, part marking, part packaging, deburring, tool & cutter grinding and maintenance.**

Total Hours: 8000

The above schedule of practical work experience is designed as a guide. The Apprentice shall be instructed and trained in all operations and methods customarily used in their trade. Each shop will adhere to as closely as facilities will permit and as approved by the Apprenticeship Committee. Retention of the

apprentice on a particular operation beyond the established time should not occur unless there is a definite need for further training in the process. Refer to the

apprentice work progress record for additional information related to specific work processes.

~~**E. Industrial Maintenance/Automation Technician:**~~ **Approximate Hours**

1. ~~**Machine Operation: i.e. drill presses, radial drills portable drills, engine lathes, milling machines, other machines: ironworker, press, key, seater, saws, grinders, welding, brazing and cutting .....1000**~~
2. ~~**Installation of machinery and equipment: i.e. mechanical, pneumatic and hydraulic systems, rigging, mounting, cable routing, mechanical alignments, PLCs, robotic equipment and fluid power systems, etc.....1000**~~

3. ~~**Maintenance of machinery and equipment: i.e. pneumatics and hydraulics, power transmission, preventative maintenance, component rebuilds, documentation, PLCs, robotic equipment and fluid power systems, etc .2500**~~

4. ~~**Repair of machinery and equipment: i.e. diagnostics, troubleshooting, component replacement, documentation, PLCs, robotic equipment and fluid power systems, etc .....2500**~~

5. ~~**Inspection and bench work .....1000**~~

~~**Total Hours: 8000**~~

~~**The above schedule of practical work experience is designed as a guide. The Apprentice shall be instructed and trained in all operations and methods customarily used in their trade. Each shop will adhere to as closely as facilities will permit and as approved by the Apprenticeship Committee. Retention of the apprentice on a particular operation beyond the established time should not occur unless there is a definite need for further training in the process. Refer to the apprentice work progress record for additional information related to specific work processes. Refer to the apprentice work progress record for additional information related to specific work processes.**~~

~~**F.**~~ **C. Plastic Process Technician:** ~~**:**~~ **Approximate Hours**

1. **Mold Setting..... 600**
2. **Material Handling:.....600**
3. **Molding Machine Maintenance 600**
4. **Tool Maintenance..... 600**
5. **Safety 100**

6. Quality 600

7. Assembly Equipment Operation: 120

8. Process Technology (Molding) 3780

9. Process Improvements Techniques 1000

Total Hours: 8000

The above schedule of practical work experience is designed as a guide. The Apprentice shall be instructed and trained in all operations and methods customarily used in their trade. Each shop will adhere to as closely as facilities will permit and as approved by the Apprenticeship Committee. Retention of the apprentice on a particular operation beyond the established time should not occur unless there is a definite need for further training in the process. Refer to the apprentice work progress record for additional information related to specific work processes.

~~G.~~D. Tool and Die Makers~~:~~ **Approximate Hours**

1.	**Bench Work**	**1400**
2.	**Milling Machine**	**1600**
3.	**Engine lathe**	**1000**
4.	**Grinder (surface, tool)**	**1000**
5.	**Heat Treating**	**400**
6.	**Electric Discharge Mach. OPR. (EDM)**	**800**
7.	**Tool Layout and Design**	**1000**
8.	**CNC Programming & Operation**	**1200**
9.	**Jig Borer and Grinder**	**200**
10.	**Drilling machines**	**400**
11.	**Shop Maintenance and Review**	**800**
12.	**Tool Steel Welding**	**200**

Total Hours: 10000

The above schedule of practical work experience is designed as a guide. The Apprentice shall be instructed and trained in all operations and methods customarily used in their trade. Each shop will adhere to as closely as facilities will permit and as approved by the Apprenticeship Committee. Retention of the apprentice on a particular operation beyond the established time should not occur unless there is a definite need for further training in the process. Refer to the apprentice work progress record for additional information related to specific work processes.

