

Department of Workforce Development
Employment and Training Division
Bureau of Apprenticeship Standards
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STATE OF WISCONSIN

Department of Workforce Development
Tony Evers, Governor
Amy Pechacek, Secretary
Michele Carter, Division Administrator

Electrical & Instrumentation State Apprenticeship Advisory Committee Agenda

Wednesday – October 8, 2025
10:00 a.m. – 12:00 p.m.

Attend In-Person:
Waukesha County Technical College
800 Main St, Pewaukee
Room RTA C-051

Attend Virtually [Join the meeting now](#)

Teams Meeting ID: 289 854 313 122 0 | Passcode: o4WM2aR7

Attend via Phone: #608-571-2209 | Conference ID: 109 359 031#

Note: Public comment will occur only when noted, after committee discussion and prior to committee action.

1. Call Meeting to Order
2. Record Attendees
3. Review Roster
4. Review and Approve Previous Meeting Minutes
5. Specific Committee Items for Discussion (*Public Comment*)
 - a. Discuss potential change in oversight of the Mechatronics Technician program from Industrial Mechanical & Fluid Maintenance Committee to E&I Committee
(*follow up from spring meeting discussion*)
 - b. Potential Updates/Revisions to Exhibit As
 - i. Electrical & Instrumentation Tech
6. Director's Call Discussion
7. WTCS Update
8. Other Discussion Items
9. Review Program Participants
10. Set Next Meeting Date/Time
11. Adjourn



State Apprenticeship Advisory Committee Electrical and Instrumentation

Tuesday, May 6, 2025

10:00 am

In-Person and/or Virtual: Both

Check if Present	Members	Organization/Employer
☒	Butt, Nate (Co-Chair)	Quad
☒	Cannestra, Anthony (Co-Chair)	IBEW Local 633 / GE Healthcare
☐	Cestkowski, Jim	MPI
☒	Mathena, Mike	Madison Kipp Corporation
☐	Hafeman, Brian	Packaging Corp of America
☐	Steele, Kyle	Domtar
☐	Laehn, Steve	Sargento Foods
☒	Palzkill, Craig	Madison Metro Sewerage Dist
☒	Woehlke, Scott	Mercury Marine
☒	Randall, Bob	Brakebush Brothers Inc
☐	Carey, Timothy	Mercury Marine
Check if Present	Consultants & Guests	Organization/Employer
☒	Polk, David	Bureau of Apprenticeship
☒	Pusch, Liz	Bureau of Apprenticeship
☒	O'Shasky, Lynn	Bureau of Apprenticeship
☒	Peterson, Brandon	Bureau of Apprenticeship
☒	Pelikan, Leslie	Bureau of Apprenticeship
☒	Schofield, Trina	BAS
☒	Nowak, Raquel	BAS
☒	Zak, Tyler	Kimberly-Clark
☒	Herber, Ryan	BAS
☒	Kawski, Ryan	Mid-State Technical College
☒	Benson, Chad	Mercury Marine
☒	Gill, Lavelle	BAS

Draft Meeting Minutes

Lynn O'Shasky

Public comment will occur only when noted, after committee discussion and prior to committee action.

1. Call Meeting to Order

- Note Who: Nate Butt
- Note Time: 10:07am

2. Introductions and Record Attendees (in table above)

3. Review Roster

- BAS is reviewing all state committee rosters to ensure membership is up to date. BAS will reach out to those with expired terms for re-nomination or replacement nomination letters.
- Chad Benson will be replacing Scott Woehlke for Mercury Marine.
- Committee reviewed trade representation from committee membership to ensure trades overseen by the state committee are adequately represented.

4. Review and Approve Previous Meeting Minutes

- Note any Changes: none
- Motioned to Approve made by: Tony Cannestra
- Seconded Motion made by: Bob Randall

5. Specific Committee Items for Discussion (Public Comment)

a. Review Exhibit As for potential updates/revisions

Local committee has been reviewing all approved Exhibit A's for potential updates/revisions.

i. Industrial Electrician-Exhibit A. Committee determined that the work processes are current.

BAS recommended removing Special Provisions guidance language "The Probationary Period can be less than one year at the determination of the individual employer" from the Industrial Electrical and Electrical & Instrumentation Exhibit As. BAS recommends maintaining one-year probationary period for programs.

Motion: Remove Special Provisions guidance language: "The Probationary Period can be less than one year at the determination of the individual employer" from the applicable state committee Exhibit A's.

Motion: Mike Mathena

Second: Tony Cannestra

Motion Approved

ii. Electrical & Instrumentation Tech: Committee reviewed the work processes for this trade, which were last approved January 2010. Members noted several areas that need updating. Committee noted that the work would need to focus on the "Instrumentation" portion as the "Electrical" could be updated to align with the recently approved Industrial Electrical work process updates (from 2022). Committee requested a work group to review and recommend updates. Committee also requested that an instructor that focuses on "Instrumentation" be included in the work group.

BAS will request that WIDS perform a modified dacum.

Meeting will be virtual.

Workgroup should include Nate Butt, Bob Randall, Tony Cannestra, Tyler Zak, Kyle Steele, and an instructor identified by BAS.

b. Wage Repayment Agreements

BAS is providing an overview to all state committees regarding recent concerns with sponsors and employers requiring apprentices to sign wage repayment agreements that could affect them in the instance of leaving employment with their assigned employer either within the course of their apprenticeship or after completion. BAS shared a memo that was issued in Feb 2024 outlining the statutory requirement of paid related instruction and the prohibition of requiring the repayment of contract-required PRI. The Advisory Council discussed this item at the February 2025 meeting and subsequently approved language for addition to the WI Apprenticeship Manual to clarify this. Sponsors or employers can reach out to BAS for assistance in complying with this requirement, if needed.

6. Director's Call Discussion

Director's calls are now being recorded and available online at <https://dwd.wisconsin.gov/apprenticeship/meetings-statetrade.htm> To sign up for State Committee meeting notifications, please use above link as well.

7. WTCS Update

8. Other discussion items

Committee discussed the Mechatronics Technician trade and proposed to move it under this committee's oversight citing that the work performed aligns with the Electrical & Instrumentation related occupations. BAS will add this to the fall meeting agenda for this committee as well as the current committee of oversight, Industrial Mechanical & Fluid Maintenance Committee. Committee members Nate Butt and Mike Mathena requested to be invited to the fall IM& FM meeting to further discuss this proposal.

9. Review program participants

- Information shared in meeting materials packet and discussed.

10. Set Next Meeting Date/Time

- Note Next Meeting: Oct 8, 2025 10:00 am. In-person location TBD

11. Adjourn

- Note Time: 11:17am
- Motion to Adjourn made by: Nate Butt
- Motion Seconded by: Tony Cannestra

State Industrial Mech & Fluid Maint Comm • Madison WI
Mechatronics Technician • 02-828261022-02-H
Exhibit A - Program Provisions

Approved: 1/17/2025

TERM OF APPRENTICESHIP: The term of apprenticeship shall be Hybrid, which has been established to be 5 years of not less than 10,000 hours. In addition to the specified hours, the apprentice must successfully attain the competencies described in these program provisions. Hours of labor shall be the same as established for other skilled employees in the occupation.

PROBATIONARY PERIOD: The probationary period shall be the first 12 months of the apprenticeship. During the probationary period, this contract may be cancelled by the apprentice or the sponsor upon written notice to the Department.

PAID RELATED INSTRUCTION ATTENDANCE: The apprentice shall attend the Wisconsin Technical College System or other approved training provider, as assigned, for paid related instruction four hours per week or the equivalent and satisfactorily complete the prescribed course material for a minimum of 864 hours, unless otherwise approved by the Department. The employer must pay the apprentice for attended related instruction hours at the same rate per hour as for services performed.

WORK PROCESS SCHEDULE: In order to obtain well-rounded training and thereby qualify as a skilled worker in the occupation, the apprentice shall have experience and training in the following areas and shall demonstrate competency, as specified herein. This instruction and experience shall include the following operations but not necessarily in the sequence given. Time spent on specific operations need not be continuous.