~~H.~~E. Manufacturing Precision Metal Fabricator **Approximate Hours**

1. **Bench Work i.e. deburring and finishing, sanding grinding assembly, etc 100**

2. **Sheet Metal Shop Basics i.e. welding, soldering, and brazing, layout, safety, shear, hand tools, drill press, saws, hardware insertion, tooling shop math and measuring, machine maintenance 1100**

3. **CNC setup and operations 800**

4. **Punch Press 500**

5. **Press Brake 500**

6. **Lasers and cutting technology 200**

7. **Inspection 400**
   Print Reading
   GD&T
   Inspection Tool Use

8. **Materials and Properties of bending metal 200**

9. **CAD / CAM.....200**

Total Hours: 4000

The above schedule of practical work experience is designed as a guide. The Apprentice shall be instructed and trained in all operations and methods customarily used in their trade. Each shop will adhere to as closely as facilities will permit and as approved by the Apprenticeship Committee. Retention of the apprentice on a particular operation beyond the established time should not occur unless there is a definite need for further training in the process. Refer to the apprentice work progress record for additional information related to specific work processes.

~~I.~~ F. Production Technician **Approximate Hours**

1. **Production Machining Basics.....500**
2. **Production Setup and Operations Procedures 250**
3. **Material Process, Parts Finishing & Deburr 250**
4. **Inspection, Assembly, Customer Service & Bench Work.....1000**
5. **~~Inspection Basics~~.....~~200~~**
6. **~~Miscellaneous such as production process, tool crib, broaching and key seating layout and shop maintenance~~ .....~~300~~**

Total Hours: 2000

The above schedule of practical work experience is designed as a guide. The apprentice shall be instructed and trained in all operations and methods customarily used in their trade as allowable by State Law. Each shop will adhere to as closely as facilities will permit and as approved by the Apprenticeship Committee. Retention of the apprentices that are 16-17 years old on a particular operation beyond the established time should not occur unless there is a definite need for further training in the process. Refer to the apprentice work progress record for additional information related to specific work processes.

Additionally, the following will be adhered to for Production Technician:

1. **Safety Training will be provided prior to employment placement which will include OHSA-10 safety training.**
2. **PPE (Personal Protective Equipment) to protect sight and hearing, and work boots will be provided at no cost to the apprentice before entering the work environment. PPE will be paid for either by the employer or AJAC.**
3. **AJAC, in coordination with L&I Teen Safety Department, will develop an Employer Facility Safety Checklist prior to apprentice placement.**

~~**J. Maintenance/Automation Technician Approximate Hours**~~

~~**1. Basic Machine Operation ..... 700**~~
~~**2. Installation of Production Machinery & Equipment ..... 300**~~
~~**3. Preventative Maintenance of Machinery & Equipment ..... 200**~~
~~**4. Repair of Production Machinery & Equipment ..... 400**~~
~~**5. Inspection, Troubleshooting, Customer Service & Bench Work ..... 400**~~

~~**Total Hours: 2000**~~

~~**The above schedule of practical work experience is designed as a guide. The apprentice shall be instructed and trained in all operations and methods customarily used in their trade as allowable by State Law. Each shop will adhere to as closely as facilities will permit and as approved by the Apprenticeship Committee. Retention of the apprentices that are 16-17 years old on a particular operation beyond the established time should not occur unless there is a definite need for further training in the process. Refer to the apprentice work progress record for additional information related to specific work processes.**~~

~~**Additionally, the following will be adhered to for Production Technician and Maintenance/Automation Technician:**~~
~~**1. Safety Training will be provided prior to employment placement which will include OHSA-10 safety training.**~~
~~**2. PPE (Personal Protective Equipment) to protect sight and hearing, and work boots will be provided at no cost to the apprentice before entering the work environment. PPE will be paid for either by the employer or AJAC.**~~
~~**3. AJAC, in coordination with L&I Teen Safety Department, will develop an Employer Facility Safety Checklist prior to apprentice placement.**~~

~~K.~~G. CNC Programmer **Approximate Hours**

1.	**Establish Manufacturing Process**	**2,100**
2.	**Develop Tooling**	**1,050**
3.	**Create CNC/NC Code**	**1,500**
4.	**Verify Numeric Code**	**550**
5.	**Develop Set-up Documentation**	**300**
6.	**Manage Manufacturing Data**	**300**
7.	**Provide Customer Service**	**200**

Total Hours: 6000

The above schedule of practical work experience is designed as a guide. The Apprentice shall be instructed and trained in all operations and methods customary used in their trade. Each shop will adhere to as closely as facilities will permit and as approved by the Apprenticeship Committee. Retention of the apprentice on a particular operation beyond the established time should not occur unless there is a definite need for further training in the process. Refer to the apprentice work progress record for additional information related to specific work processes.