<u>Work Process Description</u>	<u>Approximate Hours</u> (Min - Max)
Perform work safely. A. Follow lockout-tagout procedure. B. Establish a safe workspace. C. Follow confined space entry safety rules. D. Work at heights safely. E. Reference applicable federal, state and local electrical codes. F. Wear personal protective equipment. G. Adhere to arc flash safety. H. Use hand and power tools safely.	500
Install mechanical equipment. A. Interpret mechanical drawings and schematics. B. Assemble machine equipment and components. C. Rig loads. D. Operate forklifts and powered industrial vehicles. E. Level and align machines. F. Complete connections to hydraulic and pneumatic utilities.	1000
Install electrical equipment. A. Interpret electrical schematics. B. Install electrical field devices. C. Construct control cabinets.	1000
Maintain mechanical equipment. A. Inspect equipment and components. B. Perform thermography. C. Disassemble equipment. D. Repair hydraulic/pneumatic devices and systems.	1000

State Industrial Mech & Fluid Maint Comm • Madison WI
 Mechatronics Technician • 02-828261022-02-H
 Exhibit A - Program Provisions

E. Rebuild pumps and cylinders.	
F. Maintain mechanical power transmission systems.	
G. Replace mechanical components.	
H. Perform preventive maintenance.	
I. Replace motors.	
Troubleshoot systems.	2000
A. Communicate with operators.	
B. Troubleshoot electrical systems.	
C. Troubleshoot with PLC logic.	
D. Troubleshoot hydraulic/pneumatic systems.	
E. Research solutions to problems.	
Operate machine shop equipment and tools.	650
A. Utilize precision and semi-precision measuring equipment.	
B. Operate grinders.	
C. Operate lathes.	
D. Operate drill presses.	
E. Operate mills.	
F. Operate saws.	
Weld and fabricate parts.	300
A. Bend or shape metal.	
B. Perform welds using all processes, positions and materials available to employer.	
C. Use proper safety procedures for handling gasses.	
Maintain automation systems.	1000
A. Maintain vision systems.	
B. Troubleshoot vision systems.	
C. Maintain robotic systems.	
D. Troubleshoot robotic systems.	
Modify devices and systems.	500
A. Modify HMI.	
B. Modify PLC programs.	
C. Install/ Replace VFDs.	
Maintain documents and records.	200
A. Revise paper or pencil drawings.	
B. Use computerized maintenance systems.	
C. Conduct Inventory procurement.	
Local Optional Work Processes	986
Paid Related Instruction	864
TOTAL	10000

The above schedule is to include all operations and such other work as is customary in the occupation.

MINIMUM COMPENSATION TO BE PAID:

The apprentice's wage must average no less than 60% of the skilled wage rate during the term of the apprenticeship

DETA-10408-E (R. 02/2023)

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Mechatronics Technician • 02-828261022-02-H
Exhibit A - Program Provisions

(DWD 295.05) The apprentice may not be started at less than the minimum wage.

The base skilled wage rate is N/A per hour.

If the apprentice is covered under a collective bargaining agreement, the wage rate specified by that collective bargaining agreement applies.

If the apprentice is not covered under a collective bargaining agreement, the employer may exceed the base skilled wage rate at their discretion.

An apprentice's rate of pay for overtime shall be increased by the same percentage as the journey worker's rate of pay for overtime is increased in the same industry or establishment.

CREDIT PROVISIONS: The apprentice, granted credit at the start or during the term of the apprenticeship, shall be paid the wage rate of the pay period to which such credit advanced the apprentice.

Work credit hours approved: N/A

School credit hours approved:

Paid related instruction: N/A

Unpaid related instruction: N/A

Total credit hours to be applied to the term of the apprenticeship: N/A

SPECIAL PROVISIONS:

The apprentice must successfully complete the Transition to Trainer course in his or her final year.

The apprentice may be required by the employer to obtain basic First Aid and CPR certifications and maintain them throughout the program.