~~L.~~H. Industrial Machine Operator **Approximate Hours**

1.	**Manufacturing Basics & Safety**	**500**
2.	**Manufacturing Equipment Setup & Production Processes**	**1,400**
3.	**Quality Assurance Basics**	**800**
4.	**Preventative & Predicative Machine Maintenance**	**300**

Total Hours: 3,000

The above schedule of practical work experience is designed as a guide. The Apprentice shall be instructed and trained in all operations and methods customarily used in their trade. Each shop will adhere to these work processes as closely as facilities will permit and as approved by the Apprenticeship Committee. Retention of the apprentice on a particular operation beyond the established time should not occur unless there is a definite need for further training in the process. Refer to the apprentice work progress record for additional information related to specific work processes.

IX. Related/Supplemental Instruction:

B. **144** Minimum RSI hours per year defined per the following [see WAC 296-05-015(6)]:

(**X**) Two-thousand hours of on the job training. – **Production Technician ~~and Maintenance/Automation Technician~~ only.**

~~D.~~ Additional Information:

1. **Each apprentice must enroll in and attend classes in related instruction as prescribed by the Apprenticeship Committee ~~and/or Subcommittee~~. The apprentice will be responsible for payment for their classes, subject to their employer's tuition reimbursement policy.**

3. **It is recommended that to advance to the journey level of their occupation, the apprentice ~~must~~ provide a copy of a valid and current Industrial First Aid and CPR card.**

5. **All ~~AJAC~~ apprentices will be provided with a minimum of 144 hours of RSI per year, up to a total of:**

   a. **450 hours of RSI over the course of their apprenticeship for ~~Aircraft Mechanic Airframe and~~ CNC Programmer apprentices.**

   b. **300 hours of RSI over the course of their apprenticeship for ~~Industrial Manufacturing Technician and~~ Industrial Machine Operator apprentices.**

   c. **600 hours of RSI over the course of their apprenticeship for ~~Industrial Maintenance/Automation Technician,~~ Machinist, Machinist (Aircraft Oriented) and Plastic Process Technician apprentices.**

   e. **750 hours of RSI over the course of their apprenticeship for Tool and Die Maker apprentices.**

   ~~g. 150 hours of RSI over the course of their apprenticeship for Maintenance/Automation Technician apprentices.~~

   - ~~Apprentices will take three of the four listed RSI courses. Core courses IMMA 101 and IMMA 203 will be provided to all apprentices. Provision of IMMA 121 or IMMA 221 will be determined by the equipment available at the high school or skill center.~~

X. Administrative/Disciplinary Procedures:

A. Administrative Procedures:

1. Sponsor Procedures:

~~The terms "AJAC", the "Committee", and "Apprenticeship Committee" all mean Aerospace Joint Apprenticeship Committee~~. The term "Program staff" are AJAC staff who are authorized to perform a variety of administrative and other duties to assist and support the Apprenticeship Committee, and at times work directly with apprentices. The term "Apprenticeship Coordinator" shall mean the Training Director or designee.

~~b. The Apprenticeship committee may provide certificates for those apprentices who have successfully completed the first 2 years of Aircraft Mechanic Airframe, Machinist (Aircraft Oriented) apprenticeship programs.~~

~~c. It is the responsibility of the Aircraft Mechanic Airframe apprentice to get their FAA airframe license. This responsibility includes paying any costs associated with acquiring the license.~~

~~d.~~b. Apprentices registered while working toward a high school diploma or equivalent must successfully obtain a high school diploma or equivalent ~~complete~~ within six months of entering the apprenticeship program and provide verification of completion to Program Staff. Exception: Production Technician ~~(Youth) and Maintenance/Automation Technician (Youth)~~ apprentices must maintain enrollment in high school or equivalent credit recovery program.

~~e.~~c. Credit for Previous Experience or Early Completion:

1) An apprentice who has previous industry-related work experience may request credit for previous experience. The apprentice must provide documentation to verify their industry-related experience.

2) To be considered, the apprentice must compete and submit to ~~AJAC~~ the Program staff the Credit for Previous Experience/Education packet. It is the responsibility of the apprentice to work with ~~AJAC~~ Program staff to submit their proper paperwork and any additional requested information prior to consideration by the Apprenticeship Committee.