State Electrical & Instrumentation Comm • Madison WI
Electrical and Instrumentation (E & I) Technician • 02-710281018-01-T
Exhibit A - Program Provisions

Approved: 1/1/2010

TERM OF APPRENTICESHIP: The term of apprenticeship shall be Time-based, which has been established to be 5 years of not less than 10,400 hours. Hours of labor shall be the same as established for other skilled employees in the occupation.

PROBATIONARY PERIOD: The probationary period shall be the first 12 months of the apprenticeship. During the probationary period, this contract may be cancelled by the apprentice or the sponsor upon written notice to the Department.

PAID RELATED INSTRUCTION ATTENDANCE: The apprentice shall attend the Wisconsin Technical College System or other approved training provider, as assigned, for paid related instruction four hours per week or the equivalent and satisfactorily complete the prescribed course material for a minimum of 1008 hours, unless otherwise approved by the Department. The employer must pay the apprentice for attended related instruction hours at the same rate per hour as for services performed.

WORK PROCESS SCHEDULE: In order to obtain well-rounded training and thereby qualify as a skilled worker in the occupation, the apprentice shall have experience and training in the following areas. This instruction and experience shall include the following operations but not necessarily in the sequence given. Time spent on specific operations need not be continuous.

<u>Work Process Description</u>	<u>Approximate Hours</u> (Min - Max)
General Electrical Maintenance: Service and maintain existing electrical and electrical related equipment, including plant lighting and receptacle circuits, motors, starters, relays, push buttons, limit switches, special control switches, timers, counters, motor control centers, control panels, transformers, as well as the test equipment needed to do this servicing, to include VOM voltmeters, ammeters, ohmmeters, oscilloscope, brush records, and other test equipment.	2500
Power Distribution: To include high voltage transformers, switchgear, circuit breakers, starters, motors, and transmission lines.	500
Electrical Construction & Installation of Electrical Equipment: Install new electrical equipment which includes lighting and power circuits, layout of conduit and fixture location for efficient lighting and conduit economy. Bending and threading conduit, installing proper hangers and pulling wires. Install and hook up motors, control cabinets, switches, bus bar work, electronic equipment, and any electrical equipment of high or low voltage.	1000
Special emphasis should be placed on high quality workmanship throughout the entire system and of the safety factors involved for the protection of people and equipment.	
Electronic Maintenance and Troubleshooting: Service and maintain all electronic equipment as well as be familiar with the equipment of which they are a part. Also be able to use the necessary test equipment to service this equipment. This will include drive systems, programmable controllers, microprocessors, recorders,	1500

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Electrical and Instrumentation (E & I) Technician • 02-710281018-01-T
Exhibit A - Program Provisions

counters, speed indicators, process control type equipment, and any and all other electronic equipment in the plant.

Pressure Instruments:	140
Work in shop and field to learn to adjust and calibrate pressure measuring and recording devices. Adjust and calibrate pressure measuring devices, repair and replace damaged parts.	
Temperature Instruments:	185
Work in shop and field to learn to adjust and calibrate temperature measuring and recording devices. Adjust and calibrate temperature measuring devices, repair and replace damaged parts.	
Level Measurements:	185
Work in shop and field to learn to adjust and calibrate level measuring and recording devices. Adjust and calibrate level measuring devices, repair and replace damaged parts.	
Flow Measuring and Control:	182
Work in shop and field on repair, adjustment, calibration, and inspection of flow measuring and control instruments.	
Mechanical and electrical devices. Variable orifice-fixed and orifice-volumetric. Computation of flow data, flow of solids in suspension.	
Instrument Mechanisms:	200
Learn the mechanical operation of instruments. Learn to repair, adjust and replace worn parts, gears, racks segments, hair springs, jewel bearings, and clock works. Repair and replace electrical contacts and coils. Repair hydraulically operated valves, diaphragm valves, and solenoid operated valves.	
Control Valves and Devices:	450
Shop and field work in the adjustment of control valves, involving diaphragms, hydraulic cylinders, hydraulic valves, floats, and dampers. Adjustment of pneumatics, electric, and electronic controls.	
Instrument Shop:	650
Troubleshooting and special applications, general shop and field troubleshooting with instrument mechanics, inspect, adjust, repair, and calibrate miscellaneous control and recording instruments. Work on special controls, special applications, build and maintain panel installations.	
Safety:	300
Safety equipment and procedures.	
Optional	1600
Paid Related Instruction	1008
TOTAL	10400

The above schedule is to include all operations and such other work as is customary in the occupation.

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Electrical and Instrumentation (E & I) Technician • 02-710281018-01-T
Exhibit A - Program Provisions

MINIMUM COMPENSATION TO BE PAID:

Compensation must average at least 60% of the skilled wage rate over the period of the apprentice contract. (DWD 295.04(1))

The base skilled wage rate is N/A per hour.

If the apprentice is covered under a collective bargaining agreement, the wage rate specified by that collective bargaining agreement applies.

If the apprentice is not covered under a collective bargaining agreement, the employer may exceed the base skilled wage rate at their discretion.

An apprentice's rate of pay for overtime shall be increased by the same percentage as the journey worker's rate of pay for overtime is increased in the same industry or establishment.

CREDIT PROVISIONS: The apprentice, granted credit at the start or during the term of the apprenticeship, shall be paid the wage rate of the pay period to which such credit advanced the apprentice.

Work credit hours approved: N/A

School credit hours approved:

Paid related instruction: N/A

Unpaid related instruction: N/A

Total credit hours to be applied to the term of the apprenticeship: N/A

SPECIAL PROVISIONS:

The apprentice in his/her final year must take the Transition-to-Trainer Course.

The Probationary Period can be less than one year at the determination of the individual employer.

In addition to the 1008 hours of paid related instruction the apprentice shall complete the Standard Red Cross First Aid and CPR courses during the first year of the apprenticeship. Certification will be maintained throughout the apprenticeship.



This summary counts employers and apprentices, between 8/14/2024 and 8/14/2025 with contract status as Active & Unassigned in occupation(s) associated with this committee.

Report is based on apprentice contracts where:
-Contract sector is 'Industrial'.
-Contract occupation code matches a occupation code assigned to committee.
-Contract sponsor is the employer.

Note: Employers active in more than one occupation or committee can cause Column #3 totals at the Committee or State level to deviate from the summed total of the individual occupation or committee rows.

Occupation	Apprentices									Employers				
	Total	Minority		Females		Union		Non-Union		Total	Union		Non-Union	
		#	%	#	%	#	%	#	%		#	%	#	%
1	2	3	3a	4	4a	5	5a	6	6a	7	8	8a	9	9a
Report Total	1,011	139	13.7	30	3.0	431	42.6	586	58.0	310	100	32.3	214	69.0
Electrical and Instrumentation (E & I) Technician (17-3024.00)	226	19	8.4	4	1.8	151	66.8	77	34.1	71	34	47.9	37	52.1
Electrical/Instrument Tech (00-0000.00)	1	1	100.0	0	0	0	0	1	100.0	1	0	0	1	100.0
Industrial Electrician (49-2094.00)	435	61	14.0	18	4.1	177	40.7	259	59.5	167	51	30.5	116	69.5
Instrument Mechanic (00-0000.00)	2	0	0	0	0	1	50.0	1	50.0	2	1	50.0	1	50.0
Maintenance Electrician (00-0000.00)	5	1	20.0	0	0	5	100.0	0	0	2	2	100.0	0	0
Maintenance Technician (49-9071.00)	359	58	16.2	8	2.2	109	30.4	250	69.6	132	32	24.2	103	78.0

Historical Report by Year

Report Period: 2025* and Previous -10 Years

*Current year is YTD data as of Run Date: 08/14/2025		
Run Date: 08/14/2025		
State Electrical & Instrumentation Comm		
Sponsored Trade Group(s): Industrial		
Year	Active Apprentices	Active Sponsors
2015	459	174
2016	506	184
2017	529	186
2018	619	218
2019	700	247
2020	750	259
2021	738	269
2022	775	266
2023	784	263
2024	810	279
2025	817	280