3) The decision of whether to grant the apprentice credit for previous experience and at what step, or to grant credit for early completion, will be made in a fair and equitable manner by the Apprenticeship Committee ~~and/or Subcommittee~~.

4) There is a maximum credit of 25% ~~for~~ towards the term of apprenticeship except for apprentices transferring into or ~~starting~~ being registered to new occupations where more than 25% equivalency can be demonstrated. In the case of Machinist (Aircraft Oriented) graduates who are applying for the Tool and Die Maker occupation, more than 25% credit may be awarded for OJT hours.

~~f.~~d. Credit for Previous Education/Challenge of Curriculum (RSI Only):

1) An apprentice who has previous industry-related education may request credit for previous education and/or challenge RSI curriculum. An apprentice request for credit for previous education and/or challenge of RSI curriculum cannot exceed 25% of the total RSI program course except for apprentices transferring into or ~~starting~~ being registered to new occupations where more than 25% equivalency can be demonstrated. In the case of Machinist (Aircraft Oriented) graduates who are applying for the Tool and Die Maker occupation, more than 25% credit may be awarded for RSI hours.

2) Apprentices are responsible for any associated fees for credit granted for previous education to include tuition fees for credit. Apprentices are

responsible for any associated fees for challenging RSI curriculum to include but not limited to cost to proctor exam and associated tuition fees.

3) To be considered for credit for previous education, apprentices must have successfully completed post-secondary level class(es) in the related subject within the previous five (5) years, have a passing grade of 75% or higher and submit a completed Credit for Previous Experience/Education packet to ~~the AJAC~~ Program staff.

4) An apprentice may request to challenge RSI curriculum if they have successfully completed ~~port~~ post-secondary level class(es) in a related subject within (5) years prior OR if they have previous work-related industry experience and submit a completed Credit for Previous Experience/Education packet to ~~AJAC~~ Program staff.

5) It is the responsibility of the apprentice to provide documentation verifying their education with ~~AJAC~~ Program staff and to submit any additional requested information prior to consideration by ~~AJAC~~ the Apprenticeship Committee.

6) The decision of whether to grant the apprentice credit for previous education will be made in a fair and equitable manner by the Apprenticeship Committee~~, Subcommittee or Apprenticeship Coordinator/designee~~ for challenge to RSI curriculum (only scores of 75% or higher on the challenge RSI exam will be considered for program credit).

~~g.~~e. Related/Supplemental Instruction:

1) All classes start and terminate at a date and time set forth by ~~AJAC~~ the Apprenticeship Coordinator or Program staff.

2) Apprentices who violate any ~~AJAC or school~~ safety and health policies set forth by any participating school or toward any Program staff, engage in behavior that disrupts related instruction, or return from break having used alcohol or drugs, may be removed from class and will be reported as soon as possible to the Apprenticeship Coordinator or Program Staff ~~designee~~. The Apprenticeship Coordinator ~~or designee~~ will attempt to either resolve the issue immediately or advance the issue to the ~~AJAC~~ Apprenticeship Committee.

3) Absences require class time to be made up at a rate of one (1) hour for every one (1) hour missed up to a maximum of twelve (12) hours of missed class time per course.

a) An apprentice, who fails to make up hour-for-hour of missed classes or who misses more than twelve (12) hours of class time per course, will be called before the Apprenticeship Committee for disciplinary action.

b) Special circumstances will be reviewed by the Apprenticeship Coordinator and advanced to the Apprenticeship Committee at the discretion of the Apprenticeship Coordinator.

~~h.~~f. Failure of Classes:

2) Apprentices who fail to receive at least 75% in any quarter must arrange, within one (1) week of receiving the failing grade, to meet with the Apprenticeship Coordinator ~~or designee~~ to develop an RSI plan to makeup the course:

~~i.~~g. Hours Reporting:

1) Apprentices shall submit monthly work progress hours by the fifteenth (15th) day of the following month. It is the responsibility of ~~the~~ each apprentice to enter their hours into the online AJAC Apprenticeship Tracking System (ATS) or through the AJAC app:

c) Apprentices are encouraged to keep a hardcopy record of all work progress reports as a backup to the ATS and the AJAC app.

2) If the ATS or AJAC app is not available, then the apprentice must make a copy of the work progress report and submit the original signed work progress report to the ~~AJAC~~ Apprenticeship ~~Services~~ Coordinator by:

[Please change a., b., c., and d., to a), b), c) and d), for consistency]

a. US Mail
b. Fax
c. DocuSign or
d. Email directly to the Apprenticeship ~~Services~~ Coordinator

3) If an apprentice has more than one month of unreported hours, they may be called before the Apprenticeship Coordinator ~~(~~or ~~representative)~~ to develop a plan to report delinquent hours.

4) Apprentices may be granted a one month extension by the Apprenticeship Coordinator ~~(~~or ~~representative)~~ to submit unreported hours; however, if the apprentice fails to submit unreported hours within that extension period, they will be called before the Apprenticeship Committee for possible disciplinary actions, which may include forfeiture of unreported hours, suspension or cancellation of the Apprenticeship Agreement.

5) Employers may dispute hours reported that do not match actual hours worked, or that include overtime, Sick Leave or Paid Time Off. The apprentice must correct and resubmit the hours report.

a) After an employer confirms hours, ~~AJAC~~ Program staff ~~may~~ will decline hours that exceed 40 straight time hours per week or hours that exceed 184 hours per month. The apprentice must correct and resubmit the hours report.

b) Apprentices who fail to correct disputed or declined hours within 60 days may be called before the Apprenticeship Committee for possible disciplinary actions, which may include forfeiture of unreported hours, suspension or cancellation of the Apprenticeship Agreement.

6) Apprentices must maintain employment with an Approved Training Agent to remain active in the apprenticeship program. Apprentices who have been separated from their employer, may complete the RSI quarter they are currently enrolled in and receive credit towards completion of that portion of the RSI provided they pass the class.

a) Apprentices who fail to obtain employment with an ~~approved~~ Approved Training Agent within six months of separation from employment with an Approved Training Agent, will be cited to appear before the Apprenticeship Committee for disciplinary actions which may include suspension or cancellation of the apprenticeship agreement.

b) Apprentices placed in suspension may be reactivated in the apprenticeship program at the discretion of the Apprenticeship Committee ~~and/or Subcommittee~~ with employer approval of the reactivation.

B. Disciplinary Procedures:

3. Sponsor Disciplinary Procedures:

~~a.~~ When violations of these Standards by apprentices and/or employers occur, they will be acted upon by the Apprenticeship Coordinator and/or the Apprenticeship Committee ~~and/or Subcommittee~~ as outlined below.

~~b.~~ a. The Apprenticeship Coordinator will first and always attempt to resolve problems informally by communicating with all parties concerned.

~~c.~~ b. If a hearing by the Apprenticeship Committee ~~and/or Subcommittee~~ is required, apprentice notification will be sent by certified mail at least twenty (20) days prior to the hearing and will contain the alleged charges and Standards section(s) violated, and a range of penalties, which may be imposed.

~~d.~~ c. If an apprentice fails to appear before the Apprenticeship Committee ~~committee and/or subcommittee~~ when notified, the Apprenticeship Committee ~~committee and/or subcommittee~~ may discipline the apprentice in their absence.

~~e.~~ d. Following the hearing, the Apprenticeship Committee ~~and/or Subcommittee~~ will make its decision based solely upon the most credible evidence submitted at the hearing and reduced to writing.

~~f.~~ e. Apprentices will be notified in writing of the decision of the Apprenticeship Committees ~~and/or Subcommittee~~ by certified mail within ten (10) business days.

XI. Sponsor – Responsibilities and Governing Structure:

E. Committee governance (see WAC 296-05-009):

1.

b. Program type administered by the committee: **Group Non-Joint**

c. The employer representatives shall be:

Tim Rabe, Chair
P.O. Box 80727
Seattle, WA 98108

Dave Trader
P.O. Box 80727
Seattle, WA 98108

Matt Poischbeg
P.O. Box 80727
Seattle, WA 98108

Will Slota
P.O. Box 80727
Seattle, WA 98108

Tim Bacon (Alternate)
P.O. Box 80727
Seattle, WA 98108

d. The employee representatives shall be:

Alexandr Oliver-Clifner
P.O. Box 80727
Seattle, WA 98108

Justin Hill
P.O. Box 80727
Seattle, WA 98108

John Michaud
P.O. Box 80727
Seattle, WA 98108

Abram Potts
P.O. Box 80727
Seattle, WA 98108